

MELORIA 100 MELORIA 150 WALL HUNG DOMESTIC HOT WATER HEAT PUMP HEATER

INSTALLATION & OWNER'S MANUAL



Translation of the original instructions (in Italian)

Original instructions Thank you very much for purchasing our product. Before using your unit , please read this manual carefully and keep it for future reference.



This unit is required reliable earthing before usage, otherwise might cause death or injury.



If you can't make sure that your house power supply is earthed well, please don't install the unit. Please have a qualified person perform the reliable earthing connection and the installation of the unit. Examples of a qualified person include: licensed plumbers, authorized electric company personnel, and authorized service personnel.

This installation manual needs to be used in conjunction with the safety manual.



- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified persons in order to avoid a hazard.
- The wiring must be performed by professional technicians in accordance with national wiring regulations and the circuit diagram.
- The drainage pipe should be well insulated in order to prevent water inside pipe from freezing in cold weather.
- 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. Cleaning and user maintenance shall not be made by children without supervision. (FOR EN STANDARD)
- 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.
- A discharge pipe connected to the pressure-relief device is to be installed in a continuously downward direction and in a frost-free environment.
- The water can drip from the discharge pipe of the pressure-relief device and that this pipe must be left open to the atmosphere.
- Regarding how the water heater can be drained, thanks to refer to the below paragraphs of the manual.
- Do not leave the packaging materials (staples, plastic bags, expanded polystyrene, etc.) within the reach of children they can cause serious injury.
- The pressure-relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.
- Appliance shall be installed, operated and stored in a room with a floor area larger than 4m . The maximum refrigerant charge amount is 0.15kg.
- DANGER: The operation of the thermal cut-out indicates a possibly dangerous situation. Do not reset the thermal cut-out until the water heater has been serviced by a qualifed person.
- DANGER: Failure to operate the relief valve easing gear at least once every six months may result in the water heater exploding. Continuous leakage ofwater from the valve may indicate a problem with the water heater.
- It is mandatory to screw on to the appliance's water intake pipe a suitable device against overpressure. The pressure-relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked. In countries which acknowledge EN 1487, the appliance's water intake pipe must be equipped with a safety device compliant with said standard; it must be calibrated to a maximum pressure of 0.75 MPa, including at least a cock, check valve, safety valve and hydraulic load cut-out.
- It is normal that water drips from the overpressure safety device or from the EN 1487 safety unit when the appliance is heating. For this reason one must install a drain, open to the air, with a continuously downwards sloping pipe, in an area not subject to subzero temperatures. A condensate drain should also be connected to the same pipe with a special coupling.
- Make sure you drain the appliance when it is out of service in an area subject to subzero temperatures. Drain as described in the appropriate chapter.
- Water heated to over 50°C can cause immediate serious burns if delivered directly to the taps. Children, disabled persons and the aged are particularly at risk. We recommend installing a thermostatic mixer valve on the water delivery line.

- Do not leave ammable materials in contact with or in the vicinity of the appliance.
- If the unit has an auxiliary electric heater, it must be installed at least 1 meter (40in) away from any combustible materials.
- How to fixed the appliance to its support please refer to detail information of installation.
- In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

Your safety is the most important thing we concerned!

PARTS NAMES



- 1. Front plate
- 2. Front cover plate
- 3. Control box
- 4. Compressor
- 5. Water tank
- 6. 4-Way valve
- 7. Electronic expansion valve
- 8. Top plate
- 9. Upper cabinet
- 10. Evaporator
- 11. Black Cover plate
- 12. Drain pan
- 13. Mount bracket
- 14. Heater
- 15. Lower cabinet

NOTE

All the picture in this manual are for explanation purpose only.

They may be slightly different from the heat pump water heater you purchased (depand on model). Please refer to the real sample instead of the picture of this manual.

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1. PRODUCT DATA PLATE

Specific and main product data can be found on the label attached to the appliance.

1	SCALDACQUA POMPA DI CALORE	цШл	& foodital
-	HEAT PUMP WATER HEATER		
2	Modello		
2	Model		
3	Alimentazione		
5	Power Supply		
А	Potenza termica		
-	Heating capacity		
5	Potenza nominale in ingresso		
Ĵ	Rated input		
6	Potenza nominale ingresso resistenza elettrica		
Ŭ	Electric heater rated input		
7	Peso netto		
ŕ	Net weight		
8	Refrigerante / Quantità		
Ű	Refrigerant / Quantity		<u>\</u>
9	GWP / CO ₂ equivalente – equivalent		
10	Volume accumulo		
10	Tank Volume		
11	T massima acqua calda ammissibile		
11	Hot water allowable T max		
12	Pressione massima accumulo		
12	Water tank maximum pressure		
12	Pressione massima di esercizio (Scarico/aspirazione)		
13	Maximum operating pressure (Discharge Side / Suction Side)		
14	Grado di protezione elettrica		
14	Moisture protection		
15	Data di produzione		
15	Manufactured date		

2. SAFETY INFORMATION

Please read thoroughly all of the instrucitons before installing or operating the unit. Following safety symbol is very important, always read and obey all safety symbol:

Â	CAUTION: You may be injured if you don't obey instructions.
	WARNING: You may be killed or seriously injured if you don't obey instructions.
\triangle	DANGER: You may be killed or seriously injured immediately if you don't obey instructions.

- The unit must be earthed effectively. A creepage breaker must be installed adja-cent to the power supply.
- Do not remove, cover or deface any permanent instructions, labels, or the data label from either the outside of the unit or inside of unit panels.
- Ask qualified person to perform the installation of this unit in accordance with local national regulations and this manual.
- · Improper installation may result in water leakage, electric shock or fire.
- Ask qualified person for relocating, repairing and maintaining the unit instead of doing by yourself.
- Electric connection work should obey the instructions of local power company, local electric utility and this manual.
- Never use the wire and fuse with wrong rated current, otherwise unit may break down and cause fire furthermore.
- · Do not insert fingers, rods or other objects into the air inlet or outlet.
- · When the fan is rotating at high speed, it will cause injury.
- Never use a flammable spray such as hair spray, lacquer paint near the unit. It may cause a fire.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person.
- The Minimum water pressure of the water transmission pipeline system is 0.15MPa.
- A pressure reducer (not supplied) is needed when pressure is more than 5 bar (0.5 MPa) and it will be placed on the main supply.

- 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.
- The company excludes all contractual and extra-contractual liability for damage caused to persons, animals or property, from installation, adjustment and maintenance errors, improper use or partial or superficial reading of the information contained in this manual.
- It is prohibited to carry out repair work on the refrigerant circuit and any component that is part of it at the site where the appliance is installed. Carry out such work in a workshop set up for repair and maintenance of equipment containing flammable gases and by qualified and competent personnel.
- These units are made for domestic water heating. A different application, not expressly authorized by the manufacturer, is to be considered improper and therefore not allowed.
- The location, plumbing and electrical installation must be determined by the designer of the system plant and must take into account both purely technical requirements and any applicable local legislation and specific permits.
- The execution of all work must be carried out by experienced and qualified personnel who are competent in the relevant regulations in different countries.
- Use only original spare parts, otherwise there is a risk of compromising the safety of the device, which will void the warranty.
- Before beginning any kind of operation on the water heaters each operator must be fully familiar with the operation of the machine and its controls and have read and understood all the information in this manual.

- Fill the water heater tank with water and then drain it completely to remove any impurities. Perform this operation at the time of first use or following maintenance work.
- It is mandatory to comply with all the installation requirements of the appliance and the system stipulated by the applicable laws, regulations, local and national standards. It is mandatory to provide at the water inlet of the appliance a safety valve that complies with the requirements of laws, regulations, national standards; in particular, for nations that have implemented the requirements according to EN 1487, it is mandatory to install a safety unit having a maximum pressure of 7 bar (0.7 MPa) and consisting of at least a shut-off valve, manual drain valve, non-return valve and safety valve with 7 bar (0.7 MPa) setting.
- The safety unit should be inspected regularly to remove scale deposits and to make sure it is not blocked. Beware of scalding due to high water temperature.
- The appliance can deliver hot water at temperatures above 45°C. It is recommended that a thermostatic mixing valve be installed at the hot water outlet of the appliance so as to regulate the water outlet temperature.
- · Prevent any flammable items from being placed in the vicinity of the device.
- Prohibited to install the appliance near other heat-generating appliances or near materials that are flammable or hazardous.
- The device is intended for indoor installation only.

