

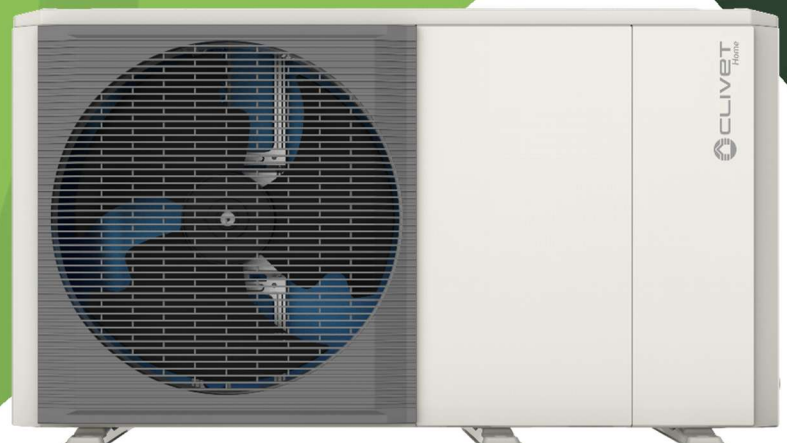


Ultimate Renewables Supplies

Supplying your renewable future

URS Old Controller Guide

Clivet Edge EVO 2.0 (R32)





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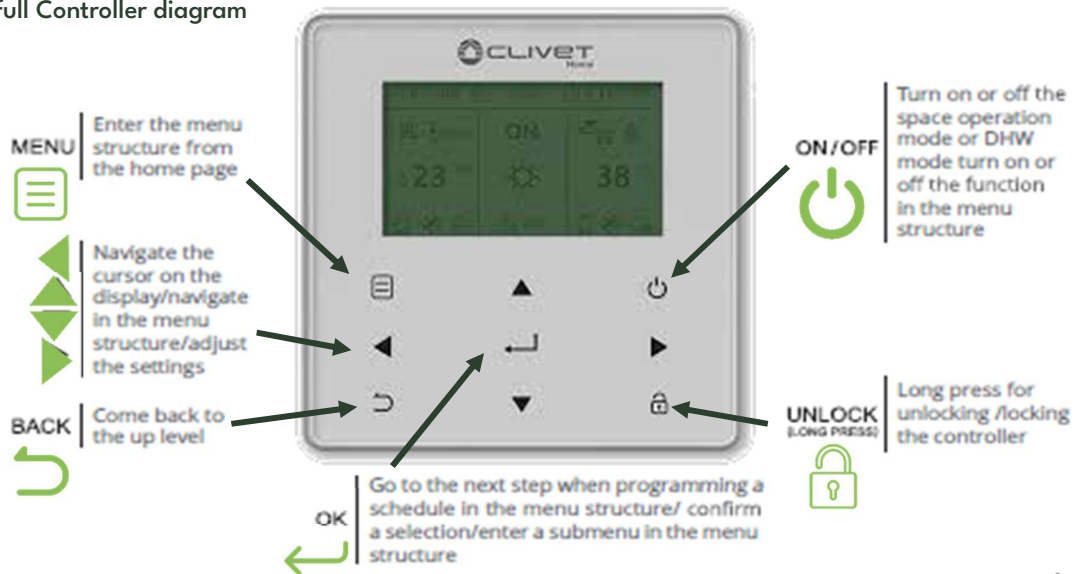
Please note throughout this guide there are very important installation reminders highlighted in green boxes

Installer Settings-Setup (SERVICEMAN)

Old style control

Controller

See page 12 for full Controller diagram



Serviceman

- Press the for 3 seconds to unlock
- Press keep pressing until you reach SERVICEMAN, press
- Enter password 234 using the arrows, use to move to next digit, press

Domestic Hot Water (DHW) Settings

- Using Go to DHW MODE SETTING, press
- In 1.1 DHW mode press then change it to YES press (Or NO if heating only)
- Go to 1.2 DISINFECT change to YES press
- Go to 1.6 DT5_ON set to 8 press . This is hot water Hysteresis
- Go to 1.18 DHWHP Max and set to 60 for <200L tank or 90 and for >300L tank press
- Press a few times to SERVICEMAN MENU

1	DHW MODE SETTING	1/5
1.1	DHW MODE	YES
1.2	DISINFECT	YES
1.3	DHW PRIORITY	YES
1.4	DHW PUMP	YES
1.5	DHW PRIORITY TIME SET	NON
	ADJUST	

1	DHW MODE SETTING	4/5
1.16	t_DI_MAX	210 MIN
1.17	t_DHWHP_RESTRICT	30 MIN
1.18	t_DHWHP_MAX	120 MIN
1.19	DHWHPUMP TIME RUN	YES
1.20	PUMP RUNNING TIME	5 MIN
	ADJUST	

