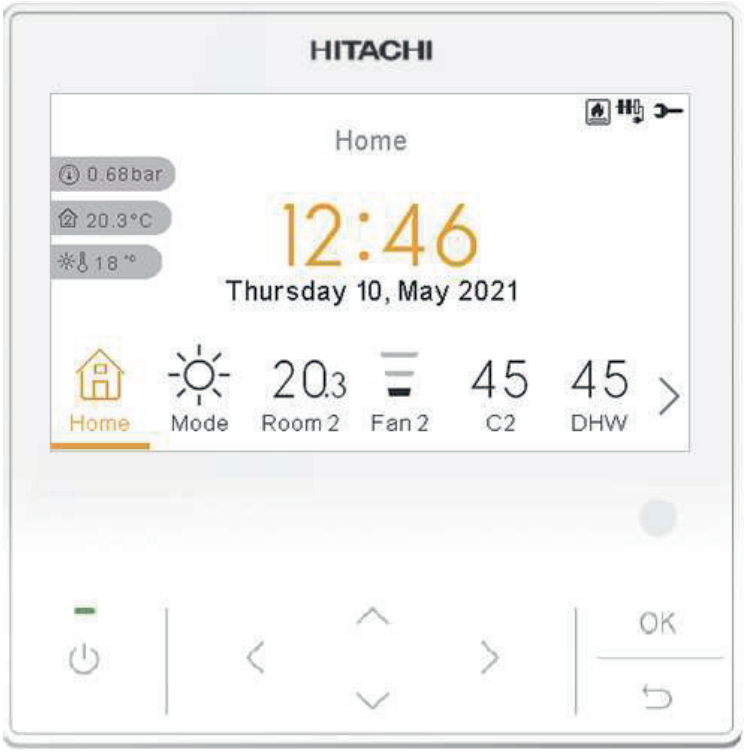
HITACHI

INSTALLATION AND OPERATION MANUAL

ADVANCED COLOR
WIRED REMOTE CONTROLLER



MODELS
PC-ARFH2E

Cooling & Heating

PMML0597 rev.0 - 05/2022

EN

The English version is the original one; other languages are translated from English. Should any discrepancy occur between the English and the translated versions, the English version shall prevail.

ES

La versión en inglés es la original, los demás idiomas se han traducido de la versión inglesa. En el caso de que existan discrepancias entre la versión inglesa y las traducidas, la que debe prevalecer es la inglesa.

DE

Der englische Version ist die Original-Version. Andere Sprachen sind aus dem Englisch übersetzt. Sollte eine Abweichung zwischen der englischen und der übersetzten Version auftreten, hat die englische Version Vorrang.

FR

La version en anglais contient les instructions d'origine, les autres langues sont traduites depuis la version anglaise. En cas de discordance entre la version en anglais et les versions traduites, la version en anglais prévaut.

IT

La versione in inglese è quella originale, le versioni in altre lingue sono una traduzione dall'inglese. In caso di discrepanza tra l'inglese e le versioni tradotte, prevarrà la versione inglese.

PT

A versão inglesa é a original; os outros idiomas são traduzidos do inglês. Se houver uma discrepância entre a versão inglesa e as versões traduzidas, prevalece a primeira.

DA

Den engelske version er den originale, øvrige sprog er oversat fra engelsk. Hvis der opstår uoverensstemmelse mellem den engelske og den oversatte version, vil den engelske version være gældende.

NL

De originele handleiding is in het Engels, de tekst in andere talen is vertaald vanuit het Engels. Mochten er verschillen zijn tussen de Engelse versie en de vertaalde, dan zal de Engelse versie altijd overwinnen.

SV

Den engelska texten är den ursprungliga; andra språk har översatts från engelska. Om det skulle förekomma skillnader mellan den engelska och den översatta versionen, så ska den engelska versionen följas.

EL

Οι πρωτότυπες οδηγίες είναι στα αγγλικά. Οι άλλες γλώσσες είναι μετάφραση από τα αγγλικά. Αν υπάρχει οποιαδήποτε ασυμφωνία ανάμεσα στην αγγλική και τις μεταφράσεις, αυτή που επικρατεί είναι η αγγλική έκδοση.

BG

Версията на английски език е оригиналната; версиите на останалите езици са в превод от английски език. При различие между английската версия и преводна версия на друг език за меродавна се счита английската версия.

CS

Originální verze tohoto dokumentu je v angličtině; ostatní jazykové varianty jsou z angličtiny přeložené. Pokud mezi anglickou a jakoukoli jinou jazykovou verzí dojde k rozporu, bude směrodatná anglická verze.

ET

Originaalversioon on ingliskeelne; teised keeled on tõlge inglise keelest. Vastuolude korral ingliskeelse ja tõlkeversioonide vahel kehtib eesõiguslikult ingliskeelne versioon.

HU

Az eredeti változat az angol; az egyéb nyelvű változatok angolról lettek fordítva. Amennyiben az angol és a fordított verziók között bármilyen eltérés mutatkozik, az angol nyelvű változat a mérvadó.

LV

Angļu valodas versija ir oriģinālā; no citām valodām tiek tulkotas uz angļu valodu. Ja starp angļu valodu un tulkoto versiju rodas jebkādas neatbilstības, noteicošais ir angļu valodas variants.

LT

Versija anglų kalba yra originali; versijos kitomis kalbomis yra išverstos iš anglų kalbos. Jei yra neatitikimų tarp versijos anglų kalba ir verstinių versijų, pirmenybė teikiama versijai anglų kalba.

PL

Wersja angielska jest wersją oryginalną - wszystkie pozostałe stanowią jej tłumaczenie na odpowiednie języki. W przypadku stwierdzenia jakichkolwiek rozbieżności między oryginałem a jego tłumaczeniem, rozstrzygająca jest wersja w języku angielskim.

RO

Versiunea originală este cea în limba engleză; versiunile în alte limbi sunt traduse din limba engleză. Dacă există vreo discrepanță între versiunile în limba engleză și versiunea tradusă, prevalează versiunea în limba engleză.

RU

Английская версия является оригинальной; другие языки переведены с английского. В случае любого расхождения между английской и переведенной версиями, английская версия имеет преимущественную силу.

FI

Englanninkielinen versio on alkuperäinen; muut kielet on käännetty englannista. Mikäli englannin ja käännettyjen versioiden välillä ilmenee eroavaisuuksia, englanninkielinen versio on voimassa.

HR

Verzija na engleskom jeziku prvobitna je verzija, a verzije na ostalim jezicima prevedene su s engleskog. U slučaju neslaganja između verzije na engleskom jeziku i prevedenih verzija, verzija na engleskom jeziku ima prednost.

SL

Izvirna različica je v angleškem jeziku; drugi jeziki so prevedeni iz angleščine. Pri razlikah med angleško in prevedeno različico prevlada angleška različica.

SK

Anglická verzia je pôvodná, ďalšie jazyky sú preložené z angličtiny. V prípade akýchkoľvek nezrovnalostí medzi anglickou a preloženou verziou, bude rozhodujúca anglická verzia.

UK

Англійська версія є оригінальною; інші мови переведені з англійської. У разі виникнення розбіжностей між англійською та перекладеною версіями, англійська версія має переважну силу.

TR

İngilizce sürüm orijinal olup diğer diller İngilizce'den çevrilmiştir. İngilizce sürüm ile çevrilen sürümlerin çelişmesi durumunda İngilizce sürüm esas alınacaktır.

SR

Верзија на енглеском је оригинална и са енглеске верзије се преводи на остале језике. Ако постоји нека неусклађеност између енглеске и преведених верзија, енглеска верзија има предност.

EN	English	Original version
ES	Español	Versión traducida
DE	Deutsch	Übersetzte Version
FR	Français	Version traduite
IT	Italiano	Versione tradotta
PT	Português	Versão traduzida
DA	Dansk	Oversat version
NL	Nederlands	Vertaalde Versie
SV	Svenska	Översatt version
EL	Ελληνική	Μεταφρασμένη έκδοση
BG	български	Преведена версия
CS	Česky	Přeložená verze
ET	Eesti	Tõlgitud versioon
HU	Magyar	Lefordított változat
LV	Latviešu	Tulkotā versija
LT	Lietuvių	Versta versija
PL	Polski	Tłumaczenie wersji oryginalnej
RO	Română	Versiune tradusă
RU	Русский	Переведенная версия
FI	Suomi	Käännetty versio
HR	Hrvatski	Prevedena verzija
SL	Slovenščina	Prevedena različica
SK	Slovenčina	Preložená verzia
UK	Українська	Перекладена версія
TR	Türkçe	Çevrilmiş sürüm
SR	Српски	Преведена верзија

General Index

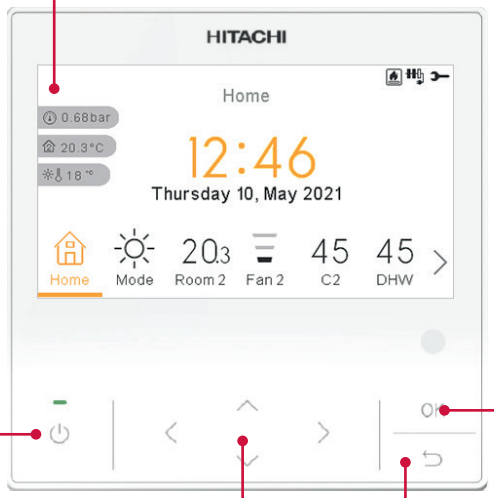
1. PC-ARFH2E Functionalities

The new unit controller for YUTAKI Series (PC-ARFH2E) is an user-friendly remote control which ensures a strong and safe communication through H-LINK.

1.1 Definition of the switches

Run/Stop button: It works for all zones if none of the zones is selected or only for one zone when that zone is selected.

Liquid Crystal Display: Screen where controller software is displayed.



OK button: To select the variables to be edited and to confirm the selected values.

Return button: To return to the previous screen.

Arrows key: It helps the user to move through the menus and views.

1.2 Description of the icons

Icon	Name	Explanation	
	Status for circuit 1, 2, DHW and swimming pool.		Circuit I or II is in Demand-OFF.
			Circuit I or II is on Thermo-OFF.
			Circuit I or II is working between 0 < X ≤ 33% of the desired water outlet temperature.
			Circuit I or II is working between 33 < X ≤ 66% of the desired water outlet temperature.
			Circuit I or II is working between 66 < X ≤ 100% of the desired water outlet temperature.
	Mode		Heating
			Cooling
			Auto
	Setting temperatures	Value	Displays the setting temperature of the circuit 1, circuit 2, DHW and swimming pool.
		OFF	Circuit 1, Circuit 2, DHW or Swimming Pool are stopped by button or timer.
	Alarm	Existing alarm. This icon appears with the alarm code.	
	Timer	Weekly timer.	
	Derogation	When there is a derogation from the configured timer.	
	Installer mode	Informs that user controller is logged on the installer mode which has special privileges.	
	Menu lock	It appears when menu is blocked from a central control. When indoor communication is lost, this icon disappears.	
	Holiday	When some of the zones are set as holiday, it has it's own holiday icon on their icons zone. The holiday icon is also shown on the home screen.	
 	Ambient temperature	The ambient temperature of Circuit 1 or 2 is indicated at the right side of this button.	
	Outdoor temperature	The outdoor temperature is indicated at the right side of this button.	
	Water pressure	The water pressure is indicated at the right side of this button (Not available for YUTAKI Cascade Controller).	

Icon	Name	Explanation	
	Pump	This icon informs about pump operation. There are three available pumps on the system. Each one is numbered, and its corresponding number is displayed below to the pump icon when it is operating.	
	Heater step	Indicates which of the 3 possible heater steps is applied on space heating.	
	DHW Heater	Informs about DHW Heater operation. (If it is enabled).	
	Solar	Combination with solar energy.	
	Compressor	Compressor enabled (For YUTAKI S, S Combi and YUTAKI M).	
	Boiler	Auxiliary boiler is working.	
	Tariff	Tariff signal informs about some cost conditions of the consumption of the system.	
	Defrost	Defrost function is active.	
	Central		Central mode icon is shown after some central order has been received and for the next 60 seconds.
			Central error.
	Forced OFF	When forced off Input is configured and its signal is received, all the configured items (C1, C2, DHW, and/or SWP) are shown in OFF, with this small icon below.	
	Auto ON/OFF	When daily average is over auto summer switch-off temperature, circuits 1 and 2 are forced to OFF (Only if Auto ON/OFF enabled).	
	Test Run	Informs about the activation of the “Test Run” function.	
	Anti-Legionella	Activation of the Anti-Legionella operation.	
	DHW boost	It activates the DHW heater for an immediate DHW operation.	
	ECO mode	-	No icon means Comfort mode.
			ECO/Comfort mode for circuits 1 and 2.
	Night Shift	Informs about night shift operation	

Icon	Name	Explanation
	Cascade Controller	Informs about the activation of the “Cascade” mode.
		Cascade Controller in alarm state
	Fan stopped by Demand OFF	Informs about the stopagge of fan 1 or 2 by Demand OFF

1.3 Unit controller contents

Menu Contents				
Level 1	Level 2	Level 3	Level 4	Level 5
Operation Information				
	Live view (Not available for YUTAKI Cascade Controller)			
	Recent Status Register (Not available for YUTAKI Cascade Controller)			
	General			
	Modules Information (Only available for YUTAKI Cascade Controller)			
	Circuit 1			
	Circuit 2			
	Hot Water Tank			
	Swimming Pool			
	Heat Pump Details (Not available for YUTAKI Cascade Controller)			
	Electrical Heater			
	Boiler Combination			
	Solar Combination			
	Alarm History			
	Communication Status			
Energy data (Not available for YUTAKI Cascade Controller)				

Menu Contents				
Level 1	Level 2	Level 3	Level 4	Level 5
Timer and schedule				
	Room 1 / Room 2			
		Heating / Cooling (air)		
			Timer status	
				Enabled
				Deactivated
			Timer configuration	
			Copy to Circuit 1 / 2	
			Reset configuration	
		Launch timer assistant		
	Circuit 1 / Circuit 2			
		Heating / Cooling (water)		
			Timer status	
				Enabled
				Deactivated
			Timer configuration	
			Copy to Circuit 1 / 2	
			Reset configuration	
	DHW			
		Timer status		
			Enabled	
			Deactivated	
		Timer configuration		
		Reset configuration		
	Swimming Pool			
		Timer status		
			Enabled	
			Deactivated	
		Timer configuration		
		Reset configuration		
	Override Configuration			
		Type		
			Until next action	
			Specific time	
			Forever	
		Override duration		
	Delete all timers configuration			

Menu Contents				
Level 1	Level 2	Level 3	Level 4	Level 5
System Configuration				
	Room Thermostats			
		Setting temperature range (air)		
		Air Eco Offset		
		Thermostat Configuration		
			Check RT address	
		Compensation Factors		
		Room Temp Demand OFF		
	Water settings			
		Space Heating / Space Cooling		
			Circuit 1/ Circuit 2	
		DHW		
		SWP		
	Cascade configuration (Only for YUTAKI Cascade Controller)			
		Supply setting offset		
		Modules configuration		
			Module 1	
				Status
				Refrig. cycle address
				Indoor unit address
				Individual DHW
	Space Heating / Cooling			
		Circuit 1 / 2		
			Water Calculation Mode	
			Eco offset	
			Working limits	
			Mixing valve (only circuit 2)	
	Hot Water Tank			
		Mode		
			Economic	
			Standard	
		Space Priority Status		
		DHW Heater		
		Antilegionella		
		Smart Configuration		

Menu Contents				
Level 1	Level 2	Level 3	Level 4	Level 5
	Swimming Pool			
		Status		
			Enabled	
			Deactivated	
		Setting Temperature		
		Offset Temperature		
	Complementary Heating			
		Heating Source		
		Electrical Heater		
		Boiler Combination		
		Solar Combination		
			Status	
				Input demand
				Total control
	Heat Pump			
		Water Pump Configuration		
		Outdoor average Timer		
		Minimum ON Time		
		Minimum OFF Time		
		Seizure Protection		
			Status	
			Operation Day	
			Starting Time	
	Fan Coils			
		Controlled Fan Zones		
		Delay ON Time		
		Demand OFF Actions		

Menu Contents				
Level 1	Level 2	Level 3	Level 4	Level 5
	Optional Functions			
		Hydraulic Separator Status		
		Energy Configuration (Not available for YUTAKI Cascade Controller)		
		Smart Function		
		Heating Auto On/Off		
		Auto Heat/Cool		
		Hot Water Tank		
			Circuit pump	
			Recirculation timer	
			DHW Boost	
		Emergency Operation		
	I/O and Sensors			
		Inputs		
		Standard outputs		
		Outputs		
		Auxiliary sensors		
	Holiday mode			
		Affected zones		
		Start Holiday Mode		
Controller Settings				
	Room Configuration			
		Room Names		
		Live view icons (Not available for YUTAKI Cascade Controller)		
	Date and Time			
		European Summer Time		
		Hour Format		
	Screen settings			
	Language selection			
Installer Access				
Commissioning				
	Air purge procedure (Not available for YUTAKI Cascade Controller)			
		Start Air purge		
	Unit test run (Not available for YUTAKI Cascade Controller)			
		Start test run		

Menu Contents				
Level 1	Level 2	Level 3	Level 4	Level 5
	Screed drying			
		Start Screed Drying		
About				
	System Information			
	Contact Information			
Factory Reset				
Lock the controller				
Return to user mode				

◆ Installer mode

Icon means that this menu is available only for installer, a special user with higher access privileges to configure the system. In order to access the controller as Installer, go to “Installer access” menu.

After that, the “Enter password” message is displayed.

The login password for the Installer is:

Right ▶, Down ▼, Left ◀, Right ▶

Press “OK” to confirm the password.

If the correct access code is entered, the installer mode icon appears on the notifications bar (bottom line).

Installer mode icon

After 30 minutes of inactivity, it is necessary to repeat the log in process. To exit the Installer mode and return to the unit menu, go to the “Return to user mode” on the main menu.

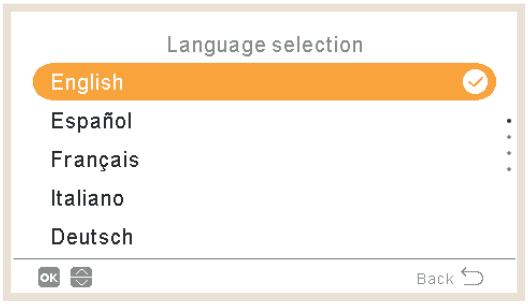
NOTE

The following chapters explain the special settings the Installer can edit. It is important to understand that the Installer can also perform all the actions available for the typical user.

1.4 Controller configuration

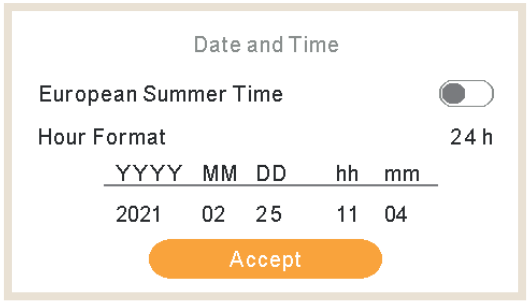
For YUTAKI Cascade Controller see YUTAKI Cascade Controller Configuration

1



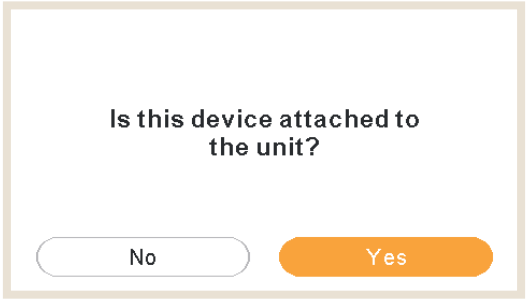
- Select the desired language using the arrow keys.
- Press OK button.

2



- Select the date and time using the arrow keys.
- Press OK button.

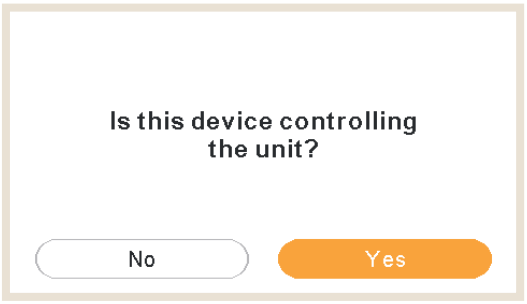
3



- Select Yes when the device is controlling the unit which it is attached. Jump to screen 6.
- Select No when the device is installed in a different site than the unit.

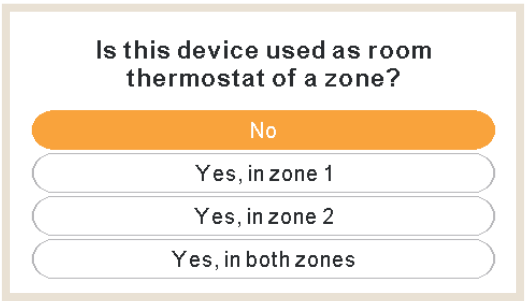
- Press OK button.

4



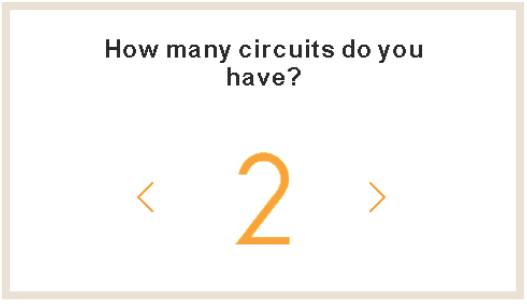
- Select No when the device acts as Room Thermostat only. It does not control the unit.
- Press OK button.

5



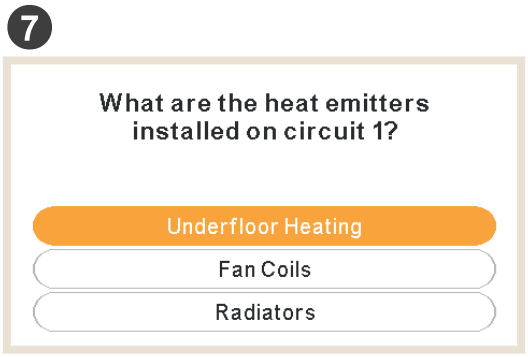
- Select No when the device is not used as a room thermostat.
- Select Yes, in zone 1/ Yes, in zone 2 / Yes, in both zones, depending on the number of circuits controlled.
- When select Yes, in both zones, jump to screen 8.
- Press OK button.

6

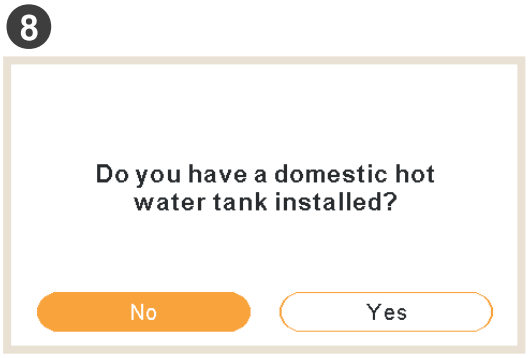


- Select the number of circuits (1 or 2).

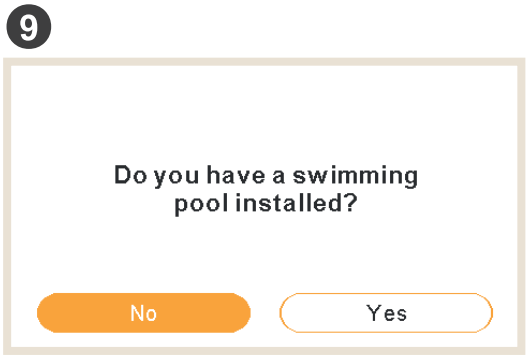
- Press OK button.



- Select the heat emitters on the circuit 1: Underfloor heating, Fan coils or Radiators.
- Repeat this step in case of circuit 2.
- Press OK button.



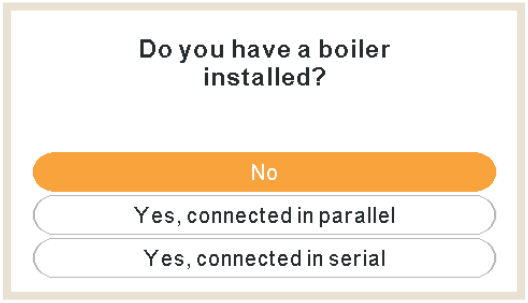
- Select Yes if Domestic Hot Water tank is installed.
- Press OK button.



- Select Yes if Swimming Pool is installed.

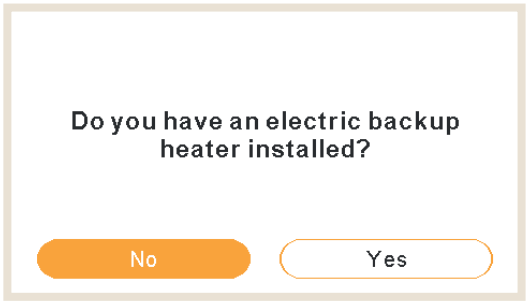
- Press OK button.

10



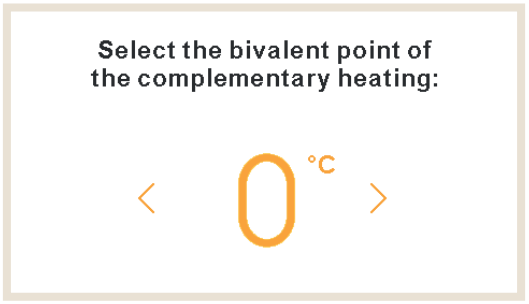
- Select Yes if Boiler is installed.
- Press OK button.

11



- Select Yes if an electrical backup heater is installed.
- Press OK button.

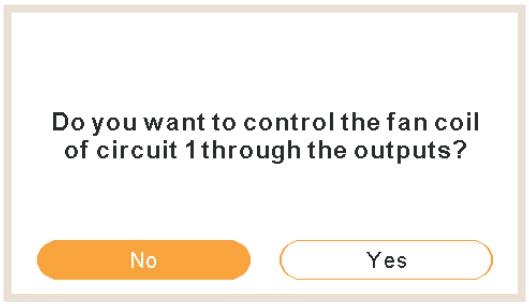
12



- Select the bivalent point for boiler or electric backup heater (from -20°C to 20°C).

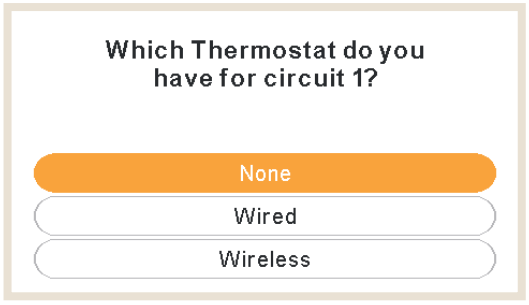
- Press OK button.

13



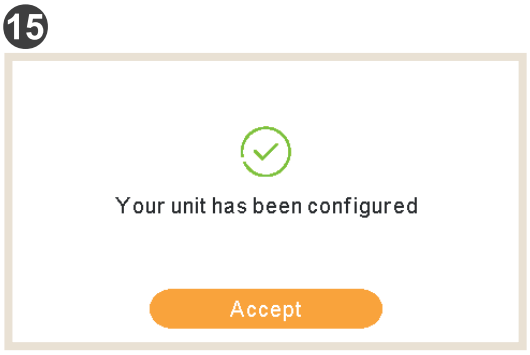
- Select Yes if fan coil can be controlled through the outputs.
- Press OK button.

14



- Select the type of room thermostat installed in circuit 1 or 2 (depending on the previous setting): None, wired or wireless.
- Repeat this step in case of circuit 2.
- Press OK button.

15

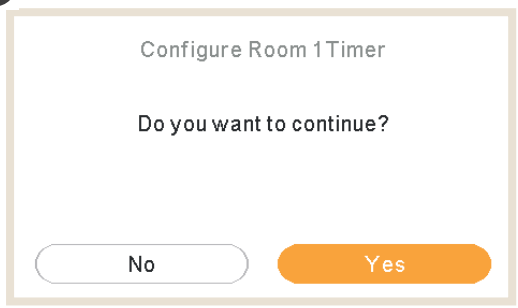


- Configuration assistant is completed.
- Press OK button to go to the main screen.

1.4.1 Timer Assitant for Room Thermostat

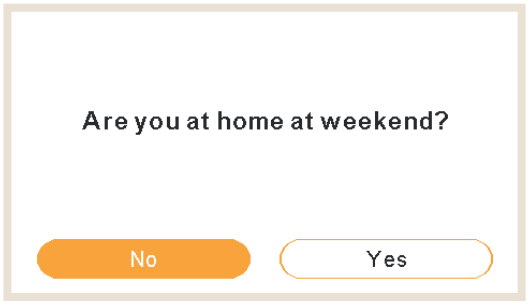
In case that the device is selected as a room thermostat of a zone, a timer assitant is displayed after the initial wizard.

1



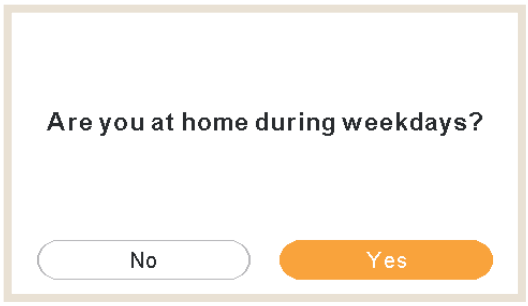
- Select Yes to launch the timer assistant for Room Thermostat 1.
- Press OK button.

2

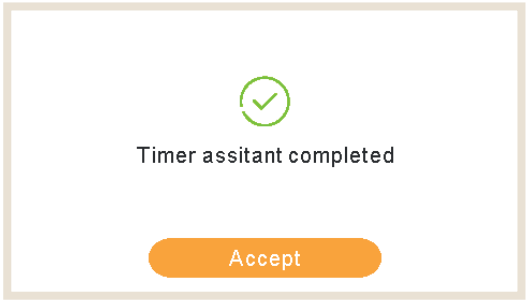


4

3



5



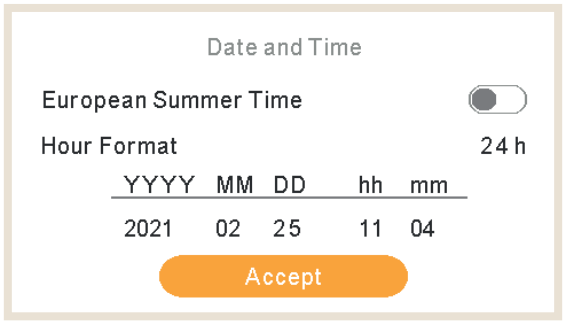
- If stay at home at weekend / weekdays the following patterns are applied:
  - ✓ Heating: 6:30h = 20°C / 22:30h = 18°C
  - ✓ Cooling: 6:30h = 23°C / 22:30h = 25°C
- If senstive to cold is marked as Yes, an offset of +1°C is applied for heating.

1.5 YUTAKI Cascade Controller configuration

1

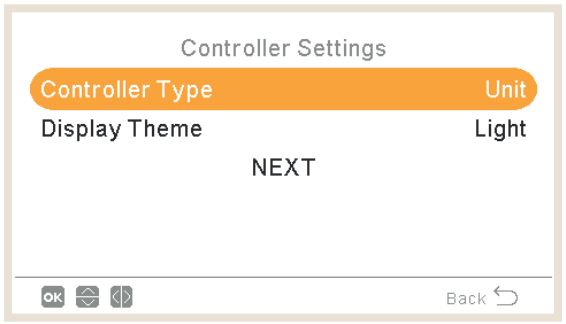
- Select the desired language using the arrow keys.
- Press OK button.

2



- Select the date and time using the arrow keys.
- Select Enabled or Deactivated for European summer time.
- Press OK button.

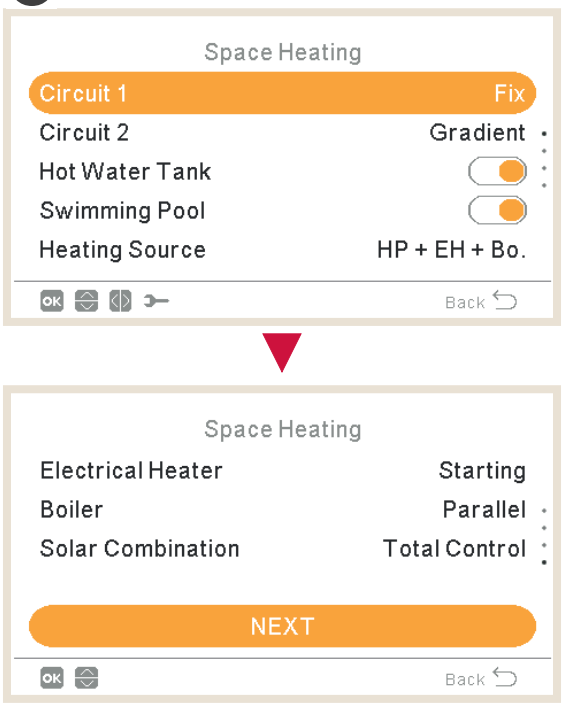
3



- Select the controller type:
  - ✓ Unit: the device controls the unit.
  - ✓ Room: the device acts as a room thermostat of a zone.
  - ✓ Unit + Room: the device controls the unit and acts as a room thermostat.

