Issue 5

Installer Handbook

- Product ranges
- Wiring diagrams
- Smart controls

Drayton
by Schneider Electric

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Full listings and part numbers can be found in our Product Catalogue, downloadable from **www.draytoncontrols.co.uk**

The Drayton Community

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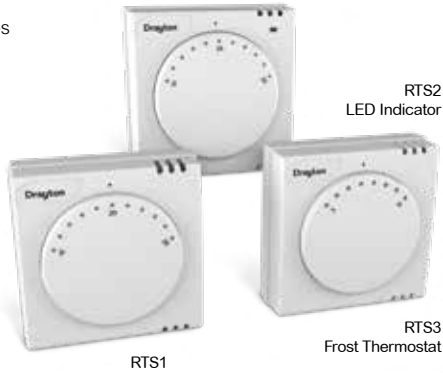
RTS
Room Thermostat Range

Features:

- Range limiting stops
- Set point locking
- Surface or conduit box mounting
- Double insulated



Product	Part No.
RTS1 SPST contacts	24001
RTS2 SPST with LED indicator	24002
RTS3 SPST frost thermostat	24003
RTS4 SPDT volt free contacts	24004
RTS9 SPDT volt free + LED	24030

CombiStat
Room Thermostat

Features:

- 2 or 3 wire
- Switch rating up to 6A
- Range limiting stops
- Set point locking
- Surface or conduit box mounting
- Double insulated

Product	Part No.
RTS8 CombiStat	24028

Digistat+/+RF

Wired and Wireless Room Thermostats

Features:

- Conventional dial adjustment
- On/off load compensation
- 1ºC setting steps
- Tactile & audible feedback via click of the dial
- Visual feedback via digital display
- Set-back feature
- Min/Max temperature setting
- Tamper-proof (set Min/Max the same)
- Battery powered
- Digital display situated above dial for ease of reading

Wireless systems are a cost effective and convenient solution to problems encountered during the installation of a standard wired thermostat.

Product	Part No.
Digistat+	30002
Digistat+RF room thermostat & SCR	RF601
Digistat+RF room thermostat spare	31003
Digistat+ SCR spare	22149

Digistat+1/+1RF

Wired and Wireless Room Thermostats

Features:

- Easy to use - only 4 buttons
- On/off load compensation
- Visual feedback via digital display
- Comfort feature
- Set-back feature
- Min/Max temperature setting
- Tamper-proof
  (set Min/Max the same)
- Battery powered (Digistat+1)
- Part L compliant
  (Part J in Scotland)

Consider the benefits of a wireless thermostat:

- No disruption to decor
- No surface wiring
- Positioning not restricted by cable runs

Product	Part No.
Digistat+1 (Battery)	22192
Digistat+1 (Mains)	22193
Digistat+1RF room thermostat & SCR	RF710
Digistat+1RF room thermostat spare	22190
Digistat+ SCR spare	22149

Digistat

Digital Universal Thermostats

Common Features:

- Simple programming via the Wiser Home app in the home (via local Bluetooth connection)
- Boiler Plus compliant
- Large backlit LCD display
- ON/OFF load compensation
- Settings to optimise use with gas boilers, heat pumps, oil boilers or electric heating
- Can be used as 7day, 5/2day, 24hr programmable thermostat or as a simple room thermostat
- 12 or 24hr clock
- Intelligent delayed start or optimum start
- 5th button simplifies programming from the thermostat
- New Boost feature
- Timed Away Mode
- Time and date factory set
- Automatic summer/winter time update
- 3 default programmes

RF901 Digistat Single Channel RF

Service Interval Features:

- Flexible service interval mode (reminder, reduced comfort or off)
- Adjustable warning period
- Adjustable service period
- Visual indication on LCD and on app where used
- Selectable boost feature
- Selectable audible alarm
- Reset by installer's 4-digit code

Product	Part No.
Digistat Battery 3A Relay	2290B
Digistat Mains 16A Relay with OpenTherm®	2290M
Digistat Dual-Channel Mains 3A Relay with OpenTherm NEW	22902
Digistat Single-Channel RF with OpenTherm®	RF901
Digistat Dual-Channel RF	RF902
Digistat Additional RF Thermostat	RF90T
Digistat Single-Channel Receiver spare	RF90S
Digistat Dual-Channel Receiver spare	RF90D

OpenTherm

HEAT PUMP READY

LP Clip-in Controls

For Worcester Boilers

Features:

- Clip-in controls
- Suitable for Worcester boilers
- 4 pack options
- Simple wireless installation
- Wireless receiver built into the LP devices
- Signal strength indicator
- On/off load compensation
- 7 day programmes
- 3 on/off periods per day
- Automatic summer/winter time updates
- Pre-programmed on/off periods
- Dedicated advance buttons
- 12 or 24 hour back-lit digital display
- Holiday function
- Pre-wired with PCB connector

LP20RF & Digistat+RF

Product	Part No.	Replaces Worcester product
LP20 Dual Channel Programmer	25039DR	7 716 192 038
LP10RF Single Channel Programmer & Digistat +2RF	RF560DR	7 716 192 052
LP10RF Single Channel Programmer spare	22589DR	8 716 106 667 0
Digistat+2RF thermostat spare	22090	-
LP10RF Single Channel Programmer & Digistat+3RF	RF561DR	7 716 192 053
LP10RF Single Channel Programmer spare	22589DR	8 716 106 667 0
Digistat+3RF thermostat spare	22092	-
LP20RF Dual Channel Programmer & Digistat+RF	RF562DR	7 716 192 054
LP20RF Dual Channel Programmer spare	22590DR	8 716 106 669 0
Digistat+RF thermostat spare	31003	-

What makes Wiser wiser?

Simplicity
Standard wallplate, wireless devices

Flexibility
Up to 3 channels, 16 rooms, 63 devices

Multi-zoning
Add radiator thermostats, underfloor heating controller or electrical heat switch as required

App Control
Simple app with boost & Away Mode

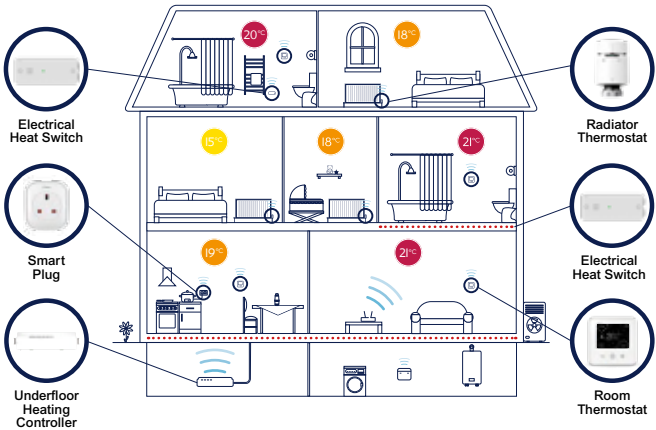
Eco Mode
Combines weather compensation & optimum stop for maximum savings

Heat Report & Insights
View and compare temperatures across single or multiple rooms

works with Google Home

works with alexa

Works with IFTTT



Wiser Options

HEAT PUMP READY

Wiser Thermostat Kits

Enable heating control via the Wiser Home app.

- One channel for combi boilers
- Two channel for conventional boilers
- Three channel for systems with two heating zones plus hot water

Wiser Multi-zone Kits

Come with two radiator thermostats to start zoning your system; control via the Wiser Home app.

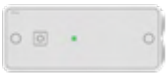
- One channel for combi boilers
- Two channel for conventional boilers

Wiser Underfloor Heating Controller

Control up to 6 zones of hydronic UFH in addition to radiators via the Wiser Home app. Add Wiser Thermostat for zone control.

Wiser Electrical Heat Switch

Add to your existing Wiser system to control electric UFH, electric radiators and towel rails all via the Wiser Home app. Wiser Thermostat required for temperature control and floor sensor for electric UFH.



Wiser Radiator Thermostat

Can be added to any Drayton Wiser kit to build a full multi-zone system. Compatible with most standard radiator valves. Control on the move via the Wiser Home app.

Wiser Plug

Add up to 10 smart plugs to any system to enable remote scheduling of your home electrical appliances via the Wiser Home app. Also acts as a range extender for Wiser devices.

Product	Part No.
Wiser Thermostat Kit 1	WT714R9K0902
Wiser Thermostat Kit 2	WT724R9K0902
Wiser Thermostat Kit 3	WT734R9K0902
Wiser Multi-zone Kit 1	WV714R9K0902
Wiser Multi-zone Kit 2	WV724R9K0902
Wiser Radiator Thermostat	WV704R0A0902
Wiser Room Thermostat	WN704R0S0902
Wiser Plug	WB704H1A0902
Wiser UFH controller	WF762F1A0902
Wiser Electrical Heat Switch	WE714U1A0902
Wiser Remote Floor Sensor	193720
Wiser Radiator Thermostat Anthracite	WV704R0A0901
Wiser Room Thermostat Anthracite	WN704R0S0901

Lifestyle LP and LPSi

Electronic Timeswitches & Programmers

Features:

- Pre-set clock with automatic summer, winter time change
- Schedule, time & date never need re-entering in the event of power loss
- 3 timing periods per day
- Programme advance buttons, with LCD indication
- Boost, giving 1, 2 or 3 hours with LCD indication
- All programmers suitable for fully pumped or gravity heating systems
- Timeswitches are ideal for combination boilers and control of additional zones etc. (volt free contacts)
- Industry standard wallplate

LPSi features a service interrupter to alert householders when their boiler service is due. Thirty days before the boiler is due to be serviced the LPSi enters a warning period. During this time, the backlit display flashes providing a visual warning and the resident can read when the service is due on the display.