Cooling Settings

- Go to COOL MODE SETTING press
- Go to 2.1 Cool Mode, this should be set to NON
- Press a few times to SERVICEMAN MENU

Installer Settings-Setup (SERVICEMAN)

Old style control

Heating Mode Settings

- Go to **HEAT MODE SETTING** press ←
- Go to **3.3 T4H MAX** press ← set to **20°C**, this will not go any lower.
- Go to **3.4 T4H MIN**, this should be **-15°C** press ←
- Go to **3.8 T1setH1** press ← set to **45°C** for Rads or **40°C** for UFH press ← (or set to your designed flow temperature at -3 °C)
- Go to **3.9 T1setH2** press ← change to **25°C** press ← (or set to your designed flow temperature at -3 °C)
- Go to **3.10 T4H1** press ← set to **-2°C** press ←
- Go to **3.11 T4H2** press ← set to **15°C** press ←
- Go to **3.12 Zone1 H-Emission** press set to **FHL** (or **RAD** if radiator only) press ←

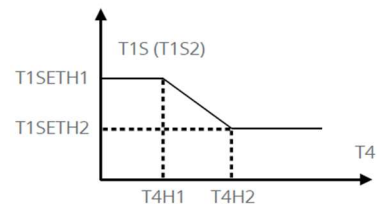
3 HEAT MODE SETTING	2/3
3.6 dTSH	2°C
3.7 t INTERVAL_H	5MIN
3.8 T1SetH1	35°C
3.9 T1SetH2	28°C
3.10 T4H1	-5°C
ADJUST	

3 HEAT MODE SETTING	3/3
3.11 T4H2	7°C
3.12 ZONE1 H-EMISSION	RAD.
3.13 ZONE2 H-EMISSION	FLH
3.14 t DELAY_PUMP	2MIN
ADJUST	

This is the setting for your weather compensation for heating the water will be **40°C** at **-2°C** ambient and **25°C** when it's **15°C** ambient.

- Press ↶ to **SERVICEMAN MENU**

Heating Flow Temp



Ambient Temp

NB: These settings are an estimation (base point), adjustments may be necessary depending on heat loss design-project specifics etc.

Temperature Type Heating Settings

Recommended: Heat Pump controller to be used as a Room Thermostat (Common space eg Hallway).

- Go to **5 TEMP TYPE SETTINGS** press ←
- Go to **5.1 WATER FLOW TEMP** change to **NON**
- Go to **5.2 ROOM TEMP** change to **YES**
- Go to **5.3 DOUBLE ZONE** change to **NON**
- Press ←, Press ↶ to **SERVICEMAN MENU**



Not Recommended: Heat Pump no ON/OFF Third-Party Controls, if activated (in Plant room not common space)

- Go to **5 TEMP TYPE SETTINGS** press ←
- Go to **5.1 WATER FLOW TEMP** change to **YES**
- Go to **5.2 ROOM TEMP** change to **NON**
- Go to **5.3 DOUBLE ZONE** change to **NON**
- Press ←, Press ↶ to **SERVICEMAN MENU**

Installer Settings-Setup (SERVICEMAN)

Old style control

Room Thermostat Settings

- Go to 6 ROOM THERMOSTAT press
- Go to 6.1 ROOM THERMASTAT set to NON press
- Go to 3.4 T4H MIN, this should be -15°C press
- Press to SERVICEMAN MENU
- Press
- To Activate the settings and exit?
- Go right to YES
- Press

Activate the Weather Compensation

- Press for 3 seconds to unlock
- From the front screen press to bring up the menu
- Press down to PRESET TEMPERATURE press
- Go right to WEATHER TEMP SET press
- Scroll down to ZONE1 H-MODE LOW TEMP, press power , change to ON.
- Scroll right to number 9 press , this is the custom weather compensation curve, as per your settings.
- Press twice to main menu












PRESET TEMPERATURE		
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE
ZONE1 C-MODE LOW TEMP		OFF
ZONE1 H-MODE LOW TEMP		OFF
ZONE2 C-MODE LOW TEMP		OFF
ZONE2 H-MODE LOW TEMP		OFF
ON/OFF	ON/OFF	

Night-Time Setback (optional)


ECO mode is used to save energy.

The **ECO MODE** function is


MENU > PRESET TEMPERATURES > ECO MODE

- Press  to **ECO MODE** Press 
- **CURRENT STATE** – Press  to **ON**
- **ECO TIMER** - press  to **ON**
- **START** – use   to set at **23:00** (or to customers preference) press 
- **END** – use   to set at **05:00** (or to customers preference) press 
- **ON/OFF** – Press  To **DEFAULT TEMPERATURES**

DEFAULT TEMPERATURES

- Press  to **ECO MODE** Press
- **CURRENT STATE** – Press  to **ON**
- **ECO TIMER** - press  to **ON**
- **START** – use   to set at **23:00** (or to customers preference) press 
- **END** – use   to set at **05:00** (or to customers preference) press 

Once finished, **curve 8** should have been chosen.