- Removal and/or tampering with any safety device is strictly prohibited. Do not remove grilles placed on the fan outlet or plastic cover.
- Children and unassisted incapacitated persons are prohibited from using the device.
- It is forbidden to touch the device if you are barefoot and with wet or damp body parts.
- It is forbidden to pull, unplug, twist the electrical wires coming out of the appliance, even if it is disconnected from the power supply.
- It is forbidden to step on the device with your feet, sit on it and/or place any kind of object on it.
- It is forbidden to spray or throw water directly onto the device.
- Scattering, abandoning or leaving packaging material (cardboard, staples, plastic bags, etc.) within the reach of children is prohibited as it can be a potential source of danger.
- Any routine or extraordinary maintenance operations must be carried out with the machine stationary, without power supply.
- The plastic cover can only be removed by qualified operators.
- · Do not put your hands or introduce screwdrivers, wrenches or other tools on moving parts.
- The machine manager and maintenance worker, must receive the appropriate training and instruction to perform their duties in a safe situation.
- It is mandatory for operators to be familiar with personal protective equipment and accident-prevention rules required by national and international laws and standards.
- Maintenance, repair, disposal and recovery work can only be carried out by competent personnel, licensed and certified by a recognized and accredited body in the relevant nation.



- Do not use means to accelerate the defrosting process or for cleaning other than those recommended by the manufacturer.(IEC 60335-2-40 ANNEX DD.2)
- The appliance should be stored in a room free of continuously operating ignition sources (for example: open flames, an operating gas appliance, or an operating electric heater).(IEC 60335-2-40 ANNEX DD.2)
- Do not pierce or burn.
- · Keep in mind that refrigerants may have no odor.
- The refrigerant circuit of the appliance is filled with the amount of R290 refrigerant gas necessary for its operation. R290 gas is a category A3 flammable gas, characterized by a very low coefficient of global warming potential (GWP = 3).
- The water heater is filled with an R290 refrigerant gas charge of 0.15 kg. It is not allowed to exceed the indicated amount of gas.
- Refrigerant recharging can only be done by qualified personnel with proper equipment.(IEC 60335-2-40 Annex HH)
- Ensure that the equipment and installation environment comply with applicable national regulations.

3. BASIC OPERATION PRINCIPLE

- The water inlet temperature of the equipment shall not be lower than 4°C, and the Maximum water temperature of the equipment can be set as 65°C (by changing the Settings, it can be raised to 70).
- Install the appliance in a frost-free room. The warranty does not cover destruction of the appliance through excess pressure caused by a blockage in the safety valve.
- Ensure that the wall on which it is mounted can support the weight of the appliance filled with water.
- If the appliance has to be installed in a room or location with an ambient temperature always above 35°C, this room must be ventilated.
- Place the appliance in an accessible place.
- To allow the possible exchange of the heating element, leave a clearance of 450 mm below the ends of the tubes of the water heater.
- A new safety unit must be installed at the intake to the water heater, in a frost-free environment, with dimensions of G1/2" and with pressure of 0.75 MPa, compliant with local regulations in force.
- Connect the safety unit to a drain pipe kept in the open air, in a frost-free environment, with a permanent downward gradient, to remove any expansion water from the heating process, or drainage water from the water-heater.
- No device (shut-off valve, pressure reducer, etc.) should be placed between the safety group and the cold water supply line of the water heater.
- Do not connect hot water piping directly to the copper piping. It must be equipped with a dielectric connection (not supplied with the appliance).
- In the event of corrosion of the threads of the hot water sprinkler not equipped with this protection, could not be applied.
- SMART mode is not recommended when water consumption is low or irregular.

This symbol indicates that this product shall not be disposed with other household wastes at the end of its service life. Used device must be returned to official collection point for recycling of electrical electronic devices. To find these collection systems please contact to your local authorities or retailer where the product was purchased. Each household performs important role in recovering and recycling of old appliance. Appropriate disposal of used appliance helps prevent potential negative consequences for the environment and human health.







- The earthing pole of socket must be grounded well, make sure that power supply socket and plug are dry enough and connected tightly.
- How to check the power supply socket and plug are qualified? Turn on the power supply and keep the unit running for a half hour, then turn off the power supply and plug out, check whether the socket and plug are hot.
- Before cleaning, be sure to stop the operation and turn the breaker off or unplug the unit. Otherwise, an electric shock and injury may be caused.
- Water heated to over 50°C can cause immediate serious burns instantly or death from scalds. Children, disabled and elderly are at highest risk of being scalded. Feel water before bathing or showering.



- · Water temperature limiting valves are recommanded.
- Do not operate the unit with a wet hand. An electric shock may be caused.
- The installation height of power supply should be over 1.8m, if there is any water spattered, separate the power supply from water.
- A one-way valve must be installed on the water inlet side, which is available from accessories, see manual "accessories" part.
- After a long term use, check the unit base and fittings.
- · If damaged, the unit may sink and result in injury.
- · Arrange the drain pipe to ensure smooth draining.
- Improper drainage work may cause wetting of the building, furniture etc.
- · Do not touch the inner parts of the controller.
- Do not remove the front panel. Some parts inside are dangerous to touch, otherwise a machine malfunction may be caused.
- · Do not turn off the power supply.
- System will stop or restart heating automatically. A continuous power supply for water heating is necessary, except service and maintenance.
- If the unit has not been used for a long period of time (2 weeks or more), hydrogen gas will be produced in the water piping system.
 Hydrogen gas is extremely flammable. To reduce the risk of injury under these conditions, it is recommended that open the hot water tap for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system.
- When hydrogen is present, there will probably be an unusual sound such as air escaping through the pipe as the water begins to flow.
- There should be no smoking or open flame near the tap at the time it is open. Confirm the safety of the installation area (walls, floors, etc.) without hidden dangers such as water, electricity, and gas. Before wiring/pipes.
- Before installation, check whether the user's power supply meets the electrical installation requirements of unit (including reliable grounding, leakage, and wire diameter electrical load, etc.). If the electrical installation requirements of the product are not met, the installation of the product is prohibited until the rectified.
- When installing multiple units in a centralized manner, please confirm the load balance of the three-phase power supply, and multiple units are prevented from being assembled into the same phase of the three-phase power supply.
- Product installation should be fixed firmly. Take reinforcement measures, when necessary.

4. BEFORE INSTALLATION

4.1 Unpacking

4.1.1 Accessories

Accessory Name	Qty.	Sharp	Purpose
Owner's & Installation Manual	1		Installation and use instruction this manual
Safety Valve (0.75MPa)	1		Prevent tank overpressure, prevent flowing backwards
Expansion screw	4		Fixed unit

4.1.2 How to transport

- In order to avoid scratch or deformation of the unit surface, apply guard boards to the contacting surface. No contact of fingers and other things with the vanes. Don't incline the unit more than 75° in moving, and keep it vertical when installing.
- This unit is heavy, it need to be carried by two or more persons, othewise might cause injury and damage.



4.2 Location requirements

- Enough space for installation and maintenance shall be preserved.
- The air inlet and outlet should be free from obstacles and strong wind.
- The wall surface should be flat, surface should be inclined no more than 2° and able to bear the weight of the unit and suitable for installing the unit without increasing noise or vibration.
- The operation noise and air flow expelled shall not affect neighbors.
- No flammable gas is leaked nearby.
- It is convenient for piping and wiring.
- If it is installed in indoor space, it might cause indoor temp decreased and noise. Please take preventive measures for this.
- If the unit has to be installed on a metal part of building, make sure the well electric insulation which should meet the relevant local electric standard.

- The ambient air temperature must also be considered when installing this unit, in heat pump mode the ambient air inlet temperature must be above -7°C and below 43°C. If the ambient air temperature falls outside these upper and lower limits, the electrical elements will activated to meet the hot water demand and the heat pump does not operate.
- The unit should be located in an area not subject to freezing temperatures. The unit located in unconditioned spaces(i.e., garages, basements, etc.) may require the water piping, condensate piping, and drain piping to be insulated to shelter agianst freezing.



Installing the unit in any of the following places may lead to malfunction (If it is inevitable, consult the supplier).

- The site contains mineral oils such as lubricant of cutting machines.
- · Seaside where the air contains much salt.
- · Hot spring area where corrosive gases exist, e.g., sulfide gas.
- · Factories where the power voltage fluctuates seriously.

- Inside a car or cabin.
- The place with direct sunlight and other heat supplies. If there's no way to avoid these, please install a covering.
- Place like kitchen where oil permeates.
- Place where strong electromagnetic waves exist.
- Place where flammable gases or materials exist.
- Place where acid or alkali gases evaporate.
- Other special environments.



- The unit must be securely fixed, elsewise, noise and shaking may be resulted.
- Make sure that there's no obstacle around the unit.
- In the place where there is strong wind like seashore, fix the unit in the location protected from the wind.