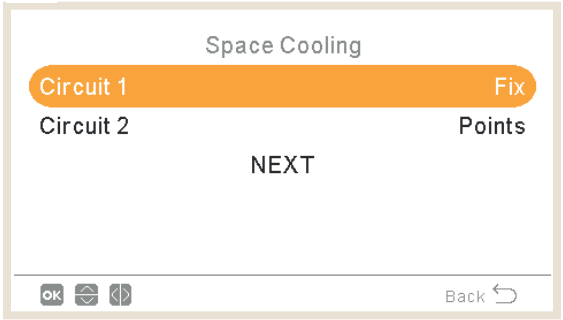
- Select the display theme:
  - ✓ Light: normal view.
  - ✓ Dark: black background with white icons.
  - ✓ Auto: changes automatically to light at 08:00 am and turns to dark at 20:00 pm.

4



- Configure circuit 1 and circuit 2 OTC: Deactivated, Points, Gradient, Fix.
- Enable or disable DHW and Swimming Pool.
- Select the heating source: HP only, HP + EH, HP + Boiler.
- Configure electrical heater use: Starting or Backup.
- Configure Boiler type: Parallel or Serial.
- Configure Solar Combination options: Deactivated, Input Demand, Total Control. (Only in case DHW is enabled).
- Select Next and press OK button.

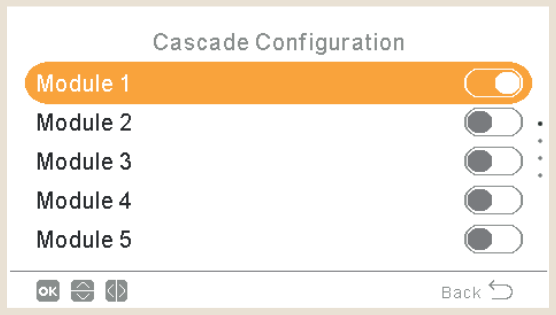
5



- Configure circuit 1 and circuit 2 options (Only available for cooling mode): Deactivated, Points, Gradient, Fix.

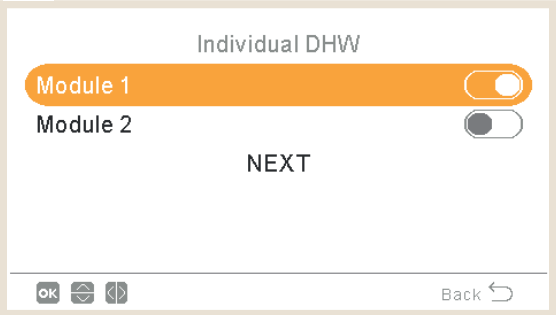
- Select Next and press OK button.

6



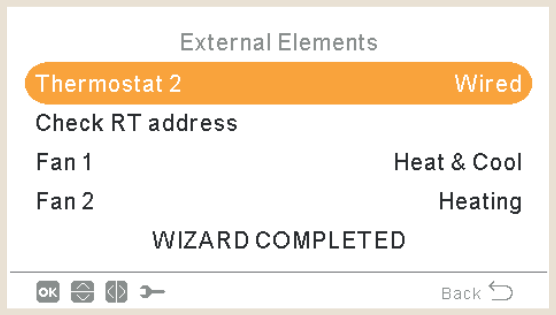
- Enable or disable the desired modules (module 1 is enabled by default)
- Select Next and press OK button.

7



- Enable or disable the individual DHW for each module.
- Select Next and press OK button.

8



- Configure thermostat (1 or 2): None, wired or wireless.
- Check RT address if wired is selected.
- Select Wireless binding ID (1 or 2) if wireless is selected.
- Configure Fan coils: Deactivated, cooling, heating or heat & cool if wired is selected.
- Select Wizard complete and press OK button.

9

- Select Yes to complete the configuration.
- Press OK button to go to the main screen.

1.6 Examples of possible configurations

NOTE

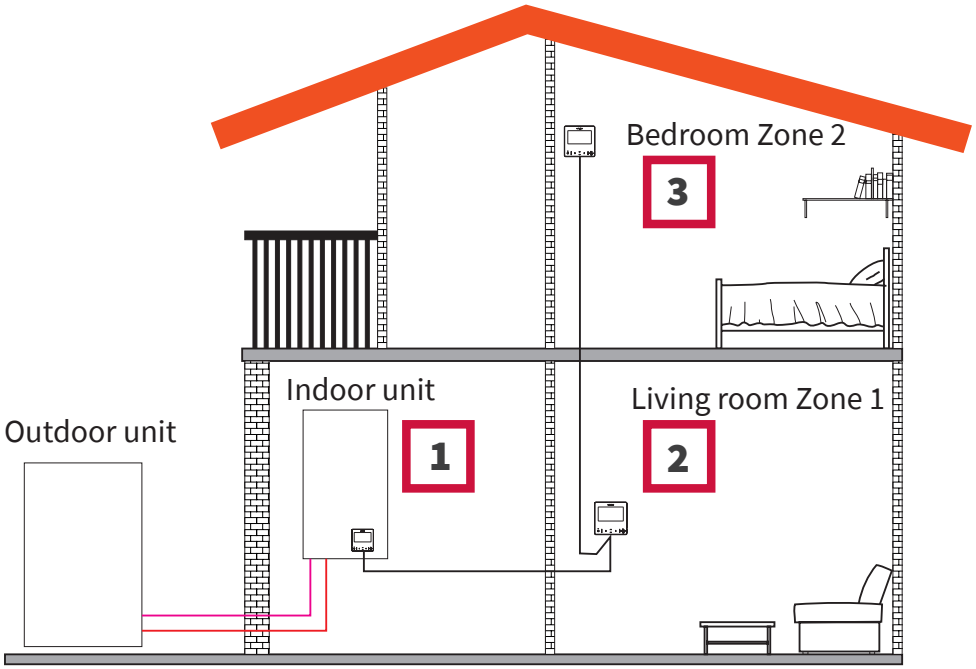
- *Other installation configurations are possible. These are examples only for illustration purposes.*
- *It is recommended to set firstly the Main device so as the ease the configuration of the Sub devices.*

◆ Example 1

1- Main unit controller as unit configuration.

2- Sub Unit controller as a room thermostat for Zone 1, as accessory

3- Sub Unit controller as a room thermostat for Zone 2, as accessory



Order	FIRST	SECOND	THIRD
Type	Main	Sub	Sub
	Unit	Circuit 1	Circuit 2

Questions	Answers		
Is this device attached to the unit?	YES	-	-
Is this device controlling the unit?	YES	-	-
Is this device used as a Room Thermostat of a zone?	-	YES, IN ZONE 1	YES, IN ZONE 2
How many circuits do you have?	2	-	-
Which are the heat emitters of circuit 1?	Underfloor heating	-	-

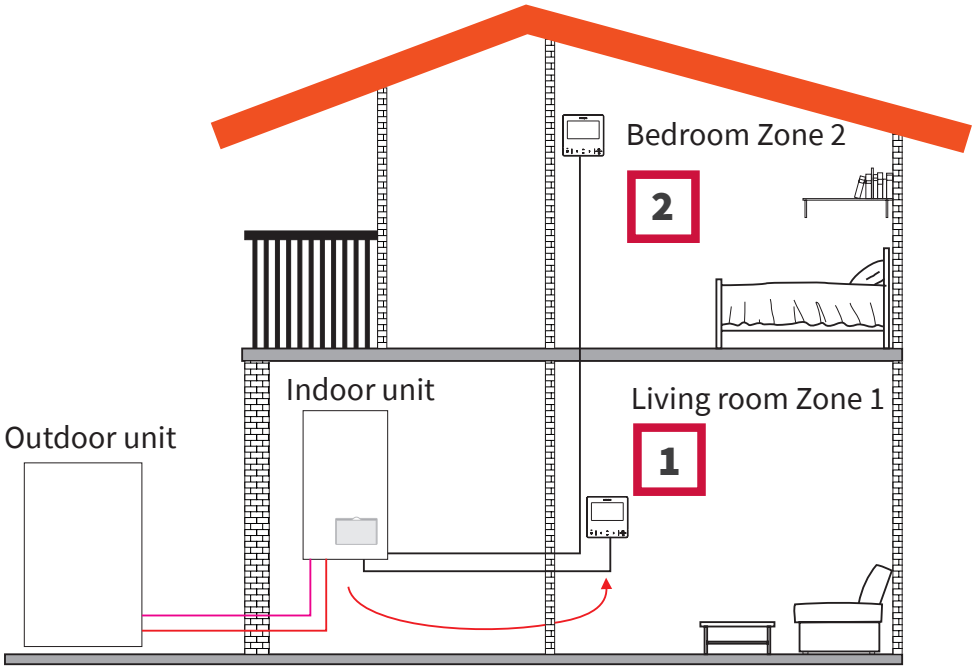
Questions	Answers		
Which are the heat emitters of circuit 2?	Underfloor heating	-	-
Which are the cool emitters of circuit 1?	-	-	-
Which are the cool emitters of circuit 2?	-	-	-
Do you have domestic hot water tank?	NO	-	-
Do you have swimming pool?	NO	-	-
Do you have boiler?	NO	-	-
Do you have electric backup heater?	NO	-	-
Select the bivalent point	-	-	-
Which Thermostat do you have for Circuit 1?	Wired	-	-
Which Thermostat do you have for Circuit 2?	Wired	-	-
	COMPLETED	COMPLETED	COMPLETED

◆ Example 2

1- Move Unit controller to the living room (use as Unit controller + Room Thermostat)

2- Main unit controller moved to living room Zone 1

3- Sub Unit controller as a room thermostat for Zone 2



Order	FIRST	SECOND
Type	Main	Sub
	Unit	Circuit 2

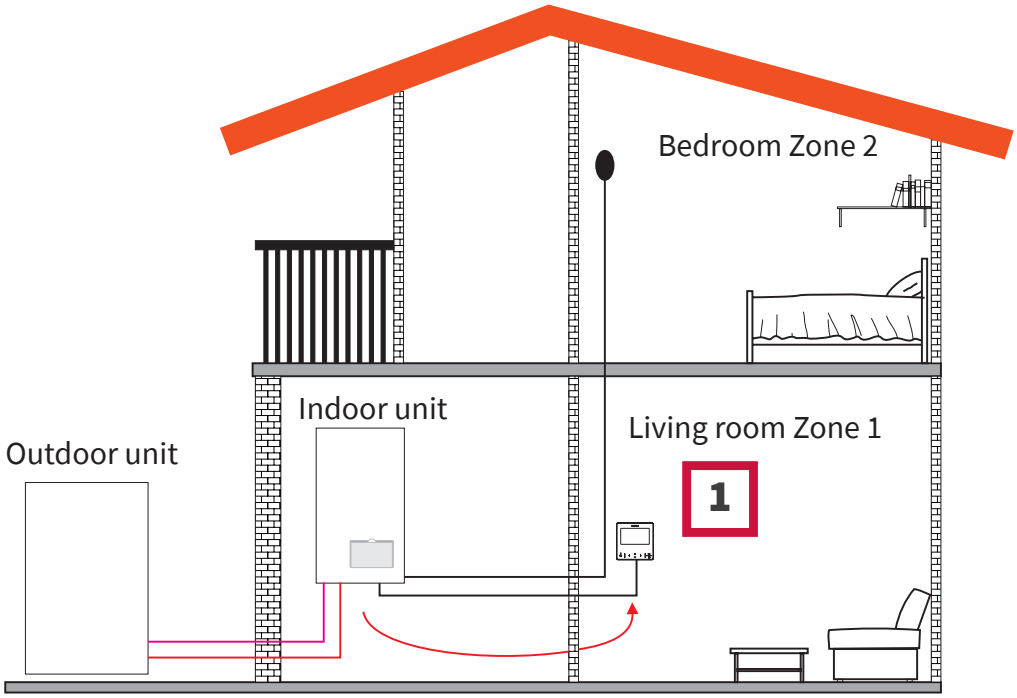
Questions	Answers	
Is this device attached to the unit?	NO	-
Is this device controlling the unit?	YES	-
Is this device used as a Room Thermostat of a zone?	YES, IN ZONE 1	YES, IN ZONE 2
How many circuits do you have?	2	-
Which are the heat emitters of circuit 1?	Underfloor heating	-
Which are the heat emitters of circuit 2?	Underfloor heating	-
Which are the cool emitters of circuit 1?	-	-
Which are the cool emitters of circuit 2?	-	-
Do you have domestic hot water tank?	NO	-
Do you have swimming pool?	NO	-
Do you have boiler?	NO	-
Do you have electric backup heater?	NO	-
Which Thermostat do you have for Circuit 2?	Wired	-
	COMPLETED	COMPLETED

◆ Example 3

1- Move Unit controller to the living room (use as Unit controller + Room Thermostat)

2- Wired unit controller as a Room Thermostat for Zone 1

3- Wired room sensor for Zone 2



Order	FIRST
Type	Main
	Unit + Circuits

Questions	Answers
Is this device attached to the unit?	NO
Is this device controlling the unit?	YES
Is this device used as a Room Thermostat of a zone?	YES, IN BOTH ZONES
Which are the heat emitters of circuit 1?	Underfloor heating
Which are the heat emitters of circuit 2?	Underfloor heating
Which are the cool emitters of circuit 1?	-
Which are the cool emitters of circuit 2?	-
Do you have domestic hot water tank?	NO
Do you have swimming pool?	NO
Do you have boiler?	NO
Do you have electric backup heater?	NO
	COMPLETED

NOTE

- *After finishing Configuration assistant, go to Input&Outputs&Sensor menu and select which auxiliary sensor do you want to use for ambient temperature in Zone 2.*
- *Example: Sensor 1: C2 Ambient*

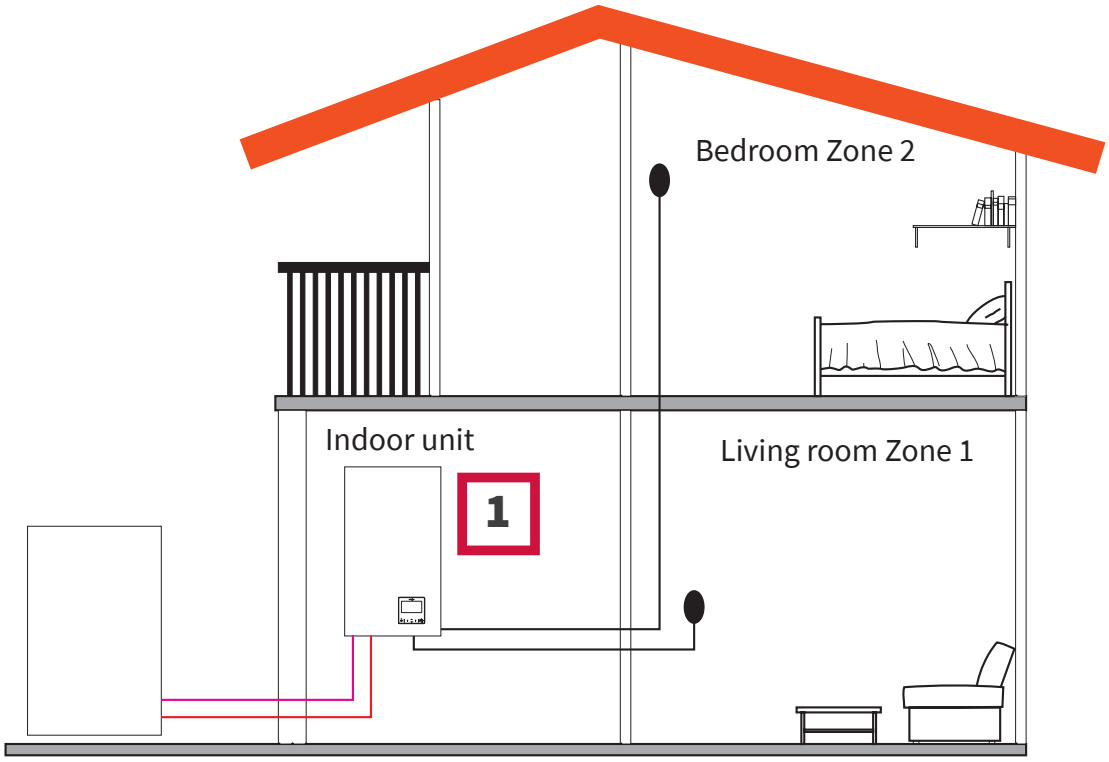
REF	Access	Description	Default Value	Selected value
		Auxiliary Sensors		
Taux1		Sensor 1 (Taux1)	Two3 (if Boiler)	C2 Ambient
Taux2		Sensor 2 (Taux2)	Swimming pool (if SWP existing)	-
Taux3		Sensor 3 (Taux3)	Outdoor Sensor	-

◆ Example 4

1- PC-ARFH2E attached into the unit and used as unit controller and room thermostat for both zones

2- Wired room sensor for Zone 1

3- Wired room sensor for Zone 2



Order	FIRST
Type	Main
	Unit + Circuits

Questions	Answers
Is this device attached to the unit?	YES
Is this device used as a Room Thermostat of a zone?	YES, IN BOTH ZONES
Which are the heat emitters of circuit 1?	Underfloor heating
Which are the heat emitters of circuit 2?	Underfloor heating
Which are the cool emitters of circuit 1?	-
Which are the cool emitters of circuit 2?	-
Do you have domestic hot water tank?	NO
Do you have swimming pool?	NO
Do you have boiler?	NO
Do you have electric backup heater?	NO
	COMPLETED

NOTE

- *After finishing Configuration assistant, go to Input&Outputs&Sensor menu and select which auxiliary sensor do you want to use for ambient temperature in each zone.*
- *Example:*

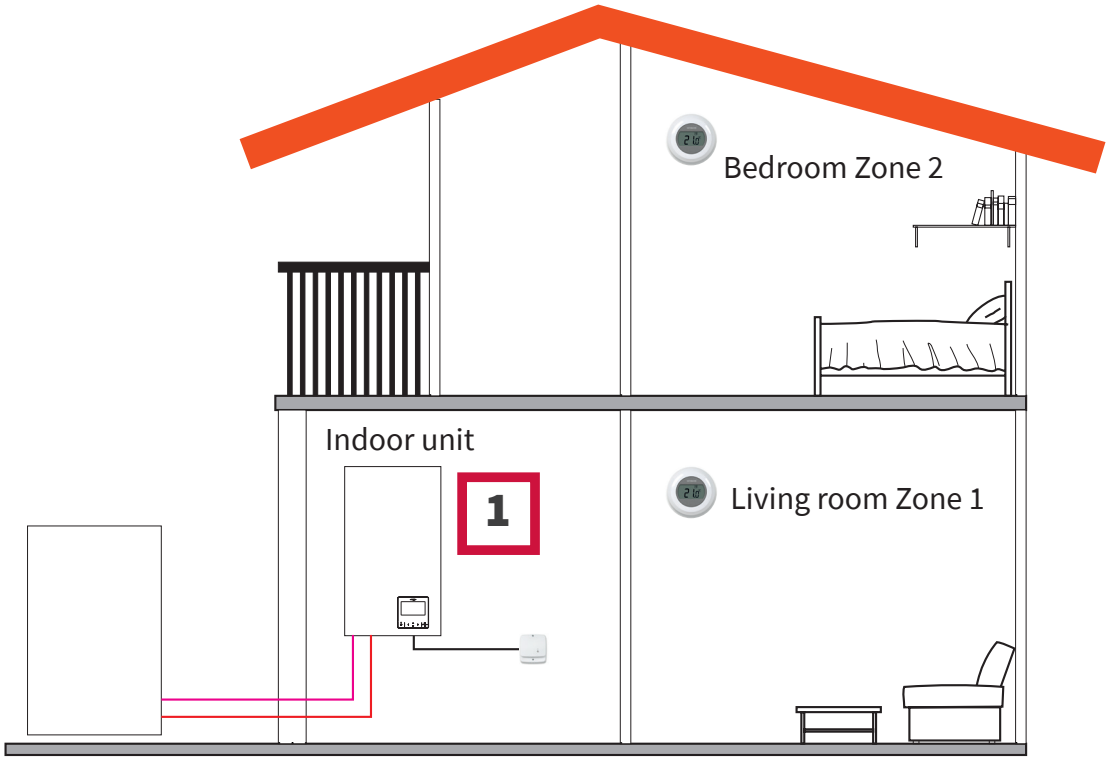
REF	Access	Description	Default Value	Selected value
		Auxiliary Sensors		
Taux1		Sensor 1 (Taux1)	Two3 (if Boiler)	C1 Ambient
Taux2		Sensor 2 (Taux2)	Swimming pool (if SWP existing)	C2 Ambient
Taux3		Sensor 3 (Taux3)	Outdoor Sensor	-

◆ Example 5

1- Main unit controller as unit configuration

2- Wireless intelligent thermostat for zone 1 (ATW-RTU-07) (Receiver + Room thermostat)

3- Wireless intelligent thermostat for zone 2 (ATW-RTU-06) (Only Room thermostat)



Order	FIRST
Type	Main
	Unit + Circuits

Questions	Answers
Is this device attached to the unit?	YES
Is this device used as a Room Thermostat of a zone?	NO
How many circuits do you have?	2
Which are the heat emitters of circuit 2?	Underfloor heating
Do you have domestic hot water tank?	NO
Do you have swimming pool?	NO
Do you have boiler?	NO
Do you have electric backup heater?	NO
Which Thermostat do you have for Circuit 1?	Wireless
Which Thermostat do you have for Circuit 2?	Wireless
	COMPLETED

NOTE

- *After finishing Configuration assistant proceed to wireless room thermostat binding procedure. (Refer to installation manual of room thermostat)*
- *If necessary, change Wireless Binding ID to the selected thermostat by using room thermostat menu in general options:*

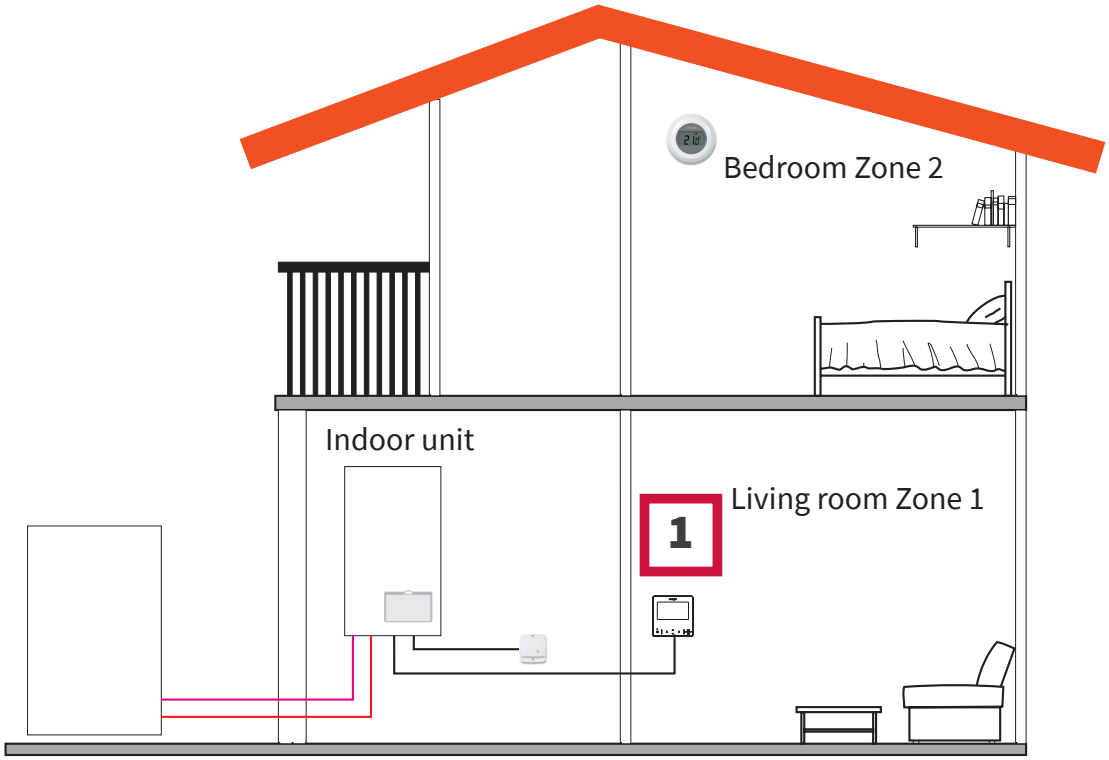
Description	Default Value	Range	Selected value
Wireless Binding ID (for C1)	1	1 2	1
Wireless Binding ID (for C2)	2	1 2	2

◆ Mixed configurations (Wireless + Wired)

1- Move Unit controller to the living room (use as Unit controller + Room Thermostat)

2- Main unit controller moved to living room Zone

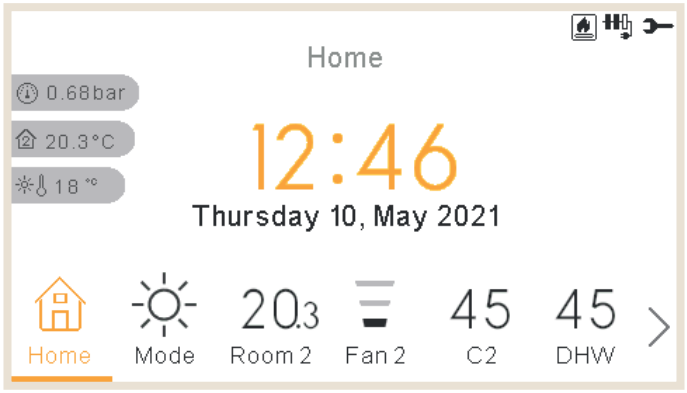
3- Wireless intelligent thermostat for zone 2 (ATW-RTU-07) (Receiver + Room thermostat)



Order	FIRST
Type	Main
	Unit

Questions	Answers
Is this device attached to the unit?	NO
Is this device controlling the unit?	YES
Is this device installed on a controlled zone?	YES, ZONE 1
How many circuits do you have?	2
Which are the heat emitters of circuit 1?	Underfloor heating
Which are the heat emitters of circuit 2?	Underfloor heating
Which are the cool emitters of circuit 1?	-
Which are the cool emitters of circuit 2?	-
Do you have swimming pool?	NO
Do you have boiler?	NO
Do you have electric backup heater?	NO
Which Thermostat do you have for Circuit 2?	Wireless
	COMPLETED

1.7 Main view



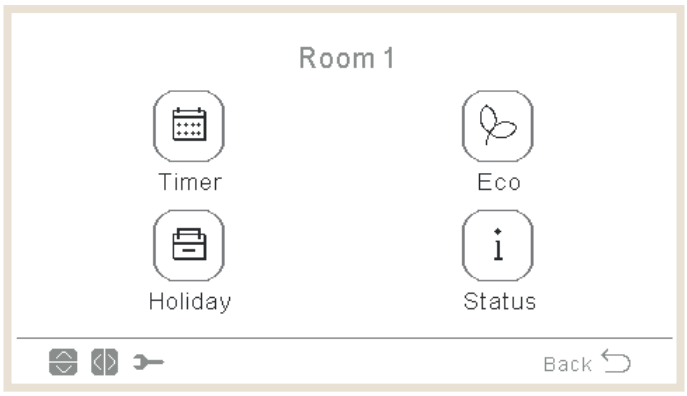
Main view of the device is composed by a bottom tab widget to move around the different views:

- Home
- Mode
- Room 1 (if space is small it shows R1)
- Room 2 (if space is small it shows R2)
- Circuit 1 (if space is small it shows C1)
- Circuit 2 (if space is small it shows C2)
- Fan 1 (if space is small it shows F1)
- Fan 2 (if space is smaill it shows F2)
- DHW
- SWP
- Menu

1.7.1 Quick actions function

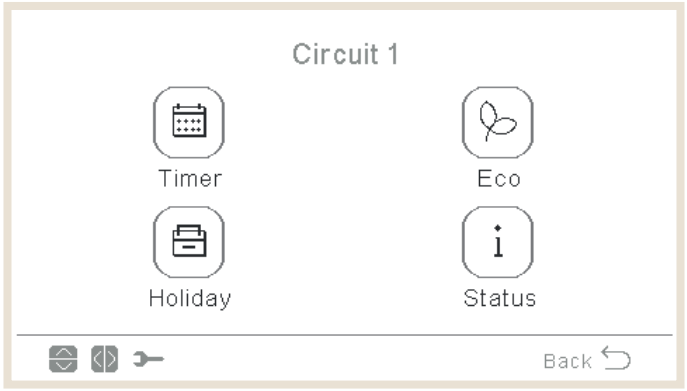
The following quick actions are shown when pressing the OK button at the selected zone in comprehensive view or room thermostat view:

◆ Room 1/2



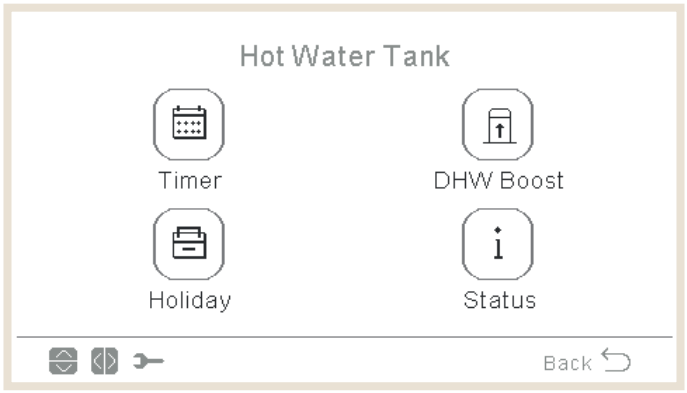
- Timer
- ECO
- Holiday (If Zone is enabled)
- Status

◆ Circuit 1/2



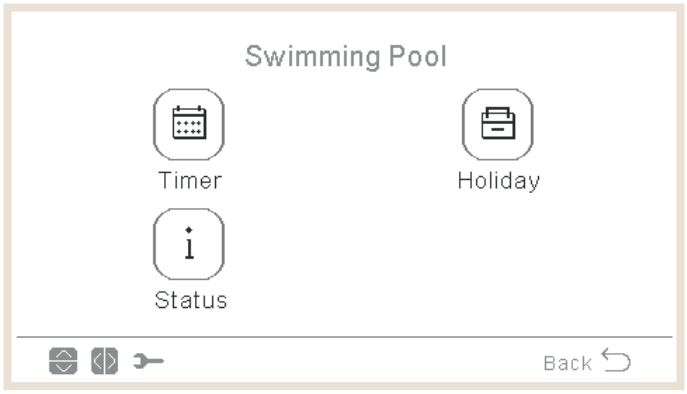
- Timer
- ECO
- Holiday (If Zone is enabled)
- Status

◆ Domestic Hot Water Tank (DHW)



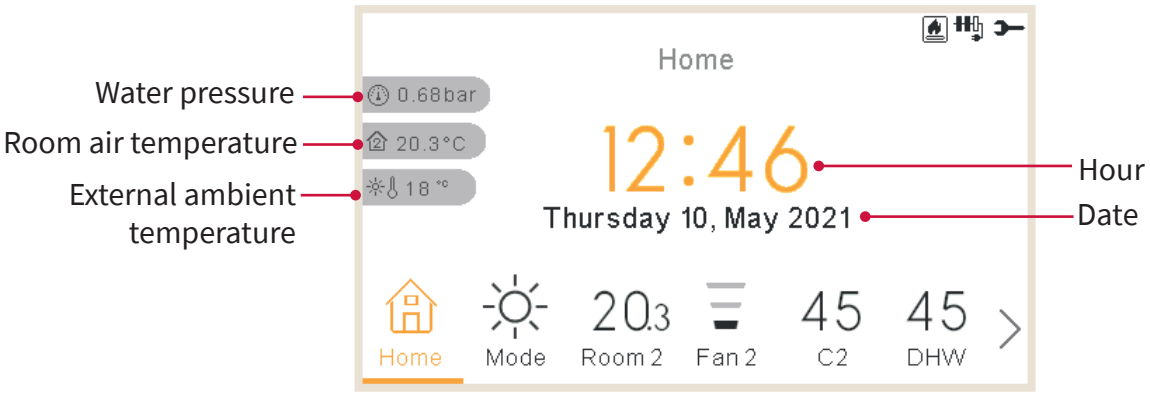
- Timer
- Boost (If DHW is ON and Boost is availbable. It can also be cancelled from quick actions).
- Holiday (If Zone is enabled)
- Status

◆ Swimming Pool (SWP)



- Timer
- Holiday (If Zone is enabled)
- Status

1.8 Home view



Home view shows on the middle the date and time

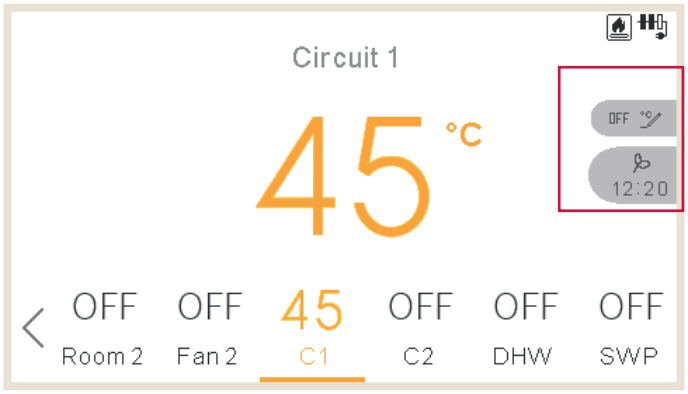
On the left side it shows:

- Inside temperature (home icon):
  - ✓ If LCD works as Room 1, it took it from the controller sensor or auxiliary sensor
  - ✓ If LCD works as Room 2, it took it from the controller sensor or auxiliary sensor
  - ✓ If LCD works as Room 1+2, it took it from the controller sensor or auxiliary sensor, or the average of the ones used per each zones.
  - ✓ If LCD is water but not room, it will took them from the configured Rooms, if no one is configued, that temperature will not be displayed.
  - ✓ If LCD works as main LCD or water control but not room, it will took them from the configured Rooms, if no one is configured, that temperature will not be displayed.
- Outside temperature (thermometer icon).
- Water pressure indicator is shown when LCD is Unit or Unit + Room (Not available for YUTAKI M units)

NOTE

Room temperatures are not shown if LCD is only "Unit" and there are no thermostats configured.

