



## 4 in 1 Digital Thermostat RF

Models: VS20WRF and VS20BRF  
VS10WRF and VS10BRF



INSTALLER / USER MANUAL

# Contents

## Contents

Box contents  
Introduction  
Product Compliance  
System options overview  
Installation  
Parameter Settings  
Error Codes  
User Guide  
Installers notes  
Warranty

## Box Contents



1 x Installer / User manual

## Icons used in this manual:



Safety



Important info



Your benefit

For latest PDF installation  
guide please go to  
[www.salus-controls.com](http://www.salus-controls.com)



4x AAA Batteries



Fixing screws



VS10WRF



VS20BRF

# Product Compliance & Safety Information

## INTRODUCTION

Thank you for purchasing the SALUS 4 in 1 room thermostat it must be used with the CO10RF Zigbee Coordinator. The Zigbee coordinator allows communication with other devices in the iT600 RF system range. Other Zigbee devices include wiring centre, system receiver & TRV.

## iT600RF Range



This product is CE compliant and meets the following EC Directives Electro-Magnetic Compatibility directive 2004/108/EC Low voltage Directive 2006/95/EC



## Safety Information

Use in accordance with the regulations The SALUS VS10/20RF is to be used for room control of heating and hot water systems inside the house.

**Product Compliance**

We hope you enjoy this product...

## Product Compliance & Safety Information

These instructions are applicable to the SALUS model stated on the front cover of this manual only.



### Warning

This product must be fitted by a competent person, and installation must comply with the guidance, standards and regulations applicable to the city, country or state where the product is installed. Failure to comply with the requirements of the relevant guidance, standards and regulations could lead to injury, death or prosecution.



### Sources of danger

The thermostat must be disconnected from mains supply before removing the cover.



### Emergency

Switch off the voltage to the individual thermostat wiring centre or complete system.



### 230V AC



### Warning

Always isolate the AC Mains supply before installing or working on any components that require 230 VAC 50Hz supply.



### Installer parameter settings

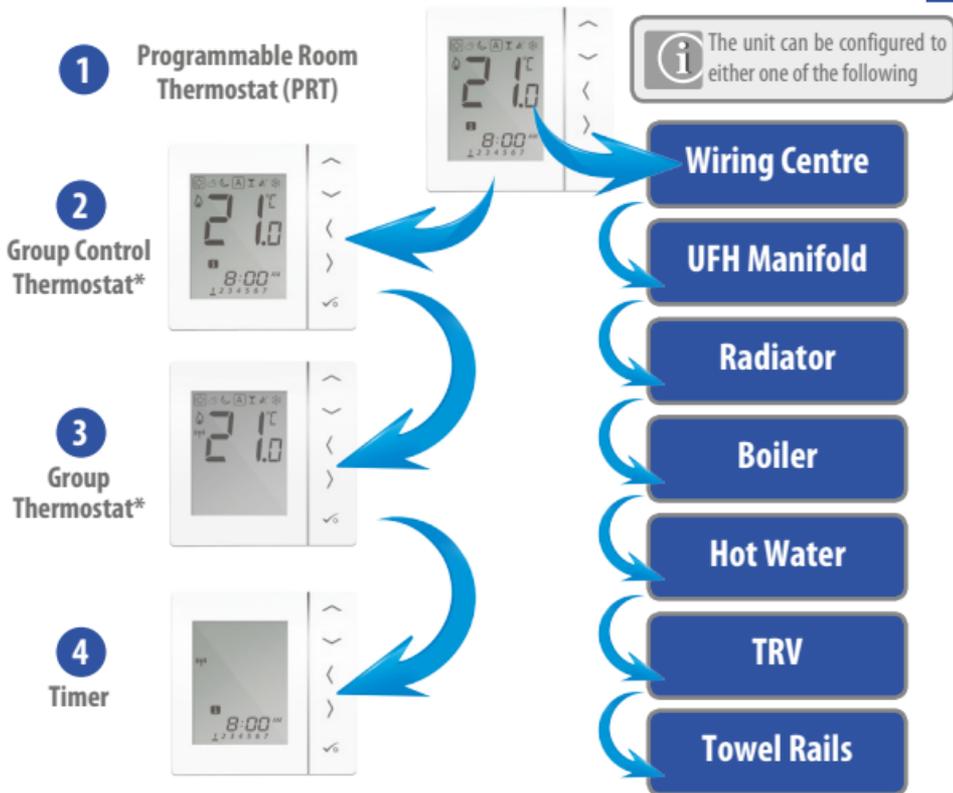
The SALUS VS10 and VS20 are equipped with installer parameter section (see page 57) this must only be entered by the installer or competent person. Changing these parameters can have a serious effect on your heating system



### For the installer

Please enter any parameter changes in the installer notes section (pages 90)

# System Overview - Configuration Options



\* Grouping and timer option only available when used with wiring centre.

# System Overview - Configuration Options

## **Programmable Room Thermostat (PRT)**

When configured for PRT (see page 32) it mainly works by itself and allows the user to have separate Time and Temperature control of each zone on the wiring centre, radiator valve or system receiver. Features like Vacation, Party frost mode have to set on each individual thermostat. All PRTs paired with a wiring centre can also use the global heat/cool changeover function if the your system supports this. This is achieved by using the heat/cool changeover connection on the wiring centre (see note 8 on wiring centre guide).

## **Group Control Thermostat**

When configured for a PRT (see page 32) it can operate as a group control thermostat by assigning a group when pairing with the wiring centre this allows central control of up to 7 group thermostats see below, there can be a maximum of 2 groups per 8 zone wiring centre. Permanent temperature override, Holiday, Party, Frost modes, can be selected centrally from the Group Control Thermostat. Holiday will also be applied to a timer if applicable. The group thermostats can be also globally changed from heating to cooling thermostats if you system supports this by using the switched input connection on the WC (see note 8 on the wiring centre guide).

## **Group Thermostat**

When configured as a digital thermostat and assigning a group when pairing with a WC it can operate as a group thermostat (see page 31), in group mode the group thermostat will follow the time schedule and any override modes of the group control thermostat. At least one group control thermostat is required for grouping see above. The group thermostat can have its own programmed temperatures, manual override and also be removed from the group temporarily or permanently.

## **Timer**

When configured to timer (see page 32) the unit will operate as a timer with no temp control. This can be used for hot water control. The timer will also follow Holiday mode from the group control thermostat if applicable.

# System Overview - Zigbee Coordinator

 Zigbee coordinator required for communication between these devices.



KL08RF



KL10RF



VS10 / VS20RF



CO10RF



RX10RF



WBTRV10RF



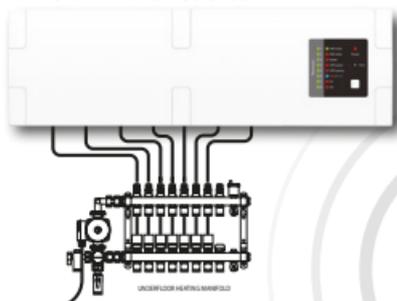
WBTRV10RFM

# System Overview - iT600 System



The thermostat can communicate with all these iT600 devices.

KL08 or KL10 can be used



System Receiver configured to one room receiver RX2. Refer to system receiver RX10RF.



System Receiver configured to boiler receiver. Refer to system receiver manual RX10RF.

Max 6 TRV per thermostat



## System Overview - Hot Water Option



When the unit is configured as a hot water timer (see page 32) there are two methods of connecting the cylinder thermostat.

Unit configured to  
Hot Water Timer.



Cylinder thermostat options

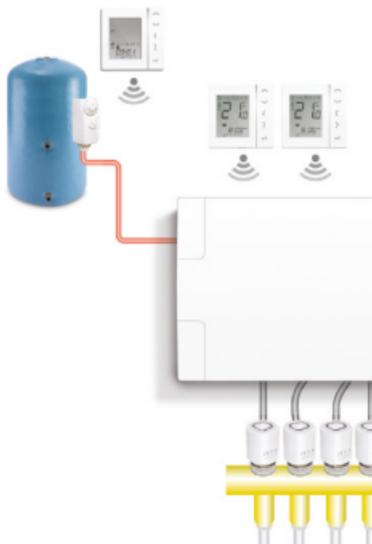
- 1 Connected direct to WC (Default)
- 2 Connected direct to VS10/20RF (requires additional parameter change. See page 57)

# System Overview - Hot Water Option



For convenience there is a unique built in option allowing the cylinder thermostat to be connected to either the HW Timer or Wiring Centre.

## 1 Connected direct to WC (Default)



## 2 Connected direct to VS10RF/20RF (requires additional parameter change see page 37)



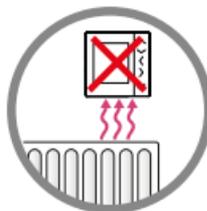
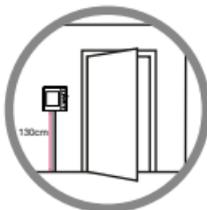
Please refer to note 1 on Wiring Centre guide and pages 15 and 20 for more information.

## Installation – Thermostat Mounting



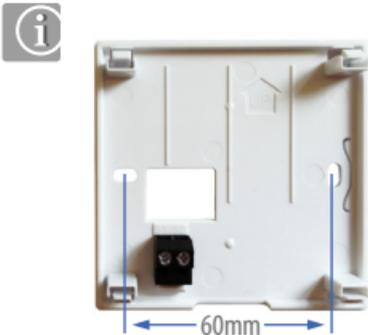
### Mounting position and installation

To ensure trouble free operation and efficient control, the unit is best positioned in a draft free area and at 130cm from the floor. Do not position the thermostat near any heat source, behind curtains, direct sunlight or an area of high humidity.



Not to be positioned on an exterior wall.

## Installation – Thermostat Mounting VS20WRF



Carefully remove the front housing.

# Installation – Terminal Connections VS20WRF

## Understanding your terminal connections

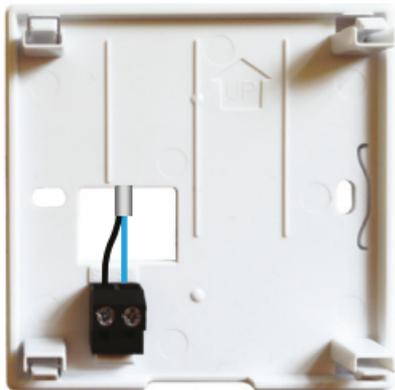
Rear of unit



### Sensor Terminals

Can be used for external AIR, Floor sensor when configured as thermostat. Can also be used for Cylinder thermostat when configured for HW. See page 57.

## Installation – Thermostat External Sensor VS20WRF

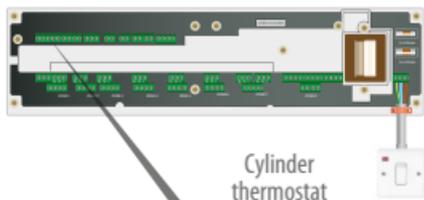


SALUS External sensor (Sold separately)



**Note:** If you are using an external sensor, the unit has to be configured for External Air Sensor or Floor Protection Sensor please see device parameter setting page 57.