5. INSTALLATION

- The installation of the equipment must be carried out by qualified personnel; the installation must be carried out in accordance with national regulations and to all additional requirements of local authorities.
- Do not use means to accelerate the defrosting process or for cleaning other than those recommended by the manufacturer.(IEC 60335-2-40 ANNEX DD.2)
- Do not pierce or burn.
- · Keep in mind that refrigerants may have no odor.
- Prohibited to install the appliance near other heat-generating appliances or near materials that are flammable or hazardous.
- Do not install appliances that require air for operation, such as boilers and open chamber gas water heaters, in the same installation room.
- The electrical system, water system and installation room must comply with the nation's current installation and safety standards.

- Verify that the installation space is suitable for the minimum installation clearances and product overall dimensions given in this manual as well as the overall dimensions of all hydraulic safety components and accessories.
- Installation without ductwork: check that the installation room has a minimum volume of 20 m³ and that said room has adequate air exchange.
- Installation with ducting: check that air ducting can be installed so that outside air can reach. Such ducts must not contain sources of fire ignition.
- · The installation of this device is intended to be indoors.
- The electrical system, the plumbing system and the installation room itself, must comply with current national installation and safety regulations.
- The device must not be in communication (with or without conduits) with environments characterized by aggressive atmospheres, such as in the presence of solvents or acidic vapors.
- Verify that the IP rating indicated on the device is compatible with the selected installation room.
- Install the appliance as close as possible to hot water tapping points to minimize heat loss.

5.1 Maintenance space requirements (unit: mm)







Fig. 1 Mounting dimension

Model	А	В	Н
MELORIA 100	415	277	1328
MELORIA 150	558	475	1675

- Place the water heater in a room protected from frost.
- Place it as close as possible to important points of use.
- Make sure that the support element is sufficient to receive the weight of the water heater full of water.

It is mandatory to install a retention basin below the water heater if installed above a living area. A drain connected to the sewer is required.



Mark the wall with reference to the requirements of the installation size (size drawing). Proceed to the bolting of bolts Ø 10mm. The wall must hold a minimum load of 300 kg



It is mandatory to install the water heater on a support . Place the water heater on the bracket to mark the fixing points.

Make the holes and then reinstall the water heater in its place. The anti-tilting fixing by the upper bracket is obligatory (fixing \emptyset 10mm minimum adapted to the wall).



The hole size for hanging the wall should refer to the corresponding hole size in Fig. 1 Mounting dimension (two racks for each water tank, a total of four expansion bolts need to be fixed).

After the expansion bolt is tightened, the distance between the inner side of the bolt and the wall surface should be controlled within 15mm-17mm, as shown in the figure.

- 1. Installation of the Safety Valve: the spec of the One Way Valve thread in accessories is G1/2". It is used to prevent water from flowing backwards and prevent tank overpressure.
- 2. After water system piping work, turn on the cold water inlet valve and hot water outlet valve and start effusing the tank. When water flow smoothly out from water outlet pipe (tap water outlet), the tank is full, turn off all valves and check pipeline to make sure there is no any leakage.
- 3. If the inlet water pressure is less than 0.15MPa, a pump should be installed at the water inlet. For guarantee the safety usage of tank at the condition of water supply pressure higher than 0.5MPa, a reducing valve should be installed at the water inlet pipe.
- 4. Condensate may be leaked from unit if drainage pipe is blocked or unit operates in high humidity environment, a drainage pan is recommanded as shown as following figure:



The water heater must be located in a space >15m³, and must have unrestricted air flow. As an example, a room that has an 2.5 tall ceiling and is 3 meter long by 2 meter wide would contain $15m^3$.

Water inlet or outlet pipes: the spec of the water inlet or outlet thread is G1/2" (external thread). Pipes must be heat-insulated well.



- Mounting dimension as the above figure.
- The drainage pipe should be well insulated in order to prevent water inside pipe from freezing in cold weather.

Unit outline dimension (unit: mm)



Model	Dimension
MELORIA 100	500 (L) × 1360 (H)
MELORIA 150	500 (L) × 1708 (H)

NOTE: Use tools to disassemble the filter for cleaning.





5.3 Air duct connection

The total pressure drop of ducts and accessories for air inlet and outlet has to be less than 80 Pa. It is strongly recommended to use rigid ducts and the recommended length of ducts has to be respected.

The following table lists the corresponding pressure drops and equivalent lengths for different air ducts and accessories.

		1m PVC/HDPE straight pipe	PVC/HDPE 90° curv e	Filter
Т	уре			
100L	Pressure drop(Pa)	1,0	3,0	6,2
(Ø160)	Equivalent length(m)	1,0	3,0	6,2
150L	Pressure drop(Pa)	1,2	4,5	8,9
(Ø160)	Equivalent length(m)	1,0	3,8	7,4

It is necessary to enter engineering mode and set parameter F40 according calculated pressure drop, as shown in the following table.

Total pressure drop	0-10 Pa	10-20 Pa	20-40 Pa	40-60 Pa
F40	0	1	2	3

NOTE

- The pressure drop in the duct will decrease the air flow rate, which will reduce the capacity of the unit.
- Condensation may form on the outer surface of the ducts, harder in the exhaust air one. Be aware of this condition. We strongly recommend using thermally insulated ducts or thermally insulating the installed ducts.
- The filter must be installed at the air inlet of the unit in dirty and dusty environments. As for the ducted unit, the filter, if needed must be placed at the duct inlet. In normal air conditions, only a grill to prevent the entrance of foreing bodies.





The grille or filter must be provided by the owner. The recommended mesh size is around 1.2 mm.

5.3.1 Typical installation

Different ways of air ducts connection



Different directions of air ducts connection



1. Duct Description

Duct (PVC)	Round duct	Rectangle duct
Dimension (mm)	Ф160	160X160
Straight-line pressure drop (Pa/m)	≤2	≤2
Straight-line length (m)	≤5	≤5
Bent pressure drop (Pa)	≤2	≤2
Bent's qty.	≤3	≤3

NOTE

- The resistance of duct will decrease air-flow-rate, which will lead to capacity of unit decreased.
- For the case of unit with duct, the duct total length should be no more than 5m , and the quantity of bending should be no more than 3.
- For unit air outlet with duct, when unit operating, condensate will be generated aroud outside of duct. Please pay attention to the drainage work, we sugest to wrap the thermal insulated layer around ouside of the duct.
- Must be install the unit in the indoor space, it is not allow to install the unit at the rainy space.







- In case of rain entering to internal components of the unit, the component might be damaged or causing physical danger (see figure above).
- In terms of the unit connect with duct reaching to outdoor, a reliable water-resistant measure must be conduct on the duct, to prevent water from dropping into internal of the unit (see figure above).
- 2. Filter installing at the unit inlet. In terms of the unit with duct, filter in there must be put on the position of duct inlet.



(*) Owner should install the filter by self; and the mesh size is about 1.2mm.

3. To smoothly drain condensate from unit, please install the unit at a horizontal floor. Otherwise, please ensuring the drain vent is at the lowest place. Recommending the inclination angle of unit to the ground should be no more than 2°.



5.4 Electrical connection

- The power supply should be an independent circuit with rated voltage.
- Power supply circuit should be earthed effectively.
- The wiring must be performed by professional technicians in accordance with national wiring regulations and this circuit diagram.
- An all pole disconnection device which has at least 3mm separation distance in all pole and a residual current device (RCD)with the rating of above 10mA(30 mA is recommended) shall be incorporated in the fixed wiring according to the national rule.
- Set the electric leakage protector according to the relevant electric technical standards of the state.
- The power cord and the signal cord shall be laid out neatly and properly without mutual interference or contacting the connection pipe or valve.
- After wire connection, check it again and make sure the correctness before power on.
- Products for indoor use only.

5.4.1 Specifications of Power Supply

Model Name	MELORIA 100
	MELORIA 150
Power Supply	220-240V~50Hz
Min. Diameter of Power Supply Cord (mm ²)	≥1.5
Earth Cord (mm ²)	≥1.5

- Please choose the power cord according to above table, and it should comply with local electric standard.
- The power cord model, recommanded power cord mode is H05VV-F.
- When wiring the power supply, please add additional insulation sheath at the place without rubber insulation layer.



The unit must be installed with an Creepage Breaker near the power supply and must be effectively earthed.

5.5 Cold water connection

Before connection check that the piping is clean without any particles from installation.

The installation has to include a new safety valve set to 7 bar (0,75 MPa), compliant to EN 1487 and connected directly on the cold water inlet.



No hydraulic device (stop valve, pressure reduction, flexible...) is allowed between the safety valve and the cold water inlet of the water heater.

As water can flow from the safety valve the drain should be kept in open air. In any type of installation there should be a cold water stop valve, before the safety valve.

The overflow of the safety valve has to be connected to the used water evacuation through a siphon.

Installation has to be in a frost-free environment. The safety valve has to be operated regularly to check the working condition (1 - 2 times per month).