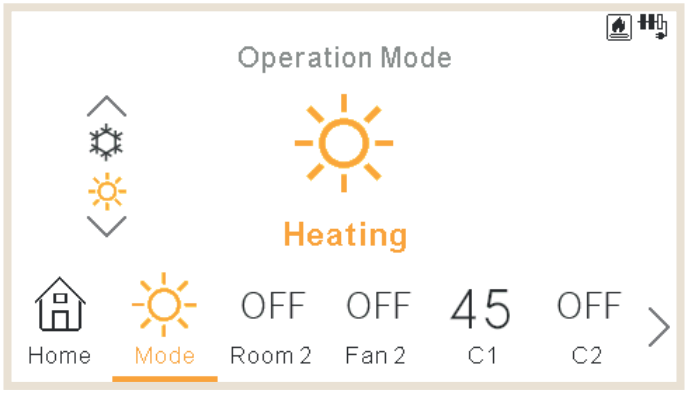
1.8.1 Next schedule indication



The indication of next schedule shows by priority:

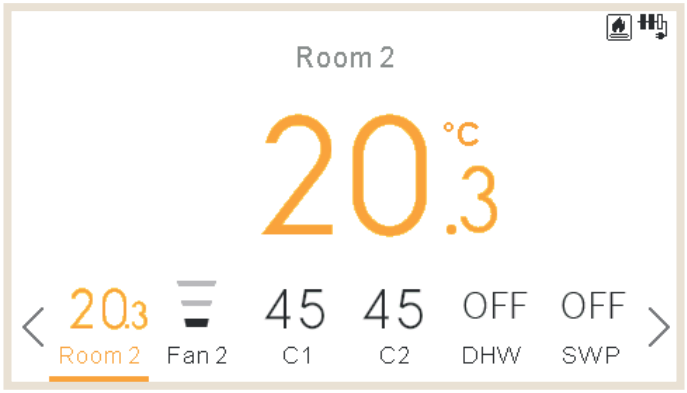
- Date of returning of absent mode
- Next schedule action:
  - ✓ If no derogation has been made, shows next schedule action
  - ✓ If derogation has been made it checks the configured override type:
    - ◉ If override type is Next action, it shows next schedule action.
    - ◉ If override type is Forever, does not show any information
    - ◉ If override type is Specific time, it shows “Pending” text and the remaining minutes.

1.9 Mode view



- Mode view shows the selected mode.
- In case of being a heating and cooling unit, it lets also to change the mode by using the top/bottom arrows, and it shows the mode spinner on the left side.
- If it has been enabled the auto mode, it is also available here.

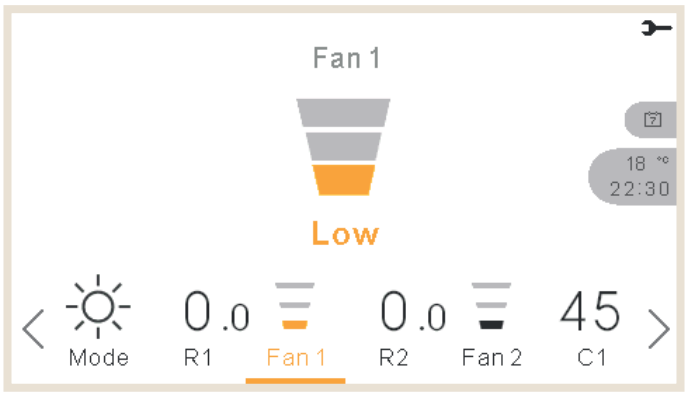
1.10 Room 1/2 view



Room thermostats view displays:

- Ambient Temperature of the room. This temperature is got from controller or external sensor.
- When editing it shows the setting temperature
- On right side it has zone notifications for:
  - ✓ Next timer action
  - ✓ Eco and timer icons

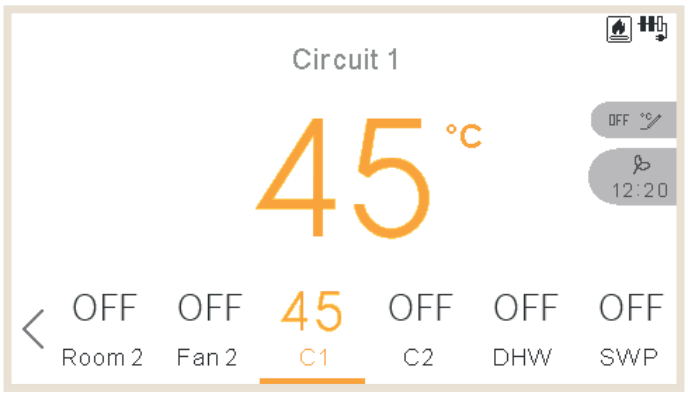
1.11 Fan coils 1/2 view



Room 1 or 2 could control Fan Coils. Once configured to control them on the menu, the bottom bar includes the option to manage those fan coils:

- Fan speeds: Low, Medium, High and Auto
- Each fan has its independent on/off

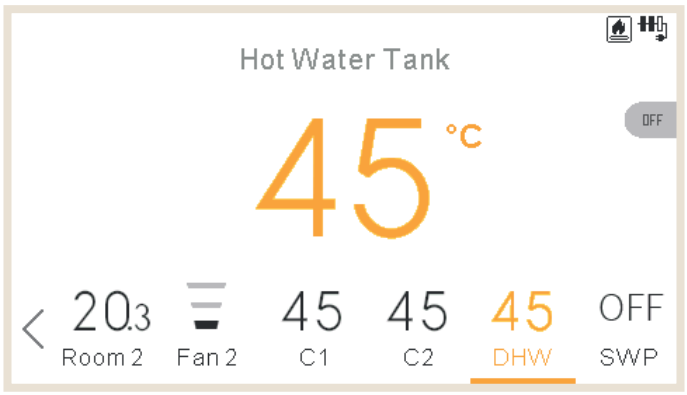
1.12 Circuit 1/2 view



Circuit 1 or 2 view displays:

- Water setting feedback
- When editing it shows the setting temperature
- On right side it has zone notifications for:
  - ✓ Next timer action
  - ✓ Eco, throughput, summer switch-off, forced off and timer icons

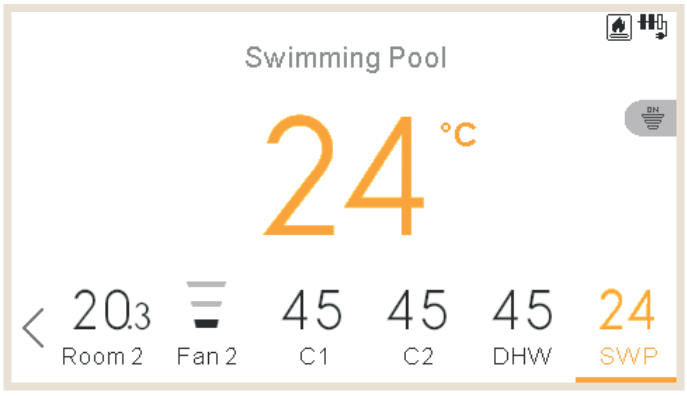
1.13 DHW view



DHW view displays:

- Water setting feedback
- When editing it shows the setting temperature
- On right side it has zone notifications for:
  - ✓ Next timer action
  - ✓ Boost, throughput, operating in comfort and timer icons
- During boost, setting changed is the boost seeting

1.14 SWP view

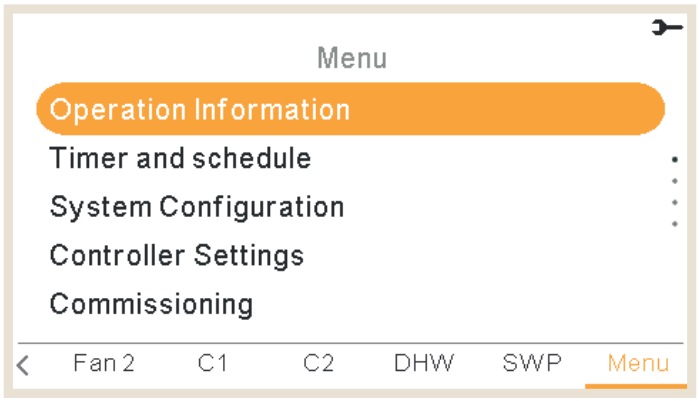


SWP view displays:

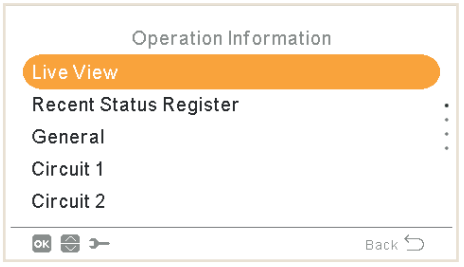
- Water setting feedback
- When editing if shows the setting temperature
- On right side it has zone notifications for:
  - ✓ Next timer action
  - ✓ Throughput and timer icons

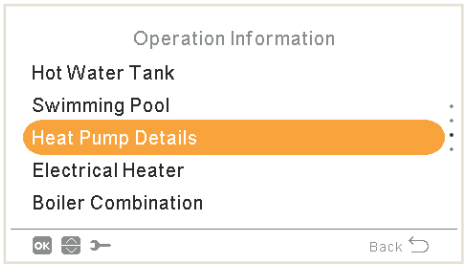
1.15 Operation Information Menu

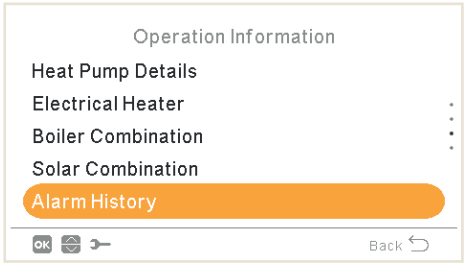
In operation information menu it is possible to find the most important setting parameters of the system besides the information of the operation conditions.

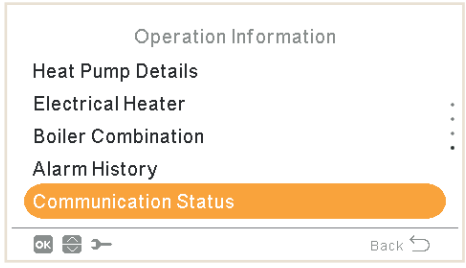


Operation Information Menu for YUTAKI M, S, S Combi, H and H Combi units

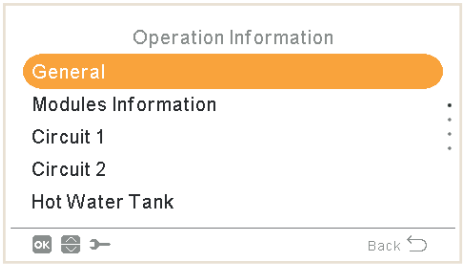


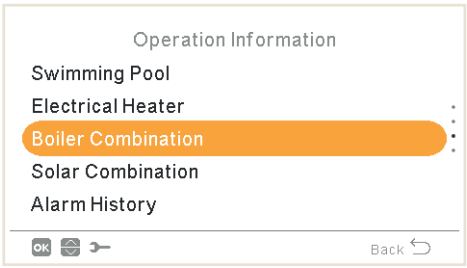


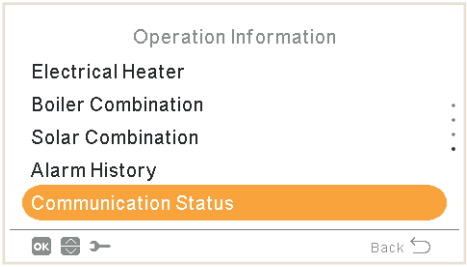




Operation Information Menu for YUTAKI Cascade Controller units



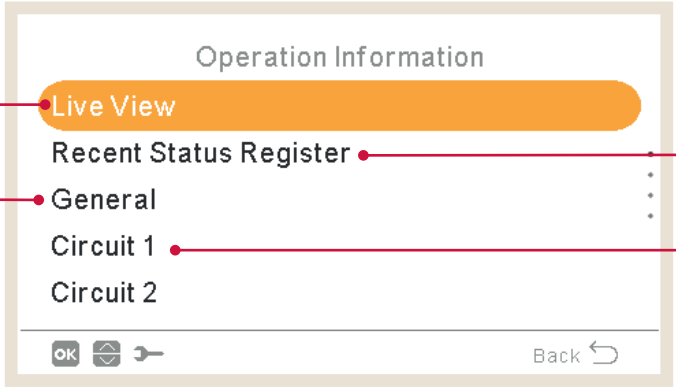




Summary of system status information:
Not available for YUTAKI Cascade Controller

- Refrigerant Cycle
- Water Generation
- Circuit 1
- Circuit 2
- Hot Water Tank
- Swimming Pool

1 / 4



Recent Status Register:
Not available for YUTAKI Cascade Controller

Table of the main variables of the system registered by steps of 5 minutes during 120min

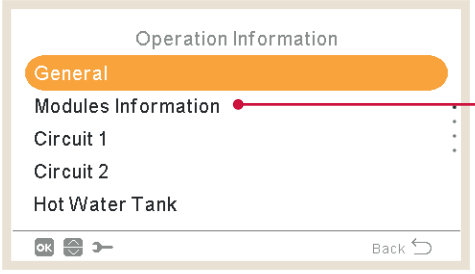
Detailed information about Circuit 1-2:

- Operation (Demand ON/OFF)
- Mode (Eco/Comfort)
- Room temperature
- Room setting temperature
- Fan setting speed
- Fan real speed
- Fan stopped by D-OFF
- Current water temperature
- Water setting temperature
- Water OTC setting temperature
- Mixing valve position (only for circuit 2)

Detailed information about:

- Operation status
- Water inlet temperature (Not available for YUTAKI Cascade Controller or YUTAKI H)
- Water outlet temperature (Not available for YUTAKI Cascade Controller)
- Mirror Twi (Only for YUTAKI H Combi)
- Mirror Two (Only for YUTAKI H or YUTAKI H Combi)
- Water setting temperature
- Outdoor ambient temperature
- Outdoor ambient 2 temperature
- Outdoor ambient average temperature
- Second ambient average temperature
- 24h average temperature

Modules Information (Only for YUTAKI Cascade Controller)



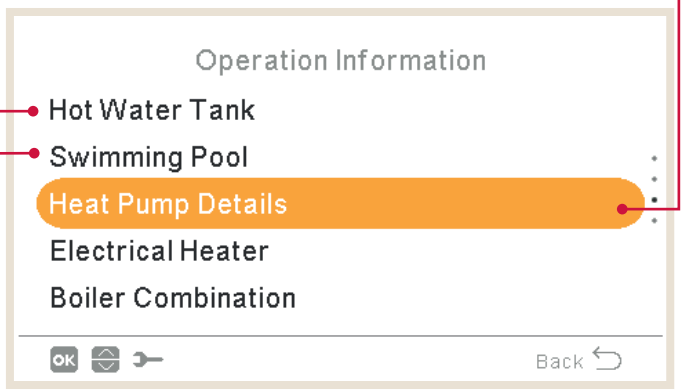
Detailed information modules:

- Operation status
- Water inlet temperature
- Water outlet temperature
- Individual DHW (Enable or disable)
- Type (Main or Sub)

Detailed information about DHW:

- Operation
- Current temperature (Only for YUTAKI S)
- Top Sensor (Only for YUTAKI S Combi)
- Bottom sensor (Only for YUTAKI S Combi)
- Setting Temperature
- Electrical Heater Status
- Electrical Heater Operation
- Legionella Status
- Legionella Operation

2 / 4



Detailed information about Swimming pool:

- Operation (Demand ON/OFF)
- Current temperature
- Setting temperature

Detailed information about Heat Pump:

Not available for YUTAKI Cascade Controller

- Water Outlet PHEX Temperature (*1) (*2)
- Current water temperature (*2)
- Two3
- Water Flow Level
- Water Pump Speed
- Water Pressure
- Outdoor Ambient temperature
- Outdoor Ambient 2 temperature
- Gas temperature
- Liquid temperature
- Discharge Gas temperature
- Evaporation Gas temperature
- Suction Gas temperature (*3)
- Discharge Pressure
- Suction Pressure (*3)
- Indoor Expansion Valve Open
- Indoor Expansion Valve 2 Open
- Outdoor Expanison Valve Open
- Injection Exansion Valve (*3)
- Economizer temperature (*3)
- Inverter Operation Frequency
- Defrosting
- Cause Of Stoppage
- Compressor Current
- Unit Capacity
- Unit Type

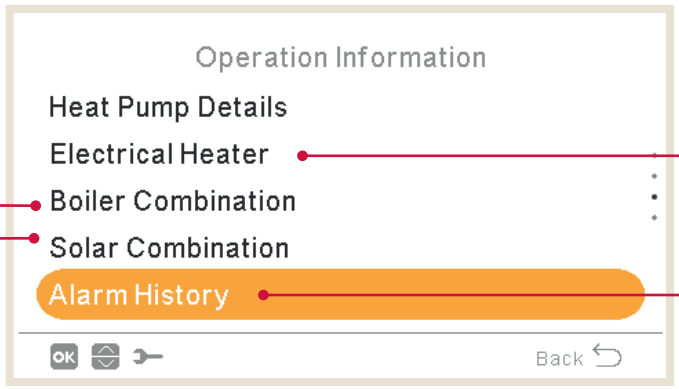
NOTE

- *(*1) Not shown for Water module*
- *(*2) Not shown for YUTAKI H or YUTAKI H Combi units*
- *(*3) Only for units using R32 refrigerant and bigger than 3HP.*

Detailed information about Boiler combination:

- Operation (Demand ON/OFF)
- Current temperature
- Setting temperature

3 / 4



Detailed information about Electrical Heater:

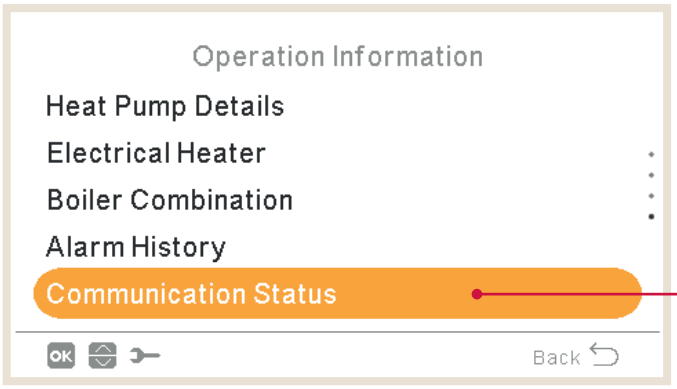
- Operation (Demand ON/OFF)
- Current temperature
- Setting temperature
- Load Factor
- Step

Shows a list of the alarm history of the system

Detailed information about Solar combination:

- Operation (Demand ON/OFF)
- Solar Panel temperature

4 / 4



Detailed information about Communication status:

- H-Link
- H-Link Central
- RCS Central
- Cascade Controller

1.15.1 Live view

Live view is a summary of system status information shown on operation information. This menu is not available for YUTAKI Cascade Controller units.

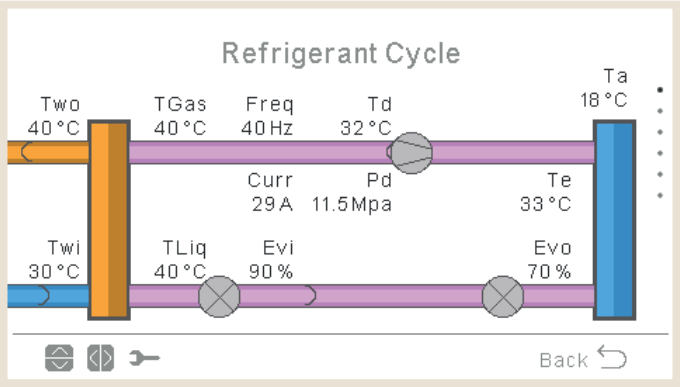
◆ Description of displayed variables

Displayed name	Description	Units
Two	Water outlet temperature	°C
MRTwo	Mirror water outlet temperature (For YUTAKI Mirror, YUTAKI H and YUTAKI H Combi units)	°C
TwoHP	Heat pump water outlet temperature	°C
Two3	Boiler sensor	°C
TGas	Gas temperature	°C
Freq	Frequency	Hz
Td	Discharge temperature	°C
Ts	Suction temperature	°C
Ta	Ambient temperature	°C
Te	Evaporator temperature	°C
Ps	Suction pressure	MPa
Pd	Discharge pressure	MPa
Curr	Current	A
Evi	Indoor expansion valve	%
TLiq	Liquid temperature	°C
Evo	Outdoor expansion valve	%
Twi	Water inlet temperature	°C
MRTwi	Mirror water inlet temperature (For YUTAKI Mirror, YUTAKI H and YUTAKI H Combi units)	°C
Eve	Economizer Expansion Valve	%
Teco	Economizer temperature	°C
WPress	Water pressure	Bar
Tset	Setting temperature	°C
HPWP	HP Water pump speed	%
HPWF	HP Water flow level	m^3/h
TOTC	Water rule setting	°C
TaAv	Ambient average temperature	°C
TRoom	Room ambient temperature	°C

Displayed name	Description	Units
Mx	Mixing valve position	%
TDHW	DHW temperature bottom temperature (or middle for non S Combi models)	°C
TopDHW	DHW Secondary temperature (top auxliar sensor)	°C
LEG	Legionella operation	-
EH	Heater operation	-
SwpT	SWP Temperature	°C

It has the following screens:

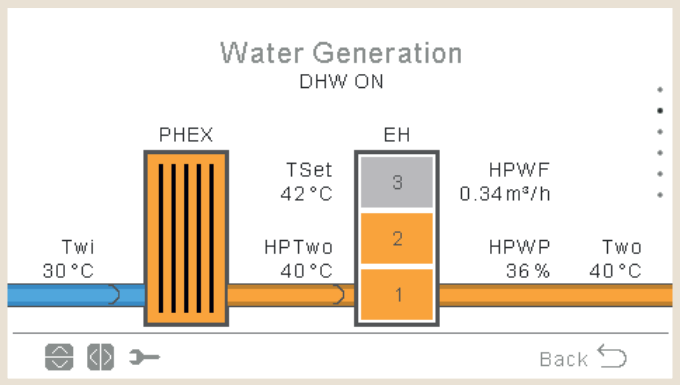
◆ Refrigerant Cycle



Considerations:

- Arrows move in anti-clock direction in Heating mode. When Cooling mode arrows move in clock direction.
- Pipes between exchangers are pink if operating or gray if unit is in Thermo-OFF.
- Two pipe is orange when heating and blue when cooling.
- Twi pipe is orange when cooling and blue when heating.
- Defrost indication is only shown when defrosting.
- Ps and Ts are shown only for YUTAKI M R32 (4-6HP).
- Eve and TEco (on vertical line) is shown only for YUTAKI M R32 (4-6HP) and YUTAKI Mirror.
- Two value is TwoHP when using a YUTAKI S Combi or YUTAKI S, otherwise it is normal Two.

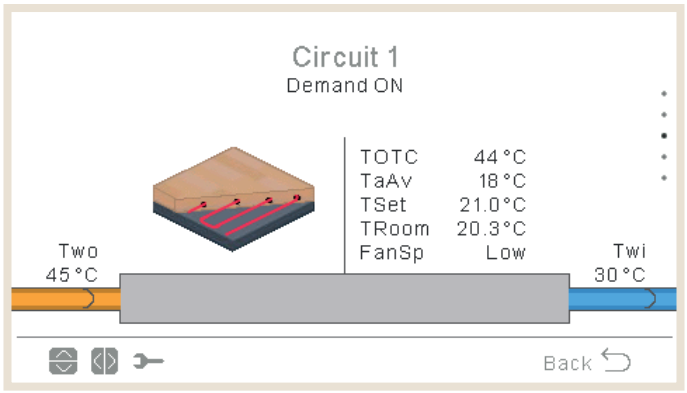
◆ Water generation



Considerations:

- When operation status is COOL ON, inlet pipe is orange, outdoor pipe is blue.
- When operaion status is HEAT ON, SWP ON or DHW ON, inlet pipe is blue, outdoor pipe is orange, otherwise pipe is in gray.
- Two value is TwoHP when using a YUTAKI S Combi or YUTAKI S, otherwise it is normal $T_{WO.}$
- Pump 1 icon is shown when it is operating.
- Heater indication is shown always except:
  - ✓ Cooling Operation
  - ✓ Heater is disabled by DSW
  - ✓ For YUTAKI M complementary heater variable does not include Heater (HP Only or HP+Boiler)
- If maximum heater step is deactivated, the deactivated steps are shown as deactivated.
- Wate pressure is hidden for YUTAKI M or YUTAKI Mirror.
- Two:
  - ✓ Two is MRTwo for YUTAKI H or H Combi
  - ✓ Two is Two3 for YUTAKI M or YUTAKI Mirror.
- TwoHP:
  - ✓ Hidden for YUTAKI M or YUTAKI Mirror.
- Twi is MRTwi for YUTAKI H Combi

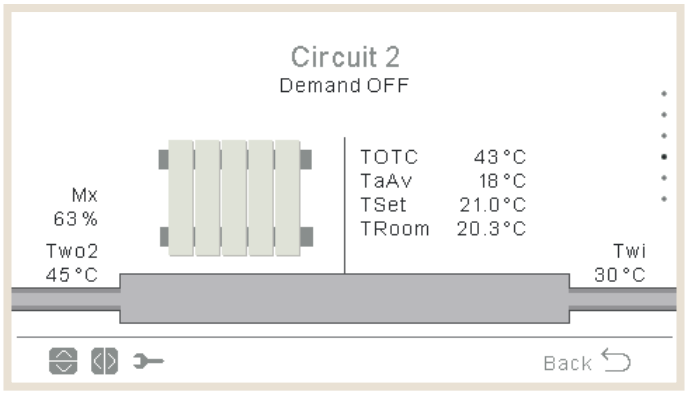
◆ Circuit 1



Considerations:

- When demand on, inlet pipe is in orange, outlet in blue.
- When cooling, inlet pipe is in blue, outlet in orange. If Thermo-OFF, it is shown in gray.
- Two shows value of Two3 in case there is buffer tank and Two3 sensor is used.
- Water pump 3 is shown when it is switched ON since there is buffer tank. Otherwise, water pump 1 is showed whenever it is switched ON.
- Fan speed only shown when fan configured.
- Troom & Tset are only shown when available on operation information (exist wired or wireless thermostat for C1).
- The icon shown is defined on “Room icon” parameter under “controller settings”.
- Two is MRTwo for YUTAKI H or YUTAKI H Combi.
- Two is Two3 when a buffer tank is installed and sensor has been detected.
- Twi is MRTwi for YUTAKI H Combi.

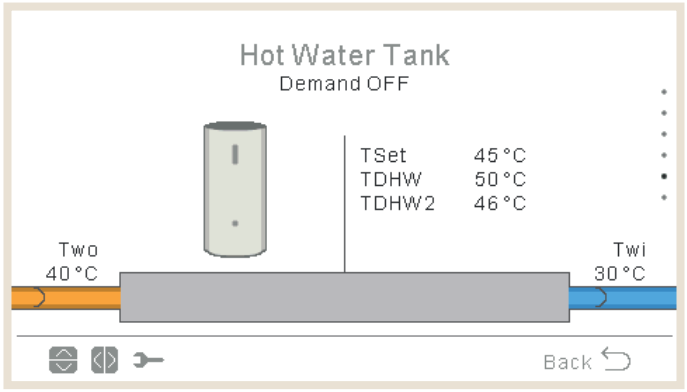
◆ Circuit 2



Considerations:

- When demand on, inlet pipe is in orange, outlet in blue.
- When cooling, inlet pipe is in blue, outlet in orange. If Thermo-OFF, it is shown in gray.
- Water pump 2 is shown if used.
- Fan speed only shown when fan configured.
- Troom & Tset are only shown when available on operation information (exist wired or wireless thermostat for C1).
- The icon shown is defined on “Room icon” parameter under “Controller settings”.
- Two is MRTwo for YUTAKI H or YUTAKI H Combi.
- Twi is MRTwi for YUTAKI H Combi.

◆ Hot Water Tank

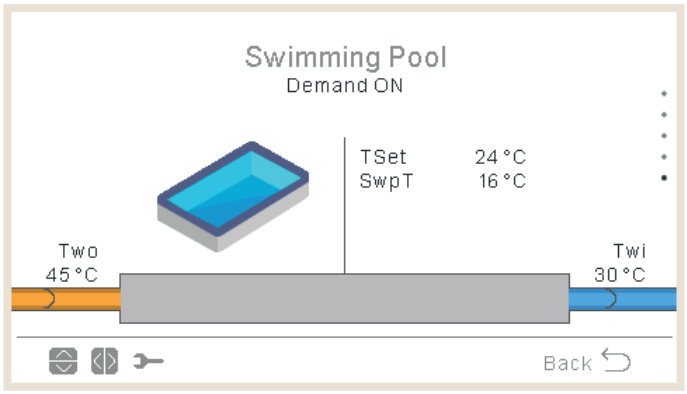


Considerations:

- When Operation status is DHW ON: inlet pipe has orange color inside and arrows moving. Outlet pipe is blue with arrows too.
- When not working on DHW ON pipes are shown in light grey.
- When antilegionella is enabled a text is shown, indicating if it is being execute or not.
- Twi is MRTwi for YUTAKI H Combi.

- Two is TwHP when using a YUTAKI H Combi or YUTAKI S Combi, otherwise:
  - ✓ If buffer tank is located after DHW use Two, if buffer tank is located before DHW use Two3
  - ✓ Otherwise use Two
- Second sensor temperature shown only for YUTAKI S Combi.

◆ Swimming Pool

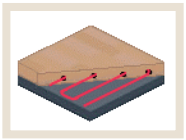


Considerations:

- When demand off: inlet and outlet pipes are gray.
- When demand on: Two water is orange (hot) and Twi water is blue (cold).
- When operation status is on SWP ON, inlet pipe has orange color inside, outlet is blue and arrows are moving. When SWP OFF, is shown in light gray.
- Two is Two3 when there is hydraulic separator installed and Two3 has value.
- Twi is MRTwi for YUTAKI H Combi.