- **ECO TIMER** should be **ON**
- **CURRENT STATE** should be **OFF**
- Press  3 times to home screen

Old style control

Test Run Options (SERVICEMAN)

Old style control

TEST RUN is used to check correct operation of the Heat Pump, circulating pumps and three-way valve.

Go to **SERVICEMAN** (see page 23)

Scroll using ▼ to **11 TEST RUN** press ←

As per diagram:

- Select **YES** press ←
- Select **POINT CHECK** press ←
- Go to **3-WAY VALVE 1** press ⏻ button the Fitted 3-Way Valve will move from heating to **DHW**
- Go to **PUMP I** (heat pump circulator built into heat pump) press ⏻

The heat pump circulator will start, you can see a green LED on the front of the pump when its running.

- Go to **Pump O** (additional pump fitted in plant room – not always required) press ⏻

This is the optional circulation pump if installed, it will be pumping out to the heating circuits.

When you are happy all of these are working

- press ▶ to **CONFIRM** press ←
- Do you want to turn off press ▶ to **YES** press ←

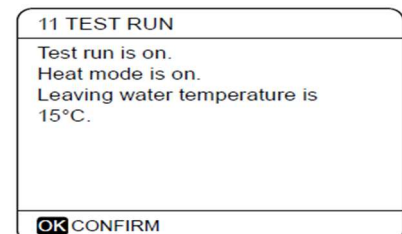
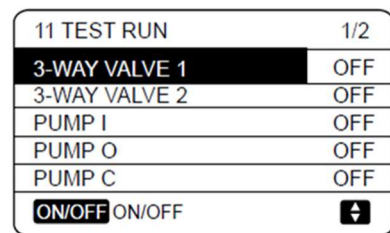
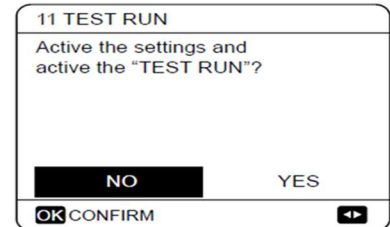
If you want to force the heat pump to run.

- go to **11.5 HEAT MODE RUN**, the unit will show
 - Test Run is on
 - Heat mode on
 - Leaving water temperature

After approximately **6 minutes** the compressor will start, and it will heat up the water. Note at this point the unit does not know what the valves are doing so it will heat wherever the water is flowing.

After you are happy that the system is working correctly (approximately 10 minutes)

- Press ▶ to **CONFIRM**
- Do you want to turn off TEST RUN press ▶ to **YES** press ←
- To exit this mode press ↶ until you get to the home screen.





Test Air Purge (SERVICEMAN)

Old style control

Go to **SERVICEMAN** (see page 23)

Scroll using ▼ to **11 TEST RUN** press ↩

- Select **YES** press ↩
- Select **11.2 AIR PURGE** press ↩
- It will ask you if you want to start the air purge, Press ↩.

The air purge should run for approximately 20 minutes ensure that the Automatic Air Vent (AAV) located on the heat pump is open.

After you are happy that the system is working correctly

- Do you want to turn off TEST RUN press ▶ to **YES** press ↩
- To exit this mode press ↶ until you get to the home screen.



Checking The Flow Rate

Old style control

To check the flow rate of the unit/system go to page 3 'Operation Parameter' on the Clivet Controller MENU

Eg: $1.72\text{m}^3/\text{h} / 60 = 1720 \text{ litres} / 60 \text{ seconds} = 28.6 \text{ l/pm}$

Checking Flow Rates



Unit	Minimum Flow Rate	Optimal	Maximum Flow Rate
Edge EVO 2.1	6.64 Lpm*	11.4 Lpm	14.16 Lpm
Edge EVO 3.1	6.64 Lpm*	17.4 Lpm	20.82 Lpm
Edge EVO 4.1	6.64 Lpm*	22.8 Lpm	27.48 Lpm
Edge EVO 5.1	6.64 Lpm*	28.8 Lpm	33.32 Lpm
Edge EVO 6.1	11.62 Lpm*	34.2 Lpm	41.65 Lpm
Edge EVO 7.1	11.62 Lpm*	40.2 Lpm	45.81 Lpm
Edge EVO 8.1	11.62 Lpm*	45.6 Lpm	49.98 Lpm
Edge EVO 6.1 T	11.62 Lpm*	34.2 Lpm	41.81 Lpm
Edge EVO 7.1 T	11.62 Lpm*	40.2 Lpm	45.81 Lpm
Edge EVO 8.1 T	11.62 Lpm*	45.6 Lpm	49.98 Lpm


VERY IMPORTANT:
Be aware that if the minimum flow rate is not achieved then the unit will not function correctly