# Installation – Hot Water Timer Cylinder Thermostat VS20WRF



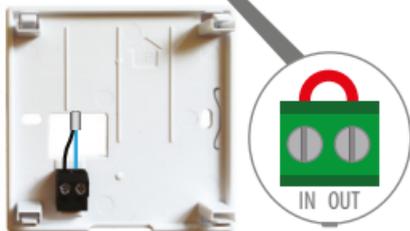
Cylinder thermostat  
SALUS CT100



WC connected cylinder thermostat (Default)



Link must be fitted



HW Timer connected cylinder thermostat



**Note:** The unit can be configured for Cylinder thermostat or connected to the Hot Water Timer. Please see device parameters page 57. For additional Wiring Centre information refer to note 1 on Wiring Centre guide.

## Installation – Thermostat Mounting VS20WRF

Once you have connected your choice of external sensor (if applicable)

1



2



3



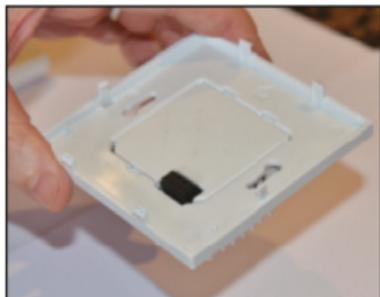
Insert batteries

4

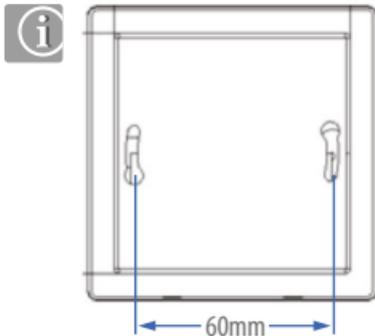


**Note:** Please proceed to page 23

## Installation – Thermostat Mounting VS10WRF

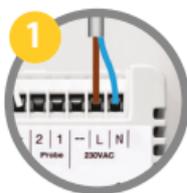
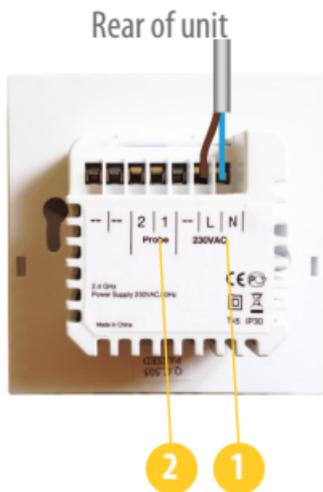


Carefully remove the front housing.



# Installation – Terminal Connections VS10WRF

## Understanding your terminal connections

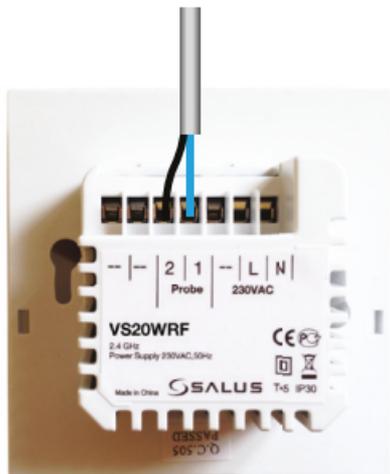


**Power Terminals 230 Vac**  
Used for supplying power to the unit. 230V supply can be sourced from the wiring centre or any convenient source.



**Sensor Terminals**  
Can be used for external AIR, Floor sensor when configured as thermostat. Can also be used for Cylinder thermostat when configured for HW.

## Installation – Thermostat External Sensor VS10WRF

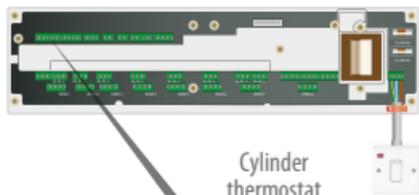


SALUS External sensor (Sold separately)



**Note:** If you are using an external sensor, the unit has to be configured for External Air Sensor or Floor Protection Sensor please see device parameter setting page 57.

# Installation – Hot Water Timer Cylinder Thermostat VS10WRF



Cylinder thermostat  
SALUS CT100



IN OUT

WC connected cylinder thermostat (Default)



Link must be fitted



IN OUT

HW Timer connected cylinder thermostat



**Note:** The unit can be configured for Cylinder thermostat or connected to the Hot Water Timer. Please see device parameters page 57. For additional Wiring Centre information refer to note 1 on Wiring Centre guide.

## Installation – Thermostat Mounting VS10RF



Check that the wiring is completed for:

1

Power Terminals

2

Sensor Terminals (if applicable)



You are ready to secure the rear housing to the wall box



Please use the screws provided



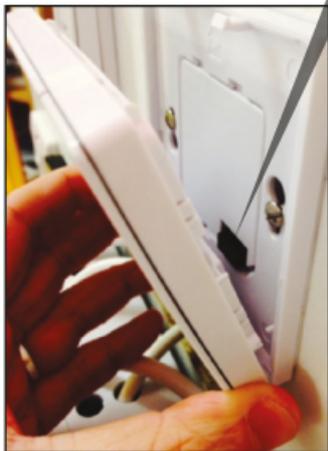
Ensure the orientation arrow is pointing upwards.



## Installation – Thermostat Mounting

**i** Fit the front housing to the rear housing

**i** Ensure the pin connections are aligned



**1** Align the front housing at the bottom edge.



**2** Lightly press until you hear a positive click.

# Installation – LCD Graphics

ICON	FUNCTION
	<b>BOX</b> means to select the mode e.g.  means the current setpoint is Hi temp,  means the Hi temp is not selected.
	<b>Sunny:</b> Hi comfortable temperature.
	<b>Cloudy:</b> Middle comfortable temperature.
	<b>Moon:</b> Low comfortable temperature.
<b>A</b>	<b>Programmable thermostat Program mode indicator:</b> Indicates program is running, Auto On or Auto Off. For group thermostat this indicates that it is a member of a group.
	<b>Party indicator:</b> When Party mode is active.
	<b>Vacation indicator:</b> When Vacation mode is active
	<b>Frost protection indicator:</b> Frost protection is active, not available in cooling mode (if applicable)
	<b>RF Transmission is active</b>
<b>M1</b>	<b>Group 1 Control Thermostat</b>
<b>M 2</b>	<b>Group 2 Control Thermostat</b>
<b>1</b>	<b>Group 1 Thermostat</b>
<b>2</b>	<b>Group 2 Thermostat</b>

## Installation – LCD Graphics

ICON	FUNCTION
	<b>Heat indicator:</b> Indicates heat is required.
	<b>Cool mode indicator:</b> Indicates cooling is required (if applicable)
	<b>Temperature indicator:</b> Display the room temperature. Display the set-temp. Also used to show the other information.
	<b>Temporary manual override indicator:</b> If the set temperature is changed when in program mode, the hand will appear until the next program start time.
	<b>Programs number indicator:</b> In AUTO program mode or Temporary override is running, it means the current program running.
	<b>Day indication:</b> 1 = Monday

## Installation – LCD Graphics

ICON	FUNCTION
	<b>Hot Water (HW) indicator:</b> Unit has been configured for HW Timer.
	<b>Hot Water (HW) indicator:</b> Indicates that there is Hot Water demand.
	<b>HW Program mode indicator:</b> Indicates program is running.
	<b>HW Mode indicator:</b> Mode for 1 period of HW a day, from Program 1 ON to Program 3 OFF.
	<b>HW Mode indicator:</b> Indicates continuously On.
	<b>HW Mode indicator:</b> Indicates continuously Off.
	<b>HW Mode indicator:</b> Indicates Boost +1hr override.

## Installation – LCD Graphics

ICON	FUNCTION
	<b>Floor sensor probe indicator</b> Show only when Air + Floor sensor is connected.
	<b>Floor sensor probe flashing</b> Indicates that heating of the zone has been halted to protect the floor from over-heating.
	<b>Low battery indicator:</b> Batteries need to be replaced.
	<b>Setting indicator:</b> Indicate the unit is in setting mode when program setting. Indicate the manual mode.
	<b>Keylock indicator:</b> Shows that keys are inactive.

## Installation – User Interface

KEY	FUNCTION
	<ol style="list-style-type: none"><li>1. Increase or decrease setpoint temperature.</li><li>2. Increase or decrease Day, Clock, Timer, Party, Holiday and Boost.</li><li>3. Select installer parameter value.</li></ol>
	<ol style="list-style-type: none"><li>1. Mode selection.</li><li>2. Long &lt; press to return to home display without saving.</li><li>3. Short &lt; press to return to the previous screen when it is in user/installer setting mode.</li></ol>
	<ol style="list-style-type: none"><li>1. OK key: Short press to confirm selection.</li><li>2. Long press to save and exit.</li><li>3. Long press to enter the user settings.</li></ol>
 LONG PRESS	Lock/Unlock
 LONG PRESS	Enter Installer parameter settings

## Installation - Graphics Key



Press once



Press x amount of times



Hold for five seconds



Flashing



Short press to back up

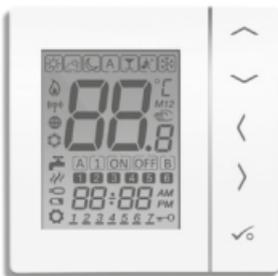


Short press to save and  
long press to save and exit



## Installation – First Power Up

The following screens show examples only



MCU software version  
will be shown



ZIGBEE software version  
will be shown

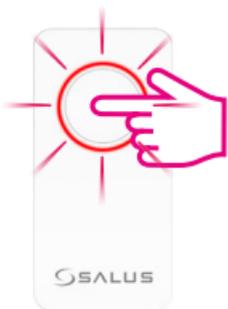


\*Please note that 88.8  
and 8.8 are a reference  
to the software version.

# Installation - System Setup

## System setup checklist

- 1** The Zigbee coordinator must be in pairing mode. Before starting the pairing, make sure the light is flashing on the coordinator by holding the button for 5 seconds. For more information refer to the coordinator instruction manual.
- 2** The device that you intend to pair with must be ready to accept pairing. Please refer to pages 33-45 and the relevant device installation guides.



## Installation – System Parameters

You are now ready to configure the unit using the system parameter table below.

**NOTE:** This unit is already pre-configured as a programmable thermostat. To configure this differently refer to table below and instructions on following pages.

	FUNCTION	SYSTEM SETTING	DEFINITION	DEFAULT
USE	What does unit Communicate within the iT600?	UF H	It600 Wiring Centre*	UFH
		r Rd	It600 radiator valve	

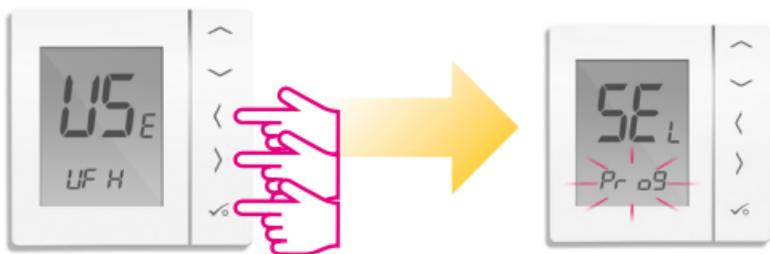
\*If you have made an error please go to page 47 from the main manual. You will see the following screen.



Use  or  to select the type of unit to pair with.

## Installation – System Parameters

If the pre-configured program is not suitable for your application, hold down the bottom three keys for a short time, until the display shows SEL PROG.



# Installation - System Setup

## Selecting what type of unit



Use  or  to select the type of unit. After selection has been made, press  to confirm.

*Pr o9*

Programmable  
Thermostat

*di9t*

Digital Thermostat

*uu tr*

Hot water timer

## Selecting what unit to pair with



Use  or  to select the type of unit to pair with.