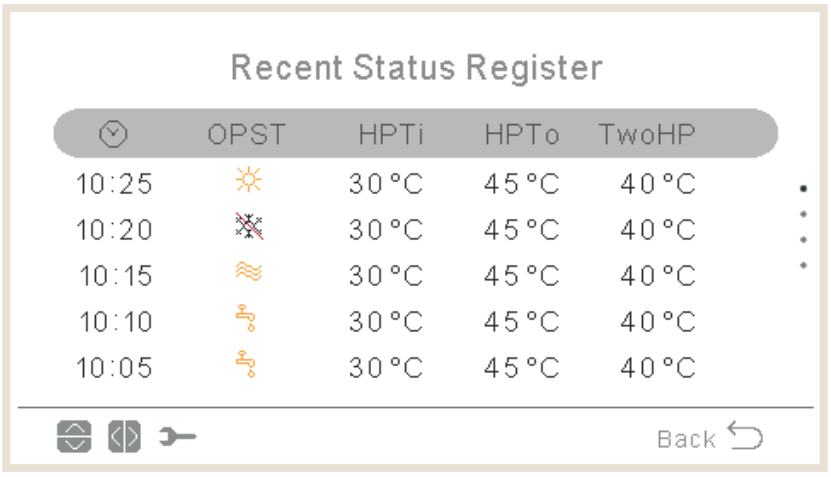
◆ Room icons for synoptic view

Circuit 1 and 2 can be displayed with the following icons

Icon	Name
	Fan Coils
	Radiant floor
	Radiators

1.15.2 Recent Status Register

Recent Status Register is an historical data that displays the main variables during the last hours.



OPST	Operation status
HPTi	Heat pump inlet temperature
HPTo	Heat pump outlet temperature
TwoHP	Heat pump water outlet temperature
WSet	Water setting
TAmb	Ambient temperature
TDHW	DHW temperature

TopDHW	DHW top thermistor
HPWF	Heat pump water flow
HPWP	Heat pump water pressure
WPress	Water pressure
HPTg	Heat pump gas thermistor
HPTl	Heat pump liquid thermistor
HPTd	Heat pump discharge thermistor
HPTe	Heat pump evaporation thermistor
HPPd	Heat pump pressure discharge
HPEVI1	Indoor expansion valve open
HPEVI2	Indoor expansion valve 2 open
HPEVO	Outdoor expansion valve open
HPInjValve	Injection expansion valve
HPH4	Inverter frequency operation
HPDI	Cause of stoppage
EHStep	Electric heater step
MRTwi	Water inlet temperature for Mirror units (YUTAKI Mirror, YUTAKI H and YUTAKI H Combi)
MRTwo	Water outlet temperature for Mirror units (YUTAKI Mirror, YUTAKI H and YUTAKI H Combi)
TEco	Economizer temperature

NOTE

- *Moving to left/right variables shown change.*
- *Moving up/down we scroll through the registered time.*
- *HPTi: Show "- -" in case of YUTAKI Mirror or YUTAKI H.*
- *TopDHW: Only shown for YUTAKI S Combi, when not show "- -".*
- *TDWH and TopDHW shown as "- -" when no tank is configured.*
- *TwoHP: Only shown for YUTAKI S or YUTAKI S Combi, when not show "- -".*
- *TEco is shown only for R32 units bigger than 3HP.*

Icon	Meaning
	Off
	Cool D-OFF
	Cool T-OFF
	Cool ON
	Heat D-OFF
	Heat T-OFF
	Heat ON
	DHW OFF
	DHW ON
	SWP OFF
	SWP ON
	Alarm

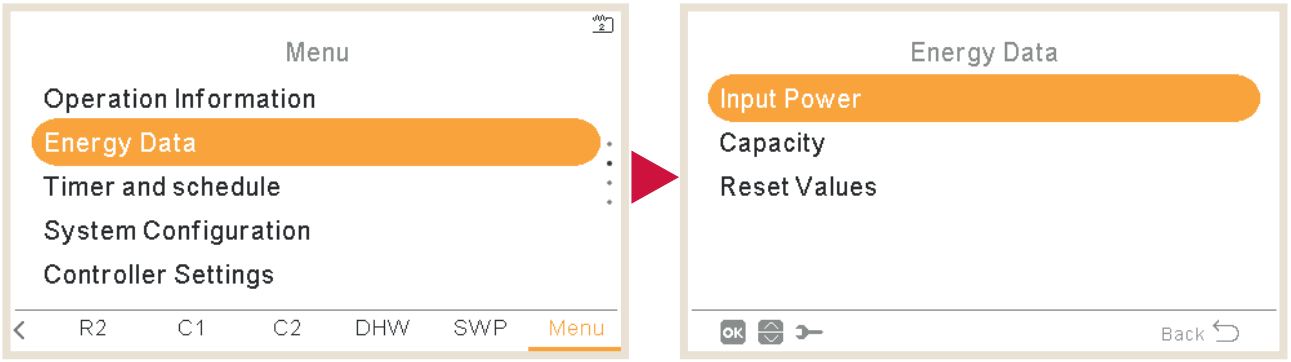
1.16 Energy Data Menu

This menu is not available for YUTAKI Cascade Controller units.

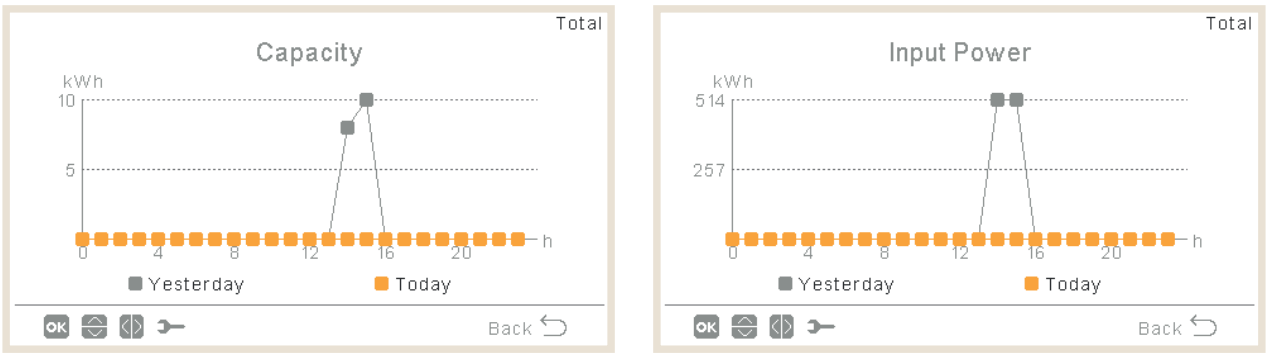
In energy data menu it is possible to check the input power or capacity for space heating / cooling, DHW, SWP or total input power / capacity.

In case no external pulse power meter is used, YUTAKI unit performs an estimation of the consumption taking into consideration, compressor, tank heaters, space heating heaters, compressor crankase heater, WP1 and electronics. As an estimation, this value may differ from real consumption measured by means an external power meter.

When power meter is used, YUTAKI considers consumption read from pulse power meter

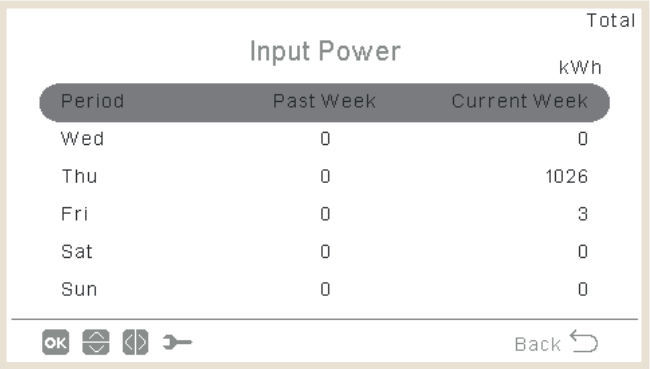


Main view is a chart comparing total input power or total capacity depending on the menu.



- By pressing right/left, it can be changed between zones:
  - ✓ Total
  - ✓ Space Heating
  - ✓ Space Cooling
  - ✓ DHW
  - ✓ Swimming Pool
- By pressing up/down, the comparison method can be changed:
  - ✓ Today vs yesterday
  - ✓ This week vs past week
  - ✓ This year vs past year

- Pressing OK the chart view changes for a table view of the data:



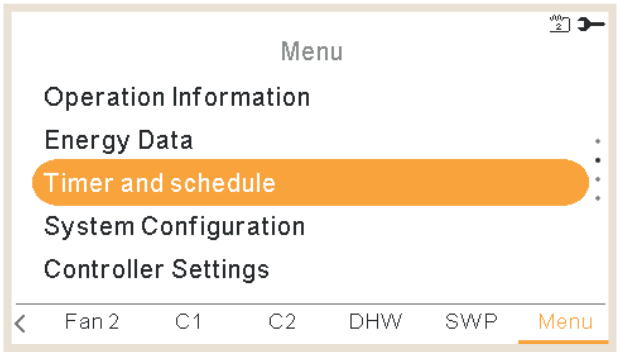
- By pressing right/left, it can be changed between zones:
  - ✓ Total
  - ✓ Space Heating
  - ✓ Space Cooling
  - ✓ DHW
  - ✓ Swimming Pool
- By pressing up/down, the different periods are shown.
- By pressing OK or back we return to the chart view, keeping the zone and comparison selected.

1.17 Timer and schedule configuration

NOTE

Timer settings are only valid if the corresponding zone is in ON state at the time of execution of the respective timer program.

The LCD controller must be set to the correct date and time before using the timer function.

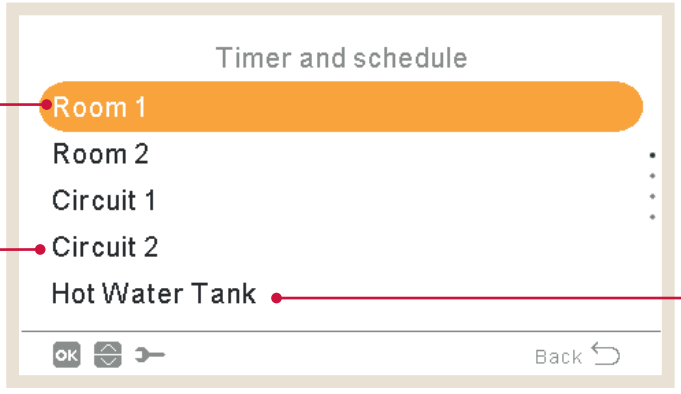


Select the desired area to apply the timer function or delete all timers configuration:

Heating/Cooling (Air):

To set the timer to adjust the room temperature for Room 1/2.
Only when using room thermostats.
Is possible to launch a timer assistant.

1 / 2



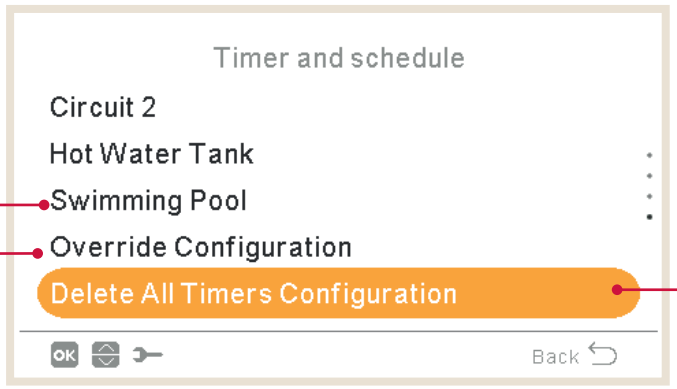
To set the timer to adjust the hot water tank temperature.

Heating/Cooling (Water):

To set the timer to adjust the water working conditions for Circuit 1/2.

To set the timer to adjust the swimming pool temperature.

2 / 2

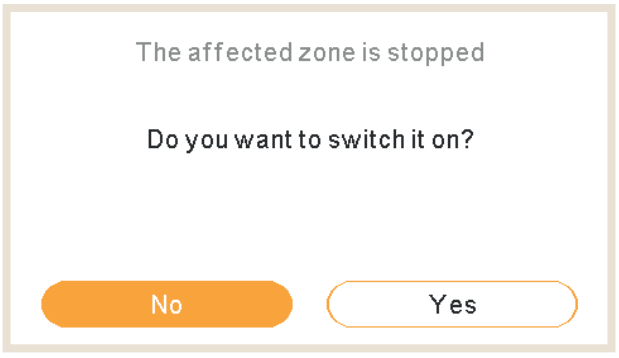


Press OK button to reset scheduled timers.

To set the Override type:

- Until next action
- Specific time
- Forever

When a timer is being switched on, if that zone is stopped, it will request to switch on the zone or not.

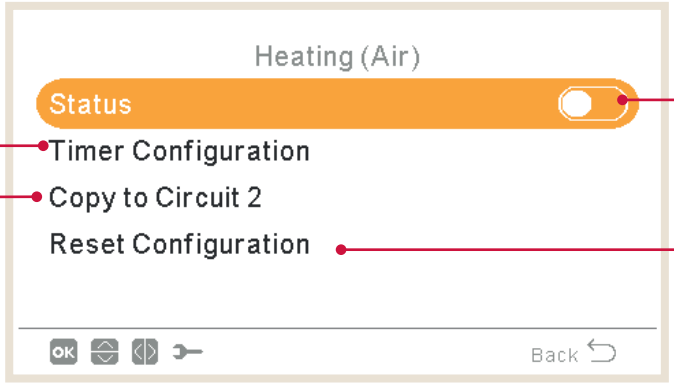


1.17.1 Setting of timer for Room Thermostats

Setting of temperature or change of operation state from ON to OFF for a defined period, after which operation returns to the previous settings. Manual operation of the unit controller has priority over schedule settings.

Timer configuration:

New screen appears to configure a schedule timer.
See explanation below.



Timer status:

- Disable
- Enable

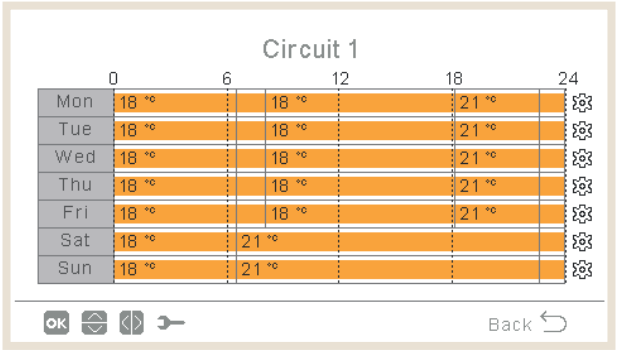
Reset configuration:

Press OK button to reset scheduled timers.

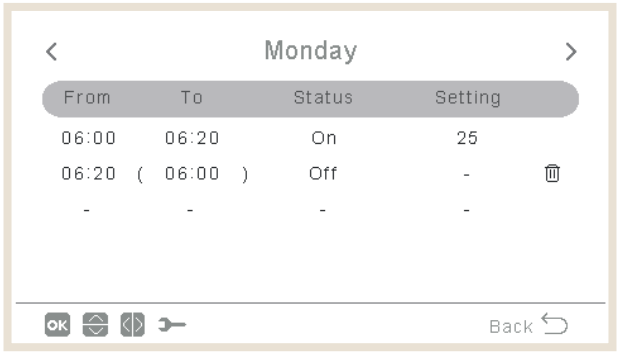
Copy to circuit 2:

It is possible to copy the schedule timer to circuit 2.

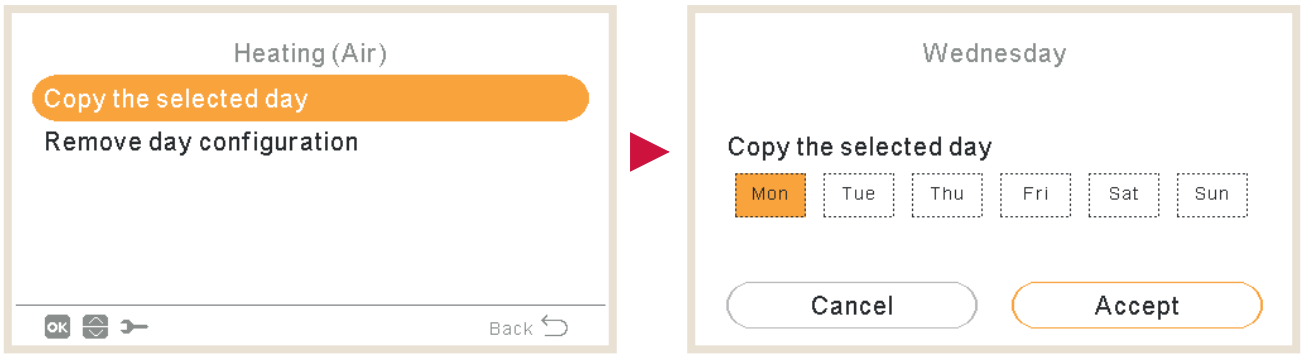
Pressing the OK button with “Timer Configuration” being selected displays the detailed schedule screen. The active schedule timers are shown in a weekly calendar.



Up to six timer events can be defined for each weekday, and these can be used for turning the operation ON or OFF or to change the setting temperature. Pressing the OK key with one of the weekdays being selected in the weekly calendar screen displays the detailed schedule for the weekday.

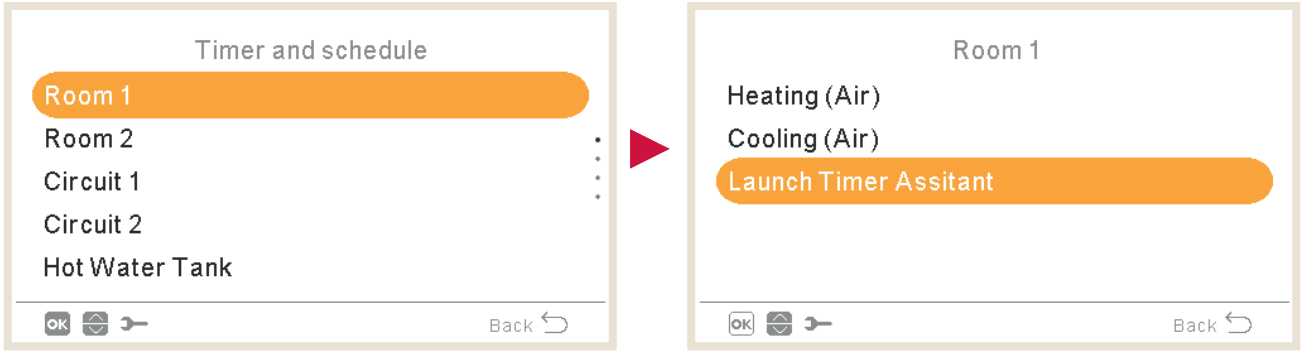


Pressing the “Gear” button during the edition of the timer events for a given weekday displays a menu to copy the daily pattern to other weekdays or to suppress the selected timer event.

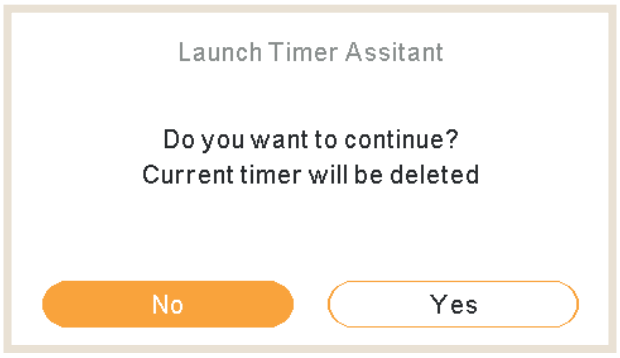


◆ Setting with Timer assistant

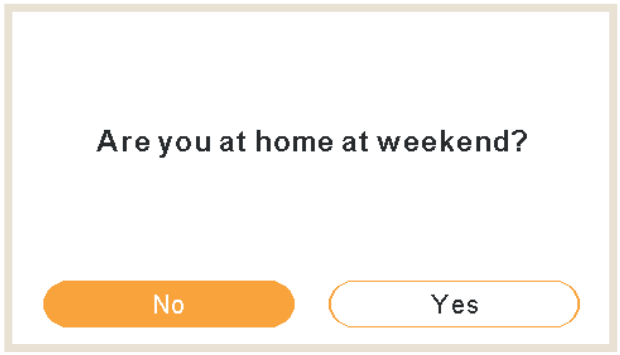
It is possible to set the timer for Room thermostats with a timer assistant.

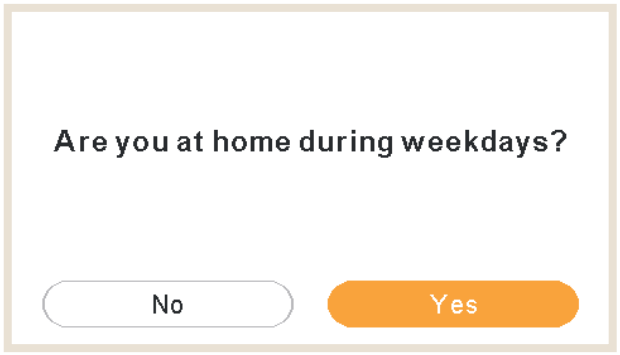


When launching the timer assistant the current timer will be deleted.



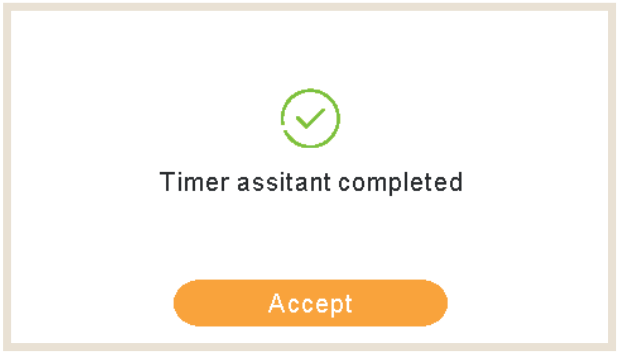
Timer assistant asks if user stays at home during weekend and weekdays





- If stay at home at weekend / weekdays the following patterns are applied:
  - ✓ Heating: 6:30h = 20°C / 22:30h = 18°C
  - ✓ Cooling: 6:30h = 23°C / 22:30h = 25°C

Timer assistant asks if user is sensistive to cold.



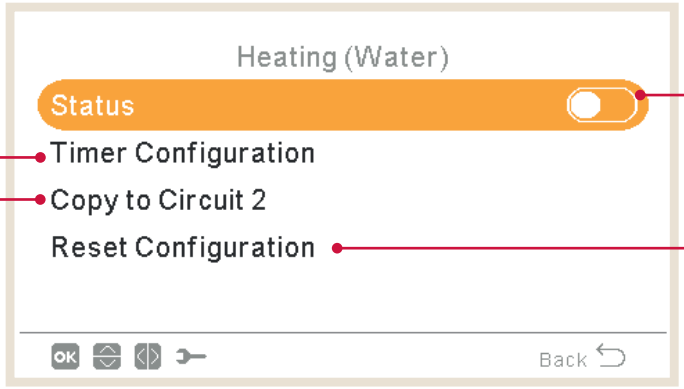
- If senstive to cold is marked as Yes, an offset of 1°C is applied for heating.

1.17.2 Setting of timer for Circuit 1/2

To change the operation mode (ECO or Comfort) or change of operation state from ON to OFF for a defined period, after which operation returns to the previous settings. Manual operation of the unit controller has priority over schedule settings.

Timer configuration:

New screen appears to configure a schedule timer.
See explanation below.



Timer status:

- Disable
- Enable

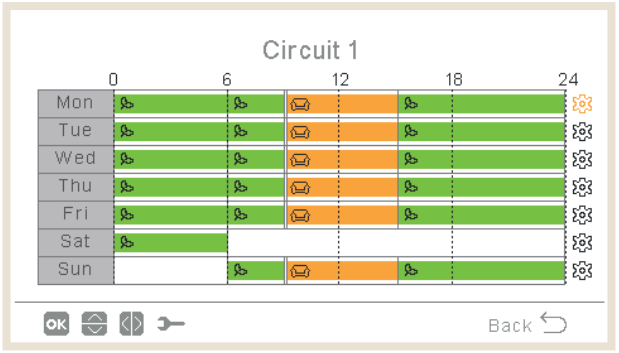
Reset configuration:

Press OK button to reset scheduled timers.

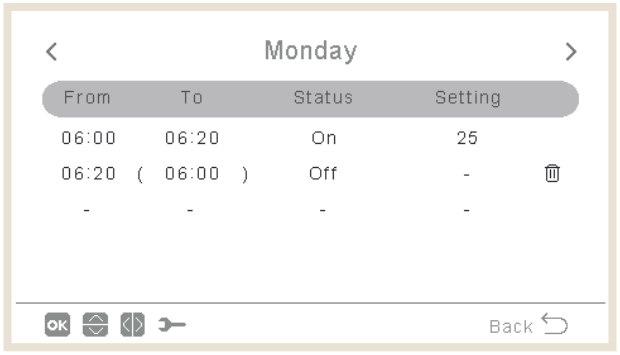
Copy to circuit 2:

It is possible to copy the schedule timer to circuit 2.

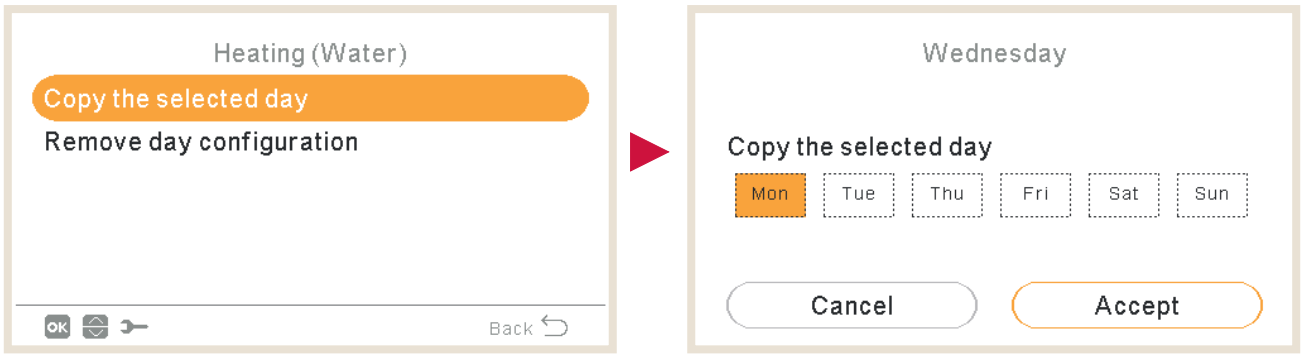
Pressing the OK button with “Timer Configuration” being selected displays the detailed schedule screen. The active schedule timers are shown in a weekly calendar.



Up to six timer events can be defined for each weekday, and these can be used for turning the operation ON or OFF or operation mode (ECO or Comfort). Pressing the OK key with one of the weekdays being selected in the weekly calendar screen displays the detailed schedule for the weekday.



Pressing the “Gear” button during the edition of the timer events for a given weekday displays a menu to copy the daily pattern to other weekdays or to suppress the selected timer event.

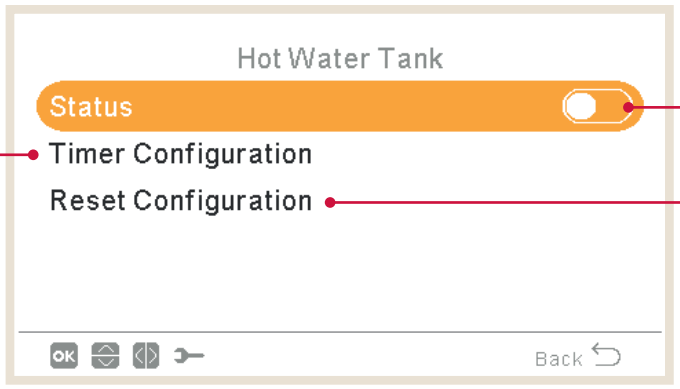


1.17.3 Setting of timer for Hot water tank or Swimming Pool

Setting the temperature or change of operation state from ON to OFF for a defined period, after which operation returns to the previous settings. Manual operation of the unit controller has priority over schedule settings.

Timer configuration:

New screen appears to configure a schedule timer.
See explanation below.



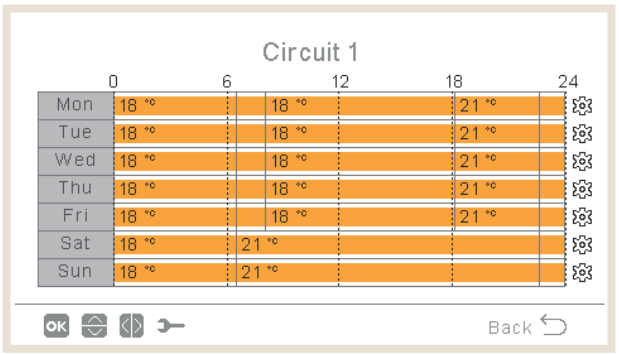
Timer status:

- Disable
- Enable

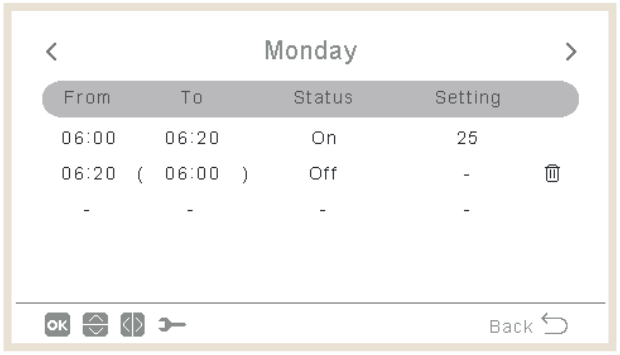
Reset configuration:

Press OK button to reset scheduled timers.

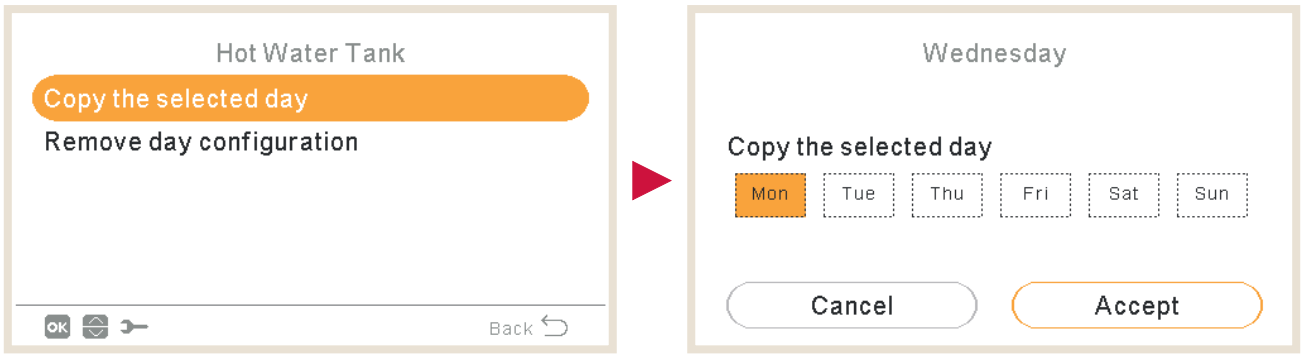
Pressing the OK button with “Timer Configuration” being selected displays the detailed schedule screen. The active schedule timers are shown in a weekly calendar.



Up to six timer events can be defined for each weekday, and these can be used for turning the operation ON or OFF or to change the setting temperature. Pressing the OK key with one of the weekdays being selected in the weekly calendar screen displays the detailed schedule for the weekday.

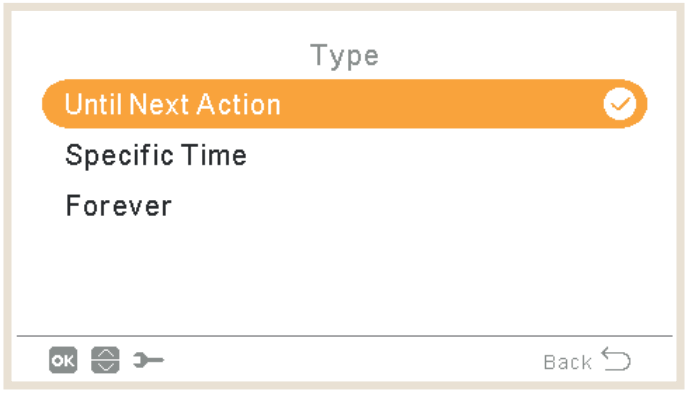


Pressing the “Gear” button during the edition of the timer events for a given weekday displays a menu to copy the daily pattern to other weekdays or to suppress the selected timer event.