OPERATION PARAMETER	#01
GAS BOILER	OFF
T1 LEAVING WATER TEMP.	35°C
WATER FLOW	1.72m ³ /h
HEAT PUMP CAPACTIY	11.52kW
POWER CONSUM.	1000kWh
Ta ROOM TEMP	25°C
ADDRESS	3/9

On commissioning/flushing keep checking/cleaning the ball valve filter

Starting the Unit in Heating Mode

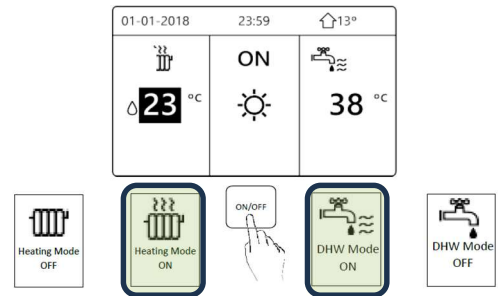
- Press the  for a 3 seconds to unlock
- Press  to highlight the left-hand side of the controller this is the heating side, press **ON / OFF**.

The middle of the controller tells you what is happening now.
In this case heating () is on.

The unit will start the pump in **2 minutes** and the compressor in **5 minutes**.

- Check the heating pipework is heating up and getting warm.
- MAKE SURE** there is no hot water going to the cylinder, this proves that the system is operating in heating mode
- If not operating in heating mode, check that the 3-port valve is correctly piped.

Old style control























Starting the Unit in Hot Water Mode

When you highlight the **DHW** it tells you the **DHW** set temperature, when it's not highlighted it shows the current **DHW** tank temperature.

With it highlighted press **ON / OFF** the unit will start heating the cylinder.
Note how the middle of the controller is now showing the tap to indicate it's actually heating the tank.

Here you can adjust the hot water target temp by using the  and  arrows.

Setting Clock and Date

- Press  for a 3 seconds to unlock controller
- Press  for the menu
- Keep pressing  to **SERVICE INFORMATION** press 
- Press  to **DISPLAY** press 
- Go to **TIME** using  and press 
- Set the time hours using  and  then press 
- Set the time minutes using  and , press 
- Go to **DATE** using  and press 
- then set the day and month as per the hours and minutes process, press 
- Press  to **Buzzer** press  to silence the noise from the controller
- Press  until you get back to the front screen

Operational Parameter Pages

Old style control

Photo evidence needed for commissioning during operation

This menu is for installer or service engineer reviewing the operation parameters. Here you can observe the unit's current stats.

- At the home page, go to **MENU-OPERATION PARAMETER**.
- Press

There are nine pages for the operating parameter as following. Use and to scroll.

OPERATION PARAMETER	#01
ONLINE UNITS NUMBER	1
OPERATE MODE	COOL
SV1 STATE	ON
SV2 STATE	OFF
SV3 STATE	OFF
PUMP_I	ON
ADDRESS	1/9

OPERATION PARAMETER	#01
PUMP-O	OFF
PUMP-C	OFF
PUMP-S	OFF
PUMP-D	OFF
PIPE BACKUP HEATER	OFF
TANK BACKUP HEATER	ON
ADDRESS	2/9

OPERATION PARAMETER	#01
GAS BOILER	OFF
T1 LEAVING WATER TEMP.	35°C
WATER FLOW	1.72m3/h
HEAT PUMP CAPACTIY	11.52kW
POWER CONSUM.	1000kWh
Ta ROOM TEMP	25°C
ADDRESS	3/9

OPERATION PARAMETER	#01
T5 WATER TANK TEMP.	53°C
Tw2 CIRCUIT2 WATER TEMP.	35°C
TIS' C1 CLIMATE CURVE TEMP.	35°C
TIS2' C2 CLIMATE CURVE TEMP.	35°C
TW_O PLATE W-OUTLET TEMP.	35°C
TW_I PLATE W-OUTLET TEMP.	30°C
ADDRESS	4/9

OPERATION PARAMETER	#01
Tbt1 BUFFERTANK_UP TEMP.	35°C
Tbt2 BUFFERTANK_LOW TEMP.	35°C
Tsolar	25°C
IDU SOFTWARE	01-09-2019V01
ADDRESS	5/9

OPERATION PARAMETER	#01
ODU MODEL	6kW
COMP.CURRENT	12A
COMP.FREQUENCY	24Hz
COMP.RUN TIME	54 MIN
COMP.TOTAL RUN TIME	1000Hrs
EXPANSION VALVE	200P
ADDRESS	6/9

OPERATION PARAMETER	#01
FAN SPEED	600R/MIN
IDU TARGET FREQUENCY	46Hz
FREQUENCY LIMITED TYPE	5
SUPPLY VOLTAGE	230V
DC GENERATRIX VOLTAGE	420V
DC GENERATRIX CURRENT	18A
ADDRESS	7/9