Product	Timing Periods	Part No.
LP111 Timeswitch	24 hour	25477
LP711 Timeswitch	7 day	25478
LP811 Timeswitch	Universal Timeswitch (24hr, 5day/2day, 7day)	25463
LP112 Programmer	24 hour (common timings for heating & hot water)	25473
LP241 Programmer	24 hour (separate timings for heating & hot water)	25474
LP522 Programmer	5 day/2 day (separate timings for heating & hot water)	25475
LP722 Programmer	7 day (separate timings for heating & hot water)	25476
LP822 Programmer	Universal Programmer (24hr, 5day/2day, 7day)	25464
LPSi Reset Unit		25489
LP241Si Programmer	24 hour (separate timings for heating & hot water)	25490
LP522Si Programmer	5 day/2 day (separate timings for heating & hot water)	25491
LP722Si Programmer	7 day (separate timings for heating & hot water)	25492
LP111Si Timeswitch	24 hour	25493
LP711Si Timeswitch	7 day	25494

SM1 & SM2

Electro-Mechanical Timeswitches & Programmers

Features:

- Single and dual channel
- Advance feature
- LED on indication
- Intuitive time setting for two ON/OFF functions per day
- 4 position slide
- Suitable for gravity and pumped systems
- All day option
- Industry standard wallplate

Product	Part No.
SM1	29205
SM2	RF601

Motorised Valves

Two Port & Mid Position Valves

Product	Part No.
22mm 2 Port zone valve - 5-wire SPST switch	27100
22mm Mid-position valve - 5-wire SPST switch	27101
28mm 2 Port zone valve - 6 wire SPDT switch	27205
28mm Mid-position valve - 6 wire SPDT switch	27206
5 Wire Zone valve 230V actuator - SPST switch	27650
6 Wire Zone valve 230V actuator - SPDT switch	27653
Synchronous motor pack 230V	27011
Synchronous motor pack 24V	06170002001

For other variants see full Drayton catalogue

RT414 & RT212
Thermostatic Radiator Valves

The 15mm angled valve can be mounted vertically or horizontally on flow or return.

RT414

Key Features:

- Accurate liquid-filled sensor
- Stylish head design
- Non-stick valve internals
- Flow rate adjustment
- Reverse-flow angled valve
- Chrome finish

Product	Part No.
RT414 with 15mm angle valve	10 10 015
RT414 with 15mm straight valve	10 10 115
RT414 with 15mm angle valve & lockshield	10 10 260
RT414 with 15mm angle DOTP lockshield	10 10 264

RT212

Key Features:

- Entry-level model
- Accurate liquid-filled sensor
- Chrome valve

Product	Part No.
RT212 with 15mm angle valve	08 09 015
RT212 with 15mm straight valve	08 09 115
RT212 with 15mm angle & lockshield	08 09 260
RT212 with 15mm angle & DOTP lockshield	08 09 264
RT212 with 10mm angle & lockshield	08 09 273

Chrome accessories to match TRV4, RT414 & RT212

Product	Part No.
15mm angle lockshield with white cap	07 05 900
10mm push-fit elbow	07 05 904

TRV4

Thermostatic Radiator Valve

Features:

- Classic & White awarded Class I rating for energy efficiency
- Contemporary slim-line design
- Ultra sensitive liquid-filled sensor
- Easy to clean smooth surfaces
- Half/full click stop settings
- Frost protection position
- Four stylish options: Classic, White, Chrome and Anthracite
- Complete with chrome-plated valves
- Non-stick valve internals
- Pre-setting as standard
- Double gland seal
- Flow rate adjustment

Product	Part No.
TRV4 White	
With 15mm angle valve	07 07 015
With 15mm straight valve	07 07 115
With 15mm angle valve and chrome lockshield	07 07 260
TRV4 Classic	
With 15mm angle valve	07 05 150
With 15mm straight valve	07 05 151
With 15mm angle valve and chrome lockshield	07 05 180
TRV4 Chrome	
With 15mm angle valve	07 05 150C
With 15mm straight valve	07 05 151C
With 15mm angle valve and chrome lockshield	07 05 174
TRV4 Anthracite	
With 15mm angle valve and chrome lockshield	07 05 210
With 15mm straight valve and chrome lockshield	07 05 211

Drayton Balancing Key

Did you know, you can use this handy tool to balance the system without draining it down? So it's ideal for maintenance. Get a pack including gland seals at your merchant.

Part No 07 35 009

Auto-balancing Thermostatic Radiator Valves

TRV4 & RT414

TRV4
Angle

RT414
Angle

TRV4
Straight

RT414
Straight

E15
011

Features:

- Reduces energy use by 8.8%
- Saves installation time as flow rate is set when fitting the valve
- Automatically adjusts radiators according to pressure changes / TRVs opening and closing
- Permanently maintains correct flow to each radiator
- Ensures lower return flow temperatures to aid condensing – improving boiler efficiency
- Eliminates cold spots around the home
- Use new Drayton balancing key to adjust setting
- Lead-free brass valve body

Product	Part No.
Auto-balancing TRV4 angle with lockshield	07 05 560
Auto-balancing TRV4 straight with lockshield	07 05 561
Auto-balancing RT414 angle with lockshield	10 10 560
Auto-balancing RT414 straight with lockshield	10 10 561

Valve bodies

Valve bodies are also available to purchase on their own, for retrofit solutions.

Product	Part No.
Auto-balancing 15mm angle valve	07 15 560
Auto-balancing 15mm straight valve	07 15 561

TS Ultra Thermal Actuator

TS Ultra & TS Ultra+

TS Ultra

TS Ultra+

Features:

TS Ultra – the entry-level model

- 360° valve status indication
- IP44
- Closing force 100N
- Stroke 5.5mm
- Fast response – opening to 4mm in 2 minutes
- 230V and 24V options

The ultimate in thermal actuators with more stroke, more power, faster response and compact enough to fit on the latest manifolds with 40mm valve centres.

TS Ultra+ - the ultimate in design and performance

- All the features of the TS Ultra and:
- IP55 ingress protection
- Closing Force 120N
- Plug-in cable
- Manual feature

Product	Part No.
230V TS Ultra+	0481 1105 1017
24V TS Ultra+	0482 1105 1017
230V TS Ultra	0483 1005 0817
24V TS Ultra	0484 1005 0817

HTS3
Cylinder Thermostat

Features:
- Set point recommended 60ºC to 65ºC
- Positive On/Off for test purposes
- Tamper resistant
- Double insulated

Product	Part No.
HTS3	13007

Digistat+ CRF
Wireless Cylinder Thermostat

Features:
- Conventional dial adjustment
- 5ºC setting steps
- Min/Max temperature setting
- Battery powered

Product	Part No.
Digistat+CRF cylinder thermostat & SCR & sensor	13616
Digistat+CRF SCR receiver spare	22598
Digistat+CRF transmitter spare	13618
Digistat+CRF sensor spare	13619

PTS1
Pipe Thermostats

Features:
- Frost protection solution when used in conjunction with the RTS3 air frost thermostat
- Changeover contacts
- Lockable setting knob
- High or low limit applications

Product	Part No.
PTS1	03 01 260

Control Packs

Biflo Control Packs

Part No.	Programmer	Room Stat	Cylinder Stat	Valve	Wiring Centre	ErP rating
PBBE66	LP241	RTS1	HTS3	22mm Mid Position	LWC1	1%
PBBE669S	LP241Si	RTS9	HTS3	22mm Mid Position	LWC1	1%
PBBE68	LP241	RTS1	HTS3	22mm Mid Position	LWC3	1%
PBBE86	LP522	RTS1	HTS3	22mm Mid Position	LWC1	1%
PBBE86S	LP522Si	RTS1	HTS3	22mm Mid Position	LWC1	1%
PBBE869S	LP522Si	RTS9	HTS3	22mm Mid Position	LWC1	1%
PBBE88	LP522	RTS1	HTS3	22mm Mid Position	LWC3	1%
PBBE969S	LP722Si	RTS9	HTS3	22mm Mid Position	LWC1	1%
SMBE362	SM2	RTS1	HTS3	22mm Mid Position	LWC1	1%
SMBE382	SM2	RTS1	HTS3	22mm Mid Position	LWC3	1%

Twinzone Control Packs

Part No.	Programmer	Room Stat	Cylinder Stat	Valve	Wiring Centre	ErP rating
PBTE66	LP241	RTS1	HTS3	2 x 22mm 2-Port	LWC1	1%
PBTE68	LP241	RTS1	HTS3	2 x 22mm 2-Port	LWC3	1%
PBTE86	LP522	RTS1	HTS3	2 x 22mm 2-Port	LWC1	1%
PBTE88	LP522	RTS1	HTS3	2 x 22mm 2-Port	LWC3	1%
PBTE96	LP722	RTS1	HTS3	2 x 22mm 2-Port	LWC1	1%
PBTE98	LP722	RTS1	HTS3	2 x 22mm 2-Port	LWC3	1%
SMTE362	SM2	RTS1	HTS3	2 x 22mm 2-Port	LWC1	1%

Unvented Control Packs

Part No.	Programmer	Room Stat	Cylinder Stat	Valve	Wiring Centre	ErP rating
UWH62	LP241	RTS1	-	22mm 2-Port	LWC1	1%
UWH82	LP522	RTS1	-	22mm 2-Port	LWC1	1%

Frost Protection Pack

Part No.	Room Stat	Pipe Stat
FPP1	RTS3	PTS1

Social Housing Packs

Part No.	Programmer	Room Stat
PBTE120	LP811	Digistat+RF with SCR
PBTE122	LP811	Digistat+

New Build Packs

Part No.	Thermostat	Valve	Programmer	Wiring Centre	ErP rating
PBTE114	Wiser Room Thermostat (x2)	22mm 2-port (x2)	Wiser 3ch. Hub	LWC3	4%
PBTE115	Digistat 2290M (x2)	22mm 2-port (x2)	-	LWC3	3%
PBTE116	Digistat RF902 & RF90T	22mm 2-port (x2)	-	LWC3	2%
PBTE910	RTS1 (x2)	22mm 2-Port (x2)	LP722	LWC3	1%

