

macro

Instruction Manual

MA-20WODP

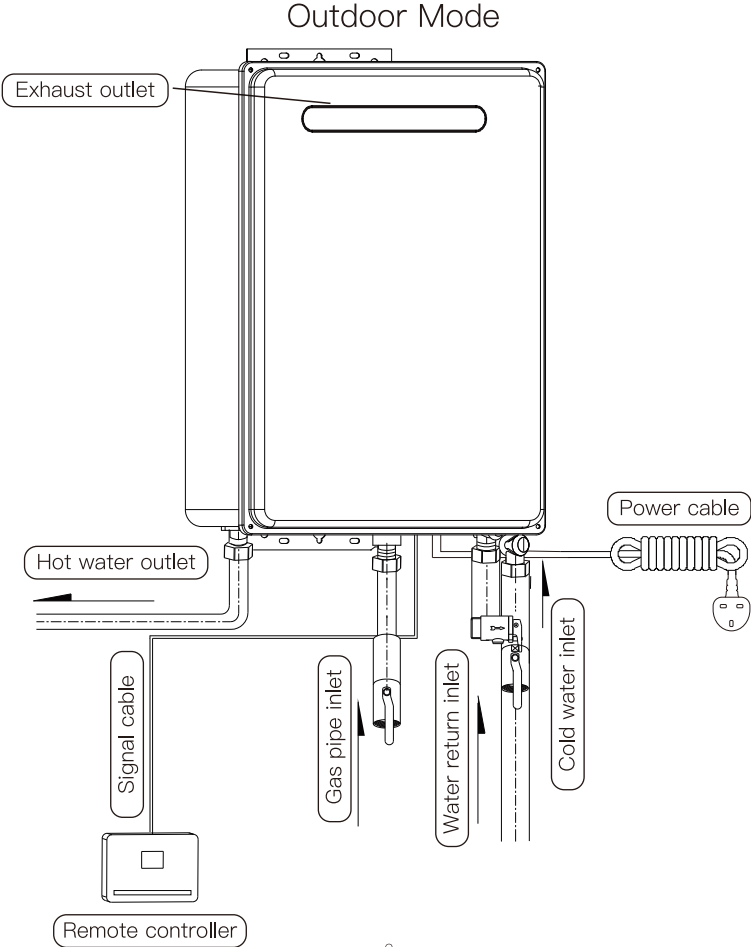
Features

- Large display multifunction wired remote controller
- Mobile APP control
- Programmable timer for Preheat Function
- Bathtub Filling Alarm
- Wide range of temperatures setting (Max: 60°C)
- Diagnostic error code display
- Constant hot water temperature
- Low start up water pressure
- Microcomputer controlled for precise water temperature
- Self-safety check before operation
- Weather proof for outdoor model
- 4 stages burners control for wider range of temperature control

