

— HOUSE OF —
DURATECH
— innovative pool products —

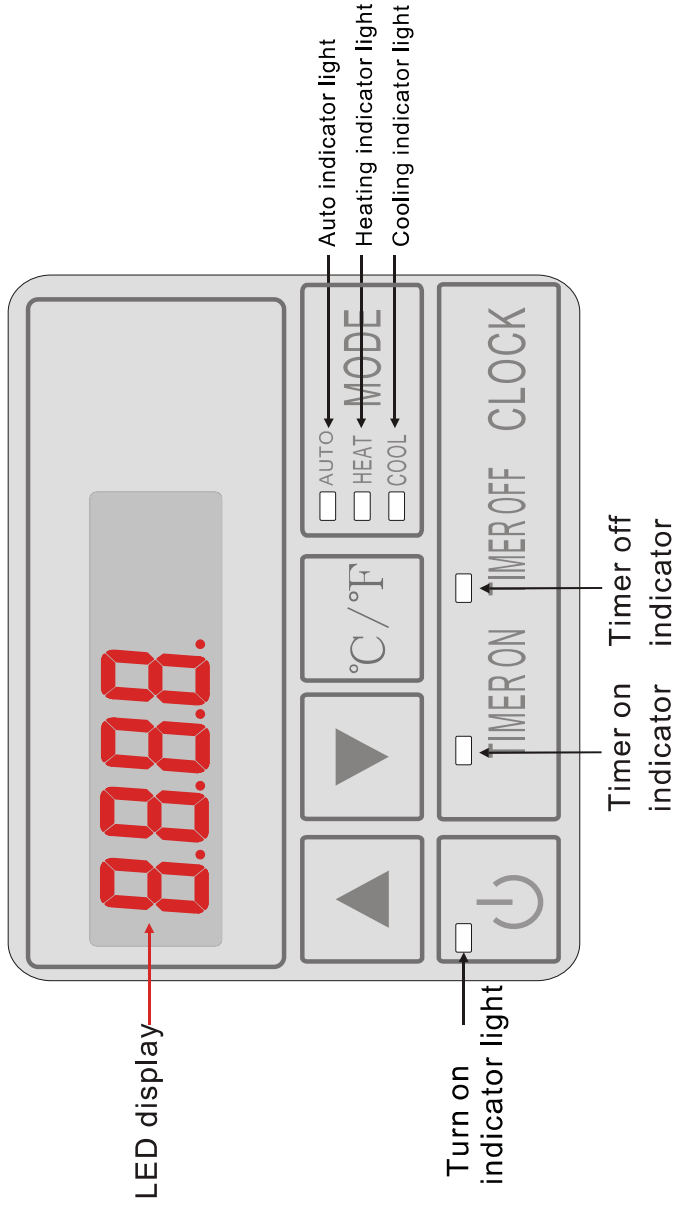
MANUAL

DURA+ display - ENG - sparepart
DISP-DURA-041

HEAT Dura+

Usage

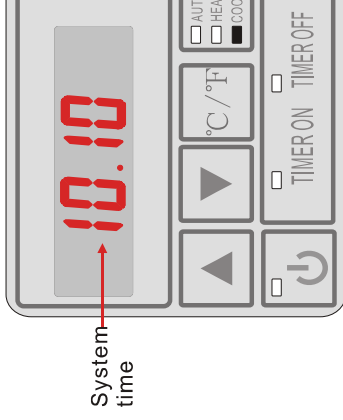
1. Function of wire controller



Usage

2.Usage of wire controller

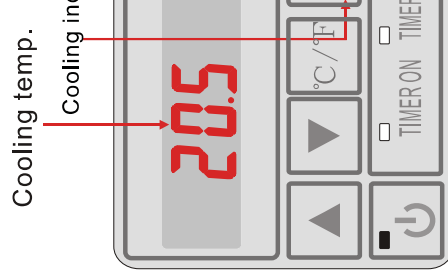
- 2.1 Turn ON/OFF the unit
When the unit is off, press the power button.
When the unit is on, press the power button.



Standby interface

2.2 Mode switch

You can choose unit mode in the unit on or off state by pressing "MODE" button. Attention: if the unit is on, the unit will switch to the cooling mode.