***For 28mm versions, add B to the end of the part number.**

Dual Channel Programmer Terminal Comparisons

Make	Model	Earth	Neutral	Live	H/W off	C/H off	H/W on	C/H on
Current Models								
Drayton	Wiser Thermostat Kit 2, Multizone Kit 2		N	L	1	2	3	4
Drayton Lifestyle	LP112, LP241, LP522, LP722, LP241Si, LP522Si, LP722Si		N	L	1	2	3	4
Drayton	SM2		N	L	1	2	3	4
Discontinued / Competitors' Models								
Drayton	miGenie Wish 2		N	L	1	2	3	4
	MiTime MT721R, MiTime RF Pack 2		N	L	1	2	3	4
	Tempus 3, 4, 6, 7 (Old models), Tempus 6, 7		N	L	1	2	3	4
Switchmaster	400, 600 (No connection to terminal 4 on 600)		N	L		4	3	1
Switchmaster	805. 900, 900i		N	L	4	2	3	1
ACL	MP (Towerchron)		2	1				
ACL	FP (Towerchron)		2	1	8	11	6	10
British Gas	EMP2, UP1, UP2		N	L	1	2	3	4
Danfoss	CP15, CP715, FP15, FP715 (Mk18), CP715 Si, FP715 Si		N	L	1	2	3	4
	3020P, 3060	E	7	6			4	2
	4033 (link 1-6)	E	7	6	5	3	4	2
	102, 102E, 102E5, 102E7, (link 6-3)	E	5	6			1	2
	701 (link L-5 and 5-6)	E	N	L			3	1
	702 (link L-5 and 5-6)	E	N	L	4	2	3	1
	922, 972 (link L-2 and 2-5)	E	N	L	1	4	3	6
	SET2, SET2E, SET3E, SET3M, FP975, SET5 (link L-2 and 2-5)	E	N	L	3	6	1	4
Honeywell	ST 699/799 (link L-5 and 5-8)		N	L	7	4	6	3
	ST 6200, ST 6300, ST 6400, ST 6450, ST6400S, ST9400A/C, ST9400S, ST9500C, Y9420H RF^2 Pack 2, Y9420S RF^2 Pack 3, Y9520Z RF^2 Pack 5		N	L	1	2	3	4
	ST 7100 (link L-3 and 3-6)		N	L	7	4	8	5
Horstmann	525, 527, 425 Diadem, H21, H27, H121, Tiara, (link L-2 and 2-5), Channelplus H21XL, H27XL, H27ZXL	E	N	L	3	6	1	4
	Centaur Plus C21, C27, C121 & C127		N	L	1	2	3	4
Myson	Microtimer (link L-5 and 5-8)		N	L	7	4	6	3
	MEP2C		N	L	1	2	3	4
Potterton Myson	All EP2000's, EP3000's, EP6000's, (link L-5 and N-N)		N	L	1	2	3	4
	Mini Minder		N	L	1	2	3	4
Siemens / Landis & Staefa	RWB2, RWB2E, 20, 40, 102, 200, 252 & 270, RWB9, RWB29		N	L	1	2	3	4
Sunvic	Select 207, SunPro2000		N	L	1	2	3	4
	SP50, SP100 (link L-3)		N	L	1	4	2	5
Salus	EP200, SP220		N	L	1	2	3	4
Grasslin Towerchron	DP 72, QE2		N	L	1	2	3	4
Sangamo	M5, (Link 1-6)		N	L			1	8

Multi Channel Programmer Terminal Comparisons

Make	Model	Earth	Neutral	Live	Ch1 on	Ch2 on	Ch3 on	Ch4 on
Current Models								
Drayton	Wiser Thermostat Kit 3		N	L	1	2	3	4
Discontinued / Competitors' Models								
Drayton	miGenie Wish 3		N	L	1	2	3	4
	MiTime MT742R, MiTime RF Pack 4		N	L	1	2	3	4
Horstmann	H47XL	E	N	L	1	3	4	6
Horstmann	H37VXL, H37XL	E	N	L	1	3	5	
Sunvic	Select 307 XLS		N	L	3	4	5	

Single Channel Timeswitch Terminal Comparisons

Make	Model	Earth	Neutral	Live	Common	On	Off	Spare
Current Models								
Drayton	Wiser Thermostat Kit 1		N	L	1	2	3	4
	Wiser Multizone Kit 1		N	L	1	2	3	4
Drayton Lifestyle	LP111, LP711, LP111Si, LP711Si		N	L	1	3	2	4
Drayton	SM1		N	L	1	3	2	4
Discontinued / Competitors' Models								
Drayton	miGenie Wish 1		N	L	1	3	2	4
Drayton	MiTime MT711R, MiTime RF Pack 1		N	L	1	3	2	4
Drayton	Tempus 1 and 2		N	L	1	3	2	4
Drayton	Tempus 1 and 2 (Old models)		N	L	1	2	3	4
Switchmaster	300, 980		N	L	4	1		
ACL	TC (Towerchron)		2	1	4	7		
British Gas	EMT2, UT1, UT2		N	L	1	3	2	4
Danfoss	TS15, 75 (Mk18)	E	N	L	1	4	2	5/6
	TS715, TS715 Si		N	L	1	4	2	3
	TS975	E	N	L	5	4	6	1,2,3
	SET1, SET1E	E	N	L	5	4	6	
	SET4	E	N	L	5	4	6	
	103, 103E, 103E5, 103E7	4	5	6	3	1		2
	911, 971	E	N	L	5	6	4	2
Honeywell	ST 6100A, ST 6100C, ST6100S, ST9100A/C, ST9100S, Y9120H RF[2] Pack 1, Y9120W RF[2] Pack 4		N	L	1	4	2	
	ST 7000B		N	L	1	2	3	4
Horstmann	Centaur SC1, SC7			L		3	2	
	Channelplus H17XL, H11XL	E	N	L		4	6	
	Centaur Plus C11, C17, C17-ZW		N	L	2	4	3	
	Emerald 423, Pearl Auto		N	L	2	4	3	
	517, Coronet, H11, H17	E	N	L	3	4		
Myson	Microtimer (link L-5 and 5-8)		E	N	L	5	4	6
	MEP1C		N	L	1	3	2	4
Potterton Myson	EP4000, 4001, 4002, 5002		N	L	5	4	2	
Siemens / Landis & Staefa	RWB3		N	L		4	3	
	RWB27, RWB30, RWB50, 100, 152, 170		N	L	2	4	3	
	RWB7	E	N	L	2	4	3	
Sunvic	Select 107, SunPro1000		N	L	1	3	2	4
	SP20, SP35		N	L	3	5	4	5
Salus	EP101, SP120		N	L	4	3		
Grasslin Towerchron	QE1		N	L	2	4		
	T2001, T2001Q	E	N	L		7		
Sangamo	M6			E	4	6	3	1
Smiths	Centroller Mk1 & Mk2		N	L	3	2		
	Centroller 30		1	2		3/4		
	Centroller 300, 980		N	L	4	1		
Venner	Vennerette		N	L	LINE	LOAD		