The installation should be equipped with a pressure reduction if the main water supply pressure is higher than 5 bar (0,5 MPa). The pressure reducing device has to be installed at the beginning of the distribution network (before the safety valve). We recommend a supply pressure of 3 - 4 bar (0,3 to 0,4 MPa).

The appliance cannot connected by a hose-set.



For regions with a lot of scale (Th>20°f), we recommend to treat the water. The hardness after softener has to be higher than 15°f. The use of a softener does not influence the warranty if the softener is approved for the country of installation and set to the rules of art, with regular checking and maintenance.

Local criteria of drinking water quality have to be respected.

5.6 Hot water connection



Do not connect copper tubes directly on the tank connection. You have to fit the supplied insulation union (not included in the supply). In case that the tank connection is corroded without this protection the warranty will not apply.

\triangle

If the installation is made with synthetic pipes (e.g. : PER, multi-layer...), install mandatory a thermostatic control valve at the connection pipes of the water heater. The setting should be done in elation with the specification of the installed piping.

5.7 Condensate evacuation



The temperature drop of the air passing through the exchanger forms condensation from humidity in the air. The condensed water is evacuated on the rear of the tank using the supplied plastic tube.



Depending on the degree of humidity in the air you can get up to 0,25l/h of condensation. The evacuation of condensate should not been made directly to sew water because of possible corrosive gasses damaging the exchanger fins and water heater parts.



Do not block off the safety valve drainage pipe. It will cause explosion and injury, if do not comply with the above instruction.

5.7.1 Electric leakage protector



Power Cable with Creepage Breaker

5.8 Installation checklist

5.8.1 Location

Description	Check
The wall must hold a minimum load of 300 kg.	
Located indoors (such as a basement or garage) and in a vertical position. Sheltered from freezing temper- atures.	
Provisions made to shelter the area from water damage. Metal drain pan installed and piped to an adequate drain.	
Sufficient room to service the water heater.	
Sufficient air for the heat pump to function, the water heater must be located in a space >15m ³ , and must have unrestricted air flow.	
All piping properly installed and free of leaks.	
Unit completely filled with water.	
Water temperature limit valve or mixer tap(recommanded) installed per manufacturer's instructions.	
The installation has to include a new safety valve set to 0,75 Mpa, compliant to EN 1487 and connected direct-	
ly on the cold water inlet. No hydraulic device (stop valve, pressure reduction, flexible) is allowed between the safety valve and the cold water inlet of the water heater.	
As water can flow from the safety valve the drain should be kept in open air. In any type of installation there	
should be a cold water stop valve, before the safety valve. The overflow of the safety valve has to be connect-	
ed to the used water evacuation through a siphon. Installation has to be in a frost-free environment. The safety	
valve has to be operated regularly to check the working condition (1 - 2 times per month). The installation	
should be equipped with a pressure reduction if the main water supply pressure is higher than 5 bar (0,5 MPa).	
The pressure reducing device has to be installed at the beginning of the distribution network (before the safety valve). We recommend a supply pressure of 0,3 to 0,4 MPa.	

5.8.2 Water System Piping

Description	Check
All piping properly installed and free of leaks.	
Unit completely filled with water.	
Water temperature limit valve or mixer tap(recommanded) installed per manufacturer's instructions.	

5.8.3 Condensate Drain Line Installation

Description

Description	Check
Must be located with access to an adequate drain or condensate pump.	
Condensate drain lines installed and piped to an adequate drain or condensate pump.	

5.8.4 Electrical connections

Description	Check
The water heater requires 220-240 VAC for proper operation.	
Wiring size and connections comply with all local applicable codes and the requirements of this manual.	
Water heater and electrical supply are properly grounded.	
Proper overload fuse or circuit breaker protection installed.	

5.8.5 Post Installation review

Description	Check
Understand how to use the User Interface Module to set the various modes and functions.	
Understand the importance of routine inspection/maintenance of the condensate drain pan and lines. This is to help prevent any possible drain line blockage resulting in the condensate drain pan overflowing.	
IMPORTANT: Water coming from the plastic shroud is an indicator that both condensation drain lines may be blocked. Immediate action is required.	
To maintain optimal operation check, remove and clean the air filter.	

6. TRIAL-RUNNING

6.1 Water affusion before operation

Before using this unit, please follow the steps below.

Water Affusion: If the unit is used for the first time or used again after emptying the tank, please make sure that the tank is full of water before turning on the power.

Method: see figure below



Drainpipe shut-off valve

Drainpipe shut-off valve

Hot water outlet

Open

6.2 Trial- running

Cool water inlet

6.2.1 Checking list before commisionning.

- 1. Checking list before trial-running.
- 2. Correct installation of the system.
- 3. Correct connection of water/air piping and wiring.
- 4. Condensate draining smoothly well insulation work for all hydraulic part.
- 5. Correct power supply.
- 6. No air in the water pipeline and all valves opened.
- 7. Effective electric leakage protector installation.
- 8. Sufficient inlet water pressure (between 0.15MPa and 0.5MPa).

6.2.2 About running

1. System Structure Figure. Unit has two kinds of heat sources: heat pump(compressor) and electric heater. Unit will automatically select heat sources to heat water to the target temperature.



- 2. Water Temperature Display. The temperature shown on the display depends on the maximum of the upper sensor and the lower sensor.
- 3. Modes will be automatically selected by unit, manually mode selection is unavailable. Running Temperature Range Setting water temperature target range: 38~65°C.

Min. temperature of room of installation	0°C	
Max. temperature of room of installation	43°C	
Minimum air inlet temperature(a)	Heat pump	-7°C
	E-heater	-20°C
Maximum air inlat tamparatura(a)	Heat pump	43°C
Maximum an inier temperature(a)	E-heater	45°C

(a):Air inlet temperature range through air duct from outside (for models with air inlet duct).

Water temperature limits:

Ambient air inlet Temp.(T4)	T4<-7	-7≤T4<-2	-2≤T4<2	2≤T4<35	35≤T4<43	43≤T4
Max. Temp.(Heat pump)	-	45	55	65	60(100L) 58(150L)	-
Max. Temp.(E-Heater)	70°C(The maximum outlet temperature is set to 65°C by default.)					

- 4. Heat Source Shift
- The default heating source is heat pump. If ambient is range out of heat pump, heat pump will stop running, the unit will shift automatically to activate E-heater, then if the ambient temperature goes into the running range of heat pump again, it will stop E-heater and shift automatically to heat pump again.
- If the target setting water temperature is higher than Max. temp(Heat pump), the unit will activate heat pump firstly to the Max. temperature, then stop heat pump, activate E-heater to continually heat water to the target temperature.
- If manually activate the E-heater running when heat pump running, E-heater and heat pump will work together until the water temperature gets to target temperature. So if want to heat quickly, please manually activate E-heater.

NOTE

E-heater will be activated once for the current heating progress, if want to apply E-heater again, plsease push 🖽 again.

- If system occurs some malfunctions, error code "EHHP" and (!) will be shown on the display, then heat pump will stop running,
- and the unit will activate automatically E-heater as the backup heat source, but the code "EHHP" and (!) will be shown until power off.



- Defrosting During Water-heating: in heat pump running period, if the evaporator frosted in lower ambient temperature, the system will defrost automatically to keep effective performance(about 3~10min). At defrosting time(when the ambient temperature is below 5°C), the fan motor will stop, but compressor will still run.
- Heat-up Time: there are different heat-up times in different ambient temperature. Normally lower ambient temperature result longer heat-up time because of lower effective performance. In the ECO mode, the heating time (water temp from 15-55°C), please refer to figure below. Time difference may occur due to different installation scenarios. This is normal.
- · When ambient temp below 2°C, heat pump and E-heater will take different portions of heating capacity,
- About TCO: the power of compressor and E-heater will be automatically shut-off or turn on by TCO. If the water temperature is higher than 85°C, the TCO will automatically shut off the power of compressor and E-heater. After that it needs to be reset manually.
- Restart After a Long Term Stop: when the unit is restarted after a long term stop(trail running included), it is normal that outlet water is unclean. Keep the tap on and the water will be clean soon.

NOTE

While the ambient air inlet temperature below than -7°C, heat pump efficiency will decrease dramatically, the unit will automatically shift to E-heater running.

6.2.3 Basic function

1. Weekly disinfect function

Under disinfection unit immediately start to heat water up to 65°C to kill the potential legionella bacteria inside water of tank, ^(K) icon will light on the display screen during disinfection. Unit will quit disinfection if water temperature is higher than 65°C and extinguish ^(K) icon.

2. Vacation function

Press (M) to select VACATION, unit will automatically heat water to 15°C for the purpose of energy saving during vacation days.