2.3 Temperature selection

Key	Key name	Key function
	ON/OFF	Press this key to turn on/off the unit
MODE	Mode	Press this key to change the working mode
CLOCK	Timer	Press this key to set system time
°C/°F	Choose key	Press this key to choose the Celsius degree or Fahrenheit degree

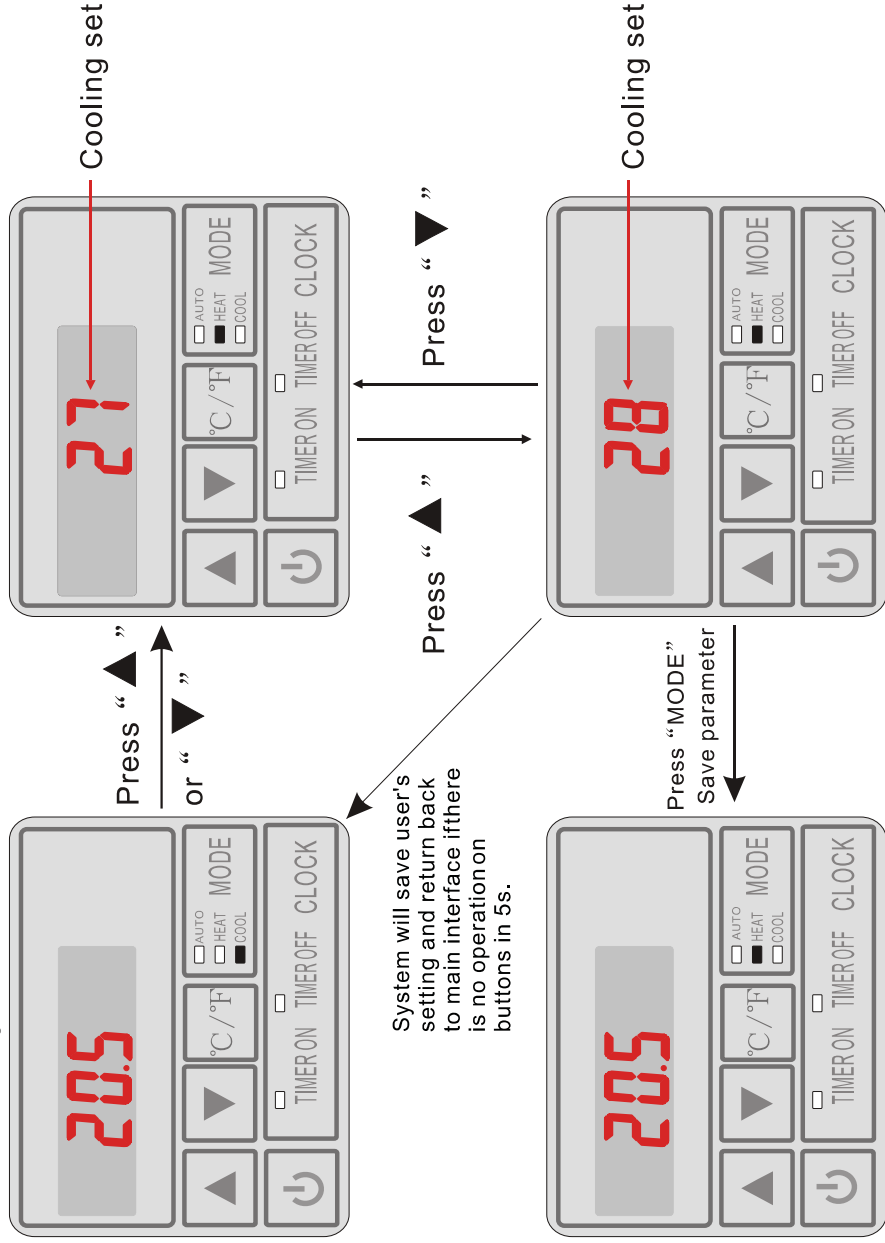
Usage

Usage

2.4 Setting temperature

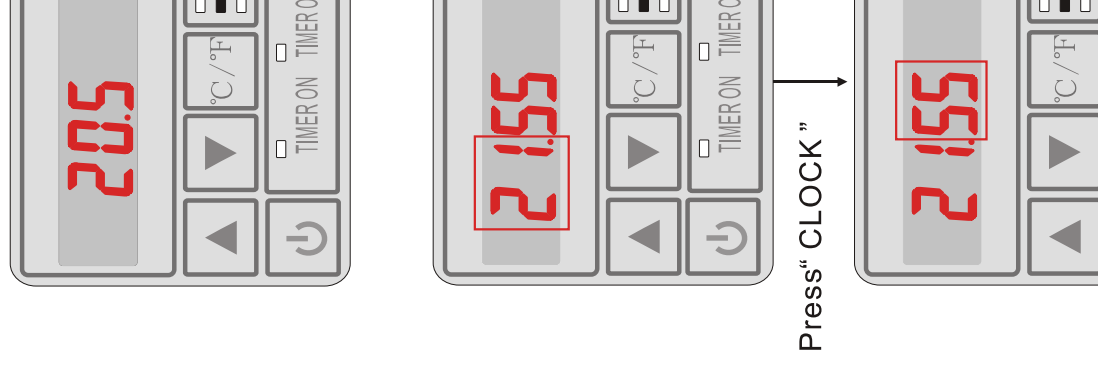
In the main interface, press “▲” or “▼” and the current mode target-temperature flashes, then press “▲” to increase the temp.value, or press “▼” to decrease it. Press “MODE” can save setting parameter and back to the main interface; Press “⏻” can not save setting parameter but back to the main interface; Attention: If there is no operation for 5s, system would remember parameter setting and back to the main interface.

Running interface



2.5 Clock setting

