

OPERATING INSTRUCTIONS

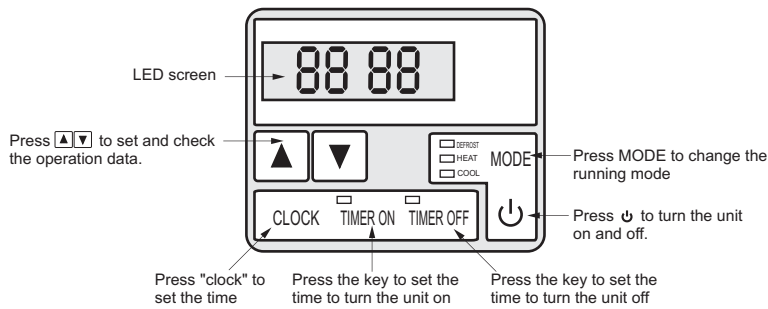
THE LED CONTROLLER

HOW TO SET THE OPERATION PARAMETERS

There are two stages: STANDBY and RUNNING.

Once the power is switched on, the heat pump will be on STANDBY.

Set the time by pressing CLOCK and then press ▲ or ▼ to set the correct time.



STANDBY STATUS

In STANDBY the LED will show the current time. All the parameters are set at default values as per the operation data sheet (see diagram 3).

Press ▲ or ▼ to enter the operation parameter interface. Every time you press ▲ or ▼ it will move to the next parameter from 0 to 9.

Choose the parameter you want to change and then press MODE and ⏻ together. You can now change the parameter value with ▲ or ▼. On completion press MODE to exit. If no operation takes place for more than five seconds the LED will go back to the current time.

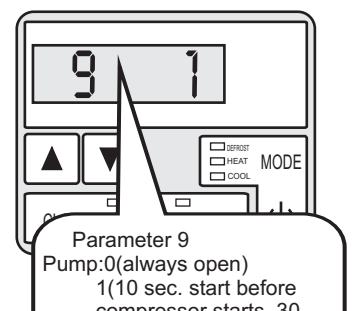
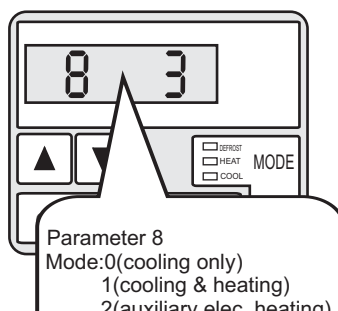
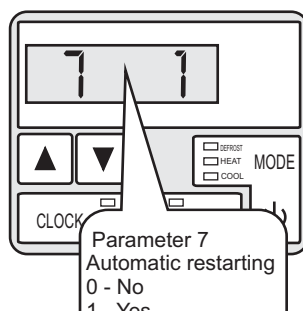
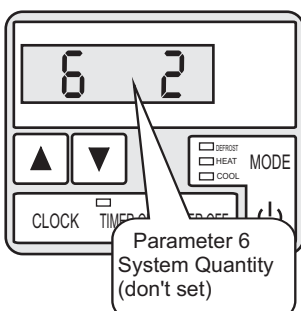
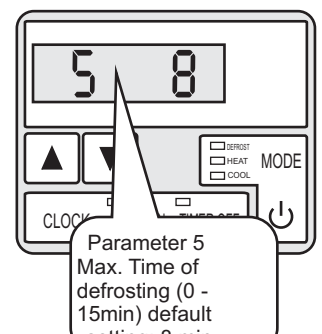
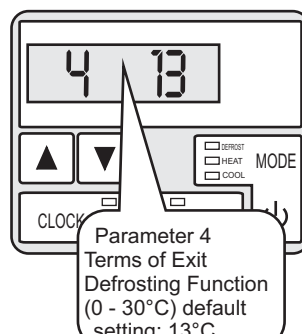
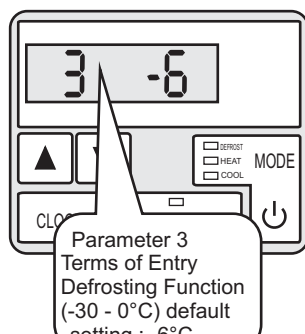
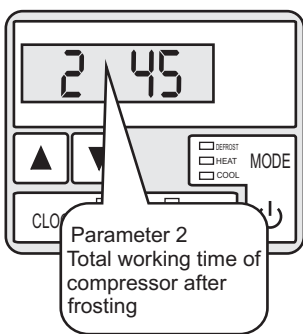
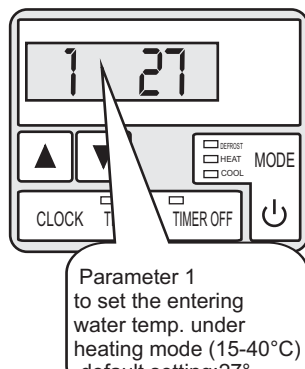
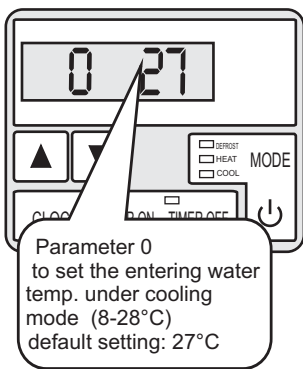
You can repeat this procedure until you have set all the parameters.