1.17.4 Override Configuration

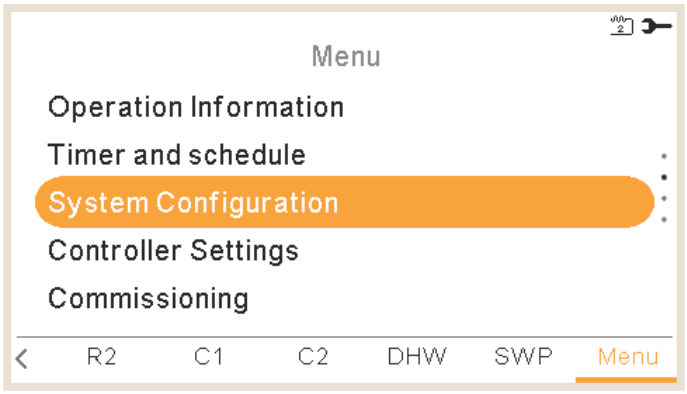
When a different configuration from the defined by the timer of a zone is done, it is possible to override the timer configuration during a specific time.



- Until next action: derogation remains until next action of the timer.
- Specific Time: derogation status remains for the specified minutes.
- Forever: Derogation status is never released.

1.18 System Configuration Menu

In system configuration menu it is possible to configure all the system settings.



Space Heating / Cooling configuration:

- Water calculation mode
- Eco offset water setting
- Working limits
- Mixing valve (for circuit2)

Room thermostats configuration:

(Screen visible only for room thermostats)

- Setting temperature range (air)
- Air Eco Offset
- Thermostat configuration
- Compensation factors
- Room temperature demand OFF

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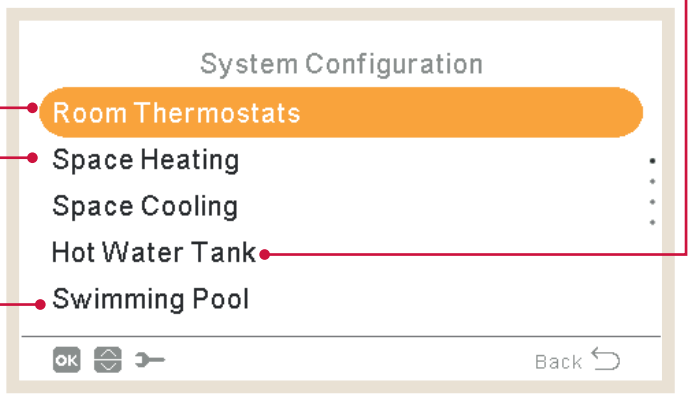


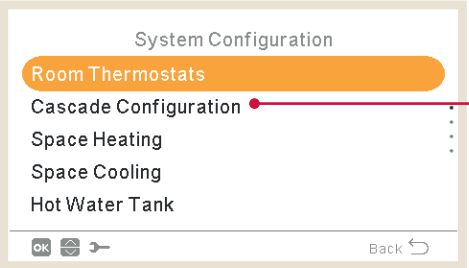
DHW configuration:

- Status
- Mode
- Setting temperature
- HP control
- HP control setting
- Maximum setting temperature
- Differential temperature
- HP OFF differential temperature
- HP ON differential temperature
- Maximum time
- Cycle Time
- Space Priority status
- Space Priority temperature
- DHW Heater
- Smart configuration
- Anti Legionella

Swimming Pool configuration:

- Status
- Setting temperature
- Offset temperature

Cascade Configuration (Only for YUTAKI Cascade Controller)



Cascade configuration:

- Supply setting offset
- Modules configuration

Complementary Heating configuration:

- Heating Source (HP Only, HP+Boiler, HP+Heater, HP+Heater+Boiler)
- Electrical heater
- Boiler combination
- Solar combination

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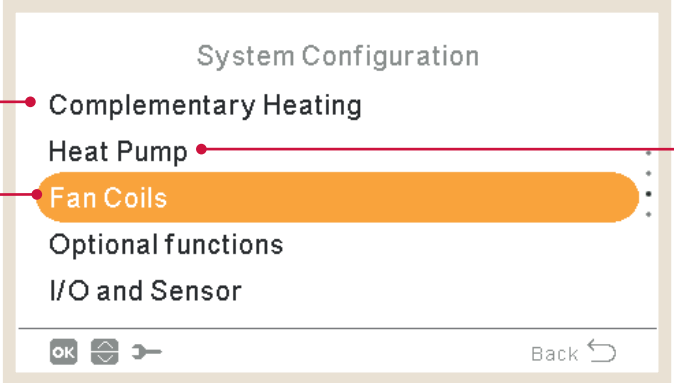

Heat pump configuration:

- Water Pump Configuration
- Night Shift
- Outdoor Average Timer
- Minimum ON Time
- Minimum OFF Time
- Seizure Protection

Fan coils configuration:

- Controlled fan zones
- Delay on time
- Demand OFF actions

Optional functions configuration:

- Hydraulic separator
- Energy configuration
- Smart function
- Heating auto on/off
- Auto heat/cool
- Hot water tank
- Emergency operation

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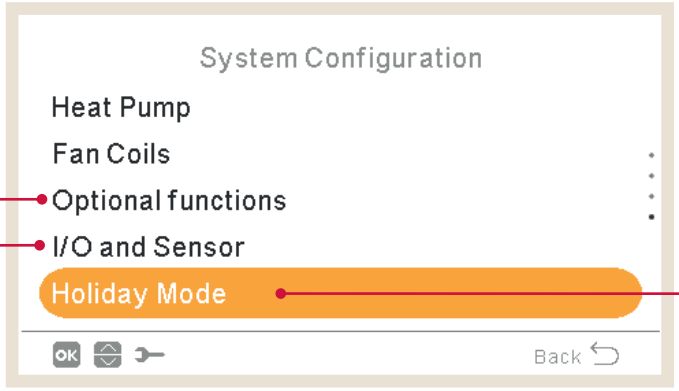


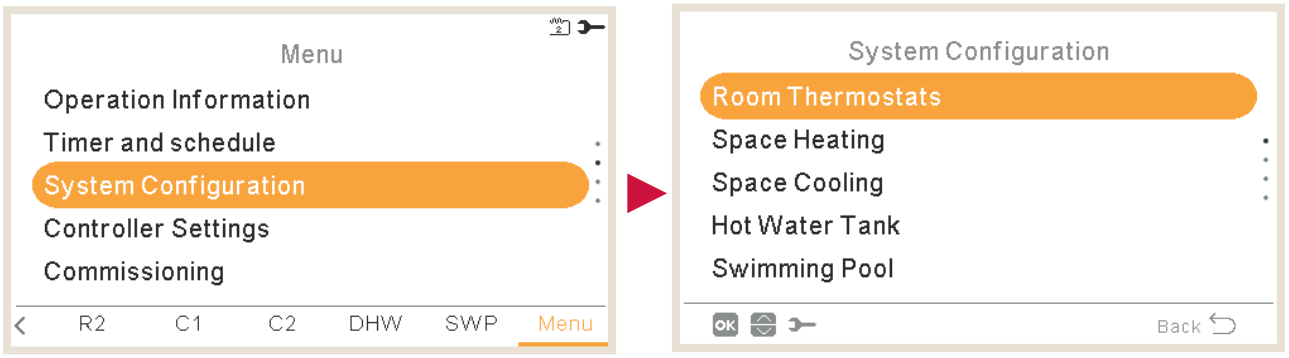
Holiday mode:

- Year
- Month
- Day
- Returning time
- Affected zones
- Start/stop holiday mode

I/O and Sensor configuration:

- Inputs
- Standard outputs
- Optional outputs
- Auxiliary sensors

1.18.1 Room thermostats configuration



Air Eco Offset for Circuit 1-2:

Configure the offset air temperature for the ECO mode.

Current air temperature setting is reduced by the indicated parameter (from 1 to 10°C)

Maximum / Minimum temperature for heating and cooling:

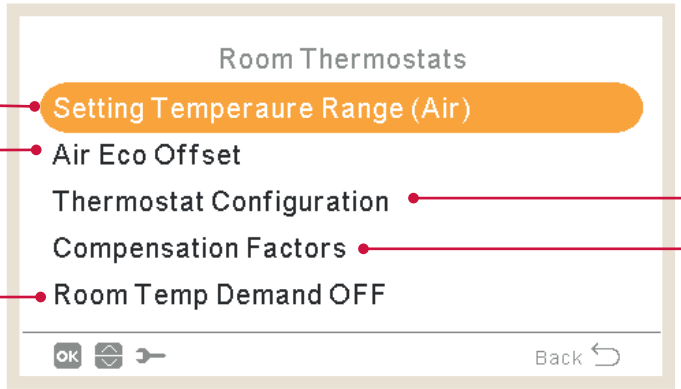
Configure for Circuit 1/2:

- Heating maximum temperature
- Heating minimum temperature
- Cooling maximum temperature
- Cooling minimum temperature

Thermostat configuration:

Configure the wired or wireless room thermostats:

- **Thermostat 1:** None, wired or wireless
- **Wireless Binding ID for Thermostat 1:** (1 or 2)
- **Thermostat 2:** None, wired or wireless
- **Wireless Binding ID for Thermostat 2:** (1 or 2)
- Check RT Address: validation procedure of the wireless thermostats configuration



Compensation factors (See Compensation factors section below)

Room Temperature Demand OFF:

Offset value between setting temperature and thermostat temperature to switch the system to Demand OFF; this parameter refers to a positive difference in heating operation and a negative difference in cooling operation.

◆ Compensation factors for Heating / Cooling

The temperature of the water supplied by the YUTAKI unit to the circuits is determined by means of OTC (See "Water calculation mode").

This control determines water temperature according to the outdoor temperature. The higher the outdoor temperature, the lower the building demand is, and in consequence the temperature of the water supplied to the circuits is lower. Conversely, the thermal demand of the building rises in the case of low outdoor temperature, and therefore the temperature of the supplied water becomes higher.

The room temperature compensation control allows to modify the water temperature determined by OTC control according to the setting room temperature and the actual room temperature.

In the case of heating, if the difference between room temperature and setting temperature is large, then water temperature is increased by the YUTAKI unit in order to achieve the desired room temperature in a faster way, thus compensating the thermal difference between setting temperature and actual temperature.

In this manner, given two identical rooms, the YUTAKI unit determines the same room temperature according to OTC control. On the other hand, for a room in which there is a wider difference between setting temperature and actual temperature, the YUTAKI unit will increase the temperature of the pumped water in order to ensure a similar heating up time until reaching the setting temperature.

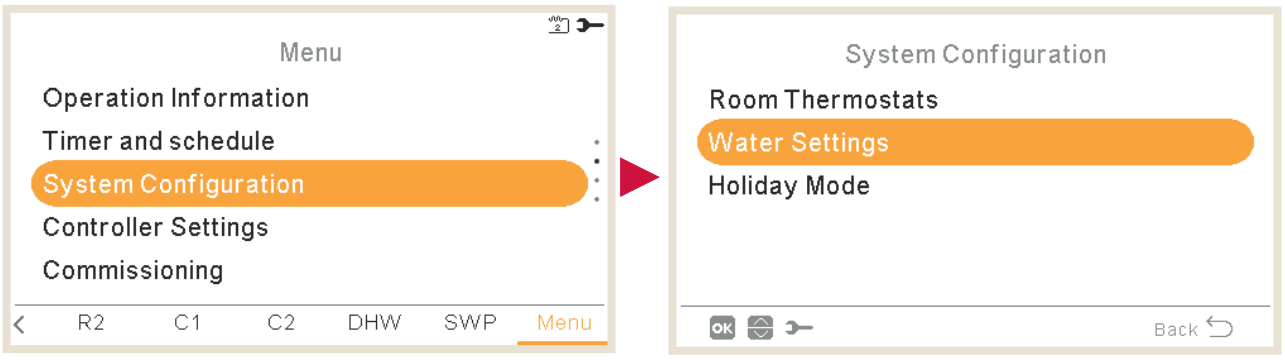
Compensation has no effect if Compensation factor is 0 or when OTC is Fix, and water temperature is determined according to OTC in chapter "Water calculation mode" in such case.

The more the factor is increased, the more is water temperature increased by the YUTAKI unit according to the difference between setting temperature and the current temperature.

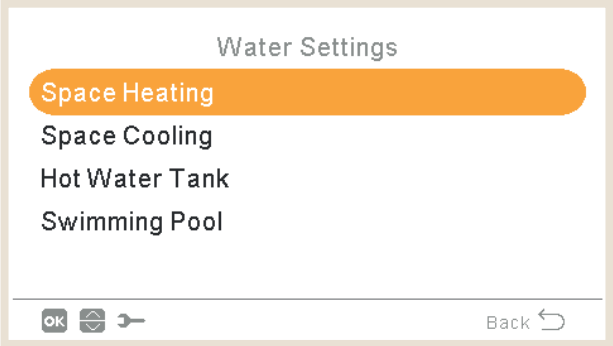
Maximum compensation factor heat + and -: Maximum difference between room temperature and setting temperature. In case that the difference between room temperature and setting temperature is higher than this value, the YUTAKI unit takes the selected value as the maximum.

1.18.2 Water settings configuration

This menu is only visible for a room thermostat if the controller is not controlling the unit.



Select the desired area to apply the water settings configuration:



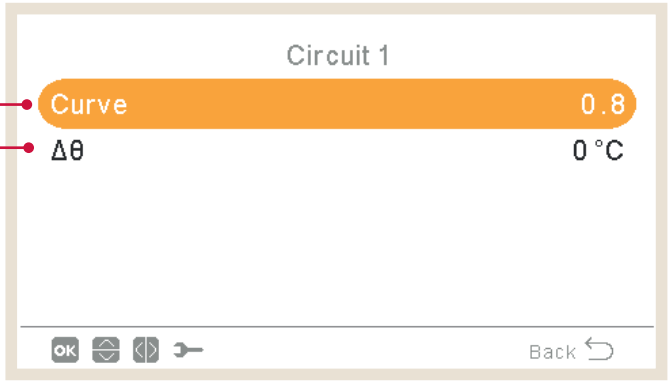
◆ Space Heating or Space Cooling water settings

Curve:

Selection of the gradient curve for Circuit 1 or Circuit 2 (Range: 0.2 ~ 2.2)

Only when:

- Heating mode.
- Circuit 1 or 2 status ON
- Water calculation mode is Gradient (setting in Main device).
- Circuit 1 or Circuit 2 must be ON to configure this setting.

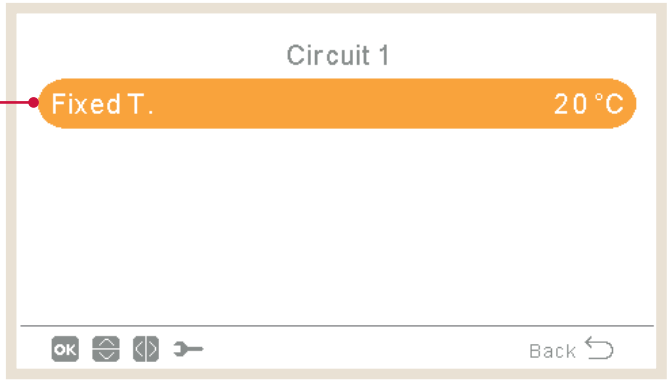


Δθ (Vertex offset):

To modify the curve vertex for Circuit 1 or Circuit 2 (Range: -10 ~ 10)

Only when:

- Heating mode
- Circuit 1 or 2 status ON
- Water calculation mode Gradient or Points (setting in Main device).



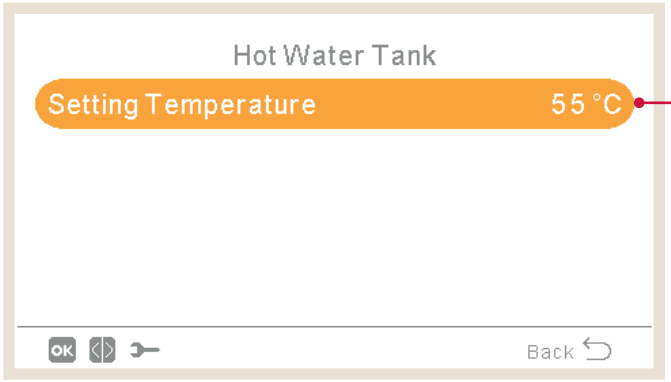
Fixed temperature:

Selection of the temperature for Circuit 1 or Circuit 2

Only when:

- Heating or cooling mode
- Water calculation mode is Fix (setting in Main device).
- Circuit 1 or 2 status ON

◆ Hot Water Tank or Swimming pool water settings



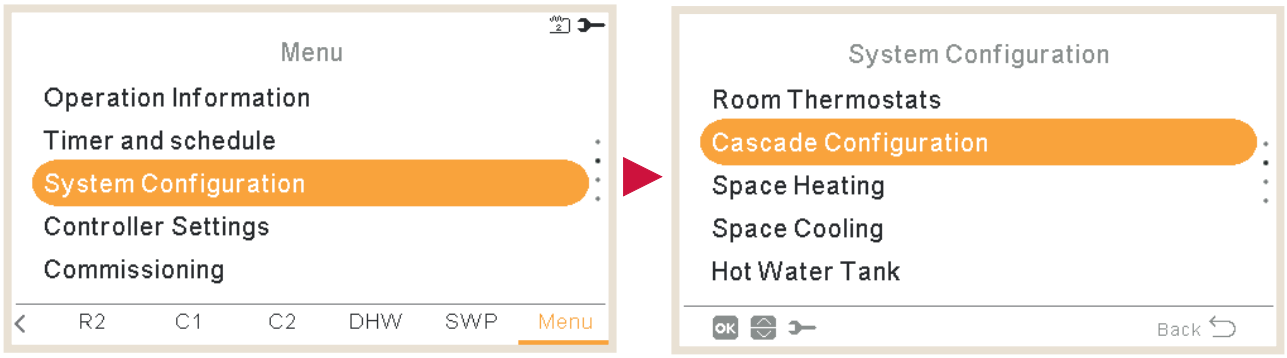
Setting temperature:

Selection of the temperature for DHW or Swimming Pool.

- Hot water tank or Swimming pool must be ON to configure this setting
- Range:
  - ✓ DHW: 30°C ~ Max. setting temperature
  - ✓ Swimming pool: 24 ~ 33°C

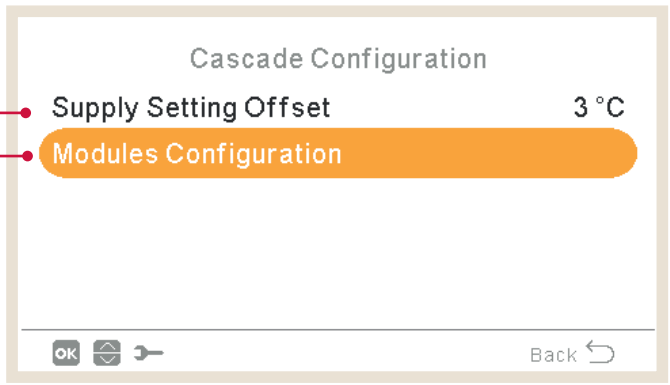
1.18.3 Cascade configuration

This menu is only available for YUTAKI Cascade Controller



Supply setting offset

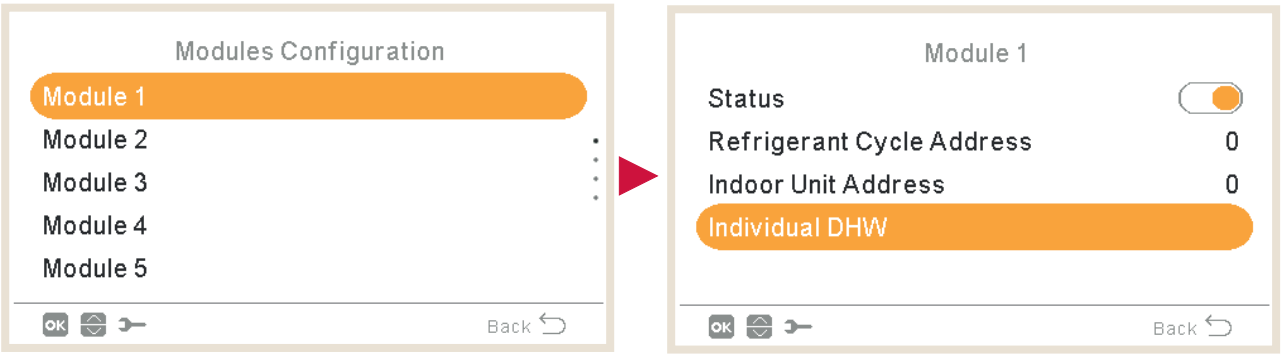
- To set YUTAKI Sub Units to work at a setting temperature higher than setting temperature determined by YUTAKI Cascade Controller
- 3°C by default (from 0 to 15°C)



Modules configuration:

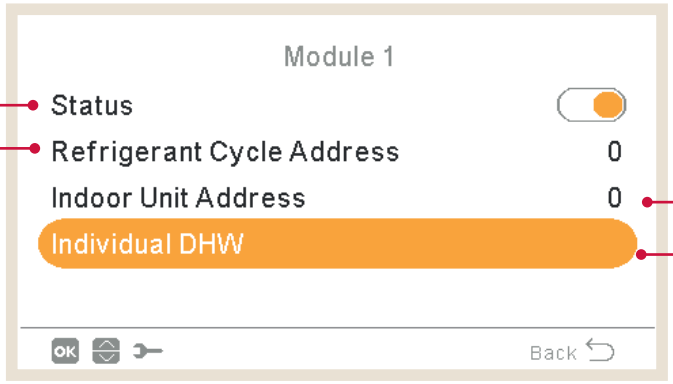
Configure the status, refrigerant cycle address, indoor unit address and individual DHW for each module. (See Modules Configuration for more information)

◆ Modules configuration



Module status:

Enable or disable the module.



Indoor unit address:

It must be always set to 0 (factory default)

Individual DHW:

Configure the status and type of individual DHW for the selected module (See individual DHW for more information).

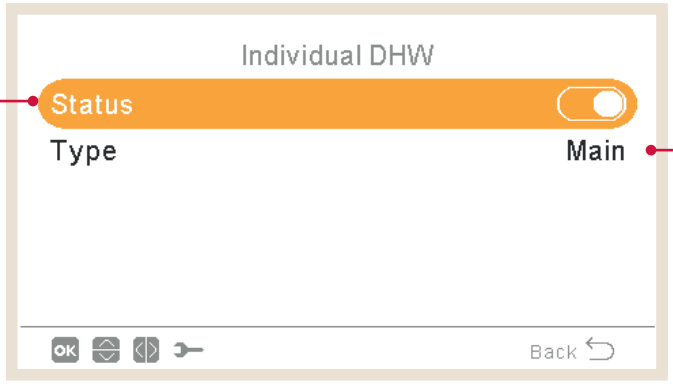
Refrigerant cycle address:

Set the refrigerant cycle address for each module, making sure that the setting is common with that of the outdoor (DSW4-RSW1) and indoor (DSW15 – RSW2) units which are part of the module.

◆ Individual DHW

Individual DHW status:

Enable or disable the individual DHW for the selected module.

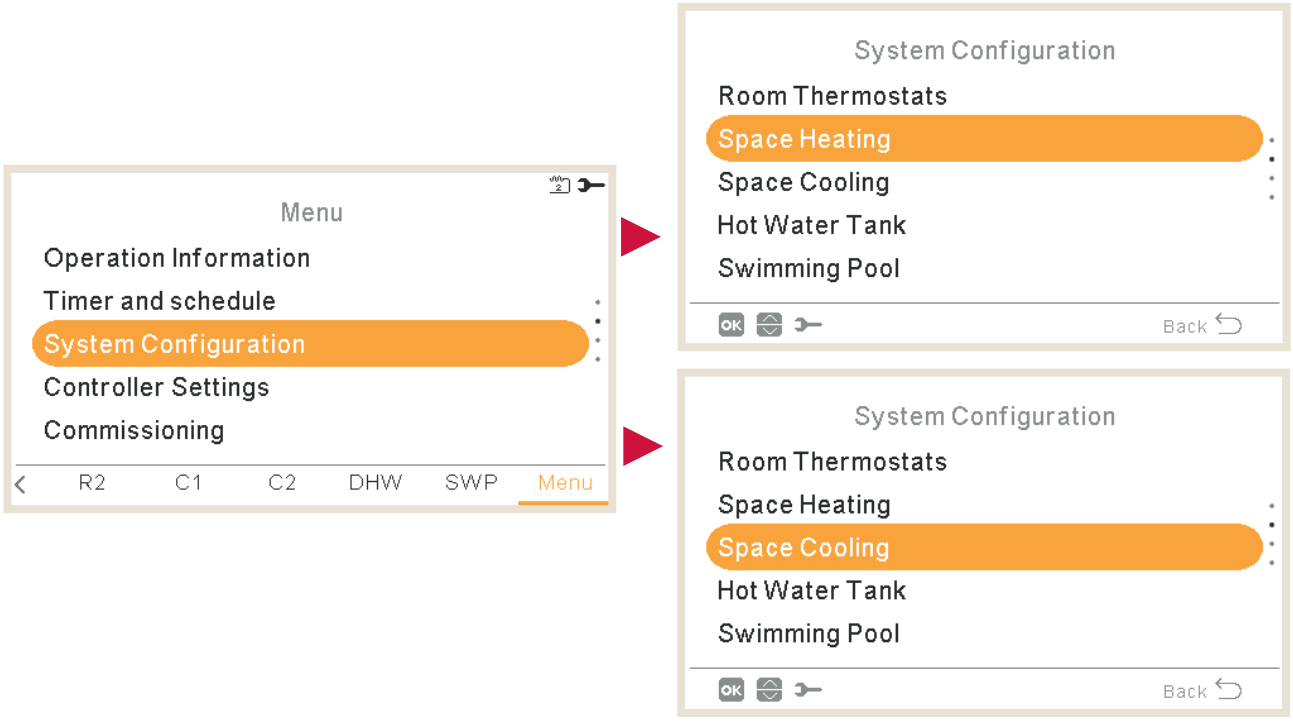


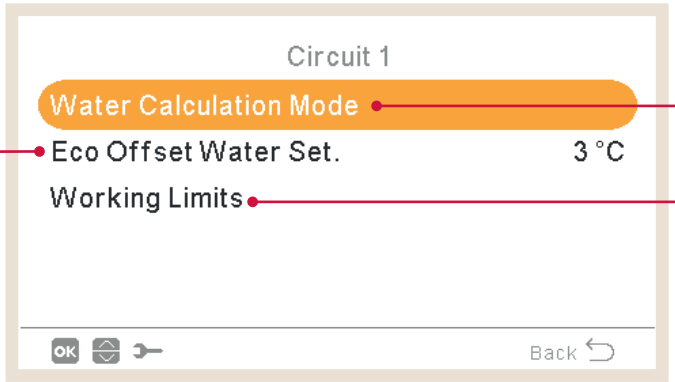
Individual DHW type:

- Select Main or Secondary depending on the installation of the DHW system.
- When Secondary type is selected, choose the Main module number.

1.18.4 Space Heating / Space Cooling configuration

Control the temperature for Space Heating or Space Cooling by configuring the following parameters.





DHW configuration:

Selection of the water set point for Circuit 1 or Circuit 2 (Space Heating or Space Cooling).

- Deactivated
- Points
- Gradient (only in heating mode)
- Fix
- See detailed explanation below.

Working Limits:

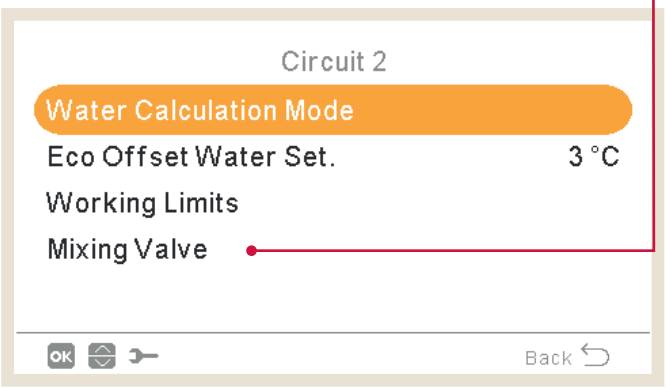
Limit for the temperature set-point to prevent high or low temperatures at Space Heating or Space Cooling:

- Maximum supply temperature
- Minimum supply temperature

Eco Offset Water setting:

Configure the offset water temperature for the ECO mode for Space Heating or Space Cooling.

By using this function, current water temperature setting is reduced by the indicated parameter.
Range: 0 ~ 10



Mixing valve:

To control the second water temperature (only for circuit 2).

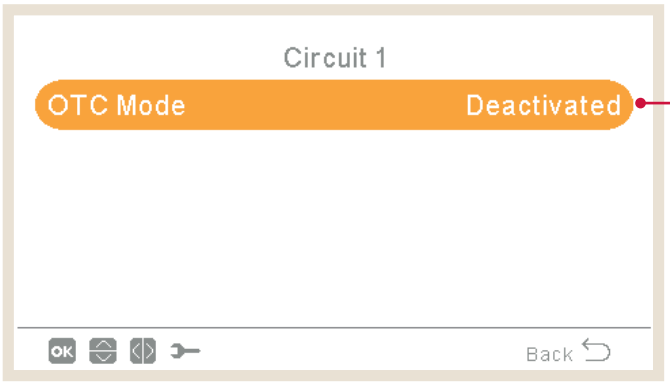
Values are adjusted for the use with the 2nd zone mixing kit accessory ATW-2KT-05. It is highly recommended not to change these values.

In case of using a mixing kit different from the ATW-2KT-05 configure the following parameters:

- Proportional band:
  0 ~ 20 K (6.0 K by default).
- Integral reset factor:
  0.0 ~ 20 % (2.5 % by default).
- Running time factor:
  10 ~ 250 sec (140 sec by default).
- Over temperature offset protection:
  OFF, 3 ~ 10°C (5°C by default).

◆ Water calculation mode

Deactivated



The “Deactivated” option sets the circuit as disabled.

Points

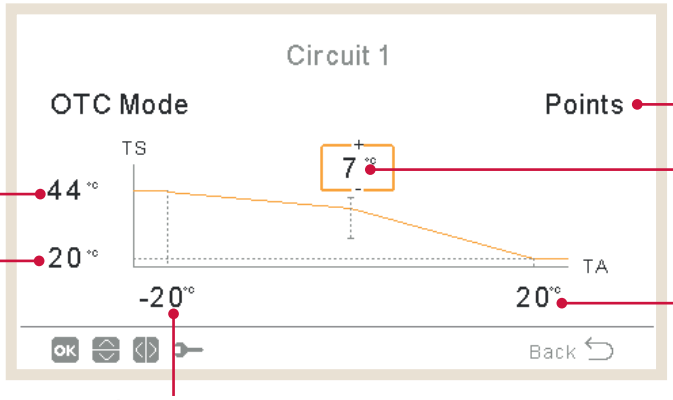
Points is the most versatile calculation type.

Set 4 points and one vertex point, to create a line representing the function that the air to water heat pump will use to give the temperature setting according to the current ambient temperature.

Use the down arrow key to select the parameter to modify. Then modify the value using the left and right arrow keys.

Set point at low ambient temperature

Set point at high ambient temperature



Vertex offset

High ambient temperature

Low ambient temperature

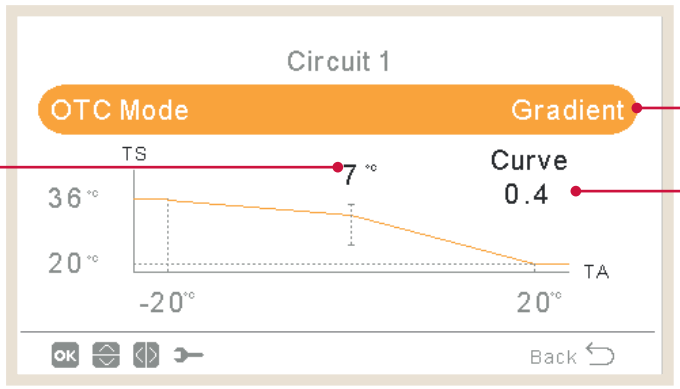
Gradient

Configure the same variables as in the “Points” view, but automatically.

User can only edit the gradient variable and it will automatically set the values for the other 4 variables on the chart.

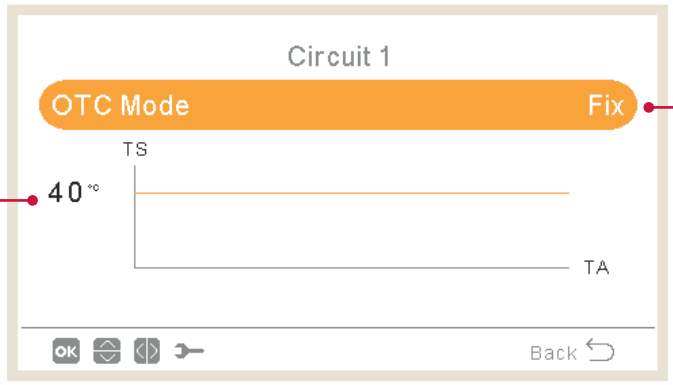
Use the down arrow key to select the parameter to modify. Then modify the value using the left and right arrow keys.