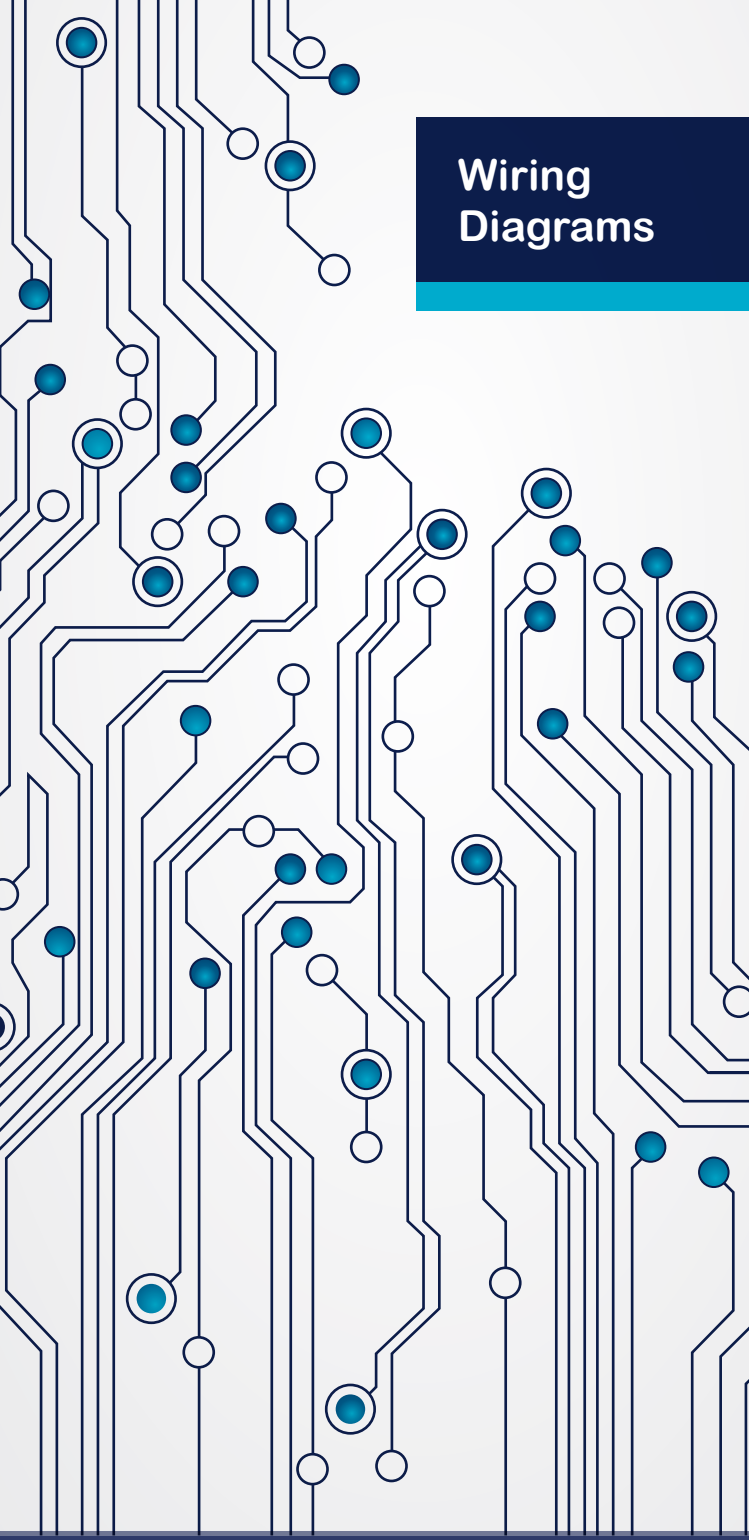
Room Thermostat Terminal Comparisons

Make	Model	Earth	Neutral	Live	Common	Satisfied	Demand
Current Models							
Drayton	Wiser Thermostat Kit 1		N	L	C	Off	On
Drayton	Digistat Universal (Mains)		N	L	C	Off	On
	Digistat+, +1, Digistat Universal (Battery)				C	Off	On
	RTS 1, 2		N		L		3
	RTS 4, 5 & 6, 9		N	L	1	2	3
Discontinued / Competitors' Models							
Drayton	Digistat+2 and +3 (Mains)		N	L	C	Off	On
	Digistat+2 and +3 (Battery)				C	Off	On
Drayton	"Digistat 1, 2, 3, 3 and 4		N	L	1	2	3
	miGenie Wish 1"				1	2	3
	RT/RTE		4		1	3	2
ACL Lifestyle	PT 271, 371		N	L	1	2	3
	OPT 170, PT 110, 170		N	L	4		3
Danfoss	TP2, 3, 4, 5, 5E, RT1				1	2	3
	TP 5000, RT51, RT52, TP5000 Si				B	A	C
	TP7000				1	3	2
	TP7001A				H COM	H OFF	H ON
	TP7001M		N	L	H COM	H OFF	H ON
	TP75				3	6	5
	TP75H				COM	OFF	ON
	RET-B				3	1	2
	TP7000M		N	L	1	3	2
	TP6000M				N	L	1
	RET M, MD				N	L	2
	TP75M, MA		N	L	1	2	4
	TP 1		E	N		L	2
	RD3, RD3A		4		1		2
	RTC, RTM, RSR	E	N		3	2	1
	RMT 230		4		1	3	2
	R504				N		3
	RET 230, NL213		N		L	4	3
	TP5000M Si, TP5000MA Si		N	L	2	1	3
Honeywell	CM31, 37, 41, 51, 61, 67, CM721, CM727, CM901, CM907				AA	CC	BB
	CT200, T6620, DT200, DT90E						
	T6060/6160/6063/6360		2		1	4	3
Horstmann	C-Stat 11-B, C-Stat 17-B				1	3	4
	C-Stat 11-M, C-Stat 17-M		N	L	1	3	4
	AS2				1		2
	AS1		N	L	2		4
	Centuarstat 1 & 7		4		1	3	2
	HRT 1	E	4		1		2
	HRT4-A		2		1		4
	HRT4-B				1		4
Myson	MPRT, MRTE MRT1		4		2		1
Potterton	PRT 1		N		L		H
	PRT2 & 100 ST			N		TL	
	PRT 100 DT		N		TL	C	H
Siemens / Landis & Gyr / Landis & Staefa	REV 11, 12				L		L1
Sunvic	RAD 1		E			1	3
	RAA02		N		1	Y3	Y2
	TLX 1001 / 1005		N	L	COM	OFF	ON
	TLX 9000 series		4		1	2	3
	TLX 6501				1	3	2
	TLX 7501, TLX 1009				3	1	2
	TLX 2251				3		1
	TLX 2222, 2259, 2267	E	4		3		1
	TLX 2356				3	2	1
	TXL 3101, 5101		2		1		8
	TLX 4101, 4102				2	3	1
	TLX 5201, 5202		2		1	6	8
	TA 351	E	4		1	2	3
Salus	RT100				COM	NC	NO
	RT200, RT300, RT500, ST320, ST320PB, ST620, ST620B, 091FL, 091FLPB		N		L		SL
Tower	SS	E	4		1		2

Wireless Room Thermostat Terminal Comparisons

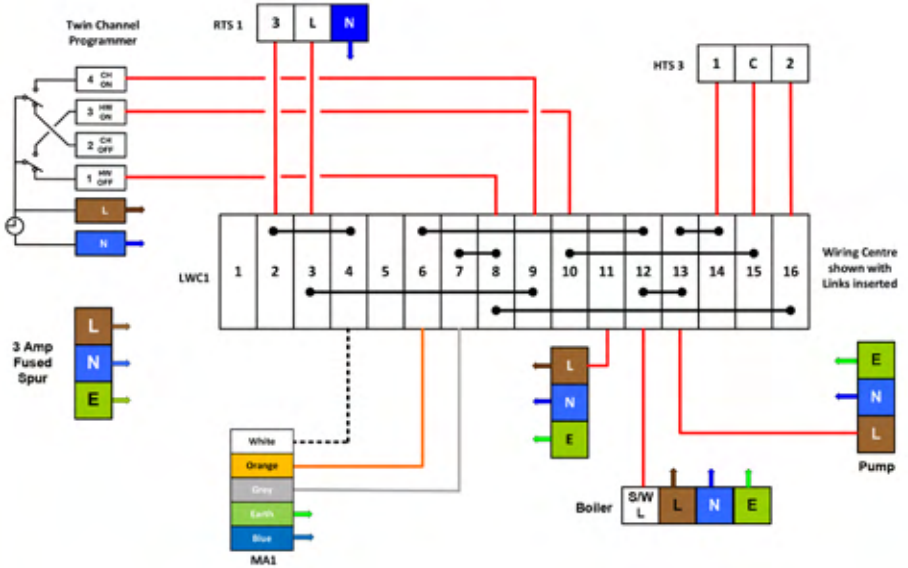
Make	Model	Earth	Neutral	Live	Common	Satisfied	Demand
Current Models							
Drayton	Digistat+RF, +1RF, Digistat Universal		N	L	1	2	3
Discontinued / Competitors' Models							
Drayton	Digistat+2RF and +3RF		N	L	1	2	3
	miGenie Wish 1		N	L	1	2	3
	MiStat MN110R and MP710R		N	L	1	2	3
	Digistat RF1, RF2, RF3 and RF3i		N	L	1	2	3
Danfoss	RET B-RF, RT51-RF, TP4000-RF, TP5000-RF Si, TP7000-RF		N	L	2	4	3
Honeywell	Y6630D, DT92E, CM921, CM927		N	L	A	C	B
Horstmann	C-Stat 11-ZW, C-Stat 17-ZW, AS2RF, HRT4-ZW		N	L	2	3	4
Myson	MPRT-RF		N	L	C		1
Siemens	RDH10RF, RDJ10RF, REV24RF		N	L	Lx	L2	L1
Sunvic	TLX RFPv		N	L	2	3	1
	TLX 1010 RF, TLX 1012 RF		N	L	COM	OFF	ON
Salus	RT300RF, RT500RF, RT500ROF, 091FLRF, ST320RF, ST620RF, iT500		N	L	COM		NO

Wiring Diagrams



Biflo

with LWC1

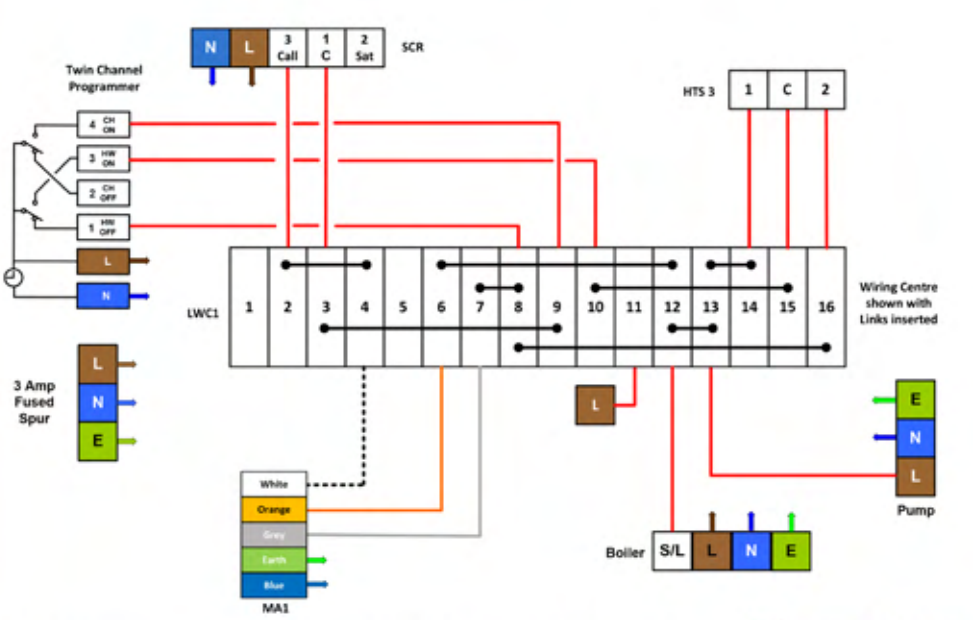


For conversion to Wiser Kit 2

- Disconnect and make safe the 'live in' and 'live out' wires to the room thermostat at the wiring centre
- Add a wire link between the 2 terminals (2 & 3) where the wired room thermostat was connected, to achieve continuity between CH on and the white wire of the mid position actuator