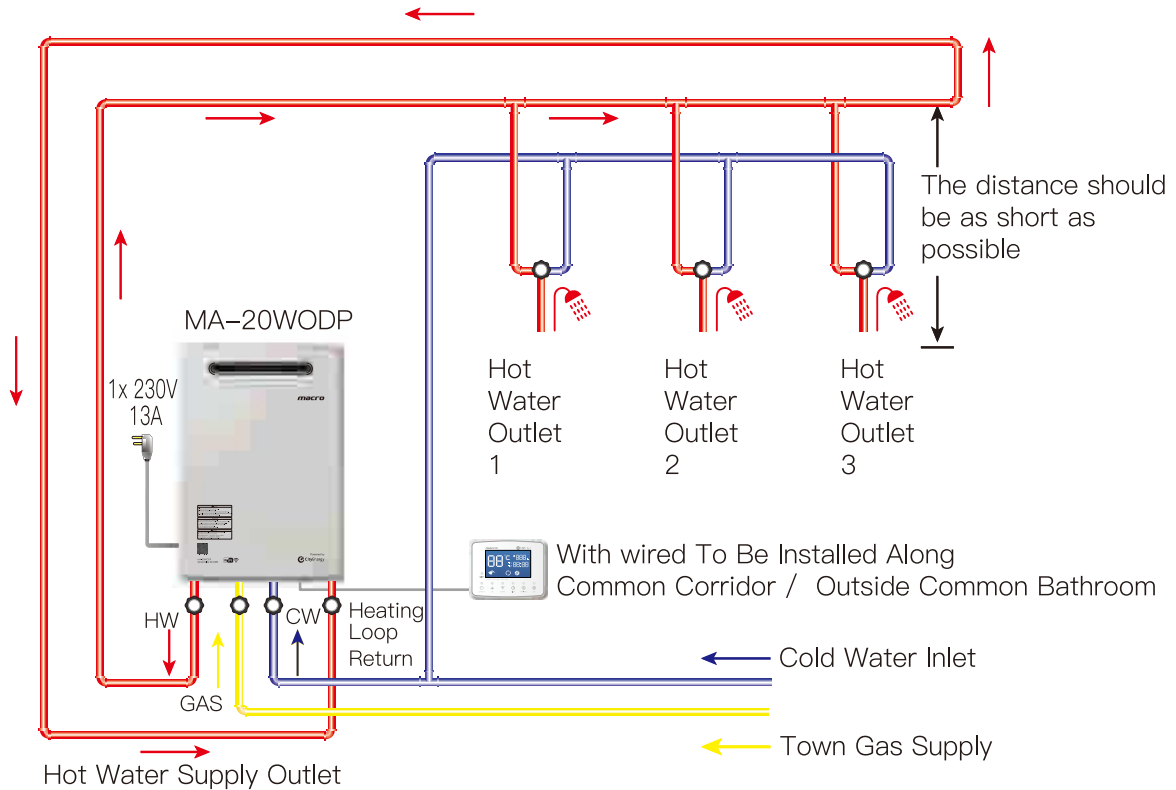
Technical Specifications

Model	: MA-20WODP
Type of gas	: Town gas (G110)
Gas pressure	: 8mbar – 20mbar
Max gas consumption	: 40 kW
Hot water outlet +25°C rise	: 20L/min
Temperature range (°C)	: 36 – 60°C
Efficiency	: ≥ 85%
Min. Operating water pressure	: 0.2bar
Max.Operating water pressure	: 8bar
Min flow rate	: 2.5L/min
Water pipe	: G1/2 (outlet) : G1/2 (inlet & circulation return)
Gas inlet	: G3/4
Exhaust pipe	: NA
Power supply	: AC 220 – 240V 50Hz–60Hz : DC 12V for Remote controller
Rated power	: 35W (water heater) / 90W (circulation)
Power cable	: 1.3 m
Weight	: 21 kg / 23.5 kg
External dimension	: H630 x W435 x D155mm