*UF H*



Wiring  
Centre.  
Page 33

*r Rd*



Radiator Valve.  
Page 37

*rE C2*



System Receiver  
Configured RX2.  
Page 41

*rE C1*



System Receiver  
Only configure RX1.  
Page 44

## Installation - Pairing with Wiring Centre

\*Set your system parameters by following the steps on pages 3-5.



If you have the KL08RF wiring centre, the CO10RF coordinator plugs directly into the wiring centre or into the G30 gateway.



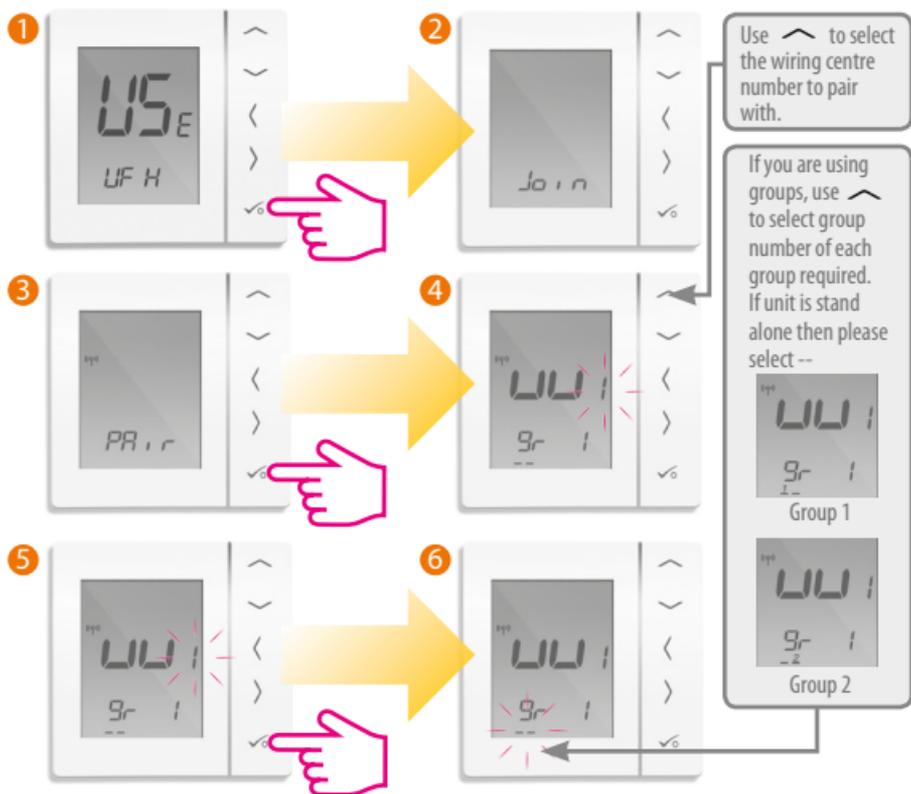
Wiring Centre

### Checklist

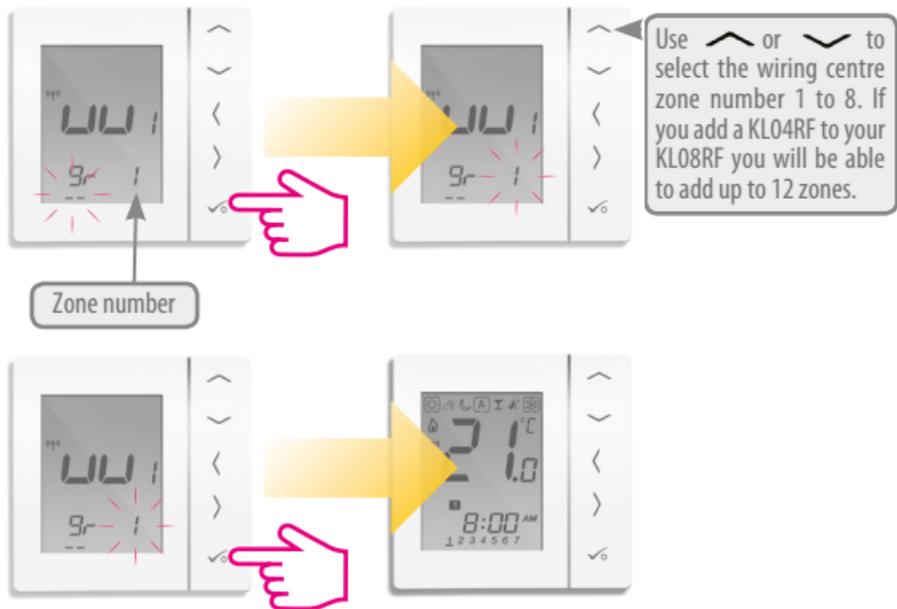
- 1 The Zigbee coordinator must be in pairing mode. Hold the button for five seconds until it flashed red.
- 2 Ensure the wiring centre and optional system receiver (Configured to RX1) for remote boiler switch are powered up.  
Note: The wiring centre and system receivers will automatically join Zigbee network when powered up and the Zigbee coordinator is in pair mode. Green LED on Wiring Centre and Red LED on RX1 will go steady when the devices have joined the Zigbee network.
- 3 If more than one wiring centre is in the system, establish and note the wiring centre number by pressing the pair key for 1 second. The wiring centre number will flash.



## Installation - Pairing with Wiring Centre



## Installation - Pairing with Wiring Centre



## Installation - Testing the pairing with the RF WC

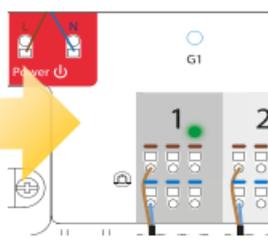


If pairing for your system is complete, please take the coordinator out of pair mode. Press for 5 seconds and light will stop flashing-goes to solid red.

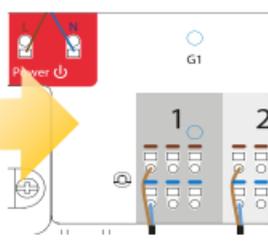


OSALUS

Use to increase temperature to 30°C and then press



Use to decrease temperature to 10°C and then press



PAIRING  
WITH WC



If you are using the optional system receiver configured to RX1 please check that the green light goes on when the temperature is raised and off when reduced. The boiler and the pump have the ON/OFF Delay function. For more details please see page 2, section 14 of the KL08RF manual.

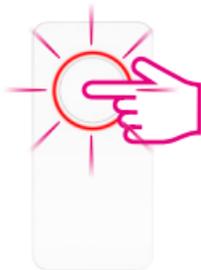
## Installation - Pairing the Radiator Valve(s)



Radiator  
Valves



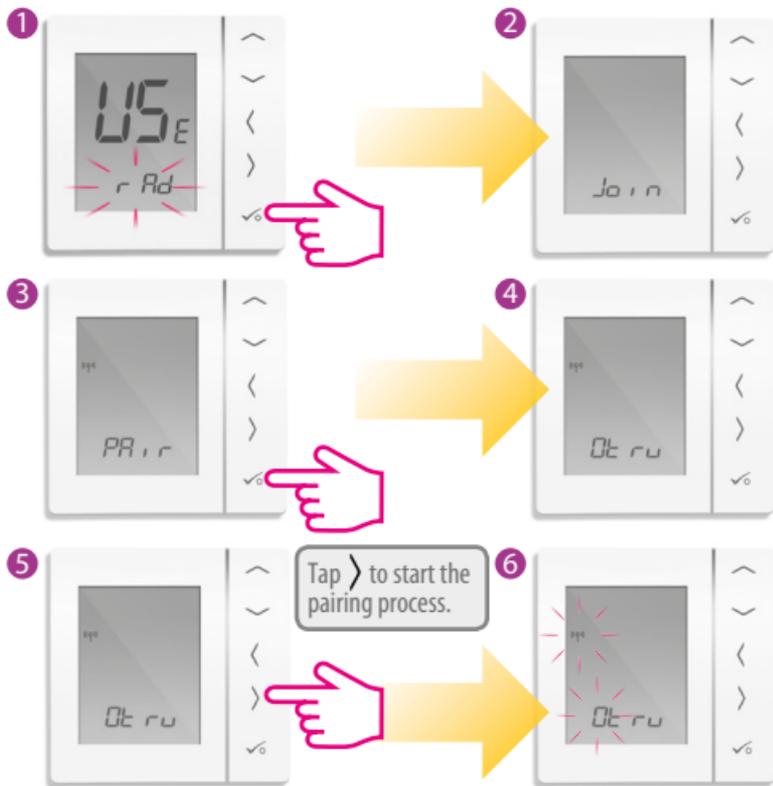
Set your system parameters by following the steps on pages 3-5.



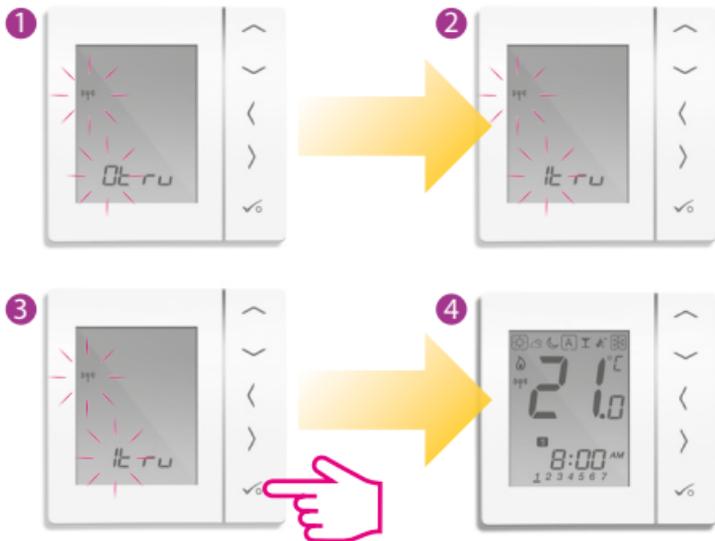
### Checklist

- 1** The Zigbee coordinator must be in pairing mode. Hold the button for five seconds until it flashed red.
- 2** Ensure that the radiator valves are in pairing mode (Refer to TRV manual). A maximum of 6 radiator valves can be used with 1 thermostat. Pairing of radiator valve. Please pair TRVs on a room by room basis.
- 3** If you are using the optional system receiver configured to RX1 for remote boiler switching, ensure this has been powered up and the red flashing LED has gone steady.

## Installation - Pairing with Radiator Valve



## Installation - Pairing with the Radiator Valve



The pre fix number on the TRV will change as the TRV(s) pair.

Once all TRV's have paired press   
If you use the maximum number of TRVs it will automatically take you to the Mainscreen.

## Installation - Testing RF Pairing



If pairing of your system is complete, please take the coordinator out of pair mode. Press for 5 seconds and light will stop flashing.

GSALUS



Use to increase temperature to 30°C and then press



You should hear the valve open. Once complete, press ON or OFF key on TRV for 1 second.



Green LED OPEN



PAIRING WITH TRV

Use to decrease temperature to 10°C and then press



You should hear the valve close. Once complete, press ON or OFF key on TRV for 1 second.



Red LED CLOSED



If you are using the optional system receiver configured to RX1 please check that the green light goes on when the temperature is raised and off when reduced. For more details please see the RX10RF manual.

## Installation - Pairing with System Receiver RX2

\*Set your system parameters by following the steps on pages 3-5.



Refer to system receiver manual.