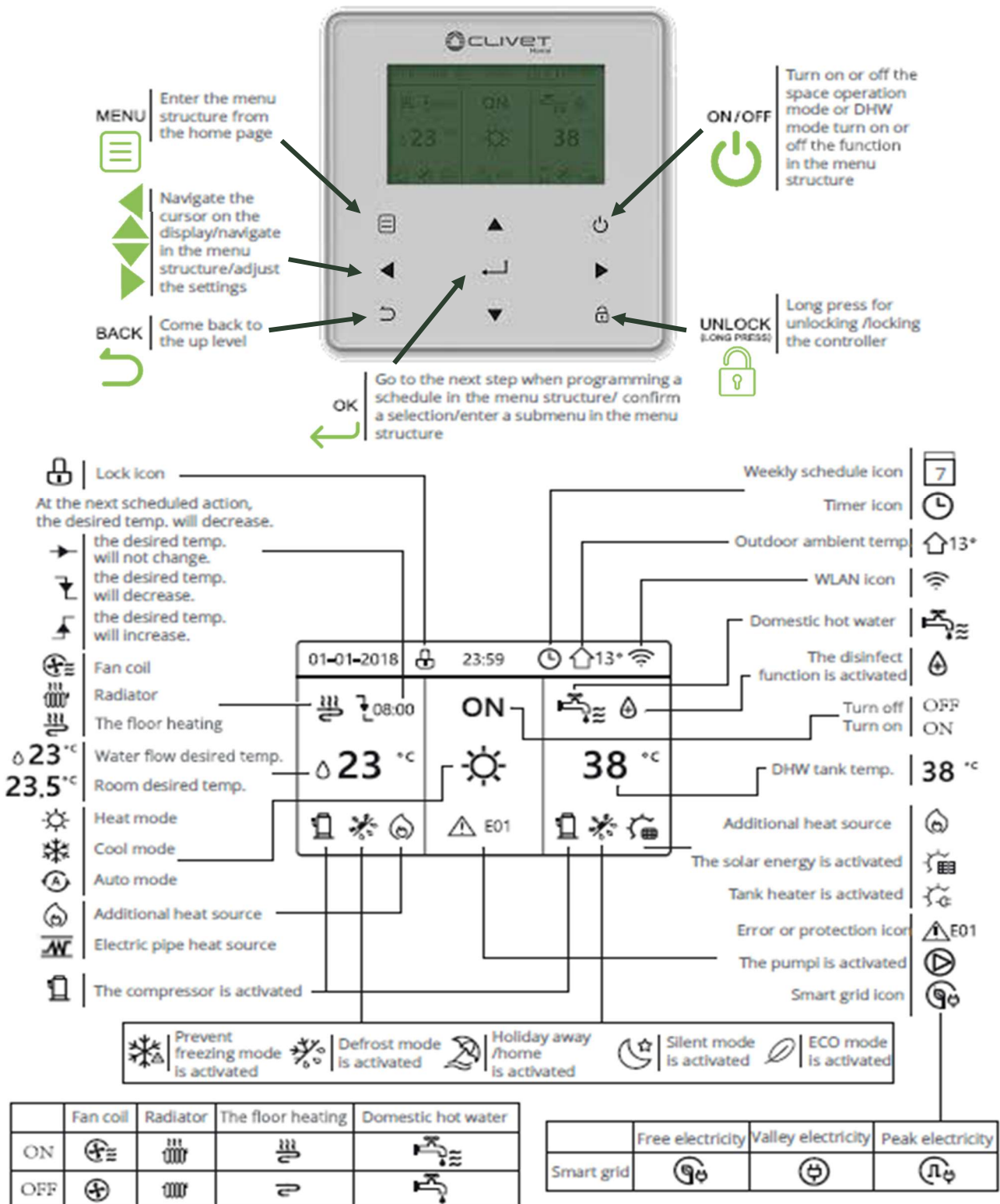
OPERATION PARAMETER	#01
TW_O PLATE W-OUTLET TEMP.	35°C
TW_I PLATE W-INLET TEMP.	30°C
T2 PLATE F-OUT TEMP.	35°C
T2B PLATE F-IN TEMP.	35°C
Th COMP. SUCTION TEMP.	5°C
Tp COMP. DISCHARGE TEMP.	75°C
ADDRESS	8/9

OPERATION PARAMETER	#01
T3 OUTDOOR EXCHANGE TEMP.	5°C
T4 OUTDOOR AIR TEMP.	5°C
TF MODULE TEMP.	55°C
P1 COMP. PRESSURE	2300kPa
ODU SOFTWARE	01-09-2018V01
HMI SOFTWARE	01-09-2018V01
ADDRESS	9/9



Controls diagram

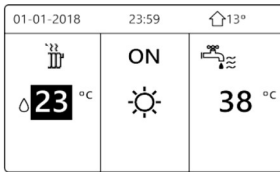
Old style control



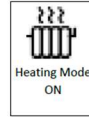
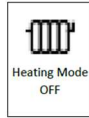
End User System Operation Guide

Old style control

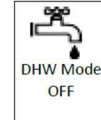
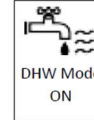
ON and OFF heating and hot water icons.