In the main interface, press “▲” or “▼” to increase value or press “▼” to decrease value. At the same time, minutes “:” to decrease value. Press “⏻” can not save. Attention: If there is no operation for 5s, system would remember parameter setting and back to the main interface.



Usage

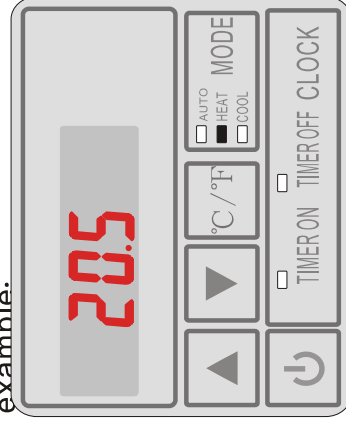
Usage

2.6 Timer setting

(1) You can set the timer of unit on

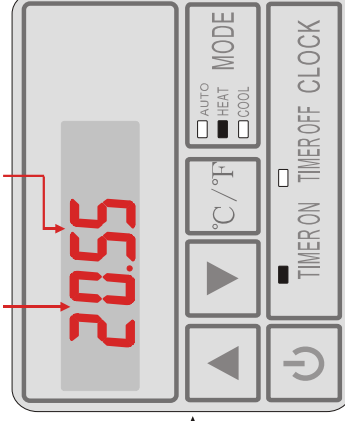
In the on or off state, Press "TIME ON" to enter timer-on interface, Press "TIME ON" and time-hour-bit flashing, Press "▲" or "▼" to change the hours value, Press "TIME ON" to save hours, At the same time, minutes-bit flashing, Press "▲" or "▼" to change the minute value, Press "TIME ON" to save and exit. At this time, "TIME ON" LED light is on. (The time-off setting is to press "TIME OFF", the other operation is the same as timer-on)

For example:



Press "TIME ON"

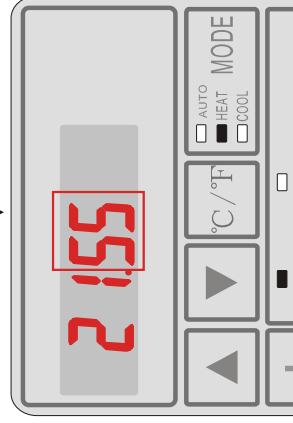
Hour Minute



Press "TIME ON"



Press "▲"
or "▼"



Press "▲"
or "▼"