1. Main diagram of preheat circulating system

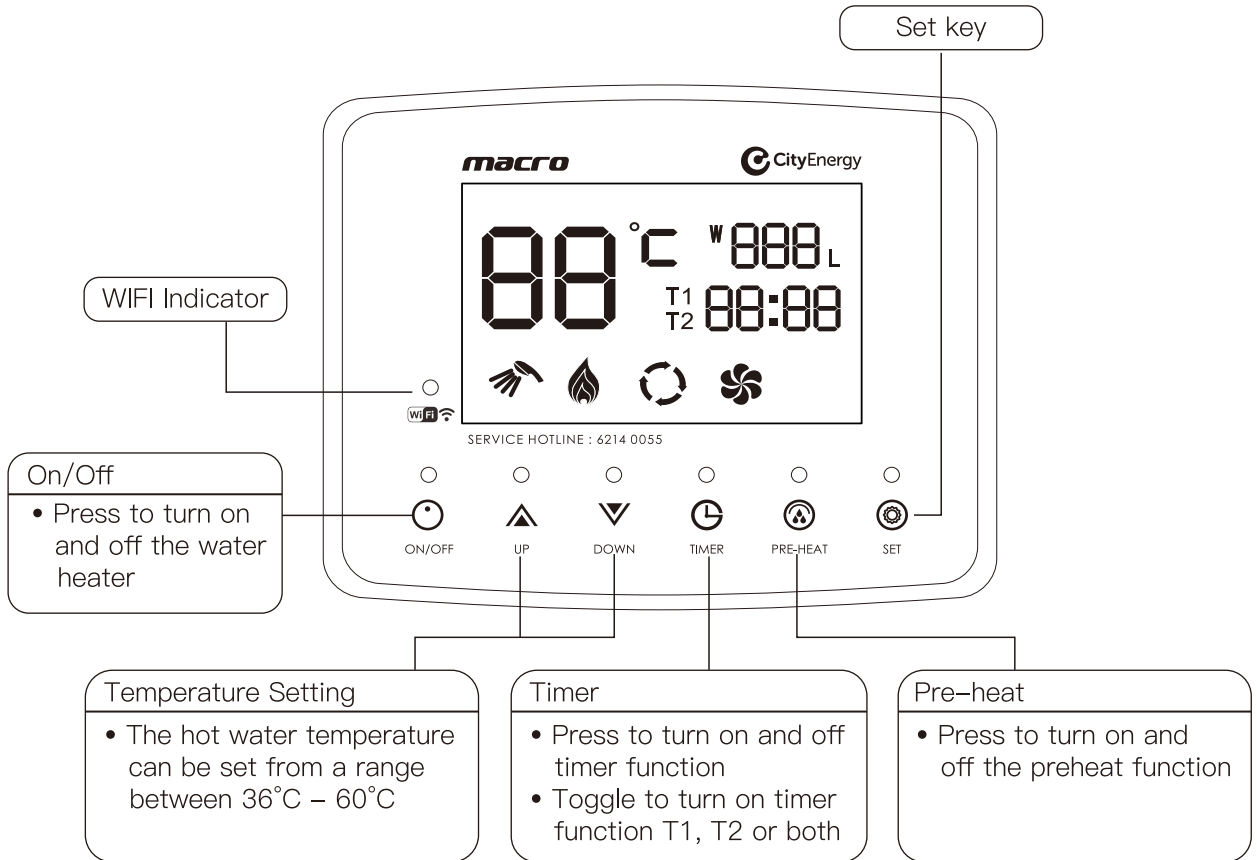


2. Installation



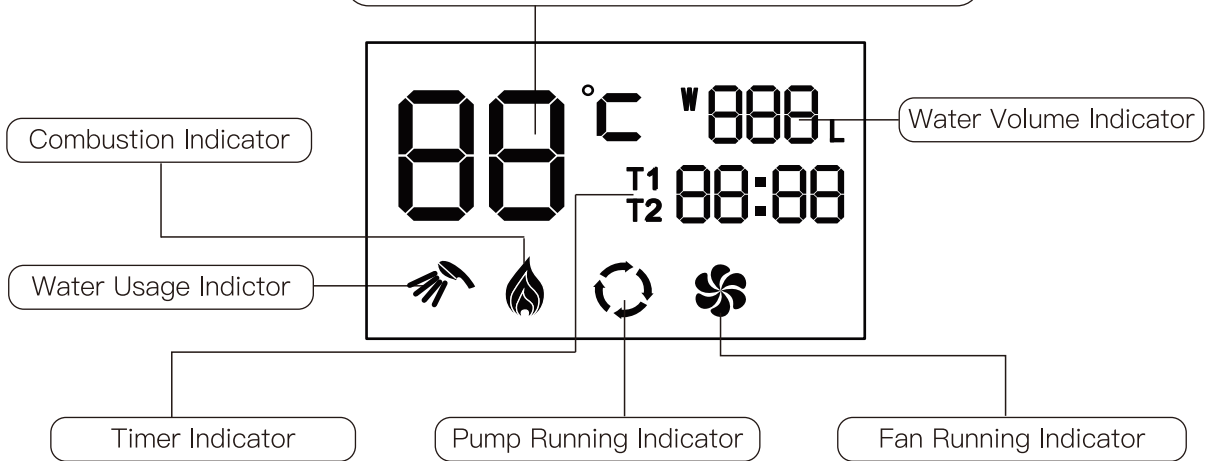
- Hot water return pipe after serving all hot water outlets (Max : 80m)
- Return line start point: hot water return point must be after the furthest hot water draw off point

3. Wired Controller



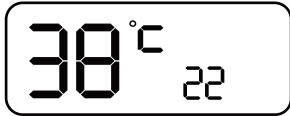
Temperature Display

- Water temperature display (for example 50°C)
- Error code display, please refer to error code table for solution on page 13 of this manual

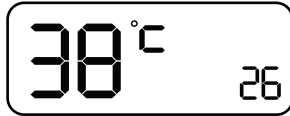


4. Time Setting

Press and hold the SET button for 3 seconds. The hour of the clock will start to flash. Press UP or DOWN button to set the hour. Press the SET button again to set the minute. When completed, press SET button to exit.