Heating





Hot water



Unlock screen

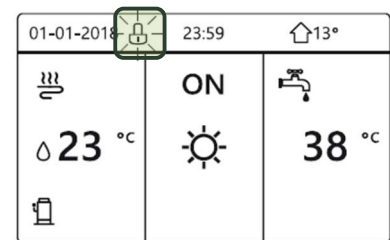
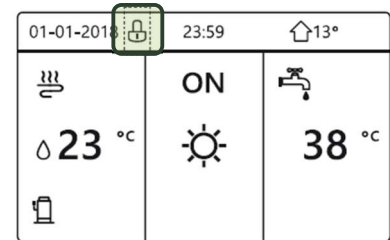
If the  icon is on the screen, the Heat Pump controller is locked

The page to the right is displayed:


- Press any key, the  icon will flash
- Press the  for 3 seconds to unlock

The  icon will disappear

The interface can now be controlled



Starting the Heating

The middle of the controller tells you what is happening now. In this case heating  is on, so heating is calling.

The Heat Pump will start the circulating pump in 2 minutes and the compressor in 5 minutes.

Check the pipework is heating up and getting warm.




MAKE SURE there is no hot water going to the cylinder, this confirms the 3-port valve direction.



End User System Operation Guide

Old style control

Starting the Domestic Hot Water (DHW)

- From the front screen, Press  to highlight the right side of the controller. This is the hot water setting.
- When you highlight the **DHW** it tells you the **DHW** set temperature, when it's not highlighted it shows the current **DHW** tank temperature.
- With it highlighted press  button. the unit will start heating the cylinder.
- Note how the middle of the controller is now showing the  to indicate it's heating the tank.



Adjusting Heating Temperature

- From the front screen, press  to highlight the left side of the controller. This is the heating setting.

When you highlight the **heating** it tells you the **heating** temperature setpoint

- To adjust the temperature setpoint, use the up/down   arrows, then press 

Adjusting Hot Water Temperature

- From the front screen, press to highlight the right side of the controller. This is the hot water setting.

When you highlight the **DHW** it tells you the **DHW** temperature setpoint, when it's not highlighted it shows the current **DHW** tank temperature.

- To adjust the temperature setpoint, use the up/down   arrows, then press 





Error Codes

Old style control

Error Code	Description of Fault
C7	Transducer module temperature too high protect
E0	Water flow failure (E8 appears 3 times)
E1	Phase sequence error (for 3 phase models)
E2	Communication error between the main control board of hydraulic module and user interface
E3	Backup electric heater exchanger water outlet temperature sensor T1 error
E4	Domestic hot water tank temperature sensor T5 error
E5	Air side heat exchanger refrigerant outlet temperature sensor T3
E6	Outdoor ambient temperature sensor T4 error
E7	Balance tank sensor Tbt1 error
E8	Water flow failure within 3 times
E9	Suction pipe temperature sensor Th error
EA	Discharge pipe temperature sensor Tp error
EB	Solar board sensor Tsolar error
EC	Balance tank sensor Tbt2 error
ED	Water side heat exchanger water inlet temperature sensor Twin error
EE	Hydronic box EEPROM error
F1	DC generatrix voltage is too low
H0	Communication error between outdoor unit main control chip and hydronic box main control chip
H1	Communication error between outdoor unit main control chip and inverter driver chip
H2	Water side heat exchanger refrigerant outlet (liquid pipe) temperature sensor error
H3	Water side heat exchanger refrigerant inlet (gas pipe) temperature sensor error
H4	Inverter module protection (L0/L1 appear 3 times in one hour)
H5	Room temperature sensor TA error
H6	DC fan error
H7	Abnormal main circuit voltage
H8	Pressure sensor error
H9	Zone 2 water outlet temperature sensor Tw2 error
HA	Water side heat exchanger water outlet temperature sensor error
HB	PP protection three times in a row and Twout<7C
HD	Communication fault between master unit and slave unit (in parallel)
HE	Communication error between main board and thermostat transfer board



Error Codes

Old style control

Error Code	Description of Fault
HF	Refrigerant system EEPROM error
HH	H6 appears 10 times in 120min
HP	Low pressure protection (pressure <0.6MPa for 3 times in our hour)
P0	Low pressure protection
P1	High pressure protection
P3	Compressor current protection
P4	Discharge temperature sensor TP protection
P5	High temperature difference between water side heat exchanger water inlet and water outlet temperature protection
P6	Inverter module protection
L0	Inverter module protection
L1	DC bus low voltage protection
L2	DC bus high voltage protection
L4	MCE error
L5	Zero speed protection
L7	Phase sequence error
L8	Compressor frequency variation greater than 15hz within one second protection
L9	Actual compressor frequency differs from target frequency by more than 15Hz protection
PB	Water side heat exchanger anti-freeze protection
PD	High temperature protection of refrigerant outlet temperature of condenser in cooling mode
PP	Water side heat exchanger inlet temperature is higher than outlet temperature in heating/DHW mode
BH	PED board error

Restore to Factory Settings

If you wish to restore to the factory default settings.