System Receiver Configured to RX2 single room receiver.

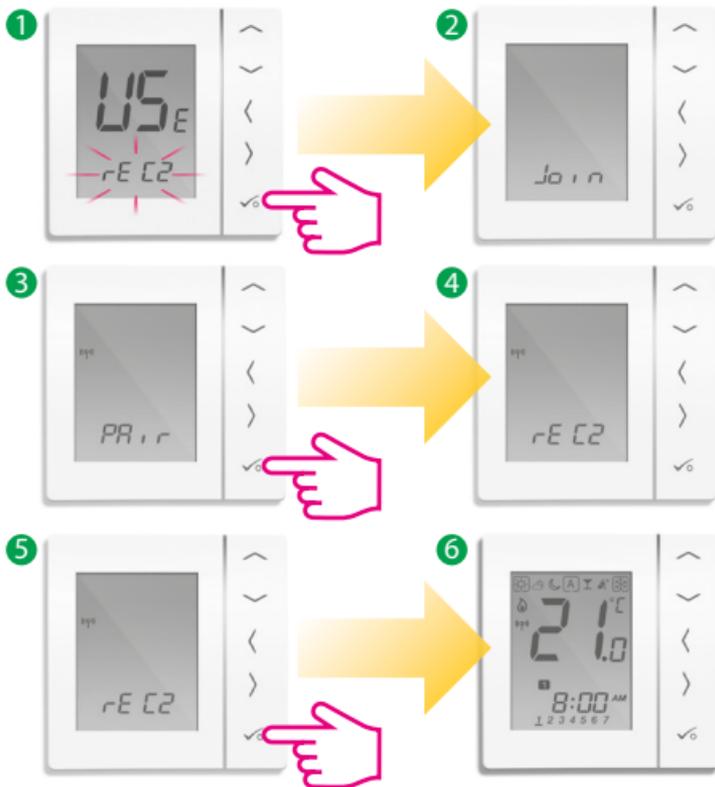


### Checklist

- 1 The coordinator must be in pairing mode. Hold the button for five seconds until it flashed red.
- 2 The system receiver (RX2) is powered up and the red LED will flash when the pairing is in process and will be steady when the pairing is complete. Refer to RX10RF manual.
- 3 If you are using the optional system receiver configured to RX1 for remote boiler switching. Ensure this has been powered up and the red flashing LED has gone steady. Refer to RX10RF manual.



## Installation - Pairing with System Receiver RX2



## Installation - Testing Pairing with System Receiver RX2



If pairing for your system is complete, please take the coordinator out of pair mode. Press for 5 seconds and light will stop flashing.



OSALUS



Use  to increase temperature to 30°C and then press 



Green LED on

Use  to decrease temperature to 10°C and then press 



Green LED off



If you are using the optional system receiver configured to RX1 please check that the green light goes on when the temperature is raised and off when reduced.

## Installation - Pairing with System Receiver RX1 only

\*Set your system parameters by following the steps on pages 3-5.

Used if system receiver is used on its own.



### Checklist

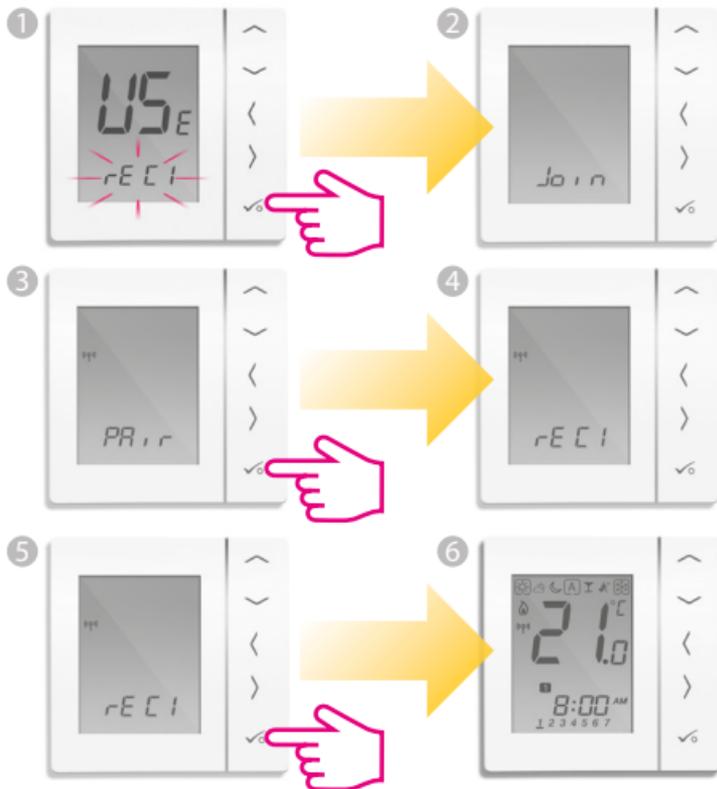
System Receiver configured to boiler receiver RX1.  
Refer to system receiver manual.

- 1 The coordinator must be in pairing mode.
- 2 The system receiver (Configured to RX1) is powered up and the red LED will flash when the pairing is in process and will be steady when the pairing is complete.



Used when you want multiple thermostats to activate the same receiver

## Installation - Pairing with System Receiver RX1 only



## Installation - Testing Pairing with System Receiver RX1 only



Use  to increase temperature to 30°C and then press 



Green LED on

Use  to decrease temperature to 10°C and then press 



Green LED off



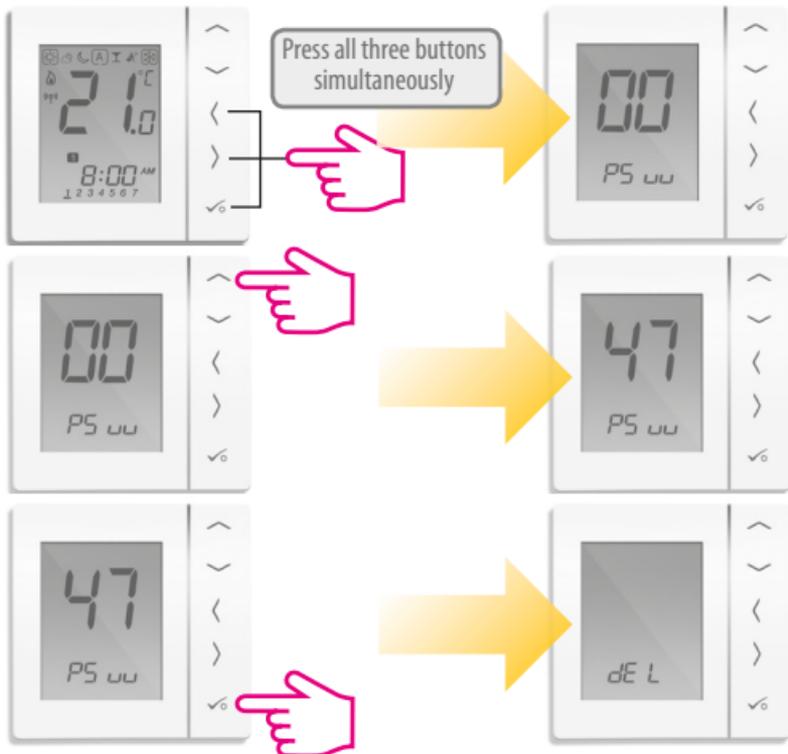
If pairing for your system is complete, please take the coordinator out of pair mode. Press for 5 seconds and light will stop flashing.



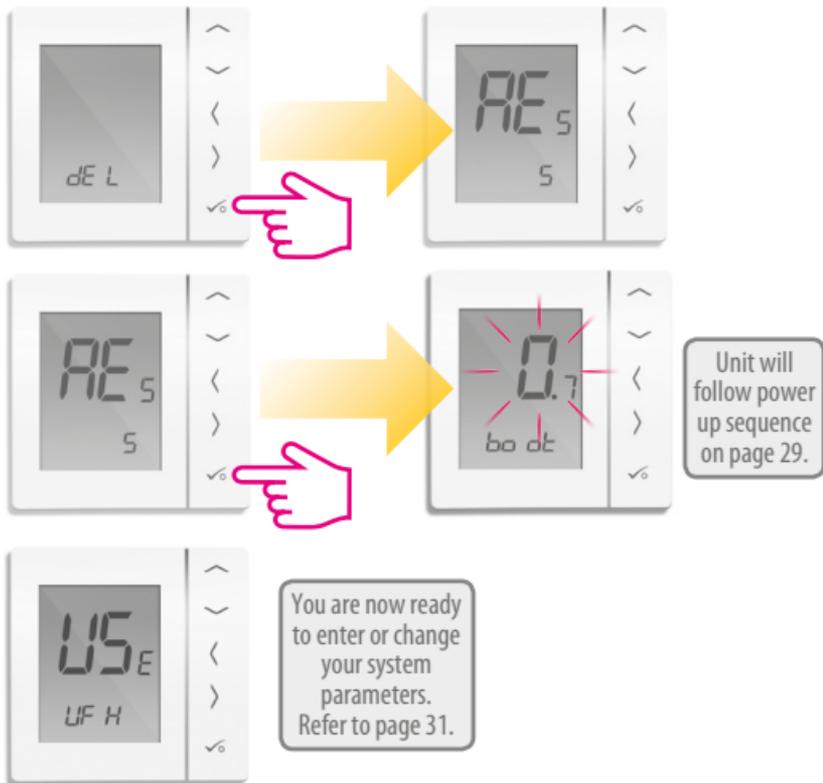
GRALUS

## Installation - Modifying System Parameters

If you have made an error or need to change your system parameters please follow steps below. This should only be done by your installer.



## Installation - Modifying System Parameters



## Installation - Checking System Configuration



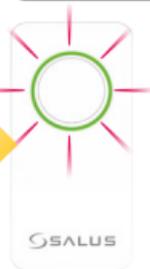
To check that the complete system is communicating and has been configured correctly, you can use identify mode.



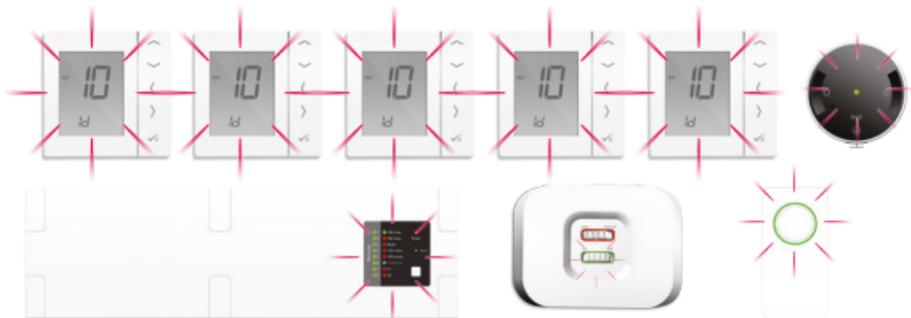
Using identify from the coordinator will show all products that are connected to your system.



Press for 1 second to activate identify mode.



Press again for 1 second to cancel identify. Identify mode will time out after 10 minutes.



The LEDs are different on the KL08RF wiring centre.

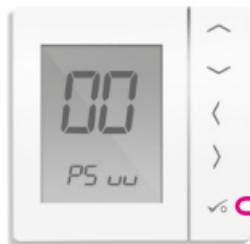
# Installation - Checking System Configuration



To check that the relevant system is communicating and has been configured correctly, you can use identify mode.