3. How is the unit running

If unit is OFF->press \bigcirc ->unit will be waken->press \land \checkmark to set target water temperature(38-65°C)->press \bigcirc ->unit will automatically select heat source and start to heat water to target temperature.

4. Remote shutdown function

Users can connect a switch. If the switch is closed, the unit will be stopped forcibly. If switch breaks, the unit can run normally according settings.

6.2.4 Query function

Press and hold the \bigcirc button for 1 second to enter query mode then system running parameters will be shown one by one with following sequence by each pushing of \bigcirc or \bigcirc button.

No.	parameters	unit	Explenation
1	тรи	Temp.	T5U
2	TSL	Temp.	T5L
3	T 5 I	Temp.	T5M
4	T 5	Temp.	Heat pump stop water temp
5	тэ	Temp.	Т3
6	Тч	Temp.	T4
7	ТР	Temp.	TP
8	тн	Temp.	Th
9	0 0	-	-
10	TFr	-	-
11	77	Temp.	Disinfect temp.
12	٤ ه	Current	Compressor and electric heating current
13	Fo	Fan	Ac Fan 0: OFF 1: LOW 2: MID 3: HIGH Dc Fan Real speed/10
14	εο	Machine parameters	0~255
15	EEr	-	Electronic expansion valve opening
16	εεር	-	Compression mechanism hot water demand
17	Ρυρ	-	Recirculation pump opening 0: OFF 1: ON
18	Ρ5	-	-
19	FT	-	0: Ac Fan 1: Dc Fan
20	нт	-	1(Eheater control type)
21	н р	-	0(Compressor control type)
22	FS I	-	-
23	510	-	Tank capacity
24	РЧР	-	Four-way valve status
25	U U	-	0
26	U I	Version	Host software version
27	U 2	Version	LCD panel software version
28	U 3	Version	"000"
29	U Y	-	0: One electric heater 1: Two electric heaters
30	υτ	-	3
31	1 E r	-	Last error code
32	28-	-	Previous 1 st error or protection code
33	3 E r	-	Previous 2 nd error or protection code
34	н н н	-	Maintenance time
35	ТЕР	-	Target Temp
36	End	-	End sign

7. OPERATION

7.1 Control panel explanation



7.1.1 Display explanation



1 Implimit and the lightened if screen is unlocked. It shows water temperature on normal. It shows remaining vacation days on vacation. It shows setting temperature on setting. It shows unit setting/running parameters, error/protection code on querying. 2 Time and clock setting shows the clock. 2 Shows the clock. Whenever there is any setting for clock, SET TIME will be lightened. There are daily or weekly TIMER icon.	ocked. ne timer
1 It shows water temperature on normal. 1 It shows remaining vacation days on vacation. It shows setting temperature on setting. It shows unit setting/running parameters, error/protection code on querying. 2 Time and clock setting shows the clock. Whenever there is any setting for clock, SET TIME will be lightened. There are daily or weekly TIMER icon.	ucked. ne timer
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Whenever there is any setting for clock, SET TIME will be lightened. There are daily or weekly TIMER icon.	ocked. ne timer
There are daily or weekly TIMER icon.	ocked. ne timer
	ocked. he timer
If anyone of them has been set, this icon will lighten the corresponding one when screen is unle	he timer
3 If there is none of timers has been set, it will keep extinguished.	he timer
If timer is being set, this icon will flash the corresponding one with 2Hz frequency as well lighten t	
which has been set.	
It flashes to remind the user to maintain the water tank.	
4 If you do not need maintenance reminders, you can enter engineering mode channel 2 to disat	le this
reminder time is 365 days	lenance
5 It will be lightened when the machine is disinfecting.	
Electronic magnesium rod reminder:	
⁶ It will be lightened when the electronic magnesium rod reaches the end of its service life. (some	units)
Lock:	
If button is locked, the icon will be lightened, otherwise it will be extinguished.	
EVU:	
8 When the photovoltaic effective signal is detected, this icon lights up, this time the target temperat	ure of the
machine is adjusted to the highest set temperature, and the machine makes hot water quickly. (so	me units)
E-neat:	
9 NOTE: When the operating conditions are not met to turn on this function, the corresponding icon (n the wire
controller lights up briefly and then goes out.	
High temp. Alarm:	
10 If water temp is higher than 50°C, it will be lightened, otherwise it will be extinguished.	
Error:	
It will be lightened when unit is under protection/error.	
VACATION MODE:	
12 For the outgoing vacation mode, the water tank is set at 15°C. Maintains low tank water temperat	ure, pre-
heats not water and anti-freeze lines, while reducing on/off operation of the tank.	
Operating in heat nump mode, the electric heater and heat nump will heat up together when in e	romoly
13 13 low ambient temperatures or when the heat pump has been running for a long time without reaching	a the set
Temp.	. <u>.</u>
E-HEATER MODE:	
14 Operate in accordance with the heat pump mode, the heat pump outdoor unit and the electric heat	ər running
at the same time.	
ECONOMY MODE:	
In accordance with the neat pump mode of operation, the neat pump external unit neats up to the	naximum
auxiliary heater will not be turned on at the same time.	5 electric
It is recommended to use this mode of operation when making hot water alone, which is more ener	gy-saving.
SMART MODE:	
Records the hot water usage habits of users over the past 7 days and turns on the heating in adv	ance ac-
16 cording to the user's peak water usage hours. All other unconventional hot water hours are in stand	by mode,
without heating operation (it is recommended that users set this mode after 7 days of regular and	normal
complete user habits.)	

Number	Description			
17	When any key is invalid, this icon will flash 3 sec.			
18	The icon lights up when the water temperature is being set.			
19	The icon lights up when the clock is being set.			
	Wireless:			
	🕤 will be lightened when Wireless is connected;			
20	$\widehat{\mathbf{r}}$ will be extinguished when Wireless is not connected;			
	🕤 will flash with 2Hz frequency when setting Wireless.			
01	HEAT PUMP ICON:			
21	When the heat pump is operating and producing hot water, the icon lights up.			
	Smart Grid ICON:			
22	When the SG signal is invalid, this icon does not light up and the machine does not switch on normally.			
	(some units)			

7.1.2 Button explanation



The unit will conduct a self-test within 10 seconds of being powered on, and it is recommended that no operations be performed during this time. Any pressing of button is effective only under button and display unlocked state.

Icon	Description
	MODE
	Use this key to switch mode
1	Default ECONOMY mode \rightarrow Switch to ECONOMY mode \rightarrow Switch to SMART mode \rightarrow Switch to VACATION mode (
	\sim Adjust vacation days (1-360 days)) \rightarrow Switch to HYBRID mode \rightarrow Switch to E-heater mode
	Note: If there is insufficient hot water in the default mode, please choose the E-HEATER mode/ HYBRID mode.
	Click the button to turn on the forced sterilization function.
	Icon 🧐 will light up. Then the unit will heat up water to 65°C at least for disinfection.
	When the machine is disinfected, press this button to cancel it. Then the $^{(\&)}$ will be extinguished.
2	This key is used to cancel all settings and exit the setting state. When Wireless connection is normal, long press the Cancel button for more than 8s to exit Wireless connection.
	NOTE: When the operating conditions are not met to turn on this function, the corresponding icon on the wire controller lights up briefly and then goes out.
	INCREASE AND DECREASE
	If screen is unlocked, corresponding value will increase by pressing the button.
2	 When setting temperature, press more than 1s, temperature value will be increased continuously;
3	 When setting clock/timer, press more than 1s, clock/timer value will be increased continuously;
	 When setting vacation days, press more than 1s, day value will be increased continuously;
	On querving, check items will page up by pressing it.

