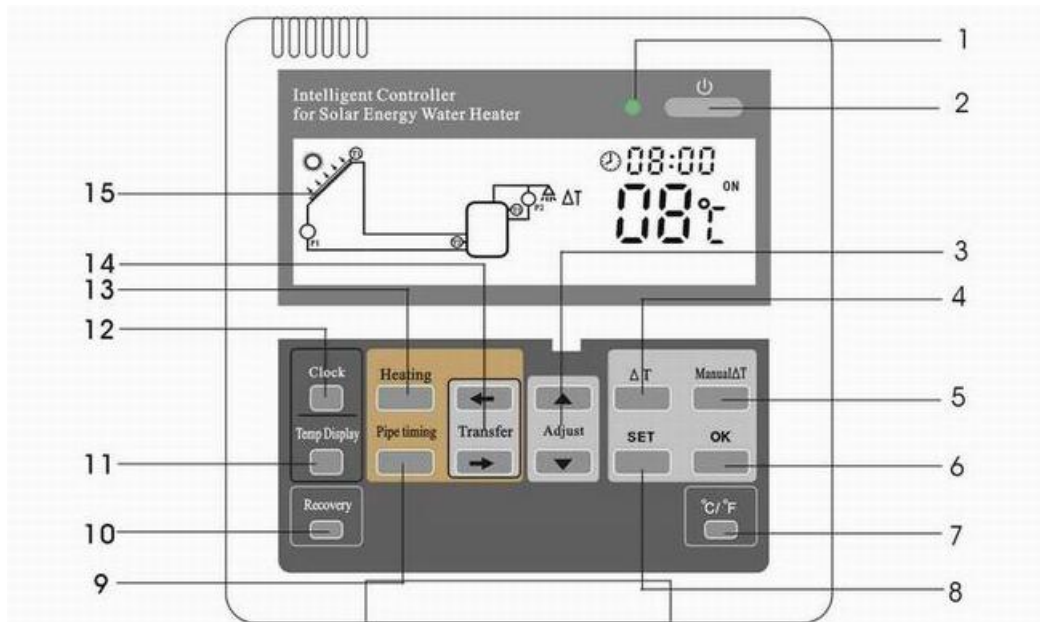




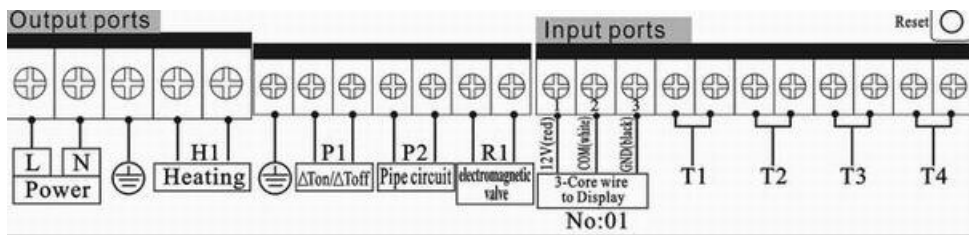
**\*\* PLEASE NOTE THAT STEPS 1-3 AND STEP 6 IS A MUST \*\***



Pos.	Button on display panel	Button description
1	Green lamp	Power indication lamp
2	On/Off	Power "switch on/off" button
3	"▲" "▼" adjust	Adjusting button
4	ΔT	To Set switch-on/off temperature difference of solar circulation
5	Manual ΔT	Manual commissioning to trigger temperature difference controlled solar circulation
6	OK	Activate /deactivate one function
7	°C / °F	Celsius / Fahrenheit transformation button
8	SET	
9	Pipe timing	To set time for hot water pipe circulation
10	Recovery	To recovery the display to factory set mode.
11	Temp. Display	Display temperature in different position one by one
12	Clock	Clock set
13	Heating	Electrical heating time set
14	"→" "←"	Transfer button
15	LCD display screen	

\*\* Black Temperature sensor to go into the collector

\*\* Grey Temperature sensor to into geyser



Abbreviation	Function
T1	Input port of collector temperature sensor T1
T2	Input port of tank temperature sensor T2, bottom
T3	Input port of tank temperature sensor T3, above
T4	Input port of hot water pipe temperature sensor, optional
No:01	Connection port for display panel
Power	Power input port
Heating	Output port of electrical heating H1
$\Delta T_{on}/\Delta T_{off}$	Output port of temperature difference circulation pump P1
Pipe circuit	Output port of hot water pipe circulation pump P2
electromagnetic valve	Used for the function of tank high temperature protection in system with tank, which has two heat exchangers inside.