Vertex offset



Gradient curve

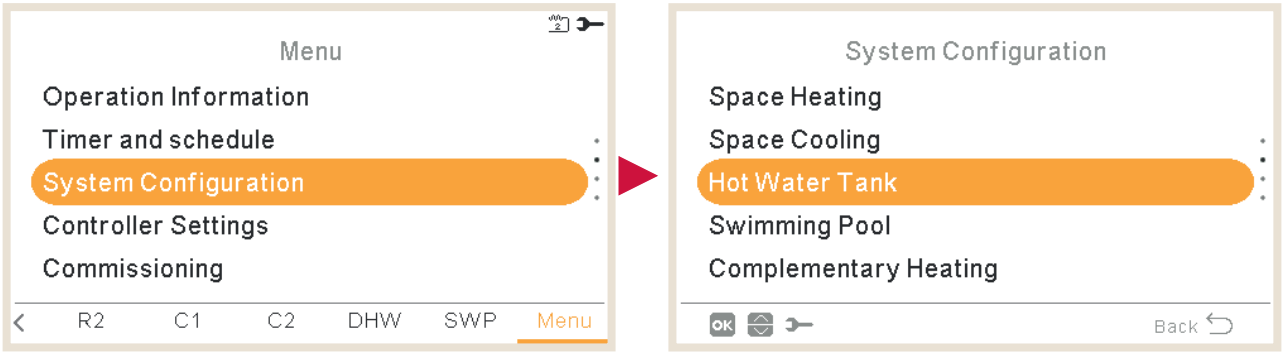
Fix



Fixed temperature

Set the circuit's temperature to a defined value, forcing the unit to maintain it.

1.18.5 Hot Water Tank configuration



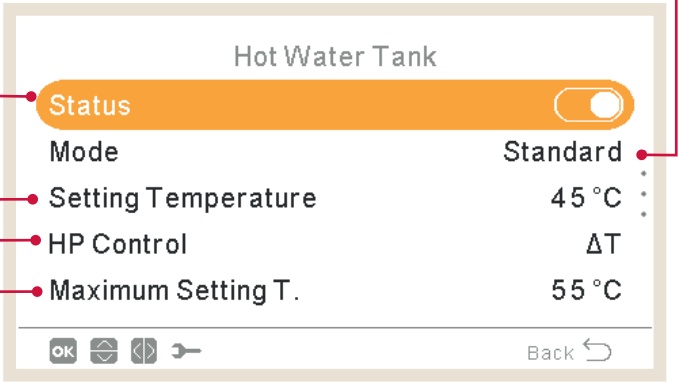
Setting temperature:

Setting for domestic hot water temperature selected by the user. The maximum value of this setting depends on the Maximum setting temperature set by the installer. (Between 30 to maximum setting temperature.)

Status of Hot Water Tank:

- Deactivated
- Enabled (by default for YUTAKI S Combi).

1 / 3



Maximum setting temperature:

Maximum value of DHW setting temperature permitted by the installer.

HP Control:

- To achieve the DHW setting temperature it is possible to select between two different modes of control:
- **ΔT:** The most efficient way to achieve the setting temperature. The outlet water temperature is 15°C higher than the tank temperature, increasing gradually until achieve the target water outlet temperature (setting temperature).
- **Fix:** This is the fastest way to achieve setting temperature. The outlet water temperature is set to HP Control setting. HP Control setting can be only adjusted in case HP Control is Fix.

Mode:

- **Standard:** DHW heating operation starts when the temperature of the water in the tank is low enough to start up the heat pump. DHW is heated up with the heat pump or the electrical heater (if electrical heater is enabled).
- **Economic (Only for YUTAKI S Combi and H Combi):** DHW heating operation starts under same conditions as Standard Mode with the difference that water temperature measurement is done at higher tank position. Due to this fact number of DHW operations decrease and its duration becomes longer which becomes more efficiency.
- **High Demand:** DHW heating operation starts if water temperature and setting temperature difference is larger than differential temperature. DHW can be heated up using the heater, the heat pump or a combination of both.Only available when Hot Water Tank heater is activated (DSW4 pin 3 ON).

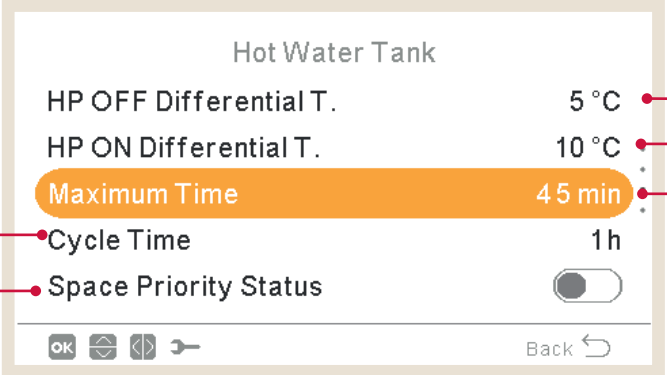
Cycle time:

Defines the minimum time between 2 heat pump cycles of domestic hot water.

DHW will be able to operate again after wait in Thermo-OFF the specified cycle time.

- Range: 0 ~ 24 hour
- Not available in High demand mode.

2 / 3



HP OFF differential temperature:

Hysteresis for the stop of DHW heating operation with the heat pump.

HP ON differential temperature:

Hysteresis for the start of DHW heating operation with the heat pump.

Space priority status:

If space priority function is enabled, Heat Pump operation by DHW mode stops (and continue with DHW heater, if necessary).

This function is only performed if space heating or space cooling can be done. If it is not possible, operation will continue in DHW normally.

- Not available in High demand mode.

Maximum time:

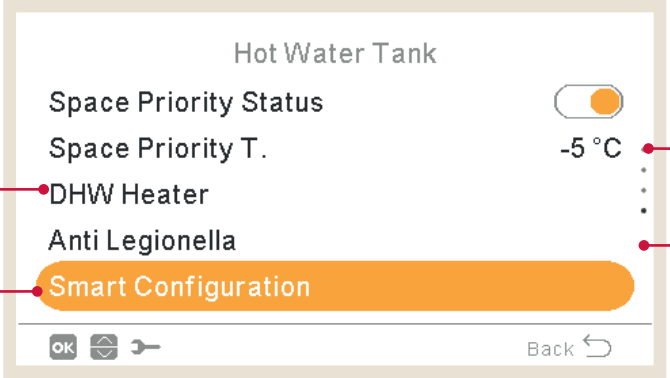
Maximum time that DHW operation can work using heat pump mode. When the heat pump is stopped by this function, DHW is still heated by DHW heater when it is enabled, until other conditions request stoppage.

- Range: OFF, 5 ~ 250 min
- Not available in High demand mode.

DHW Heater: Only available when DHW heater is activated (DSW4 pin 3 ON).

- **Waiting time**: Enable or disable waiting time for DHW heater.
- **Electrical Heater waiting time:** To select the delay time since the moment HP has started in order to start the electric heater. In case Waiting time is set to 0 (default), electric heater is never started due to waiting time. In case waiting time has a value different than 0, it means that heater will we switched ON after configured minutes since the moment HP has been switched ON.

3 / 3



Space priority temperature:

Threshold value of outdoor ambient temperature for the activation of the space priority function.

- Range: -20 ~ 0°C
- Not available in High demand mode.

Anti Legionella:

In order to help prevent against Legionella in the DHW system, the DHW set point can be raised to a higher than normal temperature.

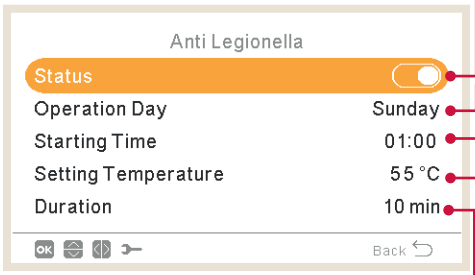
The Legionella protection only makes sense if there is a DHW electric heater to raise the DHW temperature to this high temperature.

See the possible configurable parameters below.

Smart Configuration: Option to allow the tank to be heated to an intermediate temperature of comfort in conditions of water consumption in order to avoid heating to the traditional setting temperature (Only available in Economic mode).

- **Comfort setting**: Intermediate target temperature of tank heating under water consumption conditions
- **Comfort cycles:** Number of operations allowed to heat water to the comfort temperature.

◆ Anti Legionella function



Status of anti legionella operation (enabled/deactivated).

Specified day for anti legionella operation.

Specified time of the day for anti legionella operation.

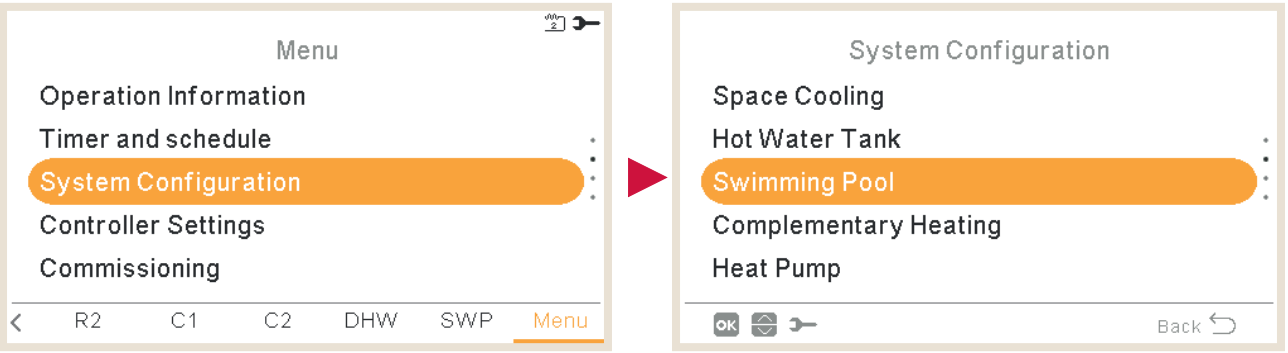
Setting for domestic hot water temperature in anti legionella operation.

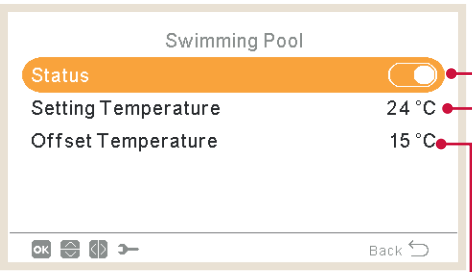
Duration of shock treatment. Between 10 to 60 minutes.

NOTE

In case anti legionella treatment has not been possible to achieve within a time lapse of 6 hours since the moment it has been trigered, anti legionella treatment is released and normal operation can be resumed.

1.18.6 Swimming Pool configuration





Status:

Enable or disable swimming pool.

Set input 3, output 1 and sensor 2. (See section "1.18.11 Inputs, Outputs and Sensors configuration")

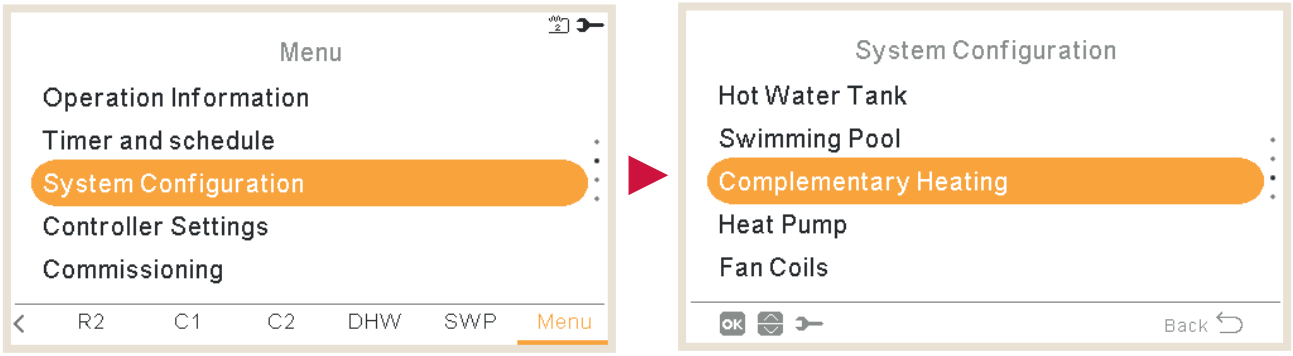
Setting temperature:

Adjustment of the swimming pool water temperature setting.

- Range: 24 ~ 33°C

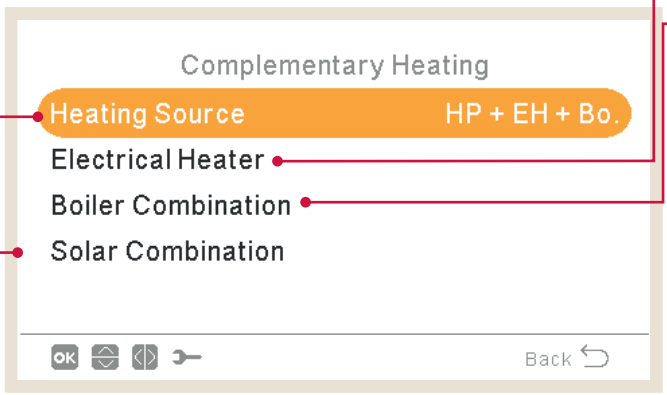
Offset temperature: The setting temperature is increased by the indicated parameter.

1.18.7 Complementary Heating configuration



Heating Source:

- HP Only
- HP + Heater
- HP + Boiler
- HP + Heater + Boiler (Only for YUTAKI S and YUTAKI S Combi)



Electrical heater: See detailed information in "Electrical heater".

Boiler combination: Boiler will only operate if unit is in Space Heating or Hot Sanitary Water modes. It will always be Deactivated in any other mode (Swimming Pool and Cooling mode). Set output 3 and sensor 1 for boiler (see section "1.18.11 Inputs, Outputs and Sensors configuration").

See detailed information in "Boiler combination".

Solar combination:

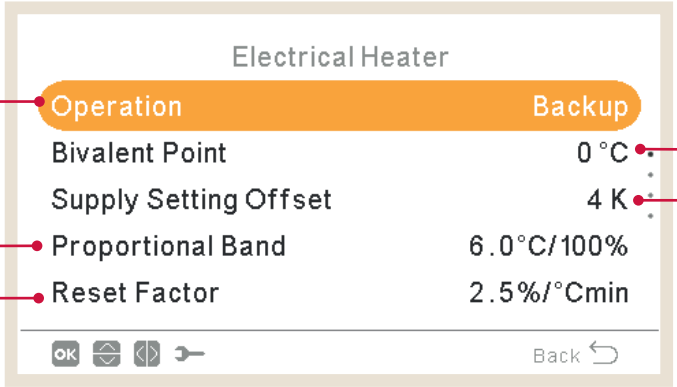
The solar combination will enable you to heat up your domestic water by means of the sun whenever the sun is available.

- Set input 4, output 4 and sensor (see section "1.18.11 Inputs, Outputs and Sensors configuration").
- **Deactivated:** No solar Kit is installed.
- **Input Demand:** Alternative DHW tank operation is done by solar system or YUTAKI unit. Solar input can disable DHW operations done by YUTAKI unit.
- DHW Hysteresis (OFF, 35 ~ 240 min).
- DHW Maximum Time (5 ~ 240 min).
- **Total Control**: YUTAKI units controls the solar operation for the system, based on different temperatures: DHWT is heated by either the hot water that comes from the solar panels or the hot water that comes from the heat pump, depending on the solar temperature. See detailed information in "Solar combination - Total control".

◆ Electrical heater

Operation:

- **Starting:** Space Heating electric Heater is switched ON in case of low water temperature and low ambient temperature to provide extra capacity to HP.
- **Backup:** Space Heating Electric Heater is switched ON in case of low ambient temperature (below Bivalent point) in order to provide extra capacity to HP at coldest days of winter.



Bivalent point:

Electric heater is enabled to operate in case ambient temperature goes below this value. Only in case of Backup option.

Supply setting offset:

Setting offset for electric Heater. Higher values imply earlier stoppage of electric heater and vice versa. Only in case of Backup option.

Reset factor:

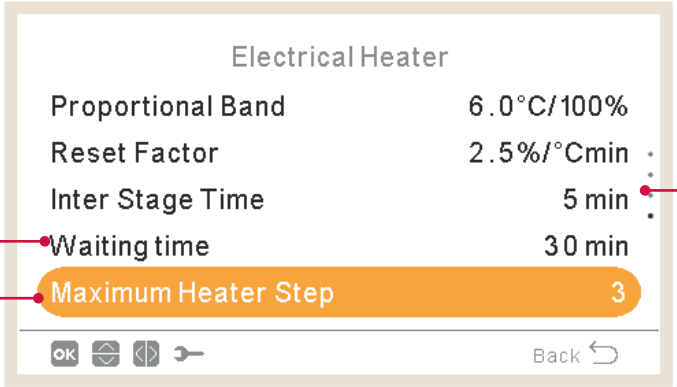
Used to guarantee setting temperature achievement without surpassing its value. Higher values imply less utilization of heater.

Proportional band:

Control to determine how fast setting temperature is going to be reached. Higher values imply fast achievement of water setting point and therefore higher utilization of heater.

Waiting time:

Delay time to start Electric Heater in case all conditions allow Electric Heater to start after HP has been started. Only in case of Backup option.



Inter stage time:

Time of Electric Heater phase overlapping when there is switch ON/ OFF transition from/to phase 1 to/ from phase 2. Only in case of Backup option.

Maximum heater step: (Only in case of Backup option).

To limit the maximum heater step it can be switched ON regardless of the real Heater demand.

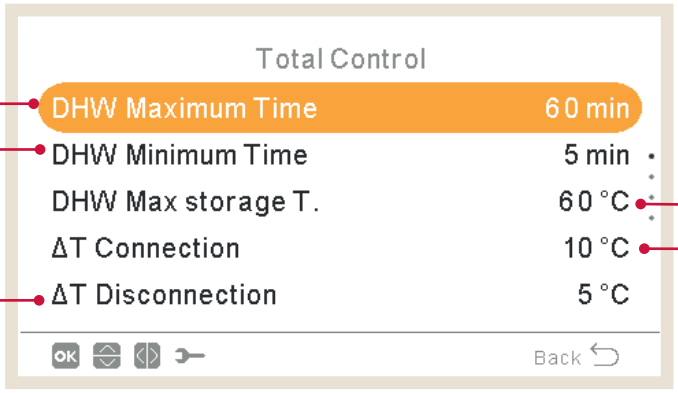
◆ Solar combination - Total control

DHW minimum time:

Minimum Time solar operation cannot be performed once it has been stopped due to DHW Maximum Time or due to low temperature at solar panel.

DHW maximum time:

Maximum time YUTAKI allows to heat tank by means Solar. At the end of this time Solar pump is stopped regardless temperature conditions at Solar Panel.



DHWT maximum storage temperature:

Maximum DHW temperature that allows Solar operation.

ΔT connection:

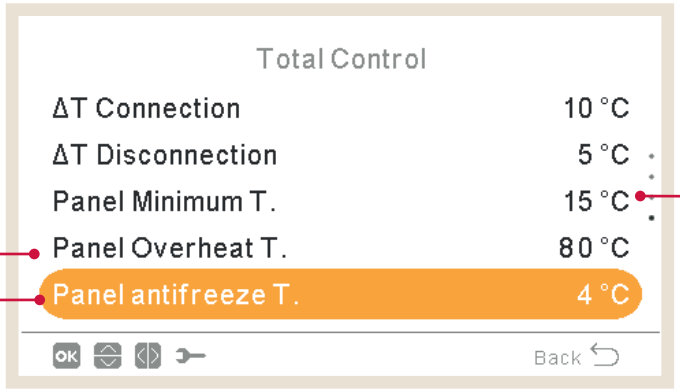
Allows to specify a difference temperature between tank and Panel temperature to allow solar operation. Solar operation is allowed in case Panel temperature is "**Δ**T connection"°C above tank temperature.

ΔT disconnection:

Allows to specify a difference temperature between tank and Panel temperature to stop solar operation. Solar operation is not allowed in case Panel temperature is "**Δ**T connection"°C below tank temperature.

Panel overheat temperature:

- Maximum panel operation temperature at which Solar Pump is set to off in case Panel sensor reads a temperature above this value in order to protect system.
- In case that the solar pump is stopped due to panel overheat temperature, the YUTAKI unit sets solar overheat output to high state provided that this function has been setup as described in "1.18.11 Inputs, Outputs and Sensors configuration"



Panel minimum temperature:

Minimum temperature of the solar Panel to allow Solar operation

Panel antifreeze temperature:

Minimum Solar panel temperature at which Solar Pump is switched ON in order to protect system against frost formation at pipes due to low ambient temperature.

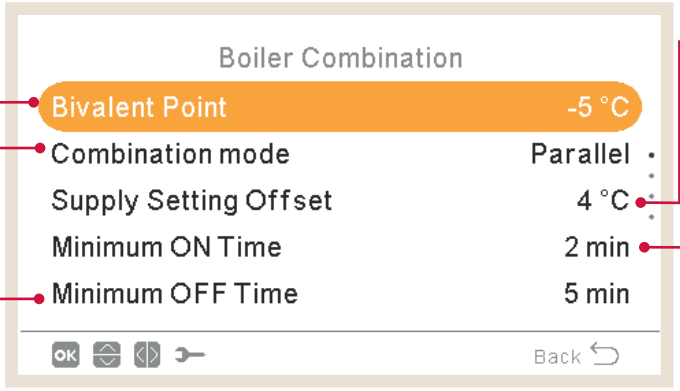
◆ Boiler combination

Combination mode:

- Serial: Boiler operates in series with the heat-pump. The boiler provides additional peak load capacity and works together with the HP.
- Parallel: Boiler operates in parallel with the heat pump. The boiler provides the full heating requirements. In case Boiler is ON, HP is not allowed to operate.

Bivalent point:

Boiler is allowed to operate in case ambient temperature is below this value.



Supply setting offset:

Setting offset for Boiler. Higher values imply earlier stoppage of Boiler and vice versa.

Minimum ON time:

Time that must pass before stop boiler after being switched ON

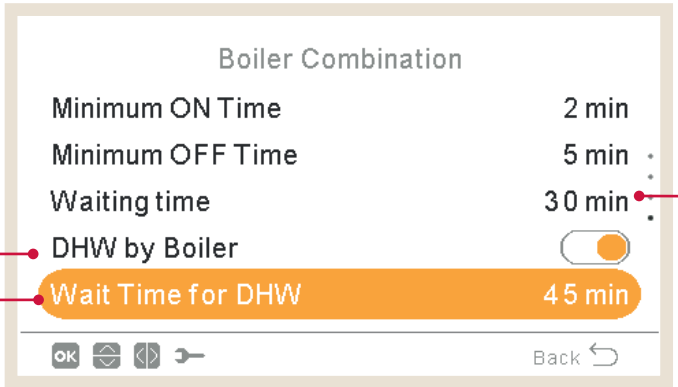
Minimum OFF time:

Time that must pass before start boiler after being switched OFF

▼

DHW by boiler:

Control to allow heat DHW by means Boiler (Only for YUTAKI S and YUTAKI H and DHW Tank Position configured as Post).



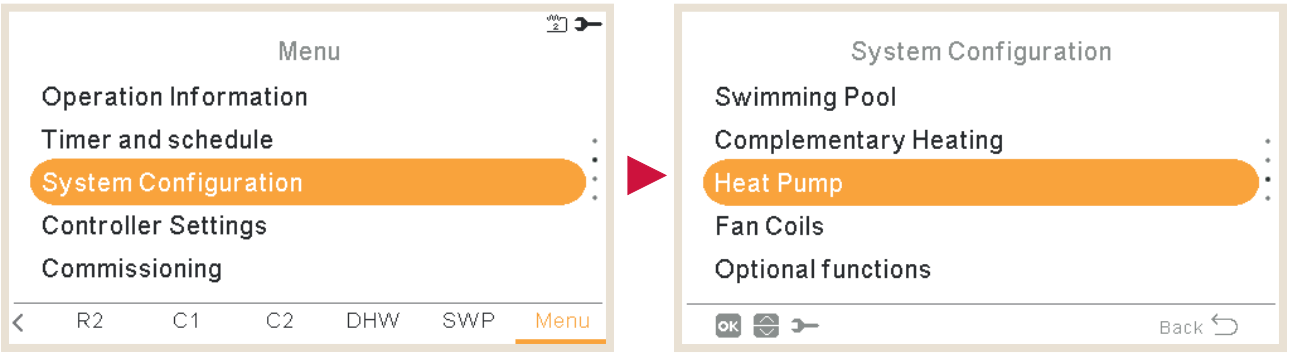
Waiting time:

Delay time to start Boiler in case all conditions allow Boiler to start after HP has been started for Space Heating.

Wait time for DHW (Only for YUTAKI S and YUTAKI H):

Delay time to start Boiler for DHW in case all conditions allow Boiler to start after HP has been started for DHW.

1.18.8 Heat Pump configuration

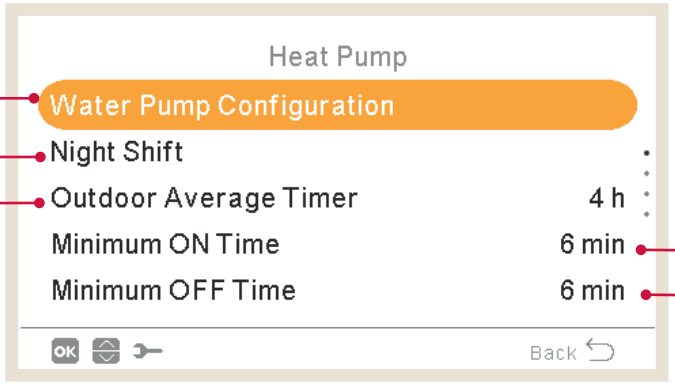


Night shift:

(Not available for YUTAKI Cascade Controller). Reduces compressor load in order to reduce environmental noise, preferably at night. See detailed information in the next page.

Water pump configuration:

Configure the water pump of the heat pump. See detailed information in the next page.

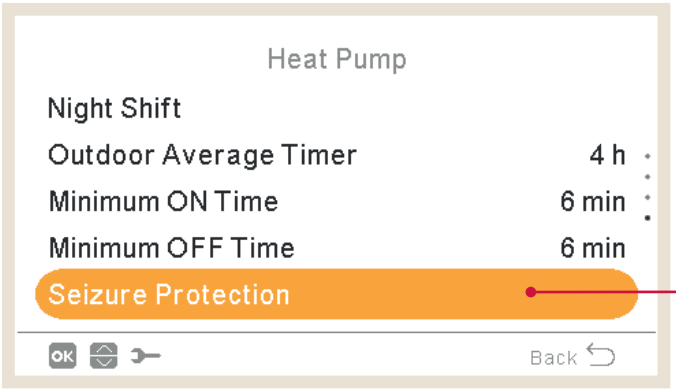


Minimum ON time: In order to reduce a possible compressor damage, demand ON cycles can be reduced by determining the time that must pass before accepting new Demand OFF.

Minimum OFF time: In order to reduce a possible compressor damage, demand OFF cycles can be reduced by determining the time that must pass before accepting new Demand ON.

Outdoor average temperature:

OTC average is used to neutralise the effect of occasional temperature variations. The average value of outdoor temperature sampled over a selected period (between 1 and 24 hours) is used for the calculation of weather-dependent set point temperature.



Seizure protection:
The pump seizure protection function prevents sticking of components due to long periods of inactivity, by running the components during a short period every week. Mixing valves and pumps are fully opened and then fully closed (time depends on Mixing valve Run Time Factor).

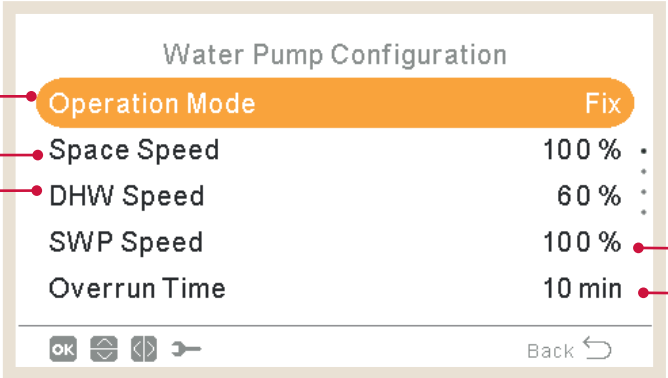
◆ Water pump configuration

Space speed: (Not available for YUTAKI Cascade Controller)

Selection of the % for the pump speed when fix mode is selected.

Operation mode : (Not available for YUTAKI Cascade Controller)

- **ΔT:** To control the pump speed to guarantee the ΔT between Two and Twi.
- **Fix:** The water pump works at the specified speed % at the space speed menu.



Swimming pool speed: (Not available for YUTAKI Cascade Controller)

Selection of the % for the pump speed when using Swimming pool.

Overrun Time:

Added operation time of water pump after Demand OFF.

DHW speed: (Not available for YUTAKI Cascade Controller)

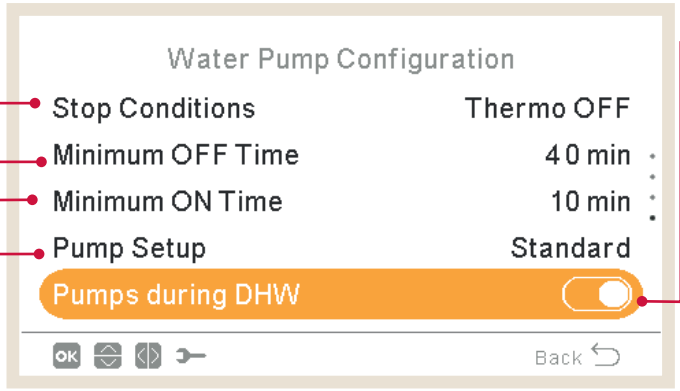
Selection of the % for the pump speed when using DHW.

Minimum OFF Time:

Minimum time of the water pump OFF. Only when Economic mode is active (DSW)

Stop conditions:

- **Standard**
- **Thermo-OFF:** The water pump stops after Thermo-OFF. (DSW5 pin 4 ON).



Pumps during DHW:
This option allows to stop Water Pumps during DHW operation. Water pumps that are allowed to stop are the ones that are not directly involved to DHW heating-up procedure. This is WP2 and WP3 depending on the hydraulic configuration.

Pump Setup:

This option allows user to select hydraulic configuration of the system when hydraulic separator is used (Option available only when there is Hydraulic separator configured.).

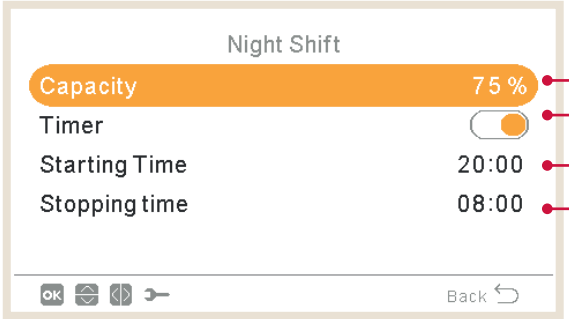
- **Standard:** WP2 is connected after WP3 by means an hydraulic separator or directly by means Hitachi mixing kit accessory. Whenever WP2 is switched ON, WP3 is also switched ON in order to transfer heat to C2.
- **Parallel:** WP2 is directly connected to the buffer tank in parallel with WP3. Operation of WP3 is independent of the operation of WP2. When this configuration is used, Hitachi mixing kit accessory cannot be used.