On

2.7 Keyboard lock

To avoid mis-operations,
At the main interface, press

Usage

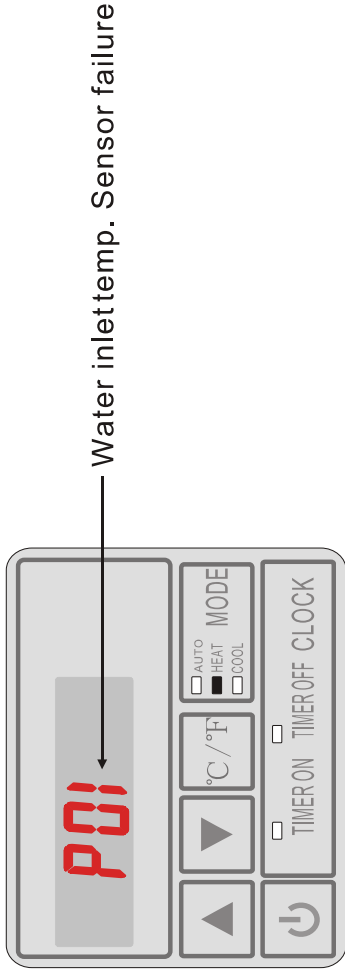
Usage

2.8 Malfunction display

There will be malfunction code showing on the controller screen when relative malfunction occurs.

You can refer to the malfunction table to find out the failure cause and solution.

For example :



3.Parameter table

Code	Meaning	Default	Remarks
r01	Set-point of cooling target temp.	27℃	Ajustable
r02	Set-point of heating target temp.	27℃	Ajustable
r03	Set-point of auto mode target temp.	27℃	Ajustable

3.Malfunction Table

The common failure cause

Di	Malfunction
	Water inlet temp. Sensor failure
	Water outlet temp. Sensor failure
	Ambient temp. Sensor failure
	Pipe temp. Sensor failure
	Evaporator temp. Sensor failure
	Exhaust temp. Sensor failure
	High pressure protect
	Low pressure protect
	Flow switch failure
	Temp. is too much different between water-inlet and outlet
	Antifreezing under cooling mode
	The primary anti-freezing protection start.
	The second anti-freezing protection start
	Communication failure

Usage

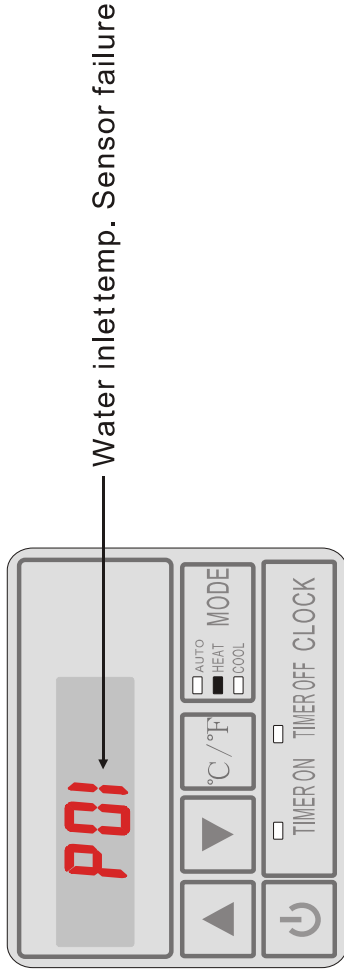
Usage

2.8 Malfunction display

There will be malfunction code showing on the controller screen when relative malfunction occurs.

You can refer to the malfunction table to find out the failure cause and solution.

For example :



3.Parameter table

Code	Meaning	Default	Remarks
r01	Set-point of cooling target temp.	27°C	Ajustable
r02	Set-point of heating target temp.	27°C	Ajustable
r03	Set-point of auto mode target temp.	27°C	Ajustable