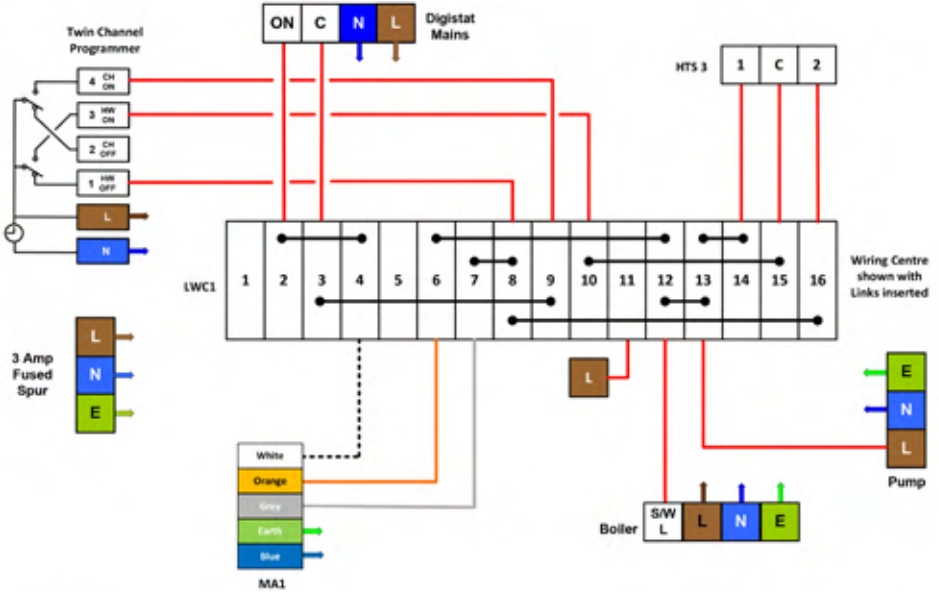
Biflo

with LWC1 to an SCR receiver



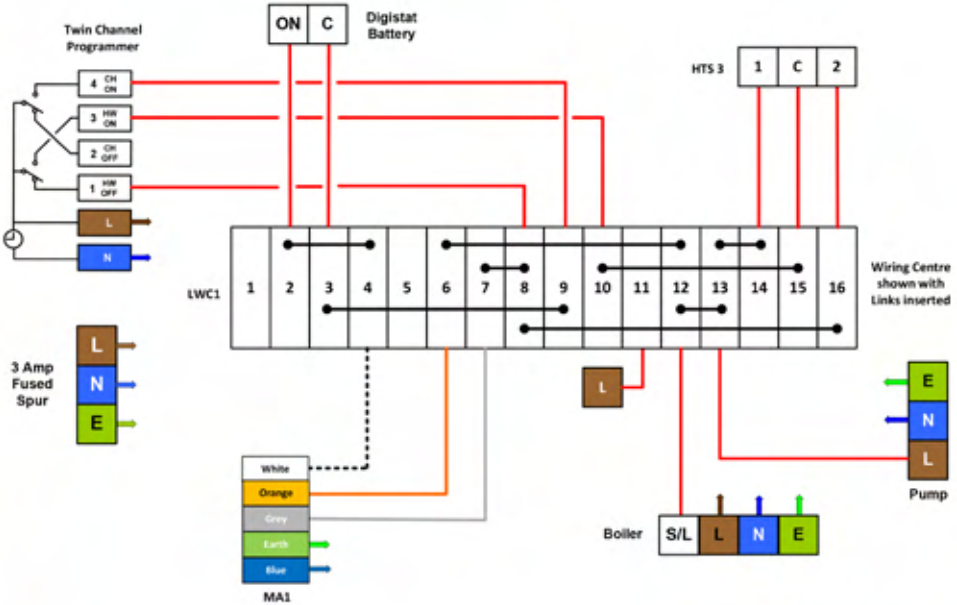
Biflo

with LWC1 to a Digistat mains version



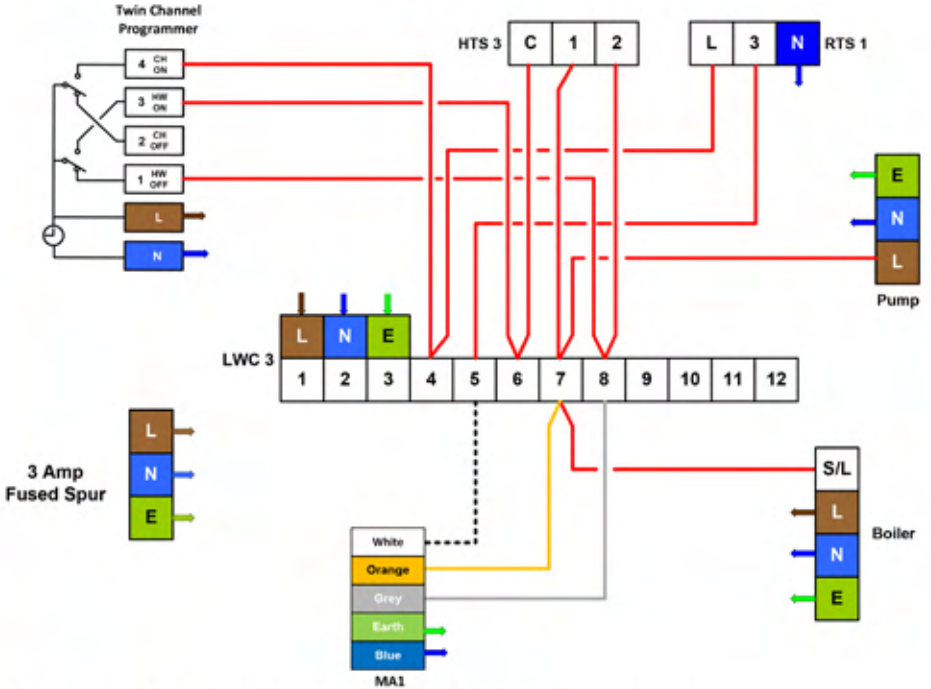
Biflo

with LWC1 to a Digistat battery version



Biflo

with LWC3

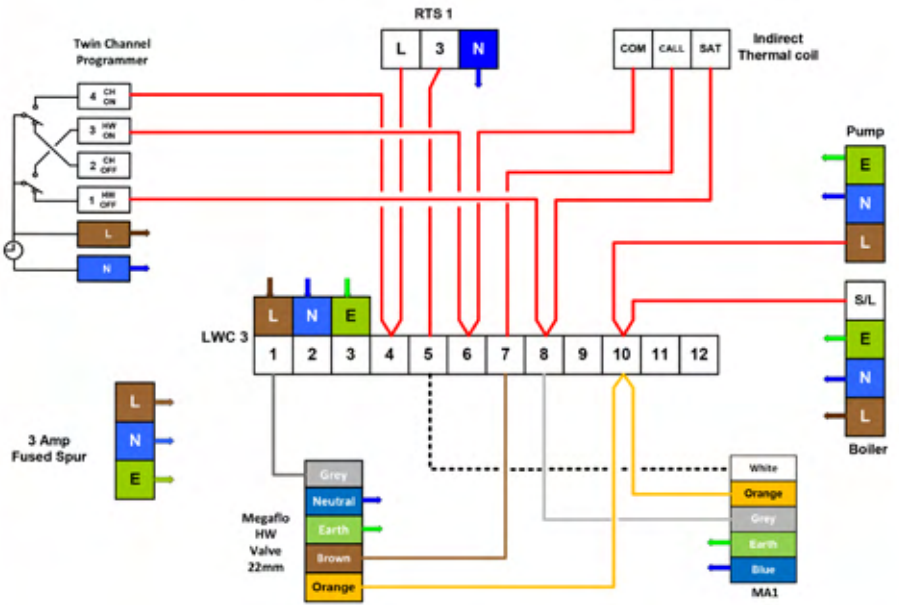


For conversion to Wiser Kit 2

- Disconnect and make safe the 'live in' and 'live out' wires to the room thermostat at the wiring centre
- Add a wire link between the 2 terminals (4 & 5) where the wired room thermostat was connected, to achieve continuity between CH on and the white wire of the mid position actuator