Minimum ON Time:

Minimum time of the water pump ON. Only when Economic mode is active (DSW)

◆ Night Shift

(Not available for YUTAKI Cascade Controller)



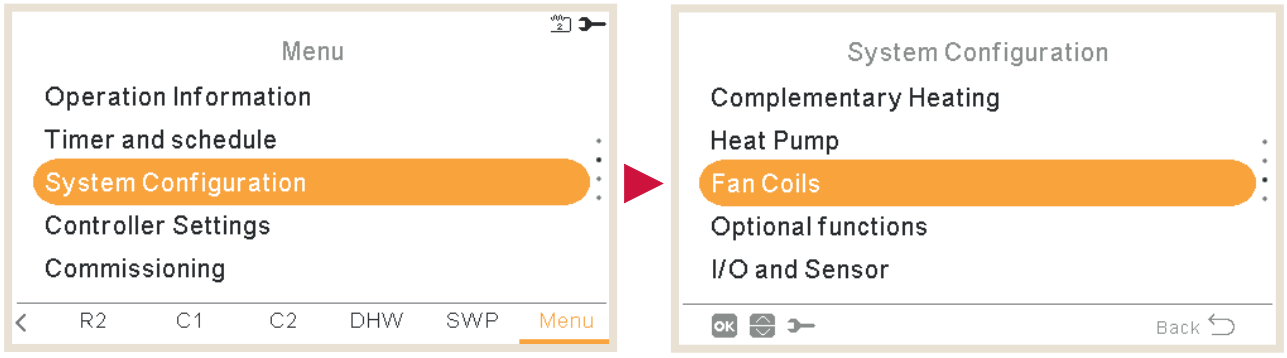
Ratio of reduction in heat pump capacity

Status of activation of Night Shift (reduction of compressor load in order to reduce operation noise during the night hours).

Starting time of Nigh Shift operation

Ending time of Night Shift operation

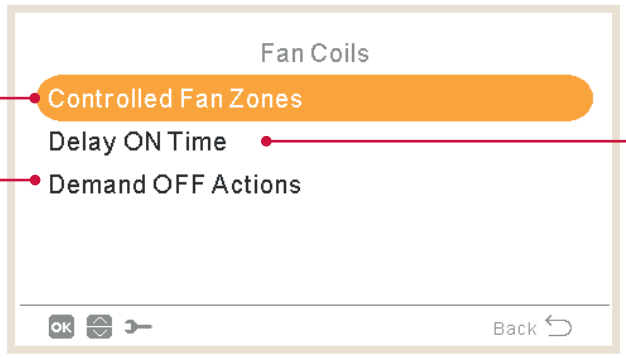
1.18.9 Fan coils



Controlled fan zones:

Fan coil usage assignation in function of Mode and Room:

- Deactivated
- Heating
- Cooling
- Heating & Cooling



Delay ON time:

Delay time to start Fan operation for Fan 1 or Fan 2 only in heating operation. Purpose of this control is to make sure water temperature at fan coil is hot enough before fan is started in order to ensure user comfort.

Demand OFF Actions:

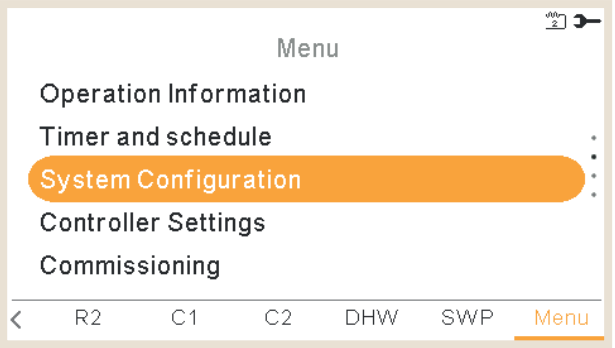
The purpose of this control is to enhance user comfort by allowing to stop fan or keep it in operation when Demand OFF conditions by room temperature are fulfilled.

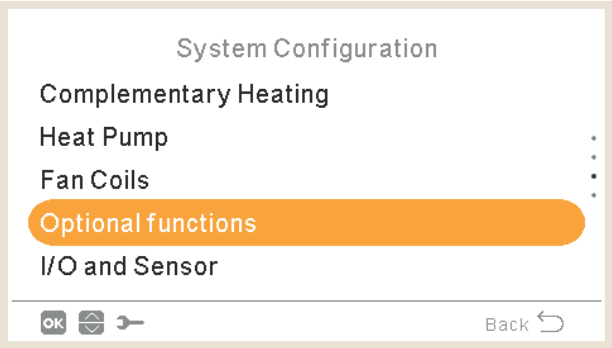
The best user comfort is typically achieved by stopping the fan in heating applications and keeping it in operation for cooling operations.

- Configure the Demand OFF action for Heating or Cooling operation in Room 1 or Room 2.
- Nothing
- Stop fan

1.18.10 Optional functions configuration

This menu allows to configure the optional functions for system, space heating or space cooling, DHW and Emergency operation.





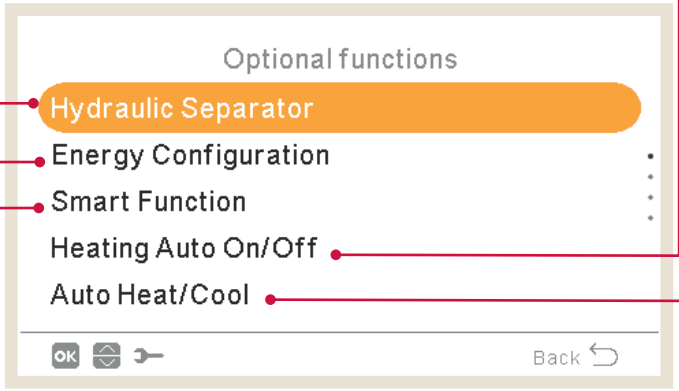
Energy configuration: (Not available for YUTAKI Cascade Controller)

Setup of power consumption readings. See detailed information below.

Hydraulic separator: (Not available for YUTAKI Cascade Controller)

Enable or disable a Hydraulic separator or a buffer tank. See detailed information below.

1 / 2



Heating Auto On/Off:

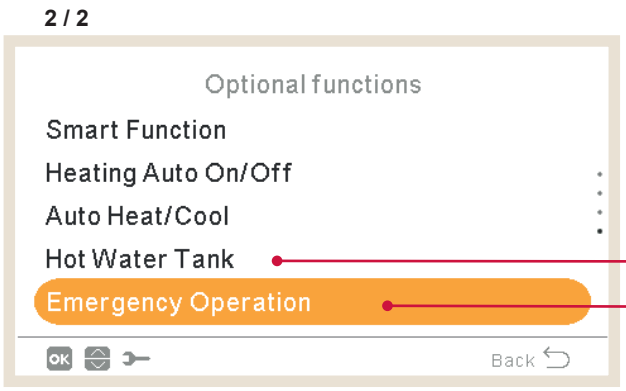
To stop automatically stop heating operation when the daily average outdoor temperature of the previous day is higher than the defined Switch-OFF temperature. See detailed information below.

Auto Heat/Cool:

Allows to set automatic switch over to heating and cooling operation using the same daily average outdoor temperature of the previous day as in Heating auto ON/OFF.

Smart function:

To block or limit the heat pump or increase demand due to electricity availability.
See detailed information on Smart function chapter.



Hot water tank:

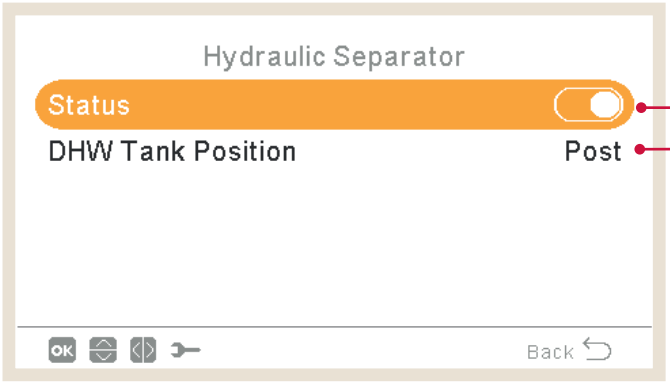
Configure the optional functions for the DHW. See detailed information below.

Emergency operation:

Enable or disable emergency operation for space heating or DHW. See detailed information below.

◆ Hydraulic separator

(Not available for YUTAKI Cascade Controller)



Hydraulic separator status:

Enable if there is a Hydraulic separator or a buffer tank installed. Check that WP3 is set in output 2 (see section "1.18.11 Inputs, Outputs and Sensors configuration").

DWH Tank position:

This selection option is not available for YUTAKI S Combi since DHW tank is located before buffer tank in any case.

Pre: DHW tank and the 3 way valve are located between Heater Plate exchanger and buffer tank.

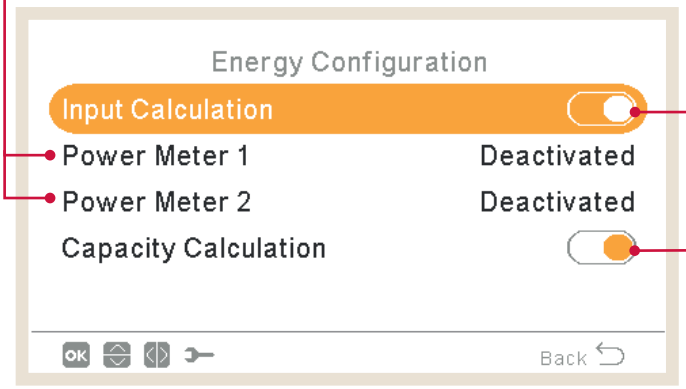
Post: DHW tank and the 3 way valve are located after buffer tank.

◆ Energy configuration

(Not available for YUTAKI Cascade Controller)

Power meter 1 or 2:

- The power meter does a real measuring of the power consumption.
- If the power meter is enabled, it is possible to see the information collected through the Operation information - Energy data menu.
- If “power meter” is Deactivated the YUTAKI Software does an estimate consumption of the system.
- In case of using power meter 1 or 2 input must be configured at the Inputs menu (see section "1.18.11 Inputs, Outputs and Sensors configuration").



Input calculation:

Enable or disable energy configuration options.

Capacity configuration:

Due to usage of water temperature inlet and outlet + water flow level, an estimation of capacity can be checked through the Operation information - Energy data menu.

Due to the estimation, values may differ from real ones.

◆ Smart Function

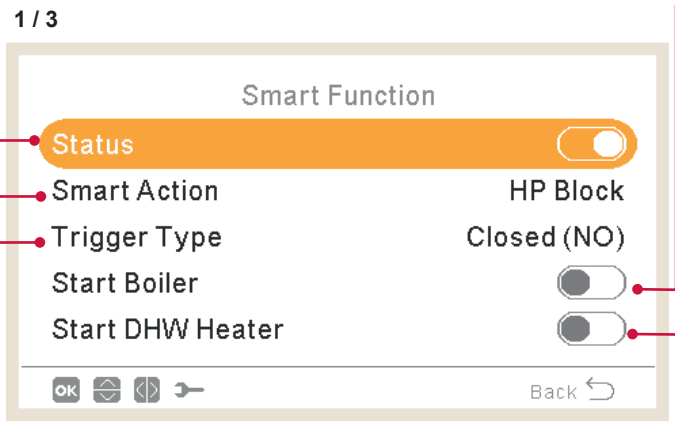
Smart Action:

Check that Smart Act/SG1 is set in input 5 (see section "1.18.11 Inputs, Outputs and Sensors configuration").

- **HP Block:** Heat Pump is forbidden in any condition (Space Heating, Cooling, DHW) when signal is active.
- **HP Limited (A):** Limitation of power consumption up to a limit of “x” amperes (to be set up in Limitation of amperage). (Not available for YUTAKI Cascade Controller)
- **SG Ready:** The SG Grid is awarded to heat pump series. This control technology integrates the system in a smart grid by using two digital inputs establishing an unidirectional connection. See Service Manual for detailed information. It is necessary to configure an input for SG2.
- **DHW Block:** DHW Operation is forbidden when signal is active. (Not available for YUTAKI Cascade Controller)
- **DHW only:** Heat pump operation for any condition except DHW is forbidden when signal is active. DHW operation is allowed normally. (Not available for YUTAKI Cascade Controller)

Status:

Enable or disable smart function.



Start boiler:

Permission to use the boiler in case that the system has been blocked due to HP Block.

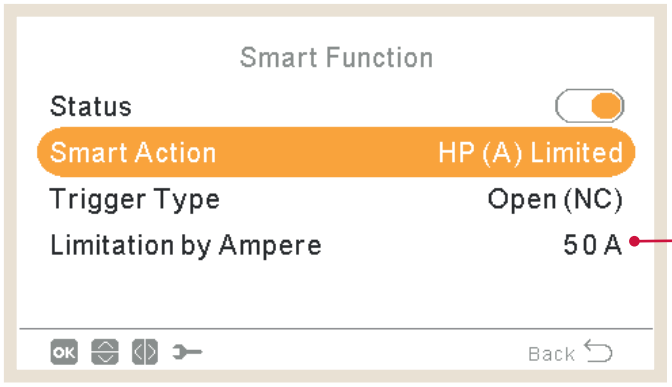
Start DHW Heater:

Permission to use the DHW heater in case that the system has been blocked due to HP Block.

Trigger type:

- Closed: Action when input is closed
- Open: Action when input is open

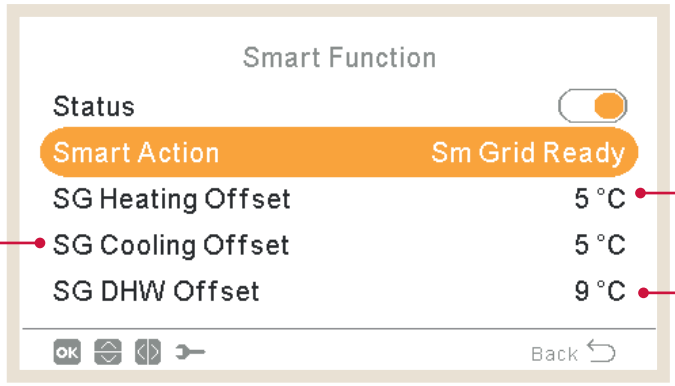
2 / 3



Limitation by ampere:

Configure the ampere consumption limitation. Only visible when smart action is set as HP Limited (A).
(Not available for YUTAKI Cascade Controller)

3 / 3



SG Heating offset:

To adjust Space Heating setting temperature increase when SG ready is in Low price mode.

SG DHW offset:

To adjust DHW setting temperature increase when SG ready is in Low price mode.

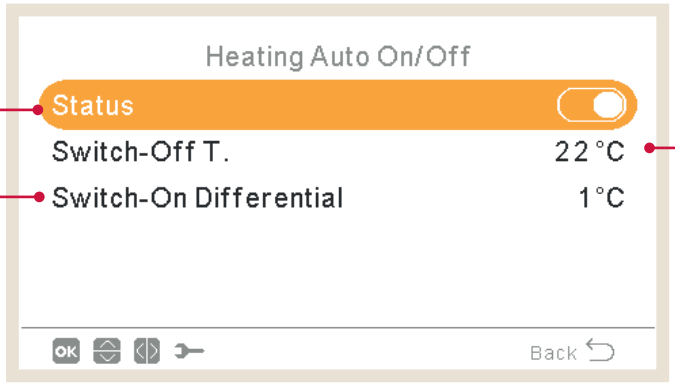
SG Cooling offset:

To adjust Space Cooling setting temperature decrease when SG ready is in Low price mode.

◆ Heating Auto On / Off

Status:

- Enable or disable heating auto on/off function.
- Switch Off temperature: System is stopped in case that the outdoor temperature is higher than the Switch-OFF temperature.
- Switch On differential: Differential temperature between average outdoor temperature of the previous day and the Switch Off temperature.



Switch-Off Temperature:

System is stopped in case that the outdoor temperature is higher than the Switch-OFF temperature.

Switch-On Differential:

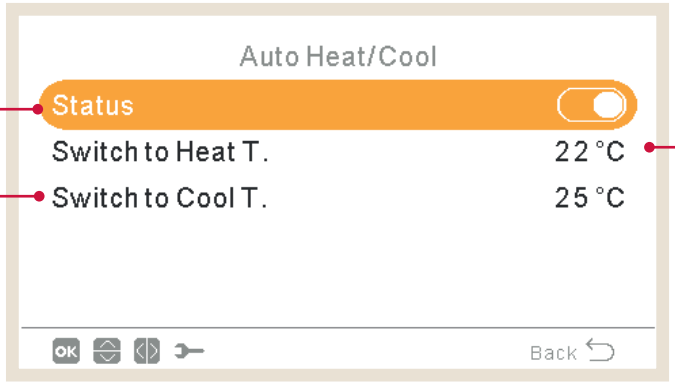
Differential temperature between average outdoor temperature of the previous day and the Switch Off temperature.

◆ Auto Heat/Cool

Only available in units capable of heating and cooling operation, and when cooling operation is enabled.

Status:

Enable or disable auto heat/cool.



Switch to Heat temperature:

Operation switches to heating in case that the measured outdoor temperature value is lower than the threshold for switching to heating.

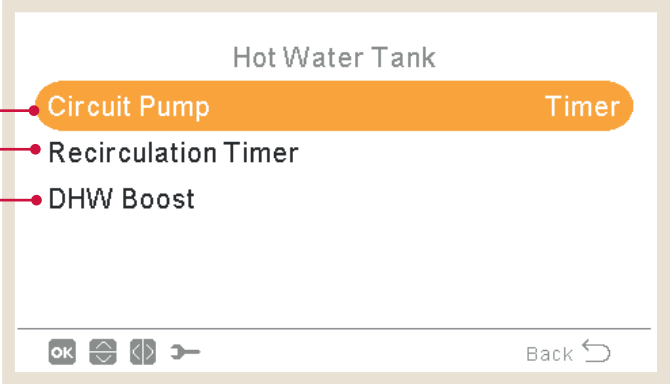
Switch to Cool temperature:

Operation switches to cooling in case that the measured outdoor temperature value is higher than the threshold for switching to cooling.

◆ Hot water tank optional functions

Circuit Pump: By using this output, user can heat all the water inside DHW piping system. Output must be configured at the I/O and sensors menu. (see section "1.18.11 Inputs, Outputs and Sensors configuration").

- Deactivated.
- Demand: Enable DHW recirculation.
- Anti Legionella: Allows DHW recirculation while anti legionella is active.
- Timer: A timer can be programmed in order to start or stop the water recirculation.



DHW Boost:

To force a one-time heating of the DHW tank up to the temperature set as DHW Boost temperature.

This feature is useful to cover exceptional demand of DHW.

- **Trigger type:** Push (favourite button), Open (NC) or Closed (NO). Set input 6 for DHW Boost (for trigger type open/closed). (see section "1.18.11 Inputs, Outputs and Sensors configuration")
- **Boost setting:** DHW temperature setting for the Boost function.

Recirculation timer:

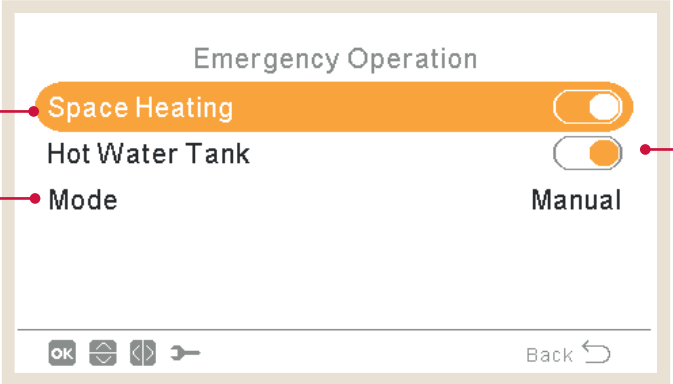
- Frequency: Allows to select when timer is applied (Everyday, weekend, workday).
- Starting Time: When the water pump circulation starts.
- Stopping Time: When the water pump circulation stops.
- Operation: In case of ON, means that water pump is always ON between “Starting Time” and “Stopping Time”. In case it is set to Timer, Recirculation pump is ON during “ON Time” after being OFF during “OFF Time” within Starting Time and Stopping Time.
- ON Time: On time period of Recirculation pump.
- OFF Time: Off time period of Recirculation pump.

◆ Emergency Operation

Space Heating:

Enable or disable emergency operation for space heating.

Only available in case “Heating source” on "1.18.7 Complementary Heating configuration" contains “Electrical heater or boiler” option.



Hot water tank:

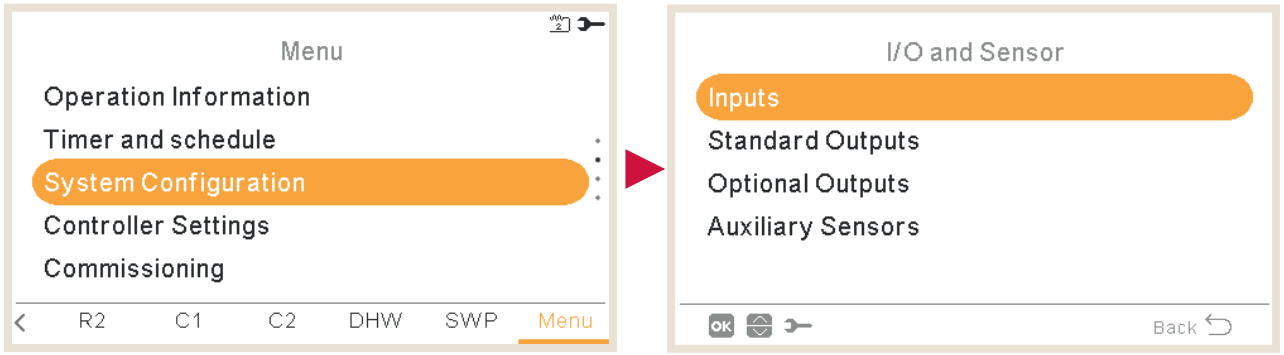
Enable or disable emergency operation for DHW. Only available when electrical heater for DHW is enabled (by DSW).

Mode:

Selection of the emergency operation mode:

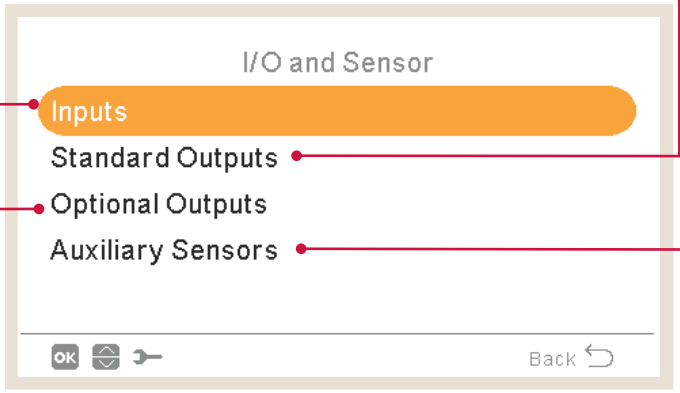
- **Manual:** Emergency operation is active when is manually enabled (by DSW4 pin 4 ON). The emergency mode uses the heater (space heating or DHW) to provide the required heating.
- **Automatic:** Emergency mode operates when there is an event of outdoor unit failure and Demand ON of space heating (enabled) or DHW (enabled).

1.18.11 Inputs, Outputs and Sensors configuration



Inputs:

The system allows to set 7 inputs depending on the operations and preferences of the installation.



Standard Outputs:

There are 4 available outputs to set already wired to the terminal board. There are conditions of setting depending on the installation.

Auxiliary sensors:

There are 7 available auxiliary sensors to set.

Optional outputs:

There 4 additional available outputs to set. These 4 additional outputs are not wired to the YUTAKI terminal board.

In order to use them it is required accessory (field supplied). Its configuration follow same constrains as Standard outputs.

◆ List of available inputs:

- **Deactivated**
- **Demand ON/OFF** (by default in input 1): Consider both Circuit 1 and Circuit 2 in Demand ON when the signal is ON.
- **Demand ON/OFF C1:** Consider Circuit 1 in Demand ON when the signal is ON.
- **Demand ON/OFF C2:** Consider Circuit 2 in Demand ON when the signal is ON.
- **Power Meter 2:** To count any pulse received from the power meter 2 and sent to central control energy consumption calculation.
- **ECO C1 + C2:** Switch both Circuit 1 and Circuit 2 to ECO mode when input is closed.
- **ECO C1** (by default in input 2, if there is circuit 1 in the installation): Switch Circuit 1 to ECO mode when input is closed.
- **ECO C2:** Switch Circuit 2 to ECO mode when input is closed.
- **Forced Off:** Forbid DHW, space heating and space cooling.
- **Smart Act / SG1** (Fixed in input 5 if smart action is enabled): To active Smart Function.
- **Swimming Pool** (Fixed in input 3 if swimming pool is enabled): Consider Swimming pool in Demand ON when the signal is ON.
- **Solar** (Fixed in input 4 if solar is enabled): To let YUTAKI know that external Solar management system is ready to provide Solar energy.
- **Operation:** To switch between space cooling and space heating.
- **DHW Boost** (Fixed in input 6 if is DHW Boost is enabled): If it is set to open (NC), boost signal ON if circuit is open. If it is set to close (NO), boost signal ON if circuit is closed.
- **Power Meter 1** (Fixed in input 7 if Power Meter 1 is enabled): To count any pulse received from the power meter 1 and sent to central control energy consumption calculation.
- **Forced Heating:** Force mode heating when input is closed
- **Forced Cooling:** Force mode cooling when input is closed.
- **SG2:** To active the different estates of Sm Grid Ready.
- **Drain pump**: When the contact is opened for 30 seconds operation is forbidden and Alarm 85 is shown. The purpose of this input is to link with the Drain pump's float switch to avoid water overflow in case of drain pump failure

◆ List of available outputs:

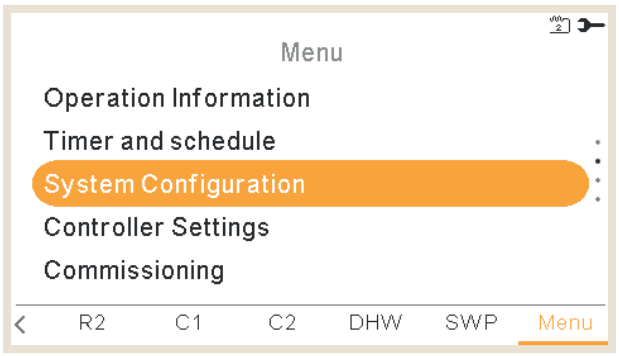
- **Deactivated**
- **SWP 3WV:** (Fixed in output 1 if swimming pool is enabled): Signal control of the 3-way valve of the swimming pool.
- **Water pump 3:** (Fixed in output 2 if hydraulic separator or buffer tank is installed): Signal control of the water pump for hydraulic separator or buffer tank.
- **Boiler:** (Fixed in output 3 if boiler is enabled): Signal control of the boiler.
- **Solar Pump:** (Fixed in output 4 if solar pump is enabled): Signal control of the solar pump.
- **Alarm:** (By default in output 5):Signal is active if there is an alarm.
- **Operation:** (By default in output 6): Signal active in case Thermo ON in any condition.
- **Cooling:** (By default in output 7): Signal active when space cooling is operating.
- **Dem-ON C1:** (By default in output 8): Signal active when there is Demand in circuit 1.
- **Heating:** Signal active when space heating is operating.
- **DHW:** Signal active when DHW is operating.
- **Solar overheat:** Signal is active when solar overheat (only when solar combination status is total control)
- **Defrost:** Signal active when outdoor unit is defrosting.
- **DHW Re-circulation:** Signal active depending on option selected at chapter Circuit pump.
- **Fan 1 Low:** Signal is active when fan coil speed selected for Circuit 1 is set to Low.
- **Fan 1 Medium:** Signal is active when fan coil speed selected for Circuit 1 is set to Medium.
- **Fan 1 High:** Signal is active when fan coil speed selected for Circuit 1 is set to High.
- **Fan 2 Low:** Signal is active when fan coil speed selected for Circuit 2 is set to Low
- **Fan 2 Medium:** Signal is active when fan coil speed selected for Circuit 2 is set to Medium.
- **Fan 2 High:** Signal is active when fan coil speed selected for Circuit 2 is set to High.
- **Constant Heating:** Signal is active in case operation mode of LCD controller is set to Heating.
- **Constant Cooling:** Signal is active in case operation mode of LCD controller is set to Cooling.

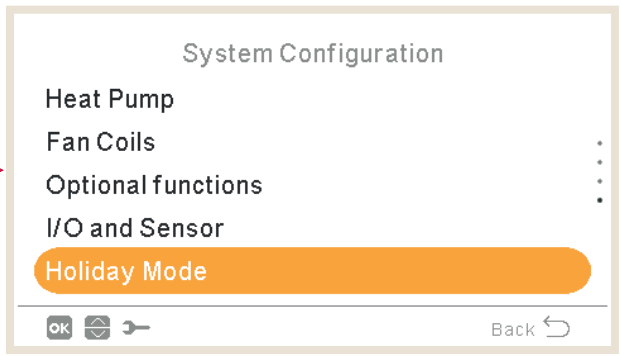
◆ List of available sensors:

- **Deactivated**
- **Two3:** (Fixed in sensor 1 if boiler is installed): Use this sensor to monitor water temperature when boiler is used.
- **Swimming Pool:** (Fixed in sensor 2 if swimming pool is installed): Use this sensor when swimming pool is used in order to monitor swimming pool temperature.
- **Solar panel sensor:** Use this sensor when Total control is configured to monitor Solar Panel temperature.
- **C1 + C2 Ambient:** Use this sensor when auxiliary ambient temperature sensor is used for C1 and C2.
- **C1 Ambient:** Use this sensor when auxiliary ambient temperature sensor is used for C1.
- **C2 Ambient:** Use this sensor when auxiliary ambient temperature sensor is used for C2.
- **Outdoor sensor (NTC):** (By default sensor 3) To connect to the controller an auxiliary outside temperature sensor in case the heat pump is located in a position not suitable for this measurement.

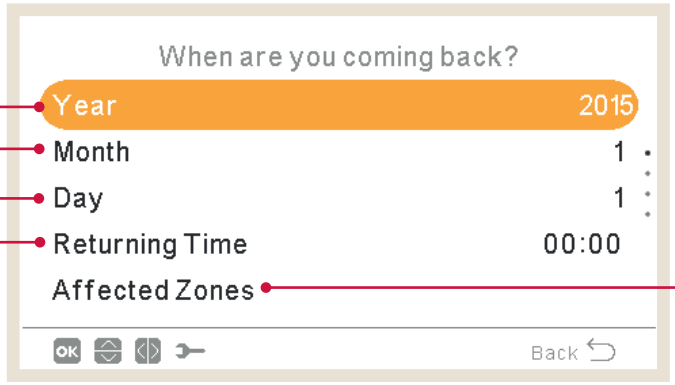
1.18.12 Holiday mode

This menu allows to configure the date, time and the temperature conditions for the holiday come back.





1 / 2



Holiday Mode: Configure holiday come back

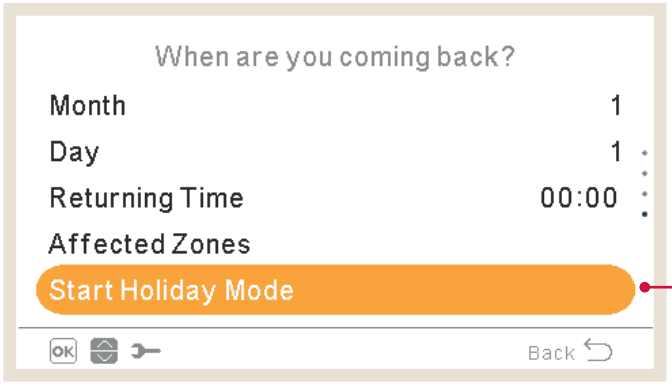
- Year
- Month
- Day
- Returning time

Affected zones:

Enable (switch off) or disable (switch on) the zones during the holiday period.

- Circuit 1 / 2
- Room 1 / 2
- Room 1 / 2 Setting temperature
- Hot water tank
- Swimming pool

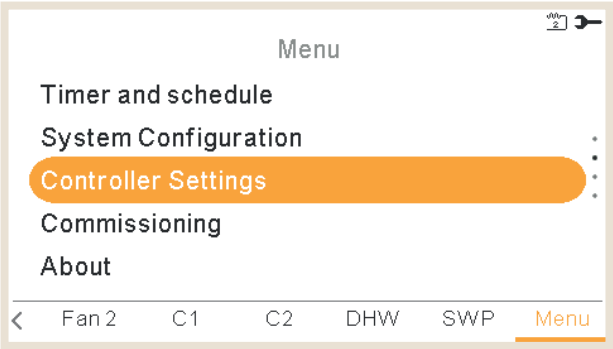
2 / 2



Start / Stop holiday mode

1.19 Controller settings

Under the controller settings menu it is possible to adjust the several parameters:

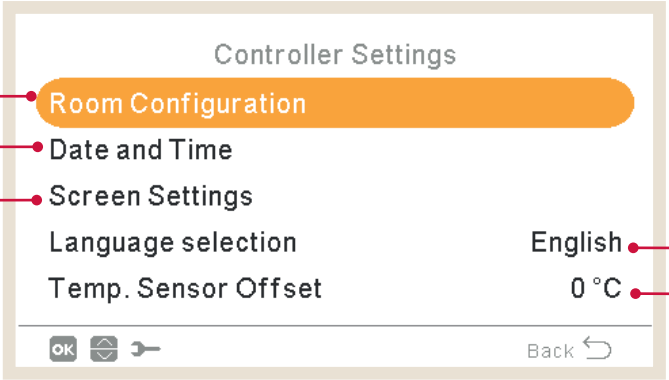


Date and time:

- Adjust date and time
- European summer time

Room Configuration:

- Room names: create or edit a name for circuit 1 or circuit 2.
- Synoptic view icons: selection of the icon shown in Live view menu for cooling / heating emitters.