Note: After initial installation always check:


Parameter 1 - Required temperature

Parameter 9 - Power supply to pool pump from heat pump - set to "1"
Power supply to pool pump from DB - set to "0"

In RUNNING status you can view the parameter status by pressing ▲ or ▼ but no changes can be made.

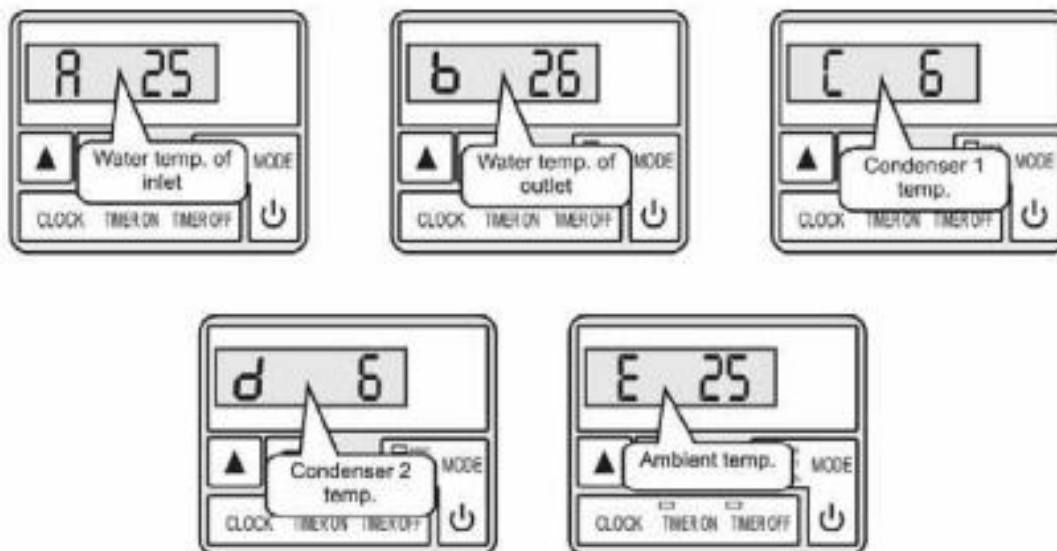


RUNNING STATUS

Press  to start the heat pump.

The LED will show the temperature of the inlet water, which is the temperature of the pool water.

In RUNNING status you can also view the CURRENT status under parameters A to E by pressing ▲ or ▼.