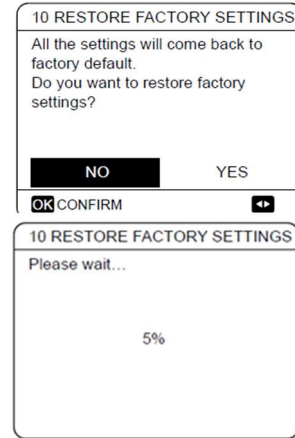
The **RESTORE FACTORY SETTING** is used to restore all the parameters set in the user interface to the factory setting.

- Go to **SERVICEMAN 10.RESTORE FACTORY SETTINGS**.
- Press .

The pages as per diagrams on the right will be displayed:

Press to scroll the cursor to **YES** and press .

The pages as per diagrams on the right will be displayed:



Setting up the Clivet Smart phone App (internet required)

The unit can be controlled and managed through the **Smart-Home App** via a Wi-Fi module built into the HMI, which provides various features.

To activate management via the App from a smartphone or tablet, follow this procedure:

On a smartphone:

The App is available for Android and IOS systems and can be downloaded from the respective App Stores.

Download and install the App on the device that will control the unit.

NOTE:

For quick access to the App download page, scan this QR code



Setting up the Clivet App

Sign up/Log in

Open the App and create a new account on the home page or log in

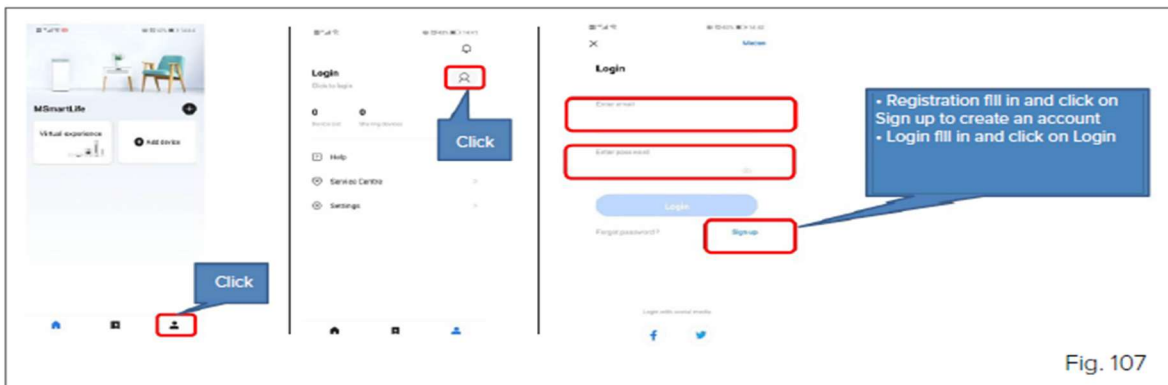


Fig. 107

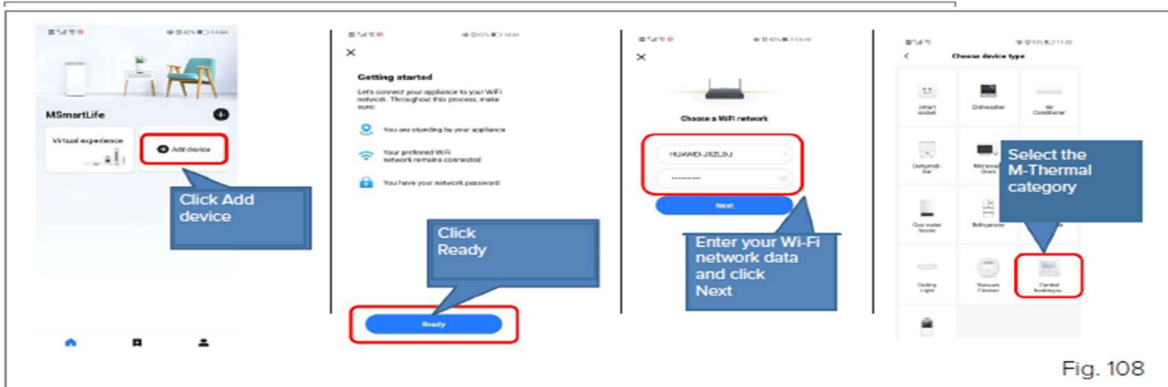


Fig. 108



Setting up the Clivet App (cont'd)