Hour setting



Minute setting



Finish setting

5. Timer Setting

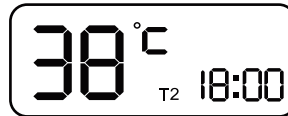
This function enable user to set the timing to preheat the water in the piping system to the required set temperature. Press the TIMER button for 3 seconds. The Timer T1 will start to flash with the upper dot in between the Hour and Minute indicating the setting for the start time of Timer 1. Set the desired timing by using the UP or DOWN button and pressing the TIMER to toggle from hour to minute setting. When completed, press TIMER button again. The dot between the Hour and Minute shifted to the lower dot. This indicates the setting for the end time of Timer T1. Similarly using UP or DOWN button and TIMER button, set the end time for Timer T1. When completed, proceed to set the start and end time for Timer T2.



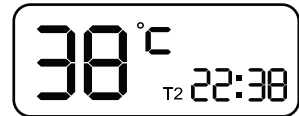
T1 start time setting



T1 end time setting



T2 start time setting



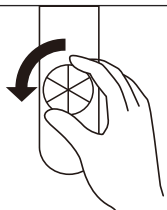
T2 end time setting

The default setting for T1 is 06:00 – 08:00 and T2 is 18:00–21:00.

6. Prepration before using the heater

Please follow the instructions shown below when using the heater for the first time.

1



Adjust the water inlet valve to the maximum positon

2



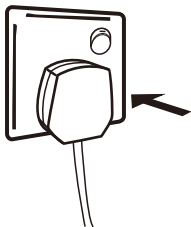
Turn on the hot water tap and check whether the water flows out, then close the tap.

3



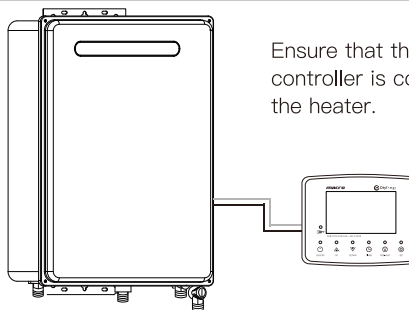
Open the gas valve completely.

4



Put the main plug into socket and switch on the power.

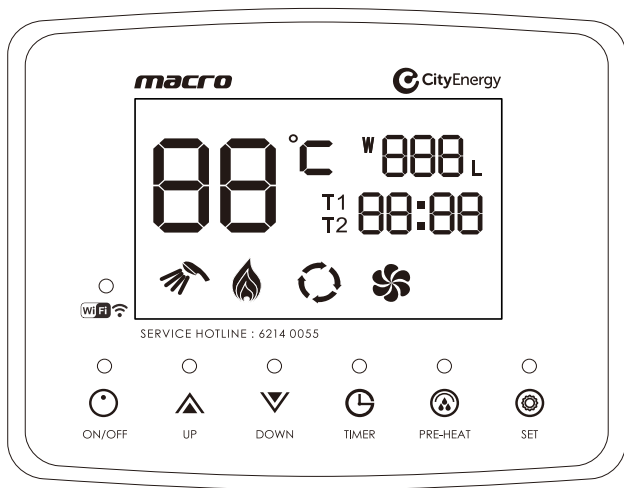
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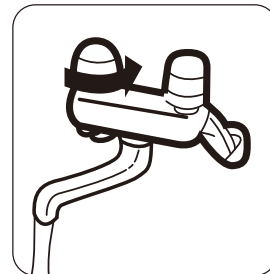
Ensure that the wiring for the remote controller is connected correctly to the heater.

7. Operating the water heater

To use the water heater, press power button on the remote controller. The LED display screen will show the preset temperature, followed by the actual output water temperature.



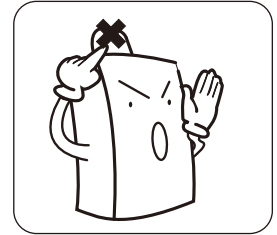
When the hot water tap is turned on, the burner will automatically ignite, producing hot water supply. When turning on the water heater for the first time, it may be necessary to turn on and off the hot water tap a few times to ignite the heater due to air in the gas pipe. If hot water tap is not turned on completely, the water heater may also not ignite.