lcon	Description
	Checking function
4	 In the main interface, press and hold the search key for 1 second to enter the spot check function, and use the up and down keys to switch the spot check channel, and the attribute value of the channel will be displayed when switch- ing to the channel, and the specific channel can be found in the function book.
	2) After 30 seconds from the last operation of the up and down keys, or by pressing the return key or the on/off key, you can directly exit the engineering mode.
	3) Query mode can be entered in both power-on and power-off state.
	Engineering Mode
	1) In the main interface, press and hold the copy key for 3 seconds to enter the engineering mode; use the up and down keys to switch the inspection channel, and the attribute value of the channel will be displayed when switching to the channel. By up and down key, you can modify a parameter setting, after setting and adjusting, press confirm key to return to the main interface to make the setting effective (channel 2, 3, 4, 34, 35 will be effective immediately). Press the Return button to return to the previous interface (channel selection interface). After 30 seconds from the last operation of the up and down buttons, or by pressing the return button or the on/off button, you can directly exit the engineering mode.
5	2) Engineering mode can be accessed in both power-on and power-off state.
	It is strictly prohibited for the customer to change the parameter settings of other channels in the engineering mode
	without authorisation to avoid affecting the normal operation of the unit or causing damage to the prototype.
	3) The current maximum set temperature is 65°C, if you need to use a higher temperature, you can enter the engineer- ing mode 18 channel, raise the set temperature upper limit, set the temperature upper limit to 70°C.
	4) If the ventilation function is configured, you can enter the engineering mode 12 channel to select the wind gear, 0 means off, 1 means low wind, 2 means middle wind, and 3 means high wind. When the ventilation function takes effect, the main interface displays "FAN"
	Power on/off button
6	Press the button to turn the device on or off.
	TIMER (Daily setting)
	1) Press the TIMER button to the day timer icon, press the confirmation button \bigcirc to enter the day timer setting inter- face, the day timer has a total of 6 time periods, each time period can be set to open the time, close the time, mode, set the temperature of the water; when set the first time period set the temperature of the water, press the confirmation button to enter the next time period of the set; when set the sixth time period set the temperature of the water, press the
	confirmation button to return to the main interface; during this period, you can press the return button $-$. Return to the previous setting or main interface.
	2) When setting the on time and off time, press the delete button 🔟 , the time can be restored to the default value, and displaying ().
	 3) If there is a conflict between the set time periods, the time period set at the back will be the valid time period, and the time period in front will be the invalid time period; the invalid time period restores the default setting. 4) You can enter the daily timer setting in both power-on and power-off state. TIMER (Weekly setting)
	(1) Dress the TIMED by the table weakly times icon press the confirmation by the ortex the weakly times at time \sim
7	interface, weekly timer a total of 7 days, there are 6 time slots can be set each day, each time slot can be set to open the time, close the time, the mode, set the water temperature; when the first time slot set the water temperature, press the confirmation button to enter the next time slot settings; when the sixth time slot set the temperature, press the con- firmation button to return to weekly After setting the water temperature for the 6th period, press the confirmation key to return to the selection of week; during this period, you can press the return key to return to the previous level of setting or the main interface.
	2) When setting the on time and off time, press the delete button 🔟 to restore the time, mode and set water tempera- ture to the default value, and displaying ().
	3) If you adjust the timing time again after the setting is completed, then all the settings after the adjustment time period will be canceled. For example, if you adjust the timer on for time period 2, the timer off for time period 2, and the settings for time periods 3, 4, 5, and 6 will all be canceled to (-:) after adjustment. Mode and setting water temperature become default values (Energy saving mode, 60°C).
	4) In the weekly timer setting, in the weekly selection, use the copy button \textcircled , you can locate the setting of a certain day to the base day, select other days, press the copy button to change the status of the day, the fast flashing is selected, the slow flashing is unselected, and after pressing on the confirmation button, you can copy the setting of the base day to the selected day.
	5) You can enter the weekly timer setting in both power-on and power-off state.
8	CONFIRM/UNLOCK
	ה או

7.2 Combination button

No.	lcon	Description
Setting the date and clock		 In the main interface, press and hold the timer button for 3 seconds to enter the date setting, press the up/down button to select the date, press the confirmation button to enter the clock setting, press the up/down button to modify the time, and press and hold to accelerate the increase/decrease of the time. After setting the clock, press the confirm button to return to the main interface to complete the setting of date and time. After 30 seconds from the last operation of the up/down button, you can directly exit the date and time setting. Setting can be done in both power-on and power-off state.
Connecting the wireless function	Press for 3 sec	 In the main interface, long press the on/off key for 3 seconds to enter the AP wireless network mode, there will be a wireless icon in the upper right corner of the line controller. At this time, enter the APP, select the category of air water heater, choose the correct model, and then network according to the APP prompts, and after the network is completed, the wireless icon will be always on. Wireless matching can last up to 8 minutes, after 8 minutes, if the matching is not successful, the wireless icon will go out. Long press the delete button for 8 seconds in the main interface to reset the wireless function. It can be set in both power on and power off state. NOTE: Please check the next paragraph Use Your Appliance with the NetHome Plus App for details.
Child lock function	Q ∰ L B Press for 2 sec	 In the main interface, long press the key combination for 2 seconds to enter the child lock state. In the state of child lock, long press the key combination again for 2 seconds to release the child lock state. In the locked state, there will be an icon next to the water temperature display.

To turn on /off the electrical heater.

NOTE

• In order to avoid to affect the effectiveness of the hot water heating process, we recommend users not to turn off the electrical heater.

1	Long press for 3 seconds to enter engineering mode and select F6 channel.	\sim	Press the up and down keys to operate
2	F6 set to 0 means the electrical heater is deactivat- ed and will not turn on during heating time.	\sim	Press the up and down keys to operate Confirm
3	F6 set to 1 means the electrical heater is activated and will be turned on during heating time according to the need.	\bigcirc	Press the up and down keys to operate Confirm

To active the Weekly disinfect function .

NOTE

• Weekly disinfect function activation will turn on the electrical heater. The factory setting is off (desactivated) by default.

1	Long press for 3 seconds to enter engineering mode and select F7 channel.	\sim	Press the up and down keys to operate
2	F7 set to 0 means the weekly disinfect functions is turn off.	\sim	Press the up and down keys to operate
2		\bigcirc	Confirm
3	F7 set to 1 means the weekly disinfect functions turn on.	$\wedge \lor$	Press the up and down keys to operate
		\bigcirc	Confirm

7.3 Use Your Appliance with the NetHome Plus App

NOTE

- Ensure that your mobile phone is connected to the home wireless network, the 2.4GHz band wireless signal is enabled on your wireless router and you know the network password.
- Turn on Bluetooth on your phone and the device must also be powered up.

Step 1: Download NetHome Plus App.

CAUTION: The following QR code is only available for downloading App. It is totally different with the QR code packed with uint. Android Phone users: scan Android QR code or go to google play, search "Nethome Plus" App and download it. IOS users: scan IOS QR code or go to APP Store, search "Nethome Plus" app and download it.



Step 2: Register or Login account.

Open the App and create a user account, if you already have one, just log in.



Step 3: Add your appliance.

Tap the "+"icon to add home appliance to your NetHome Plus account.



Step 4: Choose Air Source Heat Pump Water Heater.

Follow the instructions in the app to set up the Wireless connection.

If the network connection fails, please refer to the App tips for operation.

Step 5: Connected to the network.

Scan for nearby devices () Split-type AC Portable AC Window AC Cassette/Duct/0 PTAC/PTHP Dehumidifier Air-Source Wa Air to water Cube al 🗢 🔳 9:41 < \bigtriangledown Successed to connect Living Room Dining Room Kitchen study Master Bedroom Children Bedroom Guest Bedroom Storage Room Device Name AirCon_B3BC 0

OPERATION

7.3.1 Compliance

We, hereby declare that this device is in compliance with the relevant provisions of RE Directive 2014/53/EU.

Wireless module models: EU-SK110, US-SK110: FCC ID: 2ADQOMDNA23 IC: 12575A-MDNA23 BLE:2402-2480MHz, TX Power:<10dBm Wi-Fi:2400-2483.5MHz,

TX Power:<20dBm

This device complies with Part 15 of the FCC Rules and it contains licence exempt transmitter(s) / receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).Operation is subject to the following two conditions: (1)This device may not cause harmful interference;

(2)This device must accept any interference, including interference that may cause undesired operation of the device.

Only operate the device in accordancewith the instructions supplied.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with FCC radiation exposure limits set forth for an uncontrolled environment.

In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

7.4 Auto-restart

If electricity power failed, unit can memorize all setting parameters, unit will be back to the previous setting when power recover.

7.5 Button Auto Lock

When there is no operation of button for 1 minute, button will be locked except Unlock button 📿 + 🕀 for 2s, unlock buttons.

7.6 Screen Auto Lock

If there is no operation of button for 60s, screen will be locked(extinguished) except for error code and alarm icon. Press any button will unlock the screen(lighten).

Enter engineering mode 35 channel enable this function.



Code	Description		
CT1	Current transformer		
CT2	Zero sequence current transformer		
Т3	Evaporator temperature sensor		
T4	Ambient temperature sensor		
T5U	Tank temperature sensor (upper)		
T5L	Tank temperature sensor (lower)		
ТР	Discharge temperature sensor		
ТН	Suction temperature sensor		
EEV	Electronic expansion valve		
XT1	Mid terminal base		
T5M	Tank temperature sensor (middle)		
E-Mg	Electronic magnesium rod		

SMART GRID			
Operating behavior	EVU/PV	SG	
Normal operation (Default)	Open	Closed	
Increased operation output	Closed	Open	
	Closed	Closed	
Decreased operation output	Open	Open	

8. TROUBLE SHOOTING

8.1 Non-error tips

Q: Why can't compressor start immediately after setting?

A: The unit will wait for 3 minutes to balance the pressure of system before starting compressor again. It's a self protection logic of unit. Q: Why dose the temperature shown on the display panel decreased sometimes while unit is running?