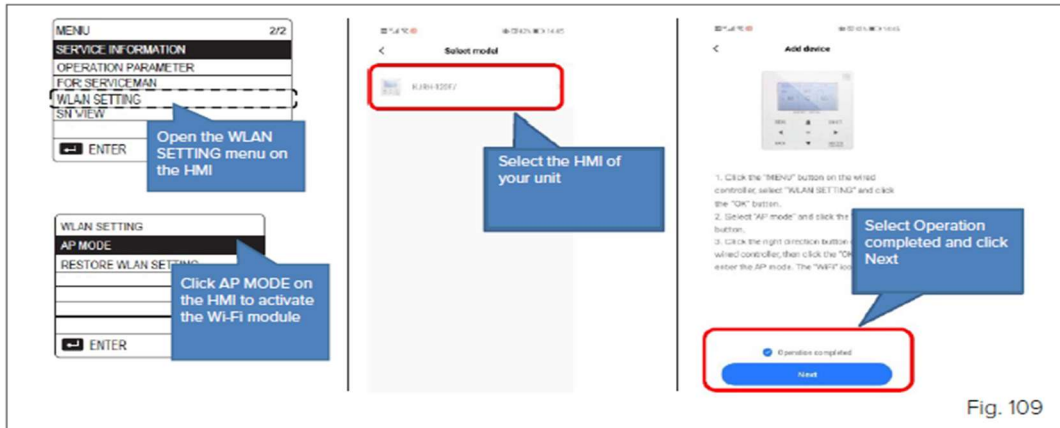


Fig. 109

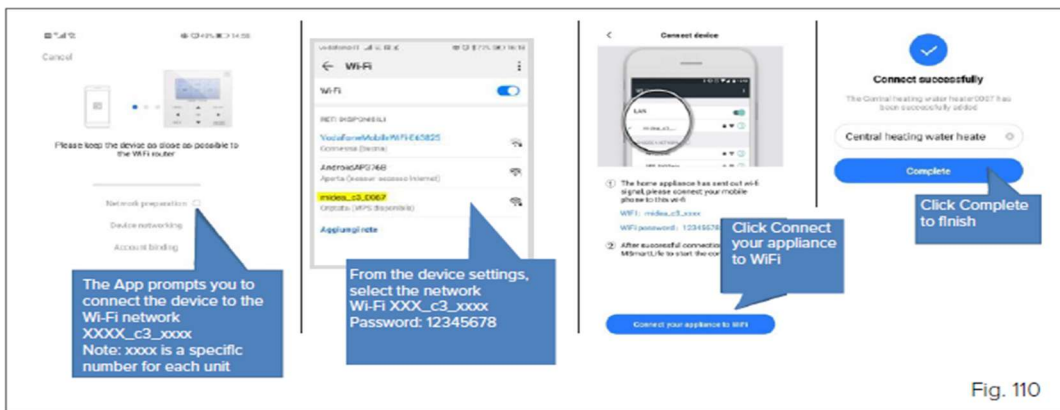


Fig. 110

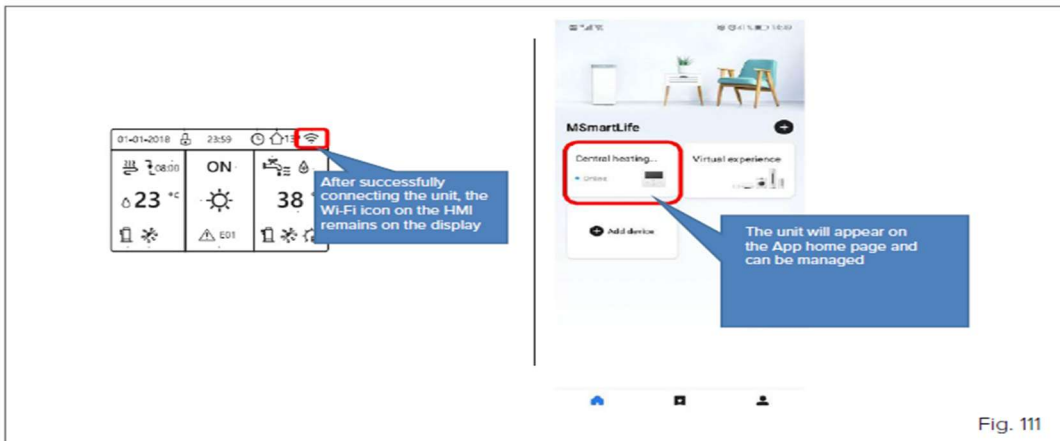


Fig. 111

Note: If the connection fails, reset the settings and repeat the procedure