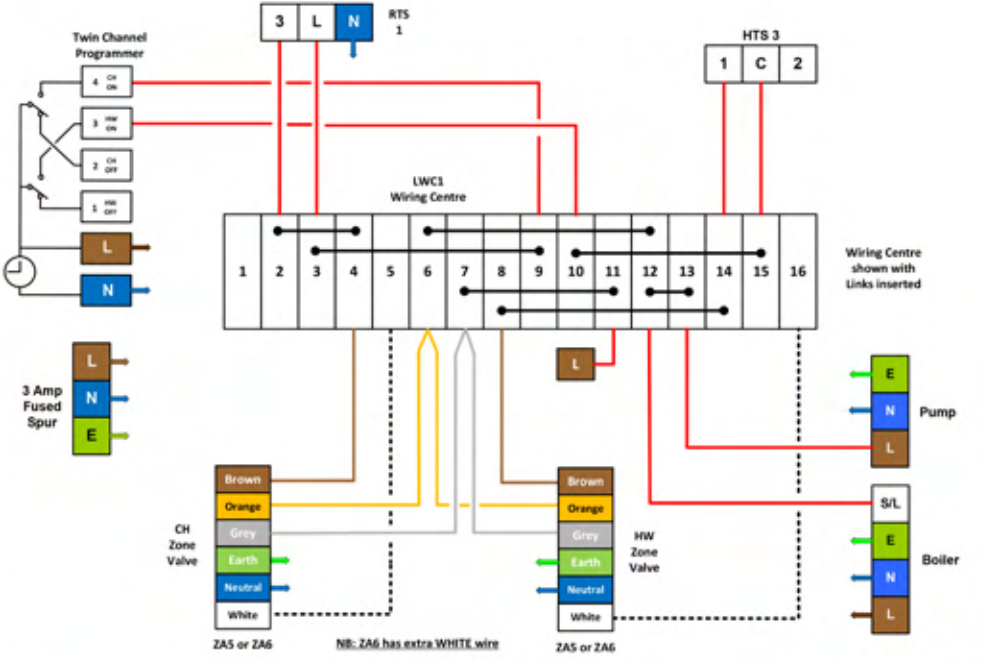
Biflo

with LWC3 to an un-vented mains pressure cylinder



Drayton
by Schneider Electric

Twin Zone
with LWC1

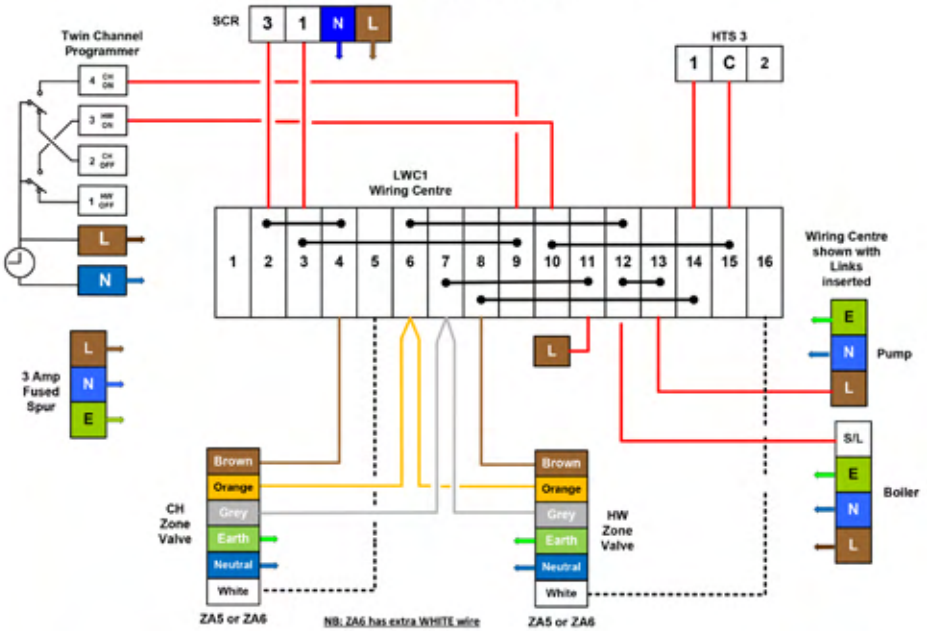


For conversion to Wiser Kit 2

- Disconnect and make safe the 'live in' and 'live out' wires to the room thermostat at the wiring centre
- Add a wire link between the terminals (2 & 3) where the wired room thermostat was connected, to achieve continuity between CH on and the brown wire of the CH 2 port actuator