A: When the upper tank temperature is much higher than the bottom part, upper part hot water will be mixed by the bottom cold water which is continually flow from inlet pipe so that will decrease the upper part temperature.

Q: Why dose the temperature shown on the display sometimes decrease quickly?

A: Because tank is pressure-bearable type, if here is massive hot demand, hot water will quickly tapped out from upper part of tankand cold water will quickly tapped into bottom part of tank. If the cold water surface emerge the upper temperature sensor, temperature shown on the display will decreased quickly.

Q: Why dose the temperature shown on the display sometimes decrease a lot, but there is still a mount of hot water coming out?

A: Because the upper water sensor is located at the upper 1/4 of the tank, when temperature on the display starts decreasing, it means there is still 1/4 tank of hot water available.

Q: Why dose the unit sometimes shows "EHLA" on display?

A: When the unit does not have electric heating function, the heat pump available running ambient air inlet range is-7-43°C. If ambient air inlet temperature is out of range, system will show above-mentioned signal to let user notice it.

Q: Why are the buttons sometimes unavailable?

A: if there is no operation on panel for 60s, the unit will lock the panel, shows " \square ". To unlock the panel, please press the " \bigcirc " + " \oiint " button for 2 seconds.

Q: Why sometimes there is some water flow from drainage pipe of safety valve?

A: Because the tank is presure-bearable one, when water is heated inside the tank, water will expand, so the pressure inside of tank will ncrease, if pressure goes up more than 0.85Mpa, safety valve will activate to relief the pressure and hot water drop will be discharged correspondingly. If water drop is continually discharged from safety valve drainage pipe, it is abnormal, please contact qualified person to repair it.

Q: Why sometimes the temperature shown on the display decreased but unit still keep closed?

A: To avoid unit ON/OFF frequently, unit will activate heat source only when bottom tank temperature is lower than setting temperature.

8.2 Something about the self-protection of unit

- 1. When self-protection happens, the system will be stopped and start self-check, and restart when the protection resolved.
- 2. When the self-protection happens, the ^(!) will flash and error code will be shown at water temperature indicator. But the ^(!) and error code does not disappear until protection resolved. In the following circumstance, self-protection may happen: Air inlet or outlet is blocked.
- 3. The evaporator is covered with too much dust; Incorrect power supply(exceeding the range of 220-240V).

8.3 When Error happened

- 1. If some normal errors happen, the unit will automatically shift to E-heater for emergent DHW supply, please contact qualified person to repair it.
- 2. If some serious error happen, unit will not start, please contact qualified person to repair it.

8.4 Error phenomenon shooting

Error phenomenon	Possible reason	Solution	
The tap water is cold and the screen turned off.	 Bad connection between power supply plug and socket; Setting the water temperature too low; Temp. sensor broken; PCB of indicator broken. 	 Plug in; Setting a higher temperature; Contact service center. 	
No hot water coming out of the tap.	 Public water supply ceased; Cold water inlet pressure is too low (<0.15 MPa); Cold water inlet valve closed. 	 Waiting for public water supply to recover; Waiting for inlet water pressure to increase; Open water inlet valve. 	

Error phenomenon	Possible reason	Solution
Water lookage	Hydraulic pipeline joints are not sealed	Check and reseal all joints.
Water leakage	well. A pipe or fitting is broken.	Check piping.

8.5 Error code shooting table

Display	Malfunction Description	Corrective Action
EH0b	Tank and LCD panel communication error.	Maybe the connection between LCD panel and PCB has been loose or PCB has been broken.
EH00	Machine working parameters are abnormal.	Contact a qualified person to service the unit.
EH03	DC fan fault.	Maybe the connection between fan and PCB has been loose or fan has been broken. Contact a qualified person to service the unit.
PH15	Electric leakage error. If PCB current_induction_circuit check the current difference between L,N > 14mA, sys- tem consider it as "electric leakage error".	If some wires have been broken or bad wire connection. Contact a qualified person to service the unit.
EC54	Compressor discharge temperature sensor TP error.	
EH5H	Compressor suction temperature sensor TH error.	
EC53	Ambient temperature sensor T4 error.	Maybe the connection between sensor and PCB has
EC52	Evaporator temperature sensor T3 error.	released or sensor has been broken. Contact a qualified
EH5L	Error of sensor T5L (lower water temperature sensor).	person to service the unit.
EH5U	Error of sensor T5U (upper water temperature sensor).	
EH5N	Error of sensor T5M (solar collector temperature sensor).	
EHLA	When the ambient temperature T4 is out of the compres- sor operating range, the compressor stops, and EHLA is displayed until T4 returns to the normal range. Only works on units without electric heaters. Devices with electric heaters will never display "EHLA".	It is normal, and no necessary to repair.
EH5d	Electric heater open-circuit error.	If the electric heater has been broken or bad wire con- nection after repair.
EHHP	Heat pump system fault. When PH20, PH21, PC30, PC06 any protection appears 3 times or the protection lasts 1 hour.	The compressor works abnormally. Contact a qualified person to service the unit.
PHdH	Dry burning protection.	Ensure that there is water in the water tank before heat- ing.
PH20	Compressor abnormally stopped protection. The dis- charge temperature is not so higher than evaporator temperature after compressor running a term.	Maybe because of compressor broken or bad connec- tion between PCB and compressor. Contact a qualified person to service the unit.
PH21	The working current of the compressor is too large.	Maybe because of compressor broken, system blocked, air or water or more refrigerant in system(after repair), water temperature sensor malfunction, ect. Contact a qualified person to service the unit.
PH24	Frost protection. T5L < 4°C and T4 < 7°C.	The cold water temperature is too low, which will affect the water tank. The electric heater will work.
PC30	System high pressure protection ≥ 3.0 MPa active; ≤ 2.4 MPa inactive	Maybe because of system blocked, air or water or more refrigerant in system(after repair), water temperature sensor malfunction, etc. Contact a qualified person to service the unit

Display	Malfunction Description	Corrective Action
		Maybe because of system blocked, air or water or
PC06	High TP protection. Tp > 110°C (185L). Tp > 105°C	less refrigerant(leakage) in system(after repair), water
FC00	(275L). Protection active; Tp < 90°C Protection inactive.	temperature sensor malfunction, etc. Contact a qualified
		person to service the unit.
	Overtemperature protection. The current water tempera-	The water temperature sensor is faulty or the current
PH9b	ture exceeds the Maximum target temperature by more	water temperature is too high. In case of burns, contact a
	than 5°C.	qualified person to check.
	Low T2 protection	If the fault persists. Contact a qualified person to service
FU21	ST LOW IS protection.	the unit.

9. MAINTENANCE



Do not exceed the allowable amount of R290 refrigerant of 0.150 kg (MAXIMUM QUANTITY).

- · Refrigeant R290 is flammable and odorless.
- Maintenance and repair must be carried out by qualified personnel possessing the appropriate tools and equipment. The training of qualified personnel must be certified by nationally recognized organizations.
- It is prohibited to carry out repair work on the refrigerant circuit and any component that is part of it, at the site where the appliance is installed. Carry out such work in a workshop set up for repair and maintenance of equipment containing flammable gases and by qualified and competent personnel.
- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised.(IEC 60335-2-40 ANNEX DD.4.2)
- Work shall be undertaken under a controlled procedure so as to minimise 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 on the nature of work being carried out. Work in confined spaces shall be avoided.
- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. nonsparking, adequately sealed or intrinsically safe.(IEC 60335-2-40 ANNEX DD.4.5)
- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.(IEC 60335-2-40 ANNEX DD.4.6)
- No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept.(IEC 60335-2-40 ANNEX DD.4.7)
- 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.(IEC 60335-2-40 ANNEX DD.4.8)



ELECTRICAL PARTS WARNINGS

- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. 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. This shall be reported to the owner of the equipment so all parties are advised.(IEC 60335-2-40 ANNEX DD.4.10)
- Initial safety checks shall include (IEC 60335-2-40 ANNEX DD.4.10):
 - » that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
 - » that no live electrical components and wiring are exposed while charging, recovering or purging the system;
 - » that there is continuity of earth bonding.

- · Sealed electrical components shall not be repaired.(IEC 60335-2-40 ANNEX DD.4.10)
- 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. (IEC 60335-2-40 ANNEX DD.7)
- 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.(IEC 60335-2-40 ANNEX DD.4.10)



REFRIGERANT LEAK DETECTION WARNING

- Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.(IEC 60335-2-40 ANNEX DD.8)
- The following leak detection methods are deemed acceptable for all refrigerant systems (IEC 60335-2-40 ANNEX DD.8):
 - » Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity can be inadequate, or can 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 lower flammability limit (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 but the use of detergents containing chlorine shall be avoided as the chlorine can react with the refrigerant and corrode the copper pipe-work.
- If a leak is suspected, all naked flames shall be removed/extinguished.
- Do not perform soldering or brazing operations if refrigerant gas is present in the circuit.