Please follow step 1 on page 47. When in identify mode all receivers and the coordinator related to the individual PRT will flash.



PRT



System has no grouping

 Press tick to cancel identify. Identify mode will time out after 10 minutes.



PRT



PRT



PRT



PRT



PRT



# Installation - Checking System Configuration



To check that the relevant system is communicating and has been configured correctly, you can use identify mode.



Please follow step 1 on page 47. When in identify mode all receivers, group thermostats and the coordinator will flash.



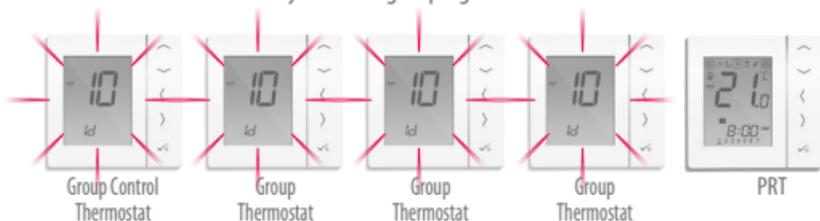
Group Control Thermostat



System has grouping



Press tick to cancel identify. Identify mode will time out after 10 minutes.



Group Control Thermostat

Group Thermostat

Group Thermostat

Group Thermostat

PRT



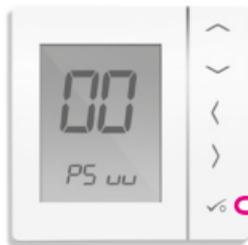
# Installation - Checking System Configuration



To check that the relevant system is communicating and has been configured correctly, you can use identify mode.



Please follow step 1 on page 47. When in identify mode all receivers, control group thermostat and the coordinator will flash.



Group Thermostat



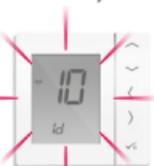
System has grouping



Press tick to cancel identify. Identify mode will time out after 10 minutes.



Group Control Thermostat



Group Thermostat



Group Thermostat



Group Thermostat



PRT



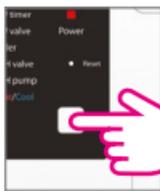
## Installation - Checking System Configuration



To check that the complete system is communicating and has been configured correctly, you can use identify mode.



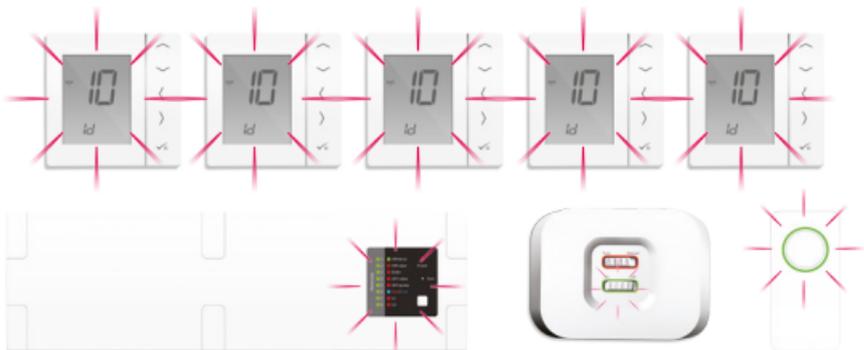
Using identify from the wiring centre will show all products that are connected to your wiring centre. Then wiring centre number will also be shown.



Press for 5 second to activate identify mode.



Press again for 5 second to cancel identify. Identify mode will time out after 10 minutes.



# Installation - Checking System Configuration



To check that the relevant system is communicating and has been configured correctly, you can use identify mode.



Please follow step 1 on page 47. When in identify mode all radiator valves, receivers and the coordinator related to the individual PRT will flash.



Press tick to cancel identify. Identify mode will time out after 10 minutes.



PRT

System has no grouping



PRT



PRT



PRT



PRT



## Installation - Replacing product

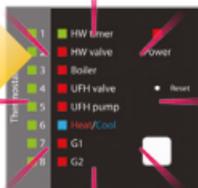


Before replacing any device it must be removed from the Zigbee network. Please ensure the Zigbee coordinator is also in pairing mode.

Deleting Wiring Centre from the network.



Press for 15 seconds to delete the wiring centre from the network.



All LED's will flash momentarily and then the wiring centre will be deleted from the network. All thermostats relating to the wiring centre will need to be reconfigured and paired with the new wiring centre.



If the wiring centre cannot be deleted as above, use the method below.



Please follow step 1 on page 47. Select password 46.



You are now ready to install your new wiring centre.

## Installation - Replacing product

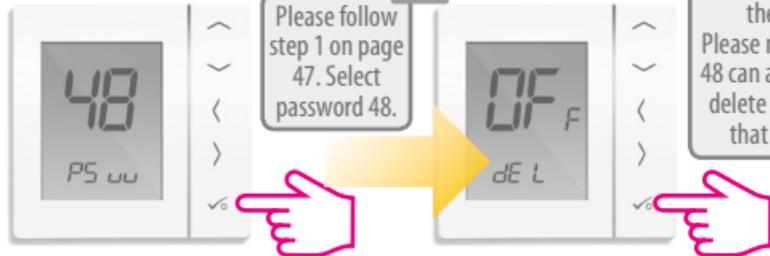


Before replacing any device it must be removed from the Zigbee network. Please ensure the Zigbee coordinator is also in pairing mode.

Deleting thermostat from the network.



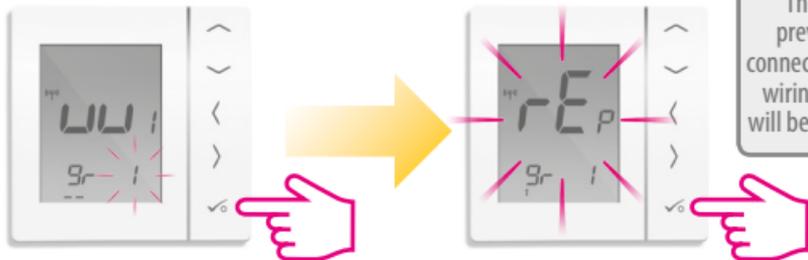
Please follow step 1 on page 47. Select password 48.



Your thermostat will now be deleted from the network. You are now ready to install your new thermostat. Please note password 48 can also be used to delete other devices that are offline.



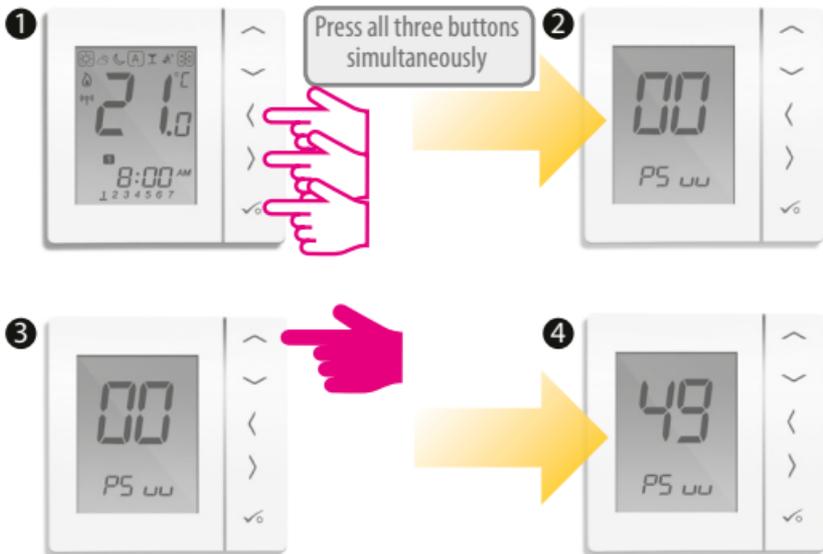
Note: If replacing a thermostat connected to the wiring centre, you can use the replacement method.



The unit previously connected to the wiring centre will be replaced.

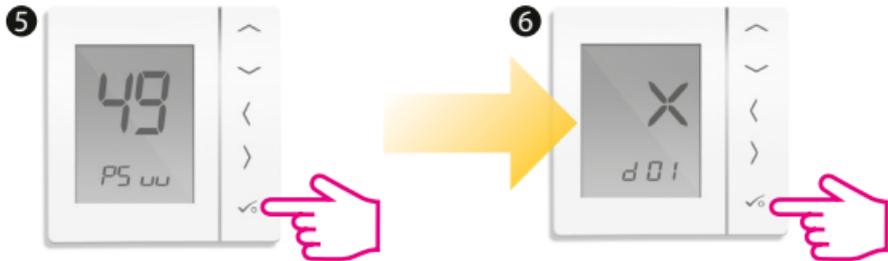
## Installation - Modifying Device Parameters

If you have made an error or need to change your system parameters please follow steps below. This should only be done by your installer.



## Installation - Modifying Device Parameters

Press ✓ repeatedly until you reach the d01 screen.



\*Please note that x=1,2, 3 or any °C value.

**Note:** You can see the Installer Mode Parameters on page 58 in the Manual.

## Installation - Device Parameters

DX	FUNCTION	SYSTEM SETTING	DEFINITION	DEFAULT
D01	Heating Control	0	Pulse Width Modulation	0
		1*	On-Off 0.5 Deg C +/- 0.25 Deg C	
		2	On-Off 1.0 Deg C +/- 0.5 Deg C	
D02	Room Temperature Offset	-3.0 to 3.0 Deg C	Temperature Offset from Measured Temperature to Compensate for any error	0 Deg C
D03	Sensor probe or Cylinder thermostat connection	0	Sensor/Cyl stat not Connected	0
		1	Sensor/Cyl stat Connected	
		2	DEW point sensor connected	
		0	Cylinder probe not connected	
		1	Cylinder probe connected	
D04	Sensor probe used as air sensor or floor sensor	0	D03 must be set to 1 then external sensor be used as Air sensor. There will be no internal temp measurement	0
		1	D03 must be set to 1 then external sensor used for floor protection. Internal temp is measured by stat	
D05	Cooling Control	1	On-Off 0.5 Deg C +/- 0.25 Deg C	2
		2	On-Off 1.0 Deg C +/- 0.5 Deg C	
D06	Actuator type	0	NO Normally Open	1
		1	NC Normally Closed	

\* When thermostat is paired with TRV then D01 default will be "1"

## Installation - Device Parameters continued

DX	FUNCTION	SYSTEM SETTING	DEFINITION	DEFAULT
D07	Valve protection	0	Disable	1
		1	Enable	
D08	Frost Set point Temperature	5-17 Deg C	Required Temperature for frost protection and holiday mode	5 Deg
D09	Hour Format	0	12	1
		1	24	
D10	N/A	N/A	N/A	N/A
D11	Daylight Saving Time (DST)	0	OFF	1
		1	ON	
D12	Heating Set point Limit	5-35 Deg C	Maximum temp that can be set for heating	35 Deg C
D13	Cooling Set point Limit	5-40 Deg C	Maximum temp that can be set for Cooling	5 Deg C
D14	Floor sensor High Limit Temperature	6-40 Deg C	Output relay will be switched off when temp is reached for floor protection	27 Deg C
D15	Floor sensor Low Limit Temperature	6-40 Deg C	Output relay will be switched on when temp is reached for floor protection	10 Deg C
D16	Floor sensor Limit for cooling	6-40 Deg C	Output relay will be switched off when temp is reached for floor protection	6 Deg C

# Installation - Error Codes

Error Code	Prog	Non-Prog	HW
01	Comm Connection link failure	Comm Connection link failure	Comm Connection link failure
02	Floor sensor: overheated or overcooled	Floor sensor: overheated or overcooled	Comm Connection link failure
03	Floor sensor open	Floor sensor open	-
04	Floor sensor short	Floor sensor short	-
05	Prog/Non-prog/HW thermostat lost link with Coordinator (Displayed on related Thermostat) Comm Connection link failure	Prog/Non-prog/HW thermostat lost link with Coordinator (Displayed on related Thermostat) Comm Connection link failure	HW lost link with Coordinator
06	Prog/Non-prog/HW thermostat lost link with WC (Displayed on related Thermostat)	Prog/Non-prog/HW thermostat lost link with WC (Displayed on related Thermostat)	HW lost link with WC
07	Prog/Non-prog Thermostat lost link with TRV (Displayed on related Thermostat)	Prog/Non-prog Thermostat lost link with TRV (Displayed on related Thermostat)	-
08	Prog/Non-prog Thermostat lost link with Receiver RX 1 (Displayed on related Thermostat)	Prog/Non-prog Thermostat lost link with Receiver RX 1 (Displayed on related Thermostat)	-
09	Prog/Non-prog Thermostat lost link with Receiver RX 2 (Displayed on related Thermostat)	Prog/Non-prog Thermostat lost link with Receiver RX 2 (Displayed on related Thermostat)	-



If there is more than 1 error, then on Error page, press UP to show other error codes.