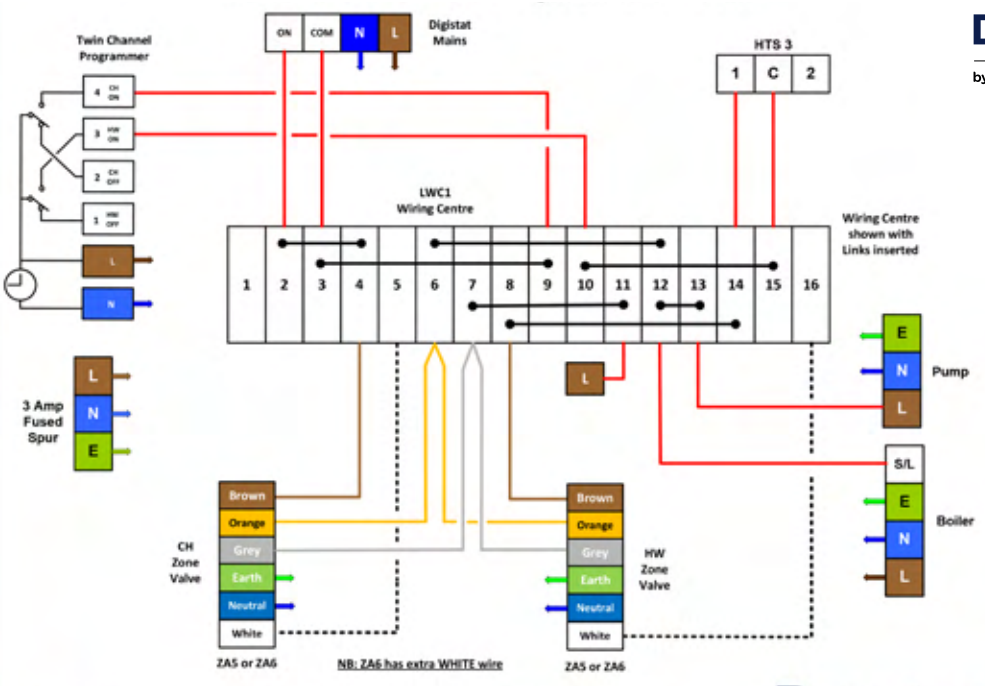
Twin Zone

with LWC1 to an SCR receiver



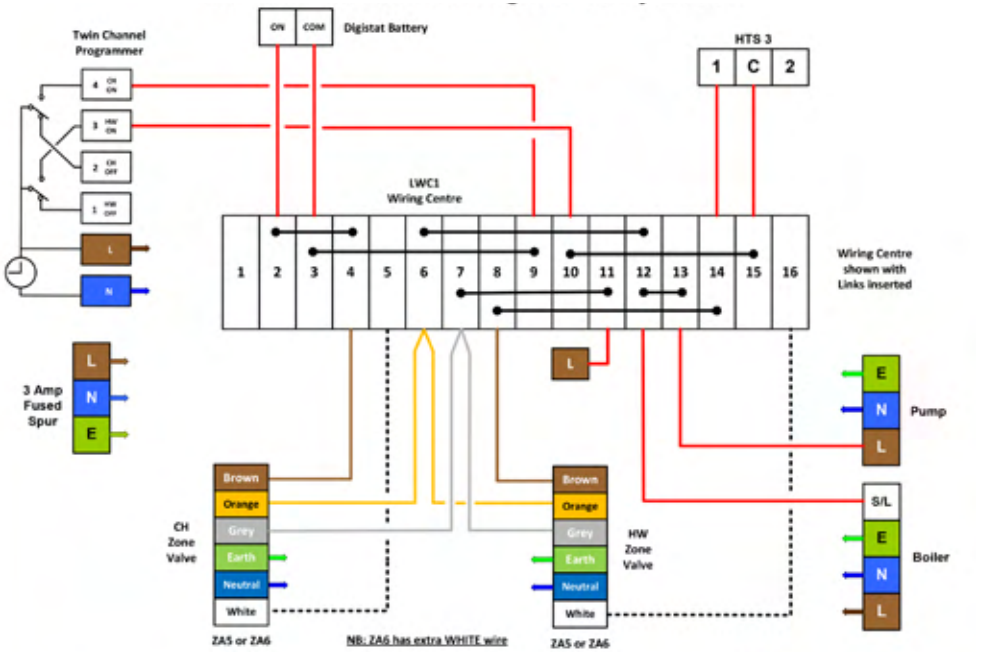
Twin Zone

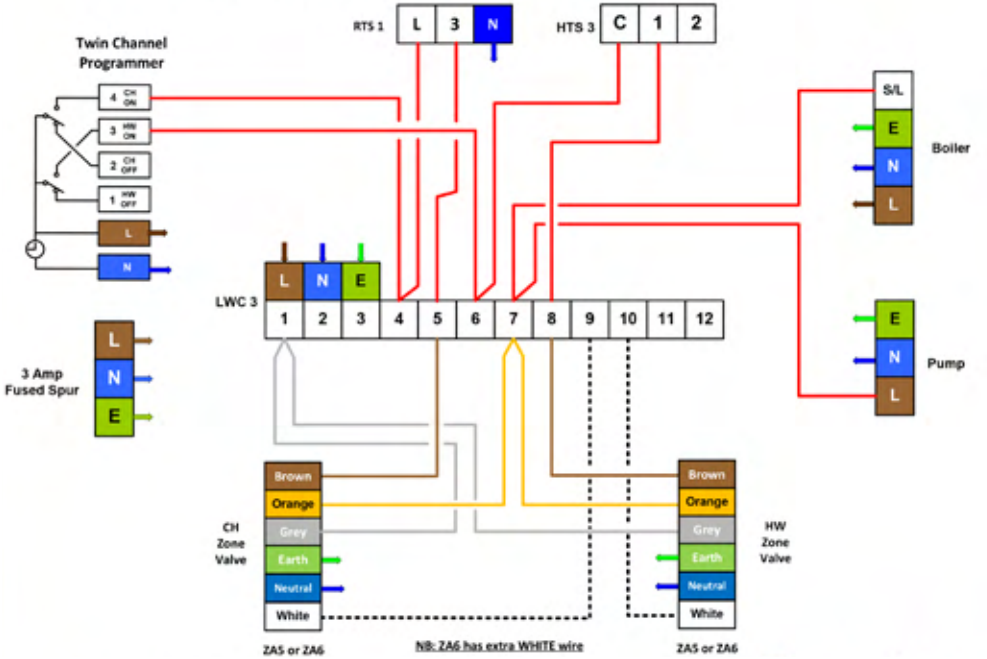
with LWC1 to a Digistat mains version

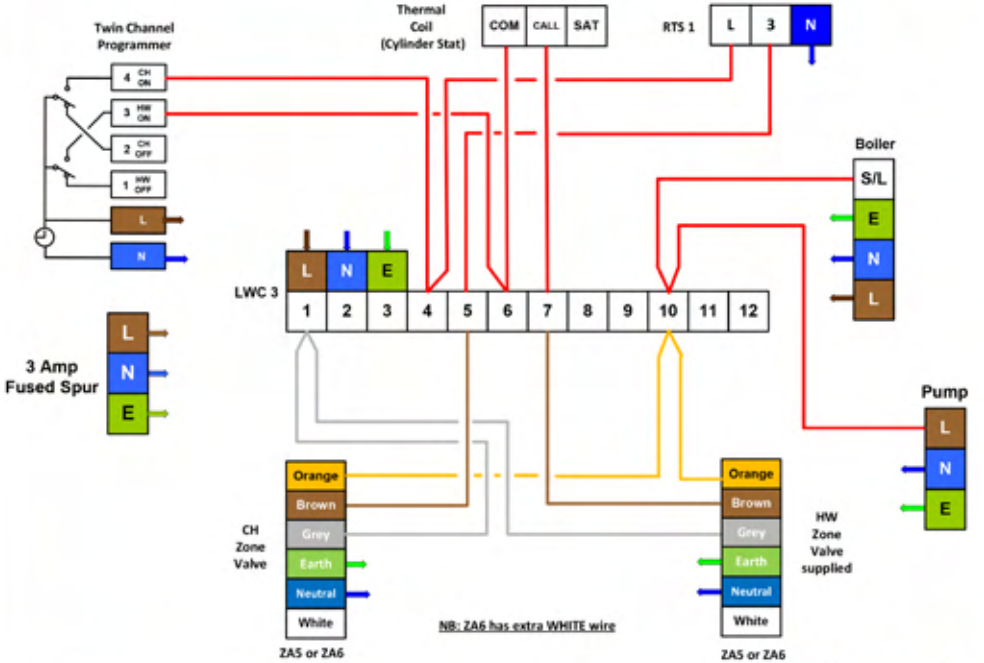


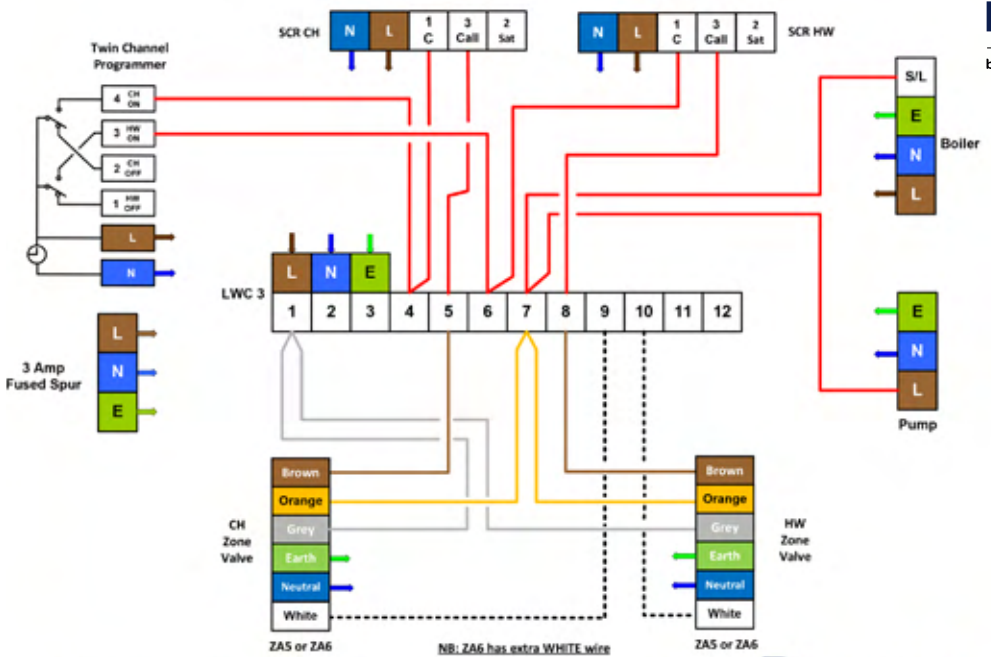
Twin Zone

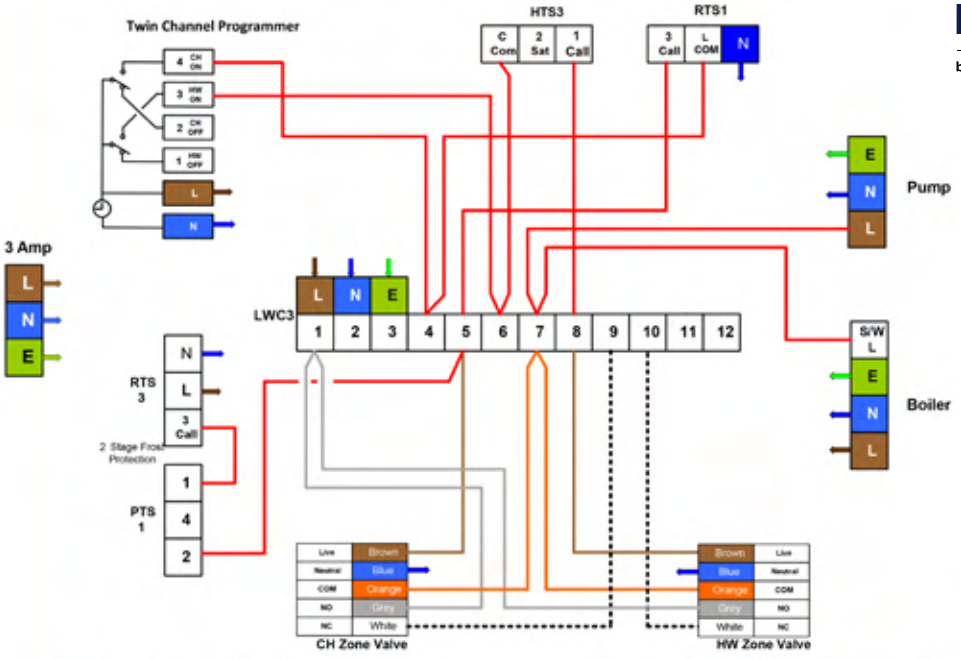
with LWC1 to a Digistat battery version



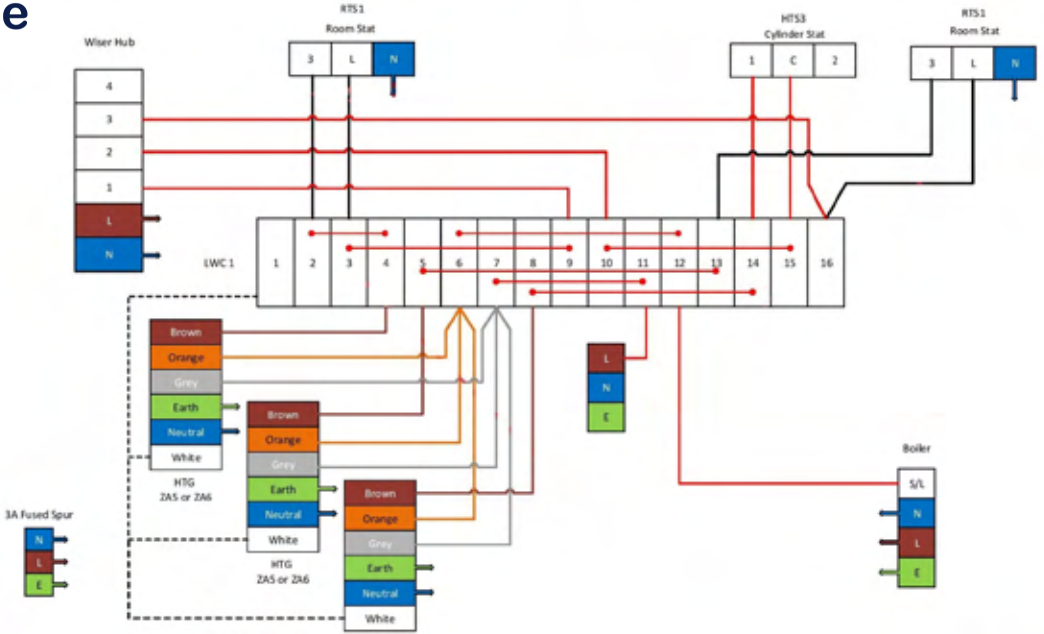

Twin Channel Programmer
4 CH ON
3 HW ON
2 CH OFF
1 HW OFF
L
N
RTS 1
L
3
N
HTS 3
C
1
2
S/L
E
N
L
Boiler
3 Amp Fused Spur
L
N
E
LWC 3
L
N
E
1
2
3
4
5
6
7
8
9
10
11
12
E
N
L
Pump
Brown
Orange
Grey
Earth
Neutral
White
CH Zone Valve
ZA5 or ZA6
NB: ZA6 has extra WHITE wire
Brown
Orange
Grey
Earth
Neutral
White
HW Zone Valve
ZA5 or ZA6


Twin Channel Programmer
4 CH ON
3 HW ON
2 CH OFF
1 HW OFF
L
N
Thermal Coil (Cylinder Stat)
COM
CALL
SAT
RTS 1
L
3
N
Boiler
S/L
E
N
L
LWC 3
L
N
E
1
2
3
4
5
6
7
8
9
10
11
12
3 Amp Fused Spur
L
N
E
Pump
L
N
E
CH Zone Valve
Orange
Brown
Grey
Earth
Neutral
White
ZA5 or ZA6
NB: ZA6 has extra WHITE wire
HW Zone Valve supplied
Orange
Brown
Grey
Earth
Neutral
White
ZA5 or ZA6


Twin Channel Programmer
4 CH ON
3 HW ON
2 CH OFF
1 HW OFF
L
N
3 Amp Fused Spur
L
N
E
SCR CH
N
L
1 C
3 Call
2 Sat
SCR HW
N
L
1 C
3 Call
2 Sat
S/L
E
N
L
Boiler
E
N
L
Pump
LWC 3
L
N
E
1
2
3
4
5
6
7
8
9
10
11
12
Brown
Orange
Grey
Earth
Neutral
White
CH Zone Valve
ZA5 or ZA6
Brown
Orange
Grey
Earth
Neutral
White
HW Zone Valve
ZA5 or ZA6
NB: ZA6 has extra WHITE wire


Twin Channel Programmer
HTS3
C Com
2 Sat
1 Call
RTS1
3 Call
L COM
N
E
N
L
Pump
3 Amp
L
N
E
LWC3
L N E
1 2 3 4 5 6 7 8 9 10 11 12
S/W L
E
N
L
Boiler
RTS 3
N
L
3 Call
2 Stage Frost Protection
PTS 1
1
4
2
Live
Neutral
COM
NO
NC
Brown
Blue
Orange
Grey
White
CH Zone Valve
HW Zone Valve