<b>Input ports</b> 1. Inputs T1, T2 and T3 (T4 optional): are temperature sensors. 2. Inputs No:01 is 3-core wire connected with display.	<b>Output ports</b> 1. Outputs P1 and P2: electromagnetic relays max. Switching current: 5A 2. Output H1: electromagnetic relay, max switching current 16A. 3. Output R1: electromagnetic valve, max. switching current: 5A	<b>Power connection</b> 1. Please note the type of power supply required from the type label on the case of the device. 2. The protective conducting wire (earth wire) must also be connected
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Please note on wiring of display module – wiring is in sequence of red, white and black (from left to right)

Please follow the easy steps below to ensure the proper functioning of the controller:

### STEP 1: Time Set Up

- Press CLOCK
- Press ARROW UP / ARROW DOWN to adjust hour
- Press CLOCK again
- Press ARROW UP / ARROW DOWN to adjust minute

\*\* After six seconds, controller will confirm setting automatically \*\*

### STEP 2: Auxiliary Heating Timing Function

\*\* It is important to note that all three timing windows MUST fall within the same 24hour timing frame for the individual windows to operate correctly and on time!!\*\*

1. Press "Heating" Button - timing area blinks
2. Press UP and DOWN arrows to set Hour (ON TIME OF WINDOW 1)
3. Press Left and RIGHT arrows to shift to Minutes
4. Press "Heating" Button
5. Press LEFT and RIGHT arrows again to shift to Temperature area
6. Press UP and DOWN arrows to set OFF time of window 1

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REPEAT STEPS 1-6 FOR TIMING WINDOW TWO (2) AND REPEAT AGAIN FOR TIMING WINDOW THREE (3) Please see recommended time value's below

*\*\*The controller will set each setting automatically after 6 seconds. Doing like above you can set three (3) time frames into the controller (1-3 displays on the screen to display the preset section)Default temperature is 55 degC. Manual "Heating"( Holding button for 3 seconds) can only be done when the tank temperature has dropped below50 Deg C heating to default 55 Deg C.*

**Recommended settings**

- 04:00 on
- 07:00 off
- 12:00 on
- 12:00 off
- 16:00 on
- 22:00 off

### **STEP 3: Tank High Temperature Protection**

1. Press "SET" four (4) times – temperature area blinks
2. Press UP and DOWN arrows to adjust value – after 10 seconds controller confirms settings

### **STEP 4: Time Controlled Hot Water Pipe Circulation**

1. Press "Pipe Timing" Button – Setting area blinks **ON TIME**
2. Press UP and DOWN arrows to adjust hour value
3. Press LEFT and RIGHT arrows to minute section
4. Press UP and DOWN arrows to adjust minute value
5. Press " Pipe Timing" Again to adjust **END TIME** value
6. Follow steps 1-4
  - After six (6) seconds controller will confirm the settings
  - Following top set up procedure, three (3) time settings can be allocated within a 24hour period
  - A single timing window can be deactivated by allocating the same time value ( EX. 10am on – 10am off)

### **STEP 5: Temperature – controlled Hot Water Circuit Pump** (RINGMAIN on T4 Sensor)

*Activate /Deactivate this function:*

1. Press "SET" button two (2) times – Hot water circulation temperature blinks – default is "OFF" mode, "\_ \_" displays
2. Press "OK" button to activate this function
3. Press UP and DOWN arrow to adjust temperature value of circulation pump ( 20 Deg C – 50 Deg C) settings automatically confirms after 6 seconds

### **STEP 6: Anti Freezing Protection of Collector – Page 10 in controller Manual (Direct systems ONLY)**

*Activate / Deactivate this function:*

1. Press "SET" button 1 time – Frost protection area blinks( Default is OFF – "\_ \_" is displayed
2. Press "OK" to activate
3. Press Up and DOWN arrows to adjust temperature range ( Between 2 and 10 Deg C Value – recommended 8 Deg C)  
After 6 sec controller will confirm automatically.



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