Selection of the unit controller language.

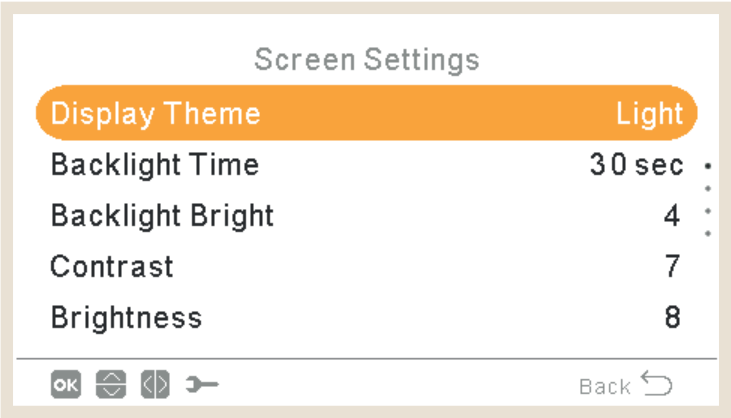
Temp. sensor offset:

To apply an offset to the room temperature read by the in build sensor of the controller in order to match real room temperature.

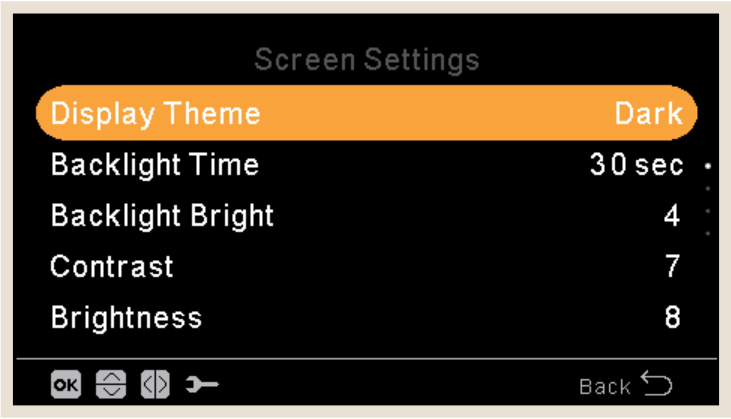
Screen settings:

- Display theme (light / dark / auto)
- Backlight time
- Backlight bright
- Contrast
- Brightness
- ON LED bright
- Beep on touch volume

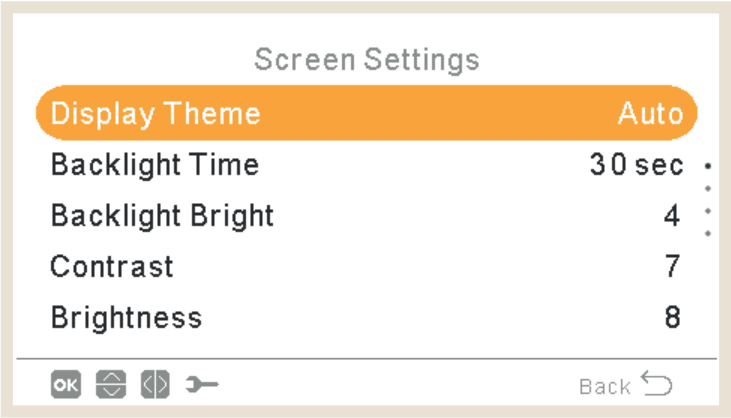
◆ Display theme



Light



Dark



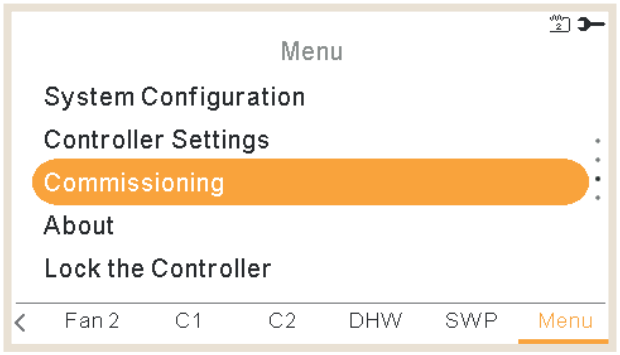
Auto

When Dark theme is selected, background is changed to black, text and icons to white.

When Auto theme is selected, it changes automatically between light (at 8:00 am) and dark (at 20:00 pm)

1.20 Commissioning

Under the commissioning menu it is possible to adjust the several parameters:

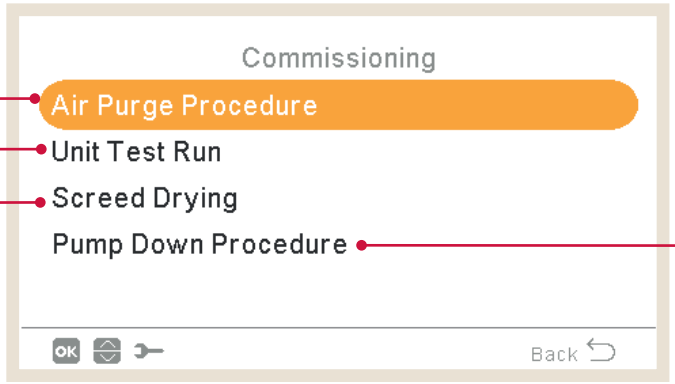


Unit test run: (Not available for YUTAKI Cascade Controller)

- Duration
- Mode (not available for heating only)
- Start test run

Air purge procedure: (Not available for YUTAKI Cascade Controller)

- Duration
- Start air purge



Pump down procedure: (Not available for YUTAKI Cascade Controller)

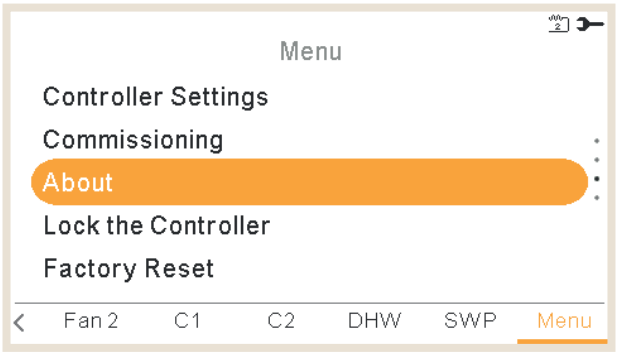
- Duration
- Start pump down

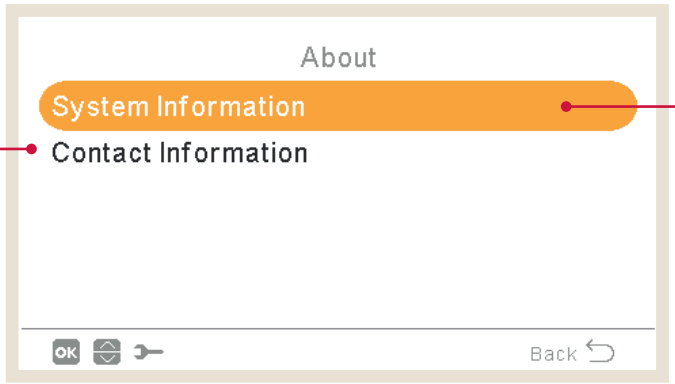
Screed Drying:

- Circuit 1 setting temperature
- Circuit 2 setting temperature
- Start screed drying

1.21 About

In this section of the LCD controller it is possible to find the following information:





System information:

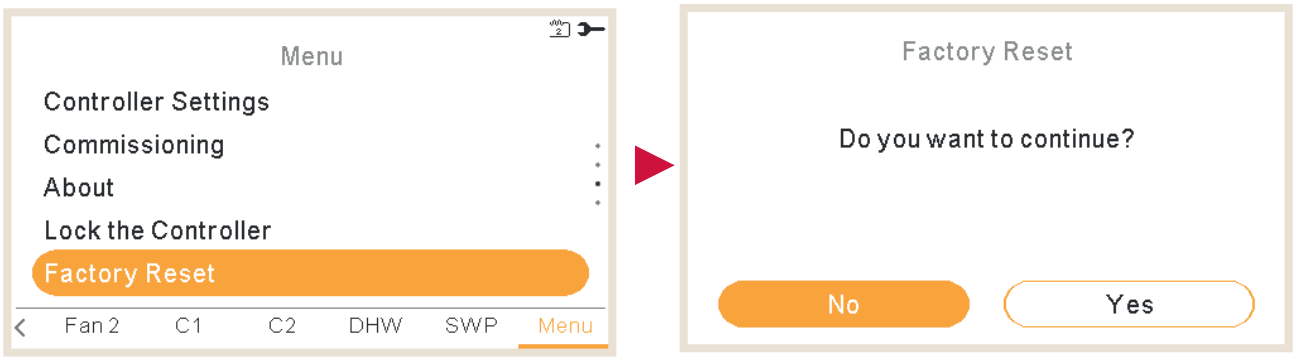
- Unit type
- Unit capacity
- Serial number
- Controller firmware
- Indoor PCB firmware
- Language package
- Refrigerant

Contact information:

It is possible and recommendable to fill this information providing a contact phone to the user.

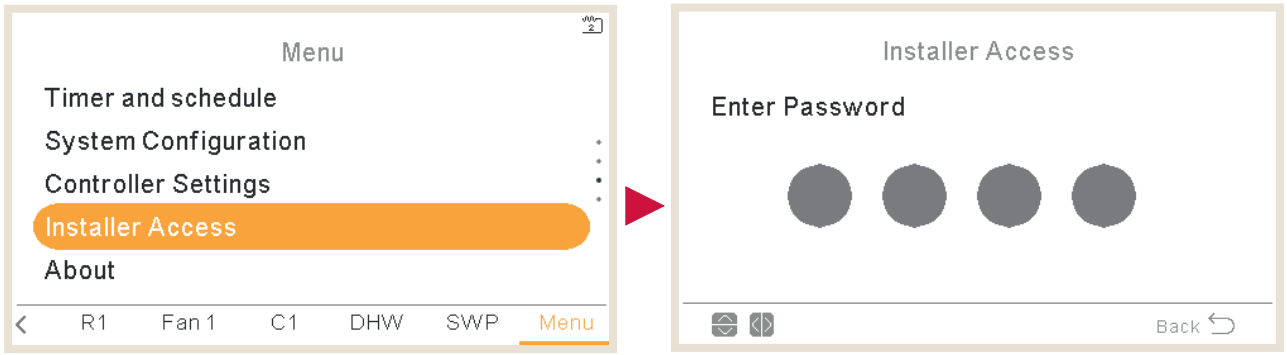
1.22 Factory reset

This function is only visible for the installer. It asks for removing all the settings and returns to the factory setting configuration.



1.23 Installer access

Menu to enable the access to configure the system.



The login password for the Installer is:

Right ▶, Down ▼, Left ◀, Right ▶

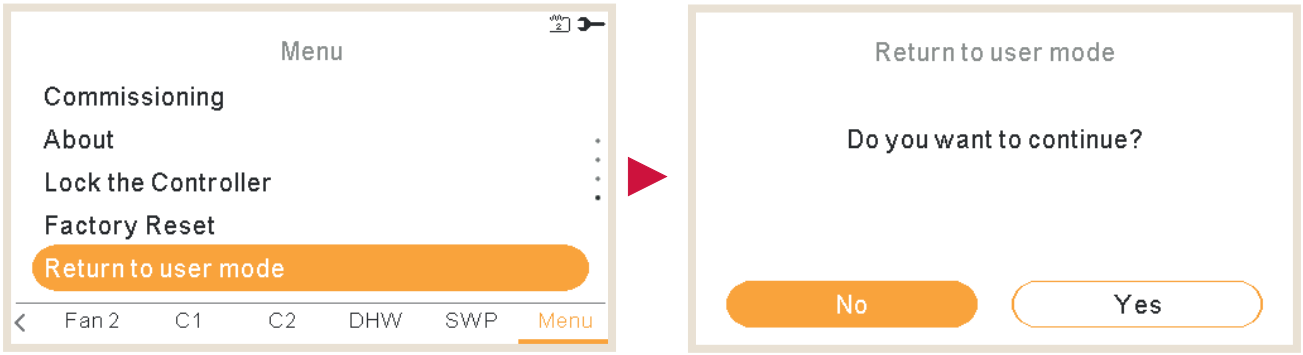
Press “OK” to confirm the password.

If the correct access code is entered, the installer mode icon appears on the notifications bar (bottom line).

After 30 minutes of inactivity, it is necessary to repeat the log in process. To exit the Installer mode and return to the unit menu, go to the “Return to user mode” on the main menu.

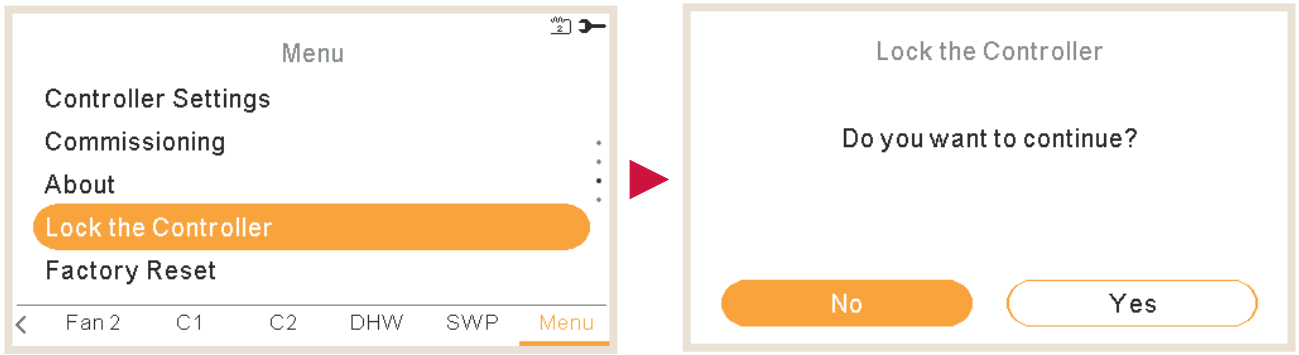
1.24 Return to user mode

This function allows to getting out of the “Installer mode”.

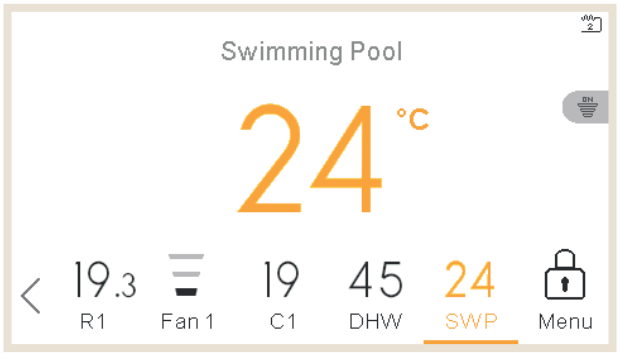


1.25 Lock the controller

This function is only visible for the installer and allows to lock the menu in case of exhibition.
This action can also be launched from central.



When the controller is locked the lock icon appears insted the icon menu.

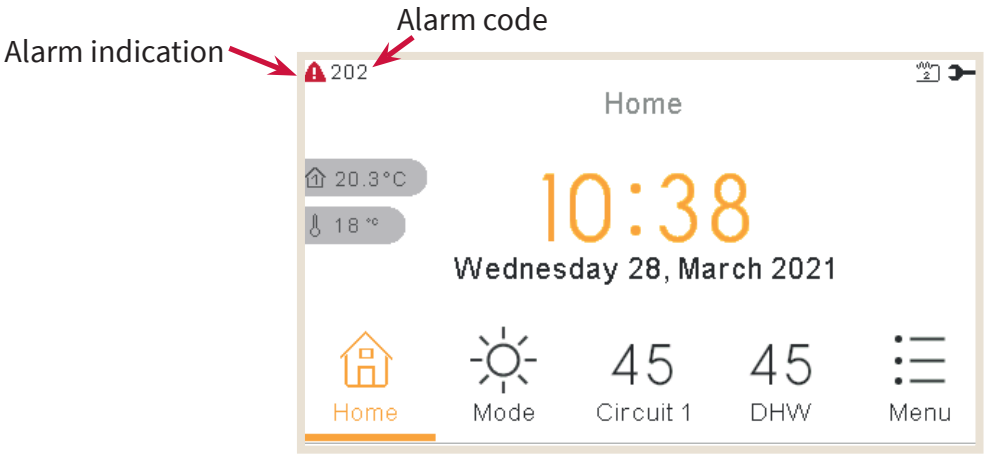


The password requested to unblock the controller is:

Right ▶, Down ▼, Left ◀, Right ▶

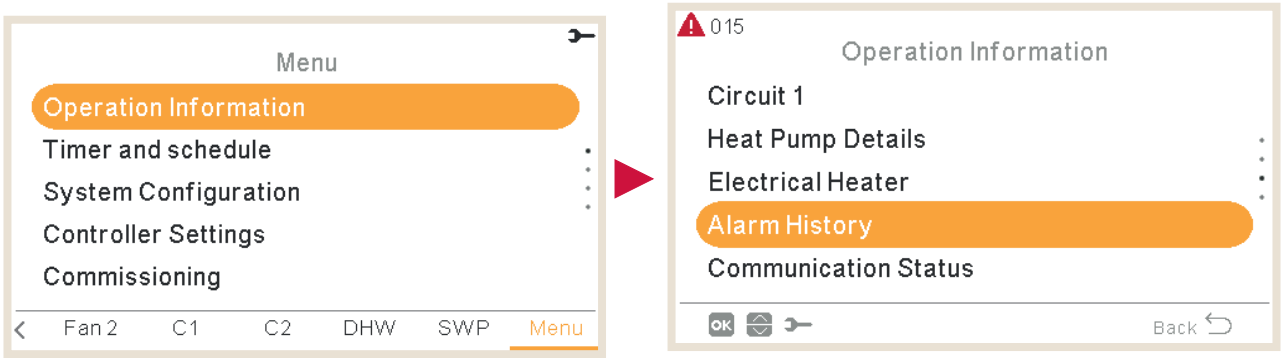
2. TROUBLESHOOTING

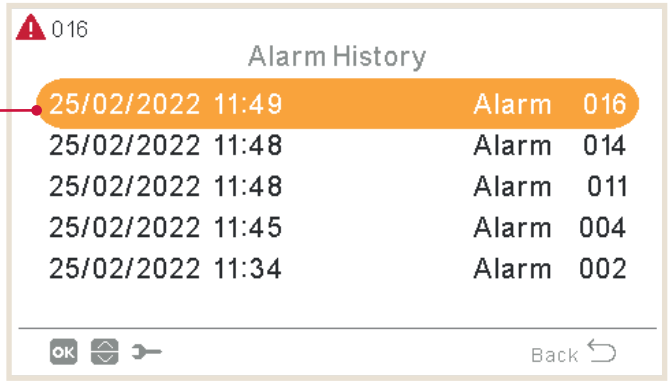
When a unit is on alarm, an alarm code indication is shown on remote control switch:



2.1 Alarm History Menu

In the Alarm History menu inside the Operation Information menu it is possible to see a detailed list of the alarms:





Press OK button on each alarm to access to more information:

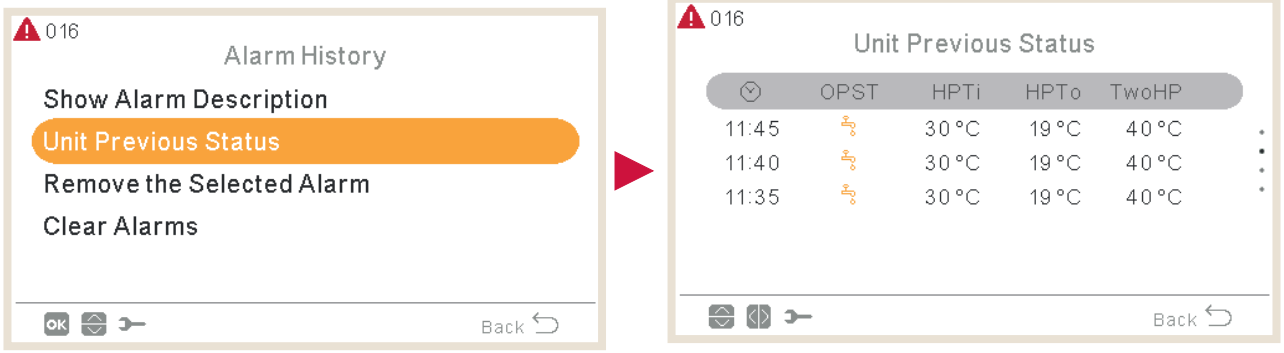
- Show alarm description
- Unit previous status
- Remove the selected alarm
- Clear alarms

2.1.1 Show alarm description

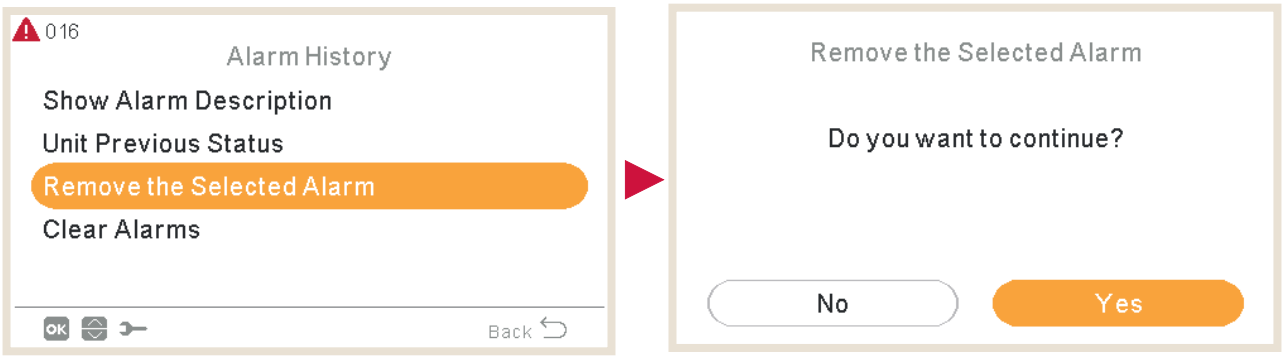
Alarm code, origin of the alarm and description are shown. Also the contact information in case that has been configured.

2.1.2 Unit previous status

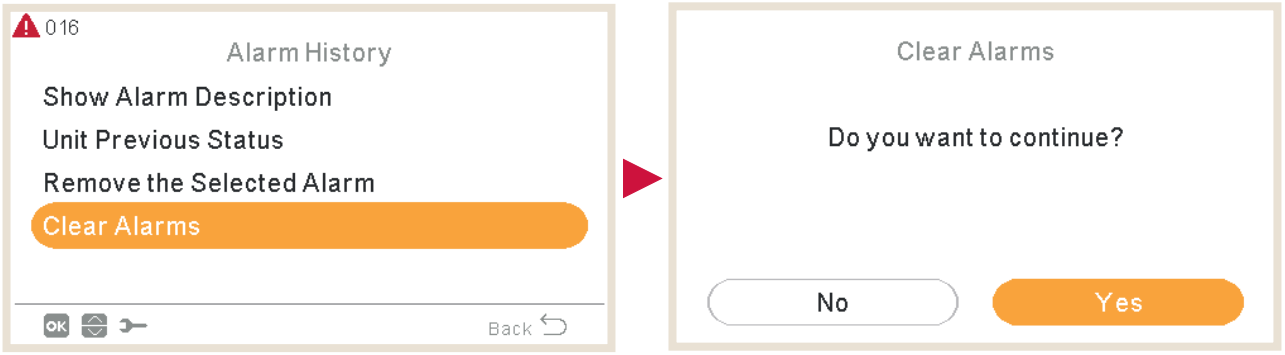
Information about the previous status of the unit for the last alarm. Check "Recent status chapter to see detailed information about the variables.



2.1.3 Remove the selected alarm



2.1.4 Clear alarms



2.2 Alarm codes description

	Code	Text	Origin	Retry stop code	Main factors	Pumps allowed	Heaters allowed	Compressor allowed
Alarms generated by PCB	3	Outdoor unit not detected	Transmission	-	Loose, disconnected, broken or short-circuited connector	✔	✔	X
	10	2n DHW thermistor anomaly	Indoor	-		X	X	X
	11	Water inlet thermistor anomaly (THMwi)	Indoor	-		X	X	X
	12	Water outlet thermistor anomaly (THMwo)	Indoor	-		X	X	X
	13	Indoor Liquid Pipe Thermistor anomally	Indoor	-		X	X	X
	14	Indoor Gas Pipe Thermistor anomally	Indoor	-		X	X	X
	15	Water Circuit 2 thermistor anomaly	Indoor	-		X	X	X
	16	Water DHW thermistor anomally	Indoor	-		X	X	X
	17	Auxiliary sensor 2 anomaly (THMaux2)	Indoor	-		X	X	X
	18	Auxiliary sensor 1 thermistor anomaly	Indoor	-		X	X	X
	19	Water Plate HEX pipe thermistor anomally	Indoor	-		X	X	X
	25	Auxiliary sensor 3 thermistor anomaly	Indoor	-		X	X	X
	26	Water pressure sensor (WPS) abnormality	Indoor	-		X	X	X
	33	Water inlet thermistor anomaly (THMwi)	Mirror Module	-		X	X	X
	34	Water outlet thermistor anomaly (THMwo)	Mirror Module	-		X	X	X
	40	Incorrect Unit controller setting	Indoor	-		X	X	X
	60	Alarm on all the modules	Comunication	-		X	X	X
	61	Cascade stopped communicating	Comunication	-	YCC stops sending messages to slave unit since YCC has been powered OFF or disconnected from the H-Link Line or H-Link line has been damaged	X	X	X

Alarms generated by PCB

Code	Text	Origin	Retry stop code	Main factors	Pumps allowed	Heaters allowed	Compressor allowed
70	Flow & Water Pump malfunction	Indoor	P-70	Water flow is not detected in the hydraulic cycle or Pump defective	X	X	X
72	Thermostat Heater Alarm	Indoor	-	High temperature is detected in Electric Heater	✔	X	X
73	Mixing over-temperature limit	Indoor	-	Circuit 2 supply temperature > Target temperature + offset	✔	X	X
74	Unit over-temperature limit protection	Indoor	P-74	Two > Tmax +5K	X	X	X
75	Freeze Protection by cold liquid/gas temperature on refrigerant side	Indoor	-		✔	✔	X
76	Freeze Protection by cold liquid / gas temperature on refrigerant side	Indoor	-		✔	✔	X
77	Communication error with wireless receiver	Indoor - Unit controller	-	No Opentherm/H-Link communication for a continuous period of 10 minutes.	✔	✔	✔
78	RF Communication failure	Indoor - Unit controller	-	There is no communication for 1 hour with one or two RF receives which are bound to the RF-Bridge.	✔	✔	✔
79	Unit Capacity setting Error	Indoor - outdoor	-	There is no concordance between indoor outdoor unit capacity	X	X	X
80	H-LINK - RCS transmission error	Indoor - Unit controller	-	No H-link communication for a continuous period of 1 minute between Indoor and LCD User control by connection wiring (breaking, wiring error, etc.)	X	X	X
81	Momentary Power interruption	Indoor	P-81		X	X	X
83	Hydraulic alarm pressure	Indoor	P-83	Water pressure of the system is below 0.5 bar	X	X	X

	Code	Text	Origin	Retry stop code	Main factors	Pumps allowed	Heaters allowed	Compressor allowed
Alarms generated by PCB	84	High Water pressure alarm	Indoor	-	Water pressure of the system has increased above 3.7 bar	X	X	X
	85	Drain pump error	Indoor	-	Float switch detects high level of water at drain pane. Malfunction of the drain pump. It is required to configure “Float switch” Accessory as input signal	X	X	X
	205	Central Alarm, no Central message	Indoor	-		X	X	X

	Code	Text	origin	Retry stop code	Main factors
Alarms from ODU	2	Outdoor Unit	Triggering protection of High pressure cut	-	Activation of PSH, locked motor, abnormal operation in the power supply phase. Failure of fan motor, drain discharge, PCB, relay, float switch activated. (Pipe clogging, excessive refrigerant, innert gas mixing, fan motor locking at cooling operation)
	4	Transmission	Issue between inverter and RAS unit PCB	-	Transmission failure between inverter PCBs. (Loose Connector, Wire Breaking, Blowout of Fuse).
	5	Power supply	Wrong operation code of power source phase	-	Power source with abnormal wave pattern. Main power supply phase is reversely connected or one phase is not connected.
	6	Voltage	Wrong voltage for the inverter	-	Voltage drop in power supply. Incorrect wiring or insufficient capacity of power supply wiring.
	7	Cycle	Decrease in discharge gas superheat	-	Excessive Refrigerant Charge, Failure of Thermistor, Incorrect Wiring, Incorrect Piping Connection, Expansion Valve Locking at Opened Position (Disconnected Connector).
	8	Cycle	High discharge gas temp. on compressor top	-	Insufficient refrigerant charge, refrigerant leakage. Expansion valve closed or clogged.
	20	OU sensor	Thermistor for discharge gas temperature	-	Incorrect wiring, disconnected wiring, broken cable, short circuit.
	21	1st cycle	High pressure sensor	-	
	22	OU sensor	Thermistor for outdoor ambient temperature	-	
	24	OU sensor	Thermistor for evaporation temperature	-	Incorrect Wiring, Disconnected Wiring, Wire Breaking, Short Circuit, Fan Motor Locking at Heating Operation.
	27	Outdoor	Economizer thermistor abnormality	-	
	28	Outdoor	Failure of suction gas thermistor	-	
	29	1st cycle	Low pressure sensor	-	
	31	System	Incorrect capacity setting	-	Incorrect Capacity Code Setting, Excessive or Insufficient Indoor Unit Total Capacity Code.

	Code	Text	origin	Retry stop code	Main factors
Alarms from ODU	35	System	Incorrect indoor unit address setting	-	Duplication of indoor unit number, number of indoor units over specifications.
	36	System	Incorrect indoor unit combination	-	
	38	System	Abnormality picking up circuit for protec.	-	Failure of indoor unit PCB, incorrect wiring, connection to PCB in indoor unit.
	41	Indoor	High pressure switch overload	-	
	42	Outdoor	Pressure ratio decrease	-	
	43	Outdoor	Pressure ratio increase	-	
	44	Outdoor	Low pressure increase abnormality	-	
	45	Outdoor	Very high discharge pressure protection	-	Overload (obstruction of HEX, short circuit) mixture of inert gas, Excessive Refrigerant.
	47	Multiple Origins	Excessively low suction pressure	-	Shortage or leakage of refrigerant, piping clogging, expansion valve close-locked, fan motor locked.
	48	Multiple Origins	Activation of overcurrent protection	-	Overload, overcurrent. Failure of Inverter PCB, heat exchanger clogged, locked compressor. EVI/EVO failure.
	51	Inverter	Abnormal operation of the current sensor	-	Incorrect wiring of current sensor. Failure of control PCB or Inverter PCB.
	53	Inverter	Protection of the Inverter PCB (Outdoor)	-	Inverter module (IPM, DIP-IPM) and Inverter PCB abnormality. Failure of compressor, clogging of heat exchanger.
	54	Inverter	Excessive temperature of the Inverter PCB	-	Heat Exchanger Clogging. Fan Motor Failure.
	55	Inverter	Abnormal operation of Inverter PCB (OU)	-	Failure of DIP-IPM, IPM or Inverter PCB.
	57	Outdoor	Activating the protection of the fan motor	-	

	Code	Text	origin	Retry stop code	Main factors
Alarms from ODU	5B	Outdoor fan	Activation of over current protection	-	
	5C	Outdoor fan	Abnormality in current detection circuit	-	
	202	Indoor	Wrong settings of the controller	-	
	203	Indoor	Sub room controller stops answering	-	Loose, disconnected, broken or short-circuited connector
	204	Indoor	Indoor unit stops answering to controller	-	
	EE	Compressor	Compressor protection	-	Compressor failure. This alarm code appears when the following alarms 02, 07, 08, 45, 47 occur three times within 6 hours.

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