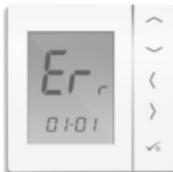
e.g. Err 03 05 ==>> 3 errors Error code 05 ( 1st one )

Press Up to show Err 03 08 ==>> 3 errors Error code 08 ( 2nd one )

Press Up again to show Err 03 09 ==>> 3 errors Error code 09 ( 3rd one )

Press Up again to show Err 03 05 again.....

Press OK to exit Error page back to Home display.



# Installation - Error Codes

Error Code	Prog	Non-Prog	HW
10	WC lost link with hot water timer (Displayed on all relevant thermostats and also hot water timer)	WC lost link with hot water timer (Displayed on all relevant thermostats and also hot water timer)	WC lost link with hot water timer (Displayed on all relevant thermostats and also hot water timer)
11-18	WC lost link with zone 11=Zone 1, 12=Zone 2 etc Displayed on all connected thermostats	Comm Connection link failure 11=Zone 1, 12=Zone 2 etc Displayed on all connected thermostats	-
19	WC lost link with coordinator (Displayed on all connected thermostats and hot water timer)	WC lost link with coordinator (Displayed on all connected thermostats and hot water timer)	WC lost link with coordinator (Displayed on all connected thermostats and hot water timer)
20	WC lost link with receiver RX1 (Displayed on all connected thermostats and hot water timer)	WC lost link with receiver RX1 (Displayed on all connected thermostats and hot water timer)	WC lost link with receiver RX1 (Displayed on all connected thermostats and hot water timer)
21	TRV lost link with coordinator (Displayed on all connected thermostats)	TRV lost link with coordinator (Displayed on all connected thermostats)	-
22	TRV low battery (Displayed on all connected thermostats)	TRV low battery (Displayed on all connected thermostats)	-
23	Invalid TRV	Invalid TRV	-
24	Unit is rejected by wiring centre	Unit is rejected by wiring centre	-

## Installation - Error Codes

Error Code	Prog	Non-Prog	HW
25	Thermostat lost link with parent (including any iT600 device)	Thermostat lost link with parent (including any iT600 device)	Thermostat lost link with parent (including any iT600 device)
26	WC lost link with zone 9 prog/non-prog thermostat (displayed on all connected thermostats)	WC lost link with zone 9 prog/non-prog thermostat (displayed on all connected thermostats)	-
27	WC lost link with zone 10 prog/non-prog thermostat (displayed on all connected thermostats)	WC lost link with zone 10 prog/non-prog thermostat (displayed on all connected thermostats)	-
28	WC lost link with zone 11 prog/non-prog thermostat (displayed on all connected thermostats)	WC lost link with zone 11 prog/non-prog thermostat (displayed on all connected thermostats)	-
29	WC lost link with zone 12 prog/non-prog thermostat (displayed on all connected thermostats)	WC lost link with zone 12 prog/non-prog thermostat (displayed on all connected thermostats)	-

## Installation - Error Codes

Error Code	Prog	Non-Prog	HW
30	TRV gear issue	TRV gear issue	-
31	TRV adaptation issue	TRV adaptation issue	-
32	Reserved for future use	Reserved for future use	Reserved for future use
33	Receiver lost link with devices	Receiver lost link with devices	Receiver lost link with devices



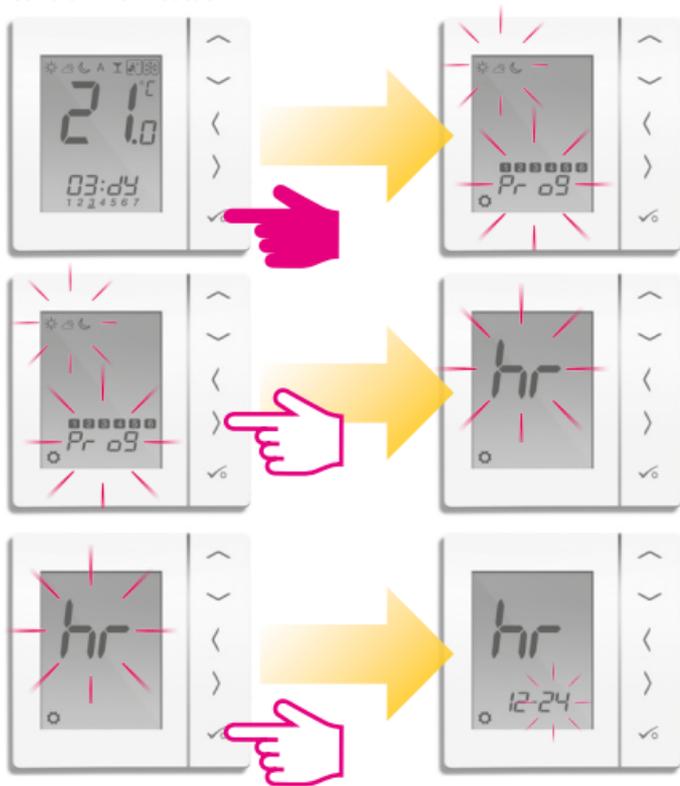
Error 33 is displayed in the app.

## Installation - Technical Detail

<b>Model</b>	VS10RF / VS20RF
<b>Type</b>	Electronic programmable room thermostat, digital room thermostat and hot water RF
<b>Programming Modes</b>	User selectable for 5/2, ALL and Individual day options
<b>Program Number</b>	1-6 Selectable
<b>Modes</b>	Party, Vacation, Program and Frost
<b>Override</b>	Permanent and temporary
<b>Frost Protection</b>	5°C Adjustable
<b>Power Source</b>	230V AC 50Hz VS10RF - 4 x AAA VS20RF
<b>Temperature Scale</b>	5 to 35°C, tolerance 0.5°C
<b>Heat/Cool</b>	Global changeover using communication bus and external input to the wiring centre
<b>Sensor</b>	Air or floor protection. Cylinder thermostat when configured for hot water timer.
<b>Device Parameters</b>	See page 57
<b>Operating Temperature</b>	0 to 45°C
<b>Storage Temperature</b>	-20 to 60°C
<b>Frequency</b>	2.4GHz Zigbee

# User Guide - Setting time and date

## PRT and Group Control Thermostat

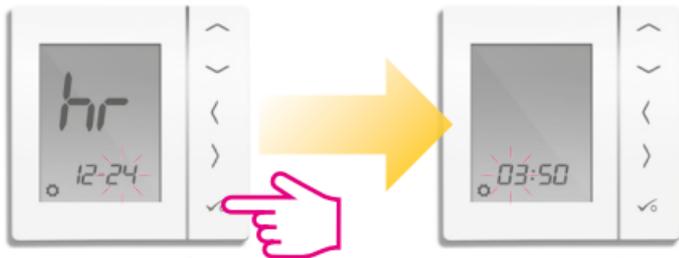


# User Guide - Setting time and date

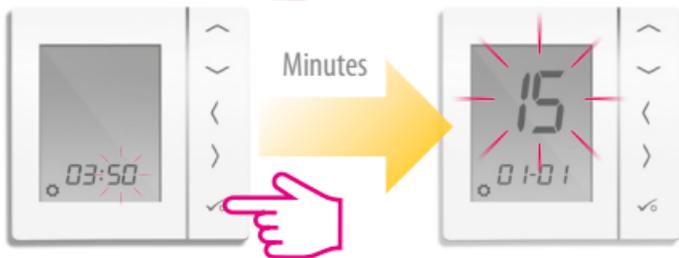
## PRT and Group Control Thermostat



Use Left to select  
12 hour and right  
to select  
24 hour.

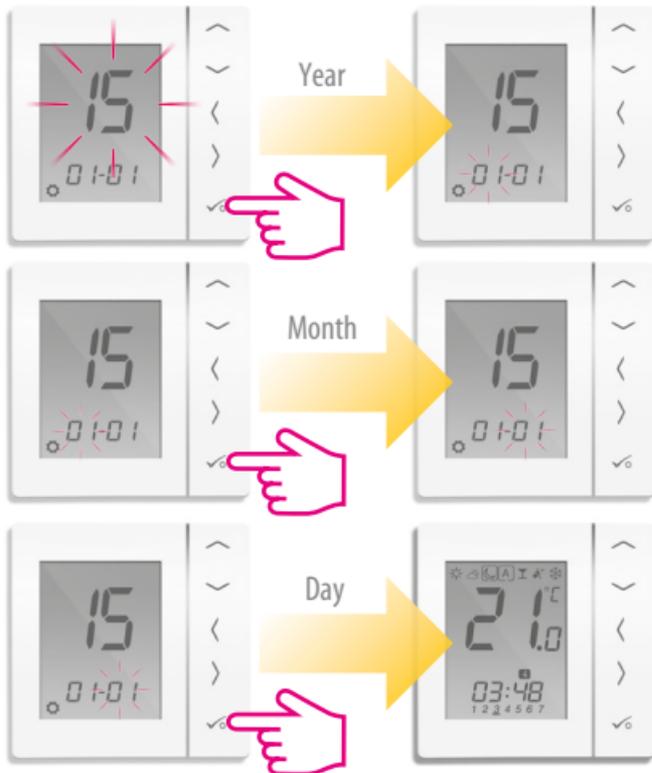


Adjust the time  
using the up or  
down arrow key.



# User Guide - Setting time and date

## PRT and Group Control Thermostat



## User Guide - Understanding Temperature Levels Heating

PRT, Group Control Thermostat and Group Thermostat



Highest Temperature typically used for early morning and early evening.

**Typically 21 Deg C**



Mid Temperature typically used for times of day when you are active around the home

**Typically 19 Deg C**



Lower Temperature typically used for unoccupied or sleep times. **Typically 17 Deg C for UFH or 15 Deg C for radiators**



Frost Temperature typically used for Periods of long absence or holidays. **Typically 5 Deg C**



Your thermostat comes preset for the above temperatures. These can be adjusted please see page 71

## User Guide - Understanding Temperature Levels Cooling

### PRT, Group Control Thermostat and Group Thermostat



Cooling is only available if your system supports this and the relevant configurations and connections have been made to the unit.