OPERATIONAL DATA SHEET (DIAGRAM 4)

Digit	Meaning	Range	default	Adjust(yes/no)
0	Return water temp. Setting (cooling mode)	8-28 C	27 C	yes
1	Return water temp. Setting (heating mode)	15-40 C	27 C	yes
2	Turnround of dehumidifying Under heating mode (frost)	30-90 MIN	45 MIN	yes
*3	Defrosting start temperature	0-30 C	-6 C	yes
4	Terms of exit defrost under heating model	0-30 C	13 C	yes
5	Time of exit defrost under heating model	1-12 MIN	8 MIN	yes
6	System quantity	1-2	2	yes
7	Automatic restarting	0(no) 1(yes)	1	yes
8	Model (cooling only/heat pump/ auxiliary electrical heating/ hot water)	0/1/2/3	3	yes
*9	Pool pump supply from heat pump "1" Pool pump supply from the remote supply "0"	0/1	1	yes

Notice: Above data setting 0 is relevant to cooling mode only. All other data, (ie 1-8) is relevant to heating.

*Remark:

Parameter 3:

0-30 C means from (-30 C) to (0 C)

6 C means -6 C

Parameter 9:

0: always open.

1: 10 seconds start before compressors starting.

30 seconds stop after compressors stopping.

MAINTENANCE AND INSPECTION



MAINTENANCE

Check the water supply device and the release often. You should avoid the condition of no water or air entering into system, as this will influence performance and reliability. You should clear the pool/spa filter regularly to avoid damage to the unit as a result of the dirty or clogged filter.

The area around the unit should be dry, clean and well ventilated. Clean the side heating exchanger regularly to maintain good heat exchange as conserve energy.

The operation pressure of the refrigerant system should only be serviced by a certified technician.

Check the power supply and cable connection often. Should the unit begin to operate abnormally, switch it off and contact your certified AQUA COMFORT technician.

Discharge all water in the water pump and water system, so that freezing of the water in the pump or water system does not occur. You should discharge the water at the bottom of water pump if the unit will not be used for an extended period of time. You should check the unit thoroughly and fill the system with water fully before using it for the first time after a prolonged period of no usage.

TROUBLE SHOOTING GUIDE

Malfunction	LED Controller	Reason	Resolution
Water inlet temp. Sensor failure	PP1	The sensor is open or short circuit	Check or change the sensor
Water outlet temp. Sensor failure	PP2	The sensor is open or short circuit	Check or change the sensor
Coil1 sensor 1 Failure	PP3	The sensor is open or short circuit	Check or change the sensor
Coil2 sensor 2 Failure	PP4	The sensor is open or short circuit	Check or change the sensor
Ambient sensor failure	PP5	The sensor is open or short circuit	Check or change the sensor
Temp. differential between water-in and water-out is too long	PP6	Water flow volume not enough, water pressure difference is too low	Check the water flow volume, or system obstruction.
Anti freezing under cooling mode	PP7	Outlet water is too low	Check the water flow volume or outlet water temp. sensor
The first time freezing protection in water	PP7	Ambient or inlet water temp. is too low	
The second time freezing protection in water	PP7	Ambient or inlet water temp. is too low	
Malfunction of system 1	EE1	System 1 protection has failed	Check each protection point of system 1 remove the malfunction according to System Protection Board malfunction table
Malfunction of system 2	EE2	System 2 protection has failed	Check each protection point of system 2 remove the malfunction according to System Protection Board malfunction table
Flow switch failure	EE3	No water/little water in water system	Check the water flow volume, water pump failure
Power supply connections wrong (for TF 100/3 and 130/3)	EE4	Wrong connections or lack of connection	Check connection of power cable
Power supply connections wrong (for SF 050/3 and 060/3)	no display		
High/low pressure (for SF 020/030/ SF 050/3 and 060/3)	EE4	Gas charge too low or high. Possible system blockage	Check through each pressure switch and return circuit
3 times water-in and water-out temp. difference protection 30 minutes	EE5		Check the water flow rate, or water system is jammed or not
Defrosting	Defrost Code Display		
Communication failure	EE8	LED controller and the PCB connection failure	Check the wire connection