8. Precaution

A. Avoid scalding

The air exhaust pipe and surrounding parts are hot when the water heater is in operation or immediately after operation. Please do not touch them. Before every use, test the water temperature on a small part of your hand first. To prevent scalding, do not spray water from the heater onto body or head immediately when using the heater.

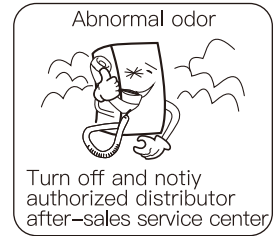


B. Managing Abnormal Operations

Turn off gas valve and water inlet valve immediately if one of the following phenomena occurs :

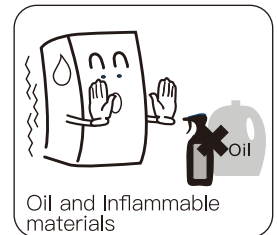
- a. Gas odor
- b. Abnormal burning sound
- c. Water leakage

Refer to the “ troubleshooting ” chart in the manual and take the necessary remedial action . If the problem still persists , notify the appointed authorized distributor, or after sales service center for assistance



C. Inflammable materials & Ventilation

Ensure that no inflammable materials such as gasoline and benzene are placed near the water heater. The heater must be well ventilated must not be concealed. Do not store anything next to the heater.



D. Do not open up the water heater

Do not dismantle or open up the water heater as it may cause electric shock. Dismantling or opening of the water heater should be left to qualified and authorized technicians .

E. Keeping the Water Heater Clean

When cleaning the water heater, do not use fabric or sponge with alcoholic or abrasive or acidic chemicals.

F. Supervising Children Using the Heater

To prevent children from getting scalded , they have to be supervised by adults at all times when using the heater. Always test the hot water temperature before showering onto the body.

9. Troubleshooting

Phenomena stated below are not faulty:

Phenomena	Reasons and Solutions
It takes a while before hot water flows out from the heater after turning on the hot water tap.	When the hot water tap is turned on, the system will first drain out the cold water remaining in the pipe between the heater and the hot water tap. To solve this problem activate the preheat function before using the water heater.
No hot water is generated even when the hot water tap is turned on	The flame in the water heater may not be ignited as the hot water tap is not sufficiently turned on to the maximum before adjustment.
Difficult to ignite when using for the first time	The air in the gas pipe needs to be discharged before the heater could be ignited and this could be resolved by tuning on and off the hot water tap repeatedly for a few times.
Fan remains working for a short moment after turning off the hot water tap	Fan is designed with time delay function for exhausting waste fume from the combustion chamber.
Water flows out from the relief valve	The water heater system relieves high water temperature pressure by discharging water through relief valve to normalize the pressure in the heat exchanger.

10. Error code

LED display screen may flash the error code to identify the nature of the fault.
The possible solutions to the respective faults are shown in the table below:

Error Code	Fault type	Dealing approach
E0	Misfire	Ensure the gas valve turned on, turn off the water tap and then restart the heater.
E1	Fail to ignite	Ensure the gas valve turned on. Turn off the water tap and then restart the heater.
E2	Fail motor fault	Turn off the water tap and restart the heater. if fault still occurs, call the service center.
E3	Dry burning or overheating in the heat exchanger	Turn off the tap and restart the heater.
E4	Temperature sensor fault	Call the service center.
E5	Temperature of hot water flowout is too high	Turn off the water tap and restart the heater.

E6	Improper combustion	Turn off the water tap and restart the heater.
E7	Circulating system fault	Turn off the tap, restart the heater after discharging the remaining water.
E8	Abnormal air pressure	Turn off the water tap and turn on again.
F3	Inlet temperature probe fault	Turn off the water tap and turn on again.
En	Prolong usage of the heater	Turn off the water tap and heater, and restart it.

WARRANTY REGISTRATION



Please scan the QR Code or login to
www.warranty.com.sg
for your warranty registration

Swee Huat Heng Engrg Pte Ltd
Service Hotline : **6214 0055**