Occupied Temperature. Typically 22°C



Unoccupied Temperature Typically 40°C

This avoids cooling being active when the property is unoccupied.



Evening Temperature Typically 24°C

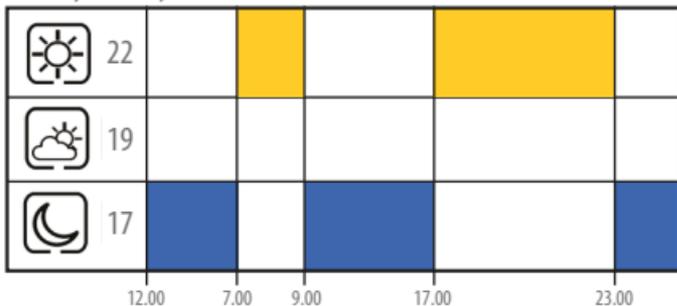


Your thermostat comes preset for the above temperatures. These can be adjusted please see page 71

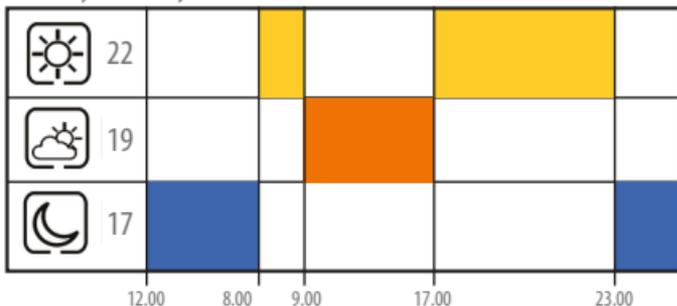
# User Guide - Default Heating Schedule

## PRT and Group Control Thermostat

### Monday to Friday



### Saturday to Sunday



If using grouping, the schedule from the group control thermostat will be applied to group members.



## User Guide - Graphics Key



Press once



Press x amount of times



Hold for five seconds



Flashing



Short press to back up



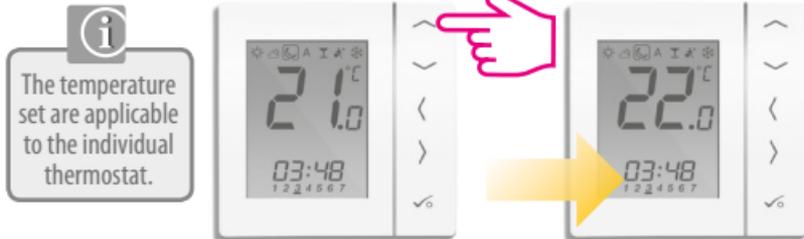
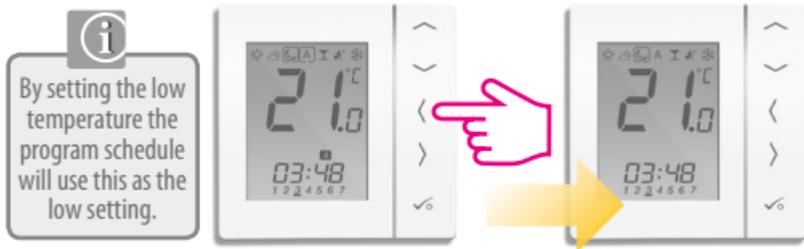
Short press to save and  
long press to save and exit



## User Guide - Setting required temp levels

### PRT, Group Control Thermostat and Group Thermostat

#### Setting the low temperature



## User Guide - Setting required temp levels

### PRT, Group Control Thermostat and Group Thermostat



By setting the low temperature the programs will use this as the low setting.



Repeat for



Move back to **A** once temperature levels have been chosen.



The temperature set are applicable to the individual thermostat.



## User Guide – Setting the Temperature Schedule



If using grouping, the schedule from the group control thermostat will be applied to group members.



Use right and left to select the day of the programs.

5/2

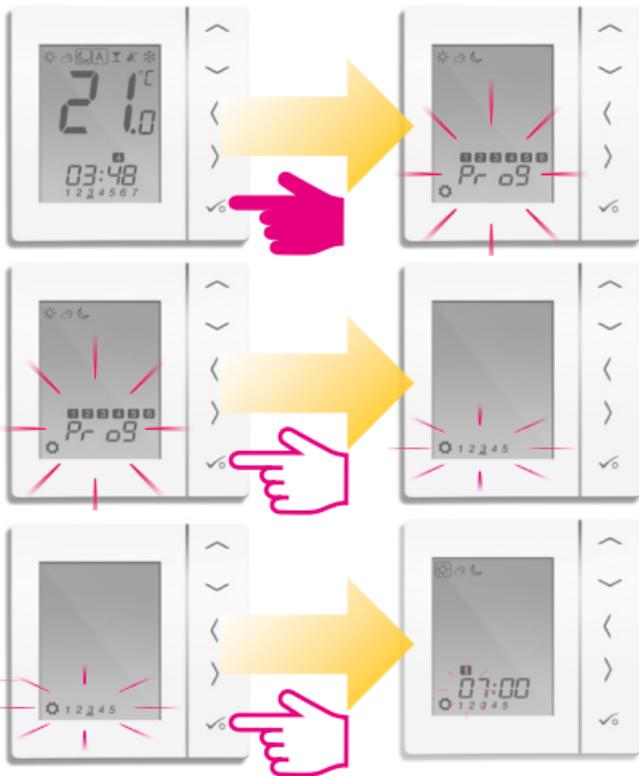
1 2 3 4 5 6 7

7 Days

1 2 3 4 5 6 7

Individual

1 2 3 4 5 6 7



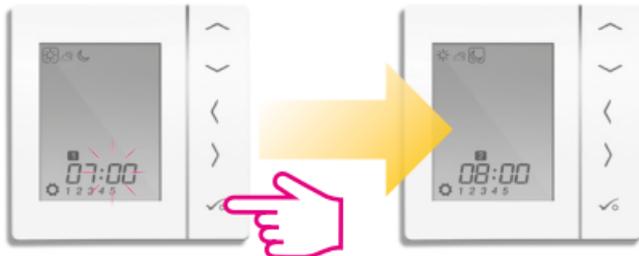
## User Guide – Setting the Temperature Schedule



Adjust the time using the up or down arrow key.



Use right and left to select the Hi/Mid or low temp.



## User Guide – Setting the Temperature Schedule



Repeat through to program 4.  
If you require a 5th or 6th program enter  
a time and select your temperature



To remove a program out set the time to --:--.



When you set the    temperature the schedule will respond  
to those temperatures see page 71 on how to change   

## User Guide - Temporary Override

### PRT, Group Control Thermostat and Group Thermostat



Use the up or down arrow key to view your program set temperature.



The temporary override is applicable to the thermostat being changed only.



Temporary override allows you to increase the temperature or decrease it to the desired setting until it reverts back on the next program time.

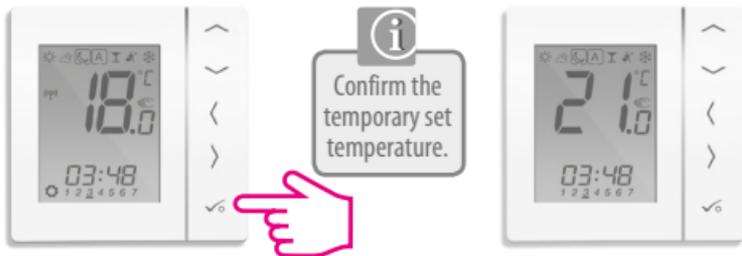


Use the up or down arrow key to adjust the temperature to the setting you desire.



## User Guide - Temporary Override

### PRT, Group Control Thermostat and Group Thermostat



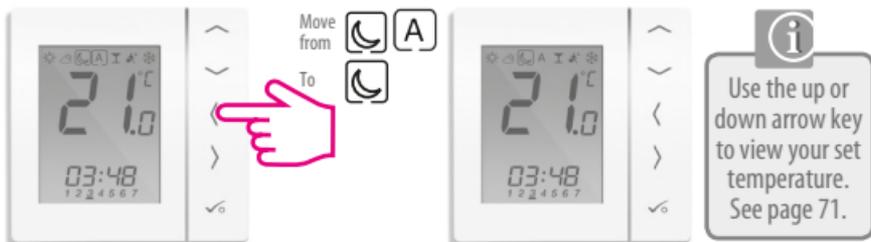
 To cancel temporary override press < or >  
See below.



## User Guide - Permanent Override

### PRT and Group Control Thermostat

Setting permanent low temperature



Permanent override in a control group thermostat will also affect the group thermostats unless they are removed from the group. See page 64.



To cancel permanent override select **A**. See below.

Repeat for



if required



To adjust your permanent override temperature, follow the steps on page 71.

# User Guide - Party Mode

## PRT and Group Control Thermostat

 The party mode is an option that enables  temperature for a period of time you select up to 9hr 50min.

 Party Mode set in a Control Group Thermostat will also affect group thermostats unless they are removed from the group. See page 82.



Use the right arrow to select the party mode.



Use the up arrow to select the hr/min.



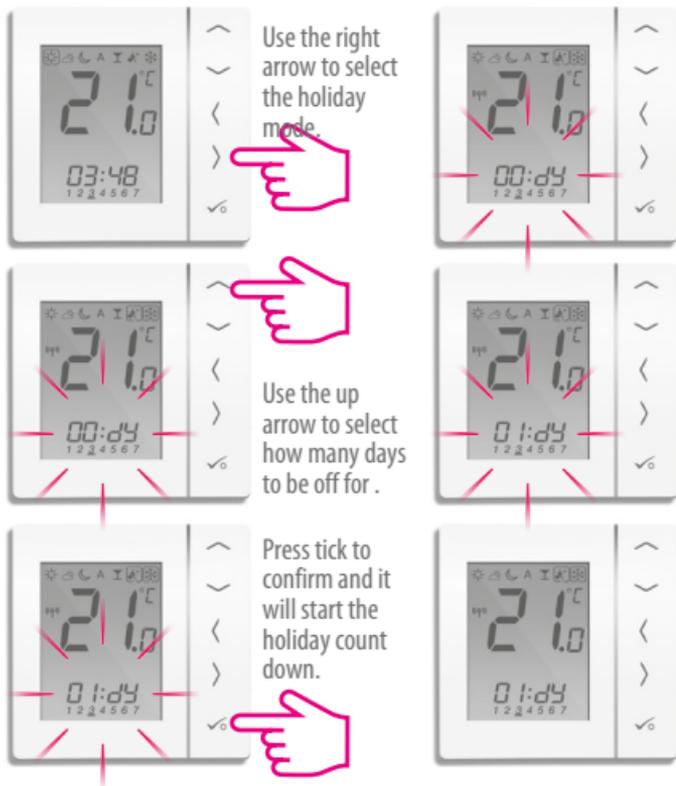
Press tick to confirm and it will start to count down.



## User Guide - Holiday Mode



Holiday set in a Control Group Thermostat will also affect group thermostats unless they are removed from the group. See page 82.



## User Guide - Frost Protection



Frost protection set in a Control Group Thermostat will also affect group thermostats unless they are removed from the group.  
See page 82.



Use the right arrow to select the frost mode.



Use the up arrow to select the frost protection temperature.



Press tick to confirm the temperature that has been set to.