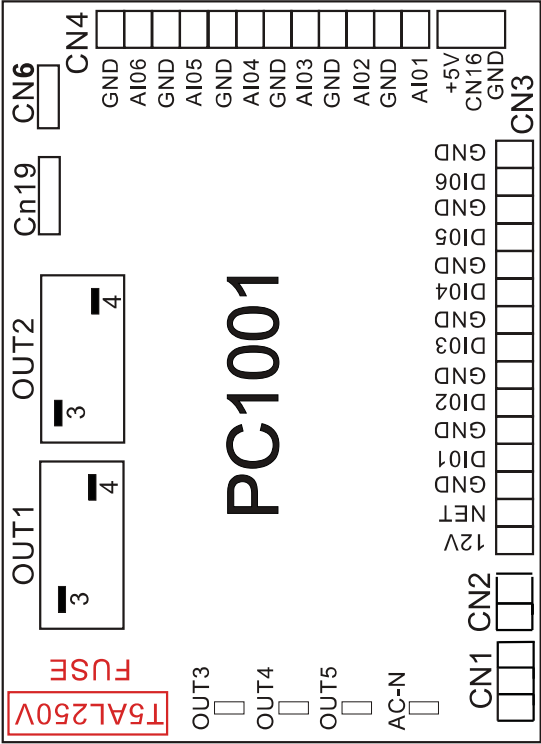
3.Malfunction Table

The common failure cause

Malfunction	Diagnosis
Water inlet temp. Sensor failure	
Water outlet temp. Sensor failure	
Ambient temp. Sensor failure	
Pipe temp. Sensor failure	
Evaporator temp. Sensor failure	
Exhaust temp. Sensor failure	
High pressure protect	
Low pressure protect	
Flow switch failure	
Temp. is too much different between water-inlet and outlet	
Antifreezing under cooling mode	
The primary anti-freezing protection start.	
The second anti-freezing protection start	
Communication failure	

PCB Connection

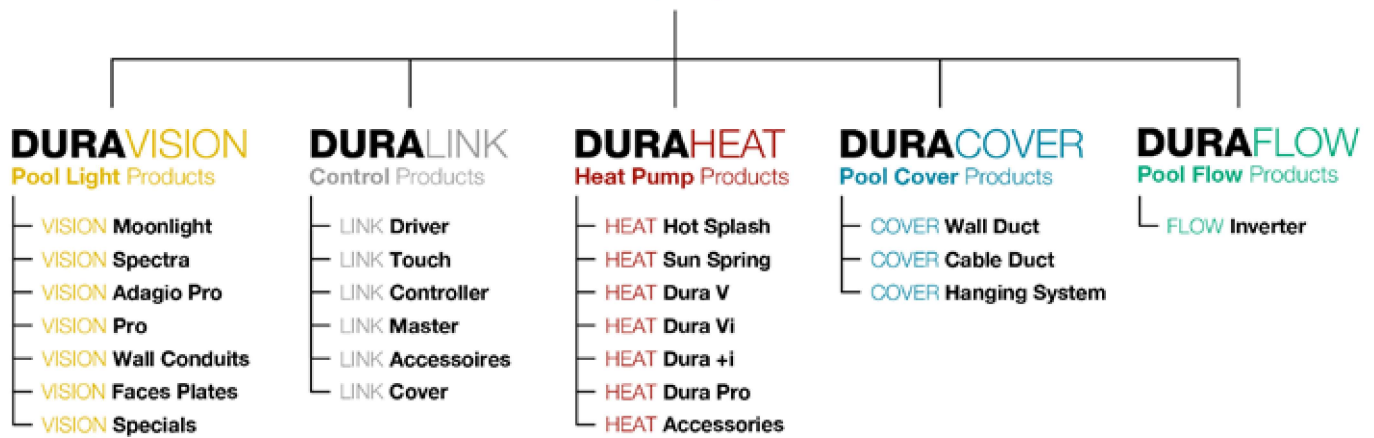
1.Connection of PCB illustration



Connections explanation:

No.	Symbol	Meaning
1	OUT1	Compressor of system1 (220-230VAC)
2	OUT2	Water pump (220-230VAC)
3	OUT3	4way valve (220-230VAC)
4	OUT4	High speed of fan motor (220-230VAC)
5	OUT5	Low speed of fan motor (220-230VAC)
6	AC-N	Neutral wire
7	NET GND 12V	Wire controller
8	DI01 GND	On/Off Switch(input)(no use)
9	DI02 GND	Flow switch (input)(normal close)
10	DI03 GND	Low pressure protect
11	DI04 GND	High pressure protect
12	DI05 GND	No use
13	DI06 GND	No use
14	AI01 GND	Suction temp.(input)

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DURAHEAT