REFRIGERANT REMOVAL AND CIRCUIT RECHARGE WARNING

- It is very important, given the presence of flammable refrigerant, to follow best practice according to conventional and recognized procedures in national and local regulations (IEC 60335-2-40 ANNEX DD.9):
 - » safely remove refrigerant following local and national regulations
 - » evacuate
 - » purge the circuit with inert gas (Nytrogen)
 - » evacuate
 - » continuously flush with inert gas (Nytrogen) when using flame to open circuit
 - » open the circuit.
- The refrigerant charge shall be recovered into the correct recovery cylinders.
- For equipment containing flammable refrigerants other than A2L refrigerants, the system must be purged with oxygen-free nitrogen to make the equipment safe for flammable refrigerants.(IEC 60335-2-40 ANNEX DD.9)
- This process may need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems. (IEC 60335-2-40 ANNEX DD.9)
- For appliances containing flammable refrigerants, other than A2L refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen 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. When the final oxygen-free nitrogen 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.(IEC 60335-2-40 ANNEX DD.9)
- Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and that ventilation is available.(IEC 60335-2-40 ANNEX DD.9)

RECHARGING OPERATIONS WARNING

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.(IEC 60335-2-40 ANNEX DD.10)
- Cylinders shall be kept in an appropriate position according to the instructions.(IEC 60335-2-40 ANNEX DD.10)
- Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.(IEC 60335-2-40 ANNEX DD.10)

- Label the system when charging is complete (if not already labelled).(IEC 60335-2-40 ANNEX DD.10)
- Extreme care should be taken not to overfill the refrigeration system.(IEC 60335-2-40 ANNEX DD.10)
- Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. 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.(IEC 60335-2-40 ANNEX DD.10)



Always turn off your Air-source Heat Pump Water Heater system and disconnect its power supply before cleaning or maintenance.

9.1 Maintenance

- · Check the connection between the power supply plug and socket and ground wiring regularly;
- In some cold area (below 0°C), if the system will be stopped for a long time, all the water should be released in case of freezing of inner tank and damage of E-heater.
- It is recommended to clean the inner tank and E-heater every half year to keep an efficient performance. For more details, please contact the supplier or the after-sale service.
- Check the anode rod every half year and change it, if it has been used out. For more details, please contact the supplier or the after-sale service.
- It is recommended to set a lower temperature to decrease the heat release, prevent scale and save energy if the outlet water volume is sufficient.
- Clean the air filter every month in case of any inefficiency on the heating performance. In terms of the filter set in air inlet directly (namely, air inlet without connect with duct), the method of dismantle the filter is: anti-clockwise unscrew the air inlet ring, take out the filter and clean it completely, finally, remount it to the unit.
- · Before shutting the system off for a long time, please:
 - » Shut off the power supply;
 - » Release all the water in water tank and the pipeline and close all the valves;
 - » Check the inner components regularly.
- · Reset the safety temperature limiter. For more details, please contact the supplier or the after-sale service.
 - » Before resetting the back-up temperature limiter , ensure that the operation has not been interrupted by activating a energy-saving contact ora time schedule.
 - » Check whether the safety temperature limiter of the additional electric heating has been set due to overheating (> 85 °C) or if it was triggered by a fault.
 - » Loosen the screws on the undercoat.
 - » Remove the undercoat .
 - » Press the key to reset the safety temperature limiter.





Installation professionals must disassemble, users are not allowed to disassemble.

· Checking of protective anodes. For more details, please contact the supplier or the after-sale service.



- » Empty the product.
- » Loosen the screws on the undercoat.
- » Remove the undercoat.
- » Remove the cable from the electrical immersion resistance.
- » Remove the nuts.
- » Extract the groupwith the electrical resistance to immersion and the anode, the protective anode and the seal.
- » Unscrew the protective anode and remove it from the hot water heater.
- » Remove the protective anode and check the following point. Diameter (whole length): > 16 mm uniform wear of the protective anode.
- » Check whether there are deposits of limestone on the immersion resistance.
- » Check the anode of electrical resistance under immersion.
- » If the protective anode is worn out, it shall be replaced by the same procedure as the immersion electric resistance anode. » Replace the lining.



WARNING

- Battery must be disposed of properly.Do not short circuit or dispose of in the fire. •
- Keep batteries out of the reach of children.
- · Caution for ingestion.
- · Non-rechargeable batteries are not to be recharged.
- · Exhausted batteries are to be removed from the product.
- Dispose of the old batteries in the special containers to be found in the sales outlets.
- · Replace the battery must contact the supplier or the after-sale service.

9.2 **Recommended regular maintenance table**

Checking Item	Checking Content	Checking Frequency	Action
1	Air filter(inlet)	Every month	Clean the filter
2	Anode rod	Every half year	Replace it if it has been used out
3	Inner tank	Every half year	Clean the tank
4	E-heater	Every half year	Clean E-heater
5	Safety valve	Every month	Check for blockage

For more details, please contact the supplier or the after-sale service.

SPECIFICATIONS

10.

Model		MELORIA 100	MELORIA 150
Water-heating cap.(a)		980W	1300W
Rated power/AMPS		1950W/9A	2250W/10.5A
Power	supply	220-240	V~ 50Hz
Operatio	n control	Auto/Manual startup, error alarm, timer	
Protection		Over-load Protector, Temp Controller&Protector, Electric Leak- age Protector	
E-heate	er power	150	W00
Refriç	gerant	R290/	0.15kg
	Outlet water temp.(b)	Default 50°C,(38-65°C adjustable)	
	Water side exchanger	Aluminum microchannel heat exchanger	
Motor pipeline evotom	Inlet pipe Dia.	DN15	
water pipeline system	Outlet pipe Dia.	DN15	
	Drain pipe Dia.	DN12	
	Max. operating pressure	0.8MPa	
	Material	Aluminum fin, inner groove copper tube	
Exchanger air side	Motor power	34W	
	Air circulation way	Outlet/inlet vertically, duct connection available	
Dime	nsion	Ф500×548×1357mm	Ф500×548×1707mm
Water ta	Water tank cap.		145L
Net weight		62kg	81kg
Fusible link type		T5A 250VAC/T16A 250VAC	
The test conditions: (a) Ambient temperature 15/12°C(DB/WB), Water temperature from 15°C up to 45°C.			
(1	b) 70°C(The maximum outlet ten	nperature is set to 65°C by default	.)

DISPOSAL AND RECYCLING

- Decommissioning and disposal operations must be carried out by qualified personnel in accordance with local and national regulations.
- · Good practice for safely recovering all refrigerants is recommended.
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.(IEC 60335-2-40 ANNEX DD.11)
- The following procedure is recommended (IEC 60335-2-40 ANNEX DD.11):
 - » Become familiar with the equipment and its operation
 - » Isolate system electrically.
 - » Before attempting the procedure, ensure that
 - » mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - » all personal protective equipment is available and being used correctly
 - $\ensuremath{\text{\tiny *}}$ the recovery process is supervised at all times by a competent person;
 - » recovery equipment and cylinders conform to the appropriate standards.
 - » Pump down refrigerant system, if possible
 - » If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
 - » Make sure that the cylinder is situated on the scales before recovery takes place
 - » Start the recovery machine and operate in accordance with instructions.
 - » Do not overfill cylinders (no more than 80 % volume liquid charge).
 - » Do not exceed the maximum working pressure of the cylinder, even temporarily.
 - » 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.
 - » Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.
- 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.

REFRIGERANT GAS RECOVERY WARNING

- When removing refrigerant from a system, whether for service or decommissioning, good practice rules must be followed so that all refrigerant is 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 is 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. Empty 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 the flammable refrigerant. Consult manufacturer if in doubt. 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.
- The recovered refrigerant shall be processed according to local legislation 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 compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. Draining of oil from a system shall be carried out safely.

11.

Important instructions for environment(European Disposal Guidelines)

Compliance with the WEEE Directive and Disposing of the Waster Product:

This product complies with EU WEEE Directive (2012/19/EU). This product bears a classification symbol for waster electrical and electronic equipment (WEEE).

This symbol indicates that this product shall not be disposed with other household wastes at the end of its service life. Used device must be returned to official collection point for recycling of electrical electronic devices. To find these collection systems please contact to your local authorities or retailer where the product was purchased. Each household performs important role in recovering and recycling of old appliance. Appropriate disposal of used appliance helps prevent potential negative consequences for the environment and human health.





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The manufacturer reserves the right to modify his/her products as deemed necessary, without altering the basic characteristics of the products themselves.

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