## User Guide - Group Thermostat Overview



When a group thermostat is in **A** and the group control thermostat is in  or  then the group thermostat will follow this mode.  or  will be displayed.



When a group thermostat is in **A** it will follow the mode status of the group control thermostat.



The group thermostat has now left the group and is in permanent  To adjust the set temperature, please refer to page 71.

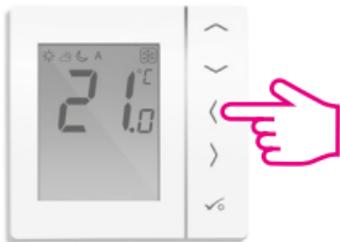


The group thermostat has now left the group and is in permanent  To adjust the set temperature, please refer to page 71.

## User Guide - Group Thermostat Overview



The group thermostat has now left the group and is in permanent ❄️ To adjust the set temperature, please refer to page 71.



The group thermostat has now left the group and is in permanent ❄️ To adjust the set temperature, please refer to page 71.



The group thermostat has been returned to **A** it will follow the mode status of the group control thermostat.

# User Guide - Hot Water (Optional) Mode Selection

## Mode selection

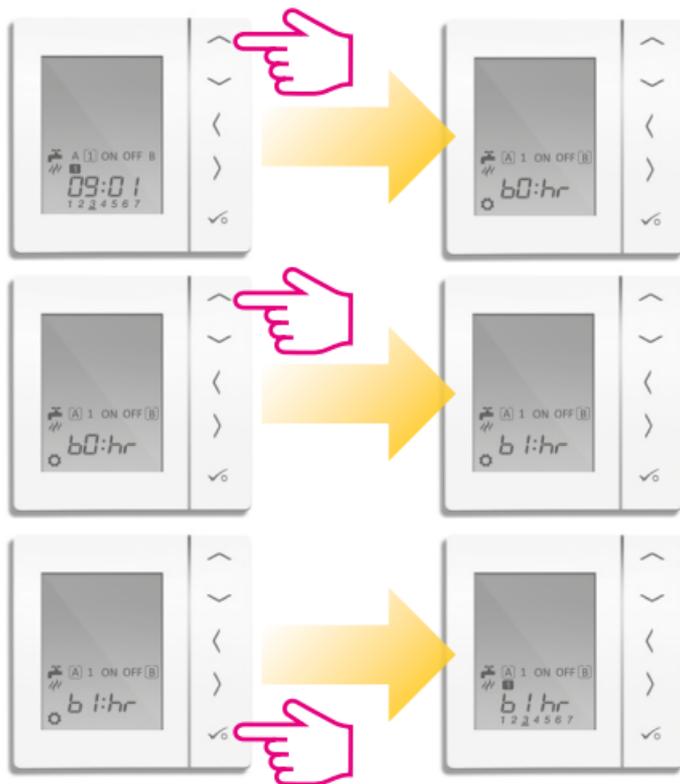


When **A** is selected, the hot water timer will follow the program schedule. See page 86.



Hot water will follow Holiday mode from the group control thermostat.  will be displayed.

## User Guide - Hot Water Boost

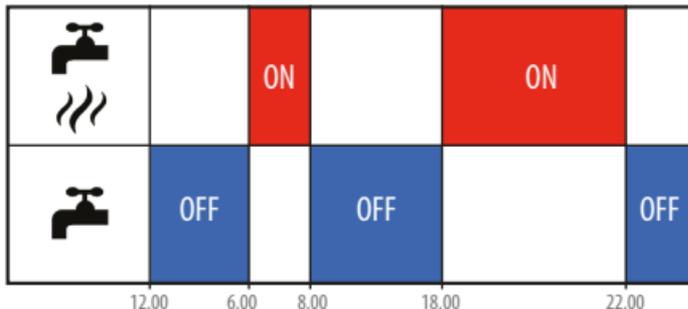


## User Guide - Default Hot Water Schedule

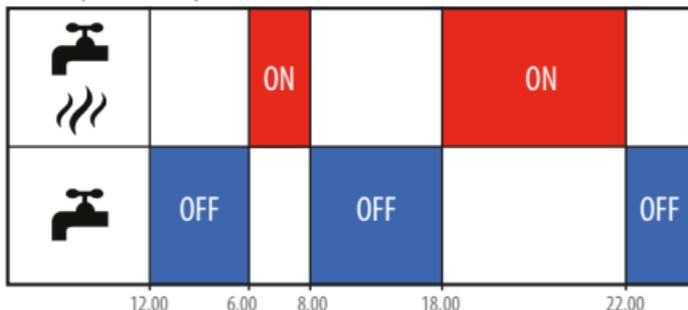


Your hot water timer comes preset with the times below. These can be adjusted. See next page.

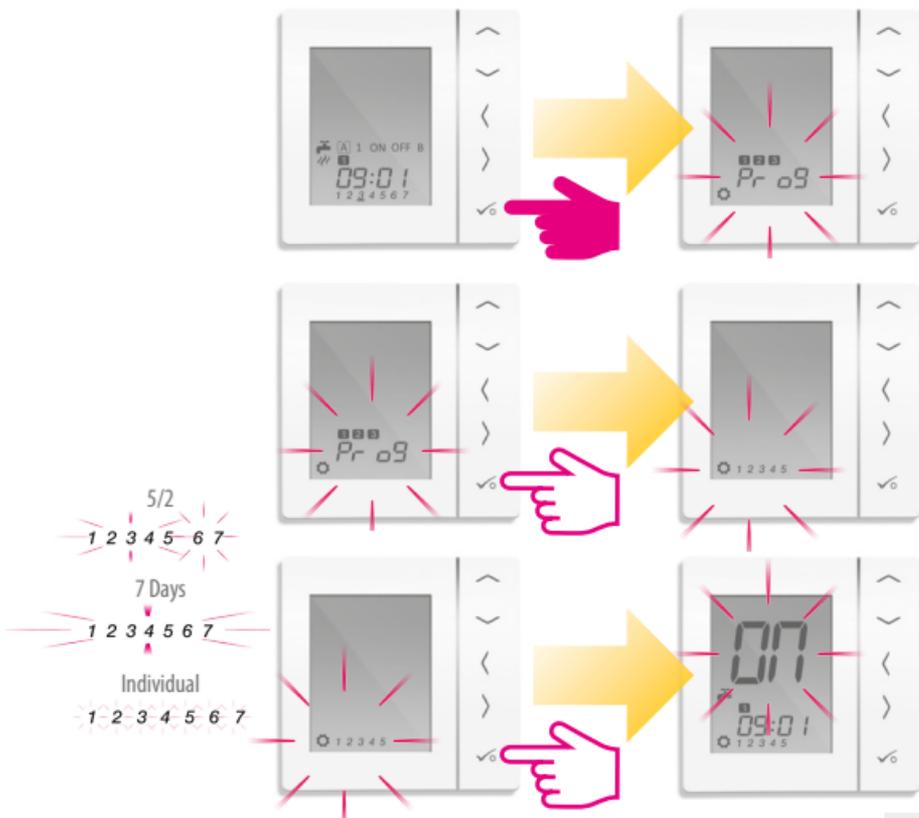
Monday to Friday



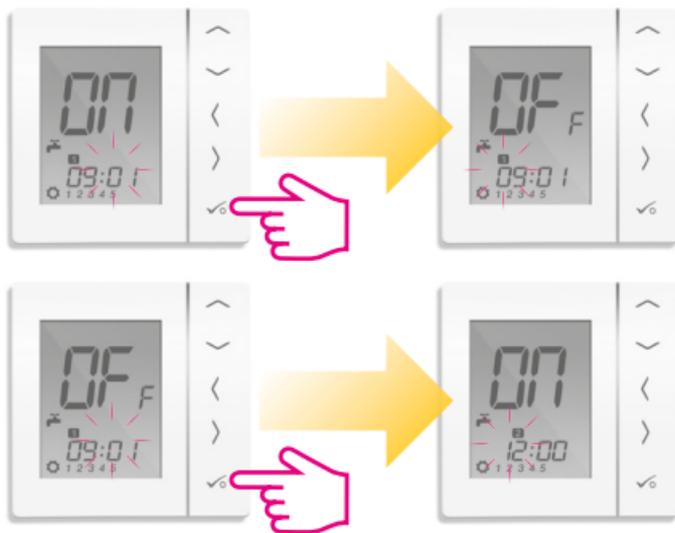
Saturday and Sunday



## User Guide - Setting Hot Water Times

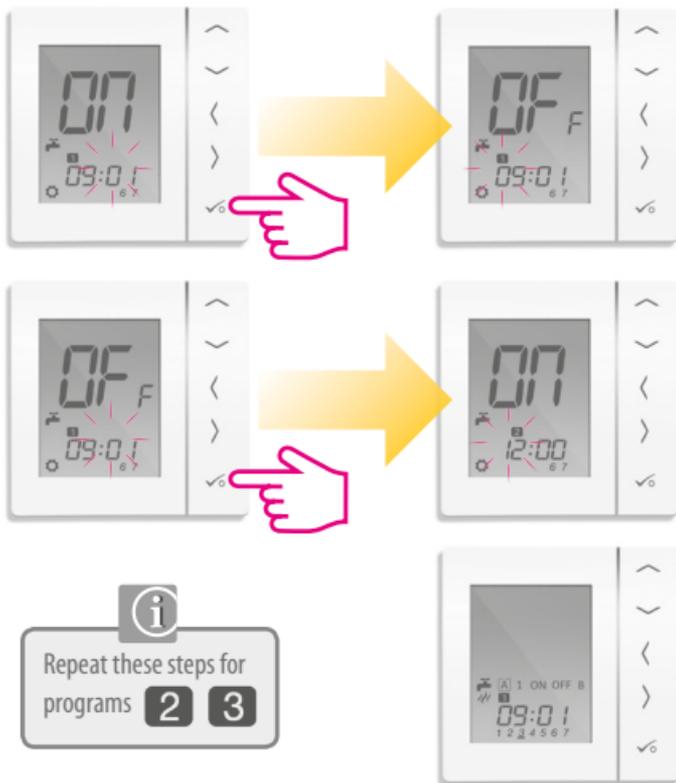


## User Guide - Setting Hot Water Times



Repeat these steps for  
programs **2** **3**

## User Guide - Setting Hot Water Times





## Warranty

SALUS Controls warrants that this product will be free from any defect in materials or workmanship, and shall perform in accordance with its specification, for a period of five years from the date of installation. SALUS Controls sole liability for breach of this warranty will be (at its option) to repair or replace the defective product.

Customer Name: .....

Customer Address: .....

..... Post Code: .....

Tel No: ..... Email: .....

Engineers Company: .....

Tel No: ..... Email: .....

Installation Date: .....

Engineers Name: .....

Engineers Signature: .....

## **SALUS Controls plc**

SALUS House

Dodworth Business Park South,

Whinby Road,

Dodworth, Barnsley S75 3SP, UK.

**SALES:** T: +44 (0) 1226 323961  
E: sales@salus-tech.com

**TECHNICAL:** T: +44 (0) 1226 323961  
E: tech@salus-tech.com

# [www.salus-controls.com](http://www.salus-controls.com)



SALUS Controls is a member of the Computime Group

Maintaining a policy of continuous product development SALUS Controls plc reserve the right to change specification, design and materials of products listed in this brochure without prior notice.

**For PDF Installation guide please go to [www.salus-controls.com](http://www.salus-controls.com)**

00086/2 Issue Date: June 2014