Three Zone
with LWC1

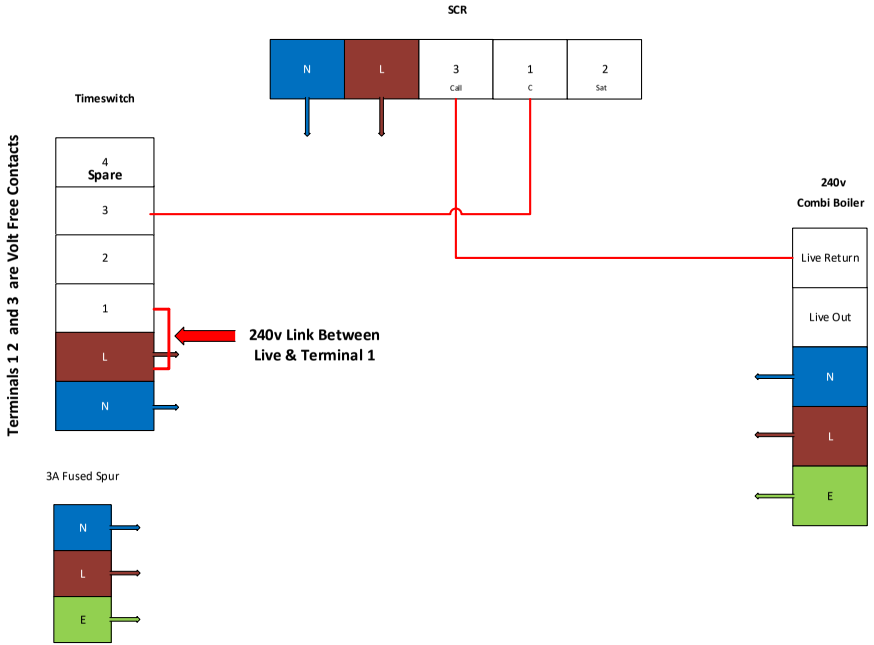


For conversion to Wiser Kit 3

- Remove and make safe the 'live in' and 'live out' from both the wired room thermostats
- Add a link between the terminals (2 & 3 and 13 & 16) where the wired room thermostats were connected

One Zone

Timer with volt-free temperature control



For conversion to Wiser Kit 1

- Link together the 'live in' and 'live out' at the temperature control

Wiser Troubleshooting

Removing devices and factory reset

Devices can be removed from the heating system using the Wiser Home app. Go to 'Home' then 'Settings' then 'Rooms', tap on the device then tap on the 'Remove from System' button on the 'Device Details' menu screen.

Note: If a device has been removed from the system, it will no longer be visible in the app. However, if a device is out of range, or is switched OFF when the request is made it will need to be factory reset separately (see Device Factory Reset below). Where a radiator thermostat has to be taken off a radiator valve following removal from the system, follow steps below:

- Open the valve as indicated in the table "Head calibration" on page 55
- Unscrew the radiator thermostat from the radiator valve.

Hub factory reset

The Hub^{R} can be reset to factory settings, which will remove all devices from the system and remove the Wi-Fi connection settings.

Note: This will not remove your Cloud account so you will either need to call customer services to remove your account or register with a different e-mail address.

To factory reset the Hub^{R} refer below:

- Press and hold the 'Set-up' button for more than 20 seconds

Note: The LED will go through a few LED sequences, however the reset warning is indicated by solid Red. This is the final LED sequence and upon extinguishing it will implement the reset.

Note: To re-use devices you may also need to perform Device Factory Resets on individual products in accordance with the instructions in this section.

Device factory reset

Devices can be reset manually at any time e.g. if the Hub^{R} is replaced. To remove the device binding to a heating system allowing it to be joined to another system do the following:

Room thermostat:

- Remove the batteries and re-insert them
- When the 'Wiser Thermostat' splash screen is displayed press and hold the + and – buttons for 20 seconds until the pulsing Wi-Fi icon is displayed.

Radiator thermostat:

- Twist and hold the cap of the radiator thermostat in the '-' direction
- Wait a few seconds until the centre LED begins to flash Red
- Keep holding the cap in the '-' direction and wait for 8 red flashes, which may take 20 seconds. Release the cap; all 3 LEDs flash once to indicate that the device is resetting.

Electrical Heat Switch:

- Press and hold the button for more than 20 seconds.
- After 15 seconds the LED will flash red. Once the LED stops flashing red, release the button and the unit is factory reset.

Smart plug factory reset

To remove the smart plug from a heating system, allowing it to be joined to another system, follow these steps:

- Ensure that the smart plug is installed in a wall socket.
- Press and hold the ON/OFF button.
- In five seconds the LED will flash blue six times then go out. The device is now reset.

LED behaviour Radiator Thermostat

Normal use

State	User Interaction	Left LED	Centre LED	Right LED	Duration
Boost up	Twist the cap in the + direction				Solid for 5 seconds
Boost down	Twist the cap in the - direction				Solid for 5 seconds

Head calibration

State	User Interaction	Left LED	Centre LED	Right LED	Duration
Start up	Insert the batteries				Single quick flash
Opening the valve	Automatic upon inserting batteries OR Twist and hold the cap in + direction for 8 seconds (for changing batteries)				Solid until the valve is open
Ready to install on the valve	The radiator thermostat is ready to install when the valve is fully open (see above)				Red and Blue: flash for up to 5 minutes Orange solid = not joined | Green solid = joined
Closing the valve	Twist and hold the cap in the – direction for 2 seconds				Solid until the valve is closed
Joining	Twist and hold the cap in the + direction for 3 seconds				Pulses for up to 2 minutes
Join success					Solid for 5 seconds
Joining failed	If no network is found after 2 minutes				Flashes for 5 seconds

LED behaviour Radiator Thermostat

Error state

State	User Interaction	Left LED	Centre LED	Right LED	Duration
Low battery					Solid for 1 second (Repeated each hour)
Critical battery					Fast flash for 5 seconds (Repeated each minute)
No signal	Twist the cap in the + direction to start a boost				Fast flash for 5 seconds (Repeated)
No signal	Twist the cap in the - direction to start a boost				Fast flash for 5 seconds (Repeated)
No network	Twist the cap in the + or - direction to start a boost				Solid with fade-out after 2 seconds. In this event, the radiator thermostat has not joined the Wiser system and must either join the Hub^{R} or be re-installed.

LED behaviour Smart Plug

Normal use

State	User Interaction	LED
-	Plug into wall socket (when not joined to the Hub^{R})	1 red flash followed by 3 purple / red flashes followed by blue flashes
-	Plug into wall socket (when joined to the Hub^{R})	Red flash followed by solid purple for 1 second followed by solid blue for 1 second
Socket ON	Press ON/OFF button	Solid blue
Socket OFF	Press ON/OFF button	Off
Join smart plug to the Hub^{R}	Press and hold ON/OFF button for 2 seconds	Quick blue flashes. If the smart plug successfully joins the Hub^{R}, the LED stops flashing. If the smart plug fails to join the Hub^{R}, after 60 seconds, the quick blue flashes are followed by 6 slow flashes.
Interrupt Join Mode	Press ON/OFF button	Quick blue flashes are interrupted and followed by 6 slow blue flashes.
Reset the smart plug and return to factory settings	Press and hold ON/OFF button for 5 seconds	6 slow blue flashes

LED behaviour of the Hub^{R}

Set-up

State	Button Press	LED	Description
Normal			Indicates the Hub^{R} is powered ON and operating as normal.
Set-up	Single press		In this mode, it is possible to connect directly to the Hub^{R} via Wi-Fi and make changes to the system.
Adding a device	Press and hold for > 3s (or initiate from the app)		Indicates the Hub^{R} is open to new devices joining the network.
Wi-Fi Error			The Hub^{R} is unable to connect to the Wi-Fi Network. Check the Wi-Fi router is powered ON and connected to the internet. If you have changed your Wi-Fi credentials (password) or if you have a new router, you must connect to your Hub^{R} in Set-up Mode and update your Wi-Fi network details.
Firmware upgrade			During a firmware upgrade cycle, the hub disconnects from the internet for a number of minutes to upgrade the firmware
Wiser Cloud connection lost			The Hub^{R} is currently unable to contact the Wiser Cloud service. You will still be able to use the Wiser Heat app at home when connected to the same Wi-Fi network as your Hub^{R}

Heating and hot water

State	Button Press	LED	Description
Normal			Indicates the respective heating or hot water relay is currently active.
Emergency Heat/Test	Single press		This will manually switch the relay ON. **Hot Water:** ON for 1 hour **Heating:** ON for 2 hours

Others

State	Button Press	LED		Description
Adding a RF range extender	Press and Hold ‘Set-up’ for longer than 3 s		Hub^{R} Set-up LED	Indicates the Hub^{R} is ready to pair a range extender.
Reset	Press and Hold for longer than 20 s		Set-up LED Red followed by all LEDs flashing once	Indicates the Hub^{R} has been returned to factory settings. This will remove all devices from the system instantly. To re-use the devices, you must perform a device reset on all products.

LED behaviour
Underfloor Heating

User Action	LED	LED Status	Behaviour
	LED		Mains power supplied
	Channel 1-6 LED	Off	Relay closed (no call for heat)
	Channel 1-6 LED		Relay closed (call for heat)
	Channel 1-6 LED		Delay on relay activation
	Channel 1-6 LED		System test/emergency operation
	Setup LED		Connected to the Hub^{R}
	Setup LED		Attempting to pair with the Hub^{R}
	Setup LED		Not connected to the Hub^{R}. To connect see 4.
	Setup LED		Floor temperature exceeded
Emergency operation / wiring test	Selected LEDs	Slow	Channels activated. See 1.g
Connect the UFH Controller with the Hub^{R} Press and hold setup button for >2 secs	Setup LED		The Wiser UFH is attempting to pair with the Hub^{R}. Follow the instructions in the app, see point 3 and 4.
Reset the UFH Controller Press and hold setup button for >20 secs	Setup LED	until all LEDs flash	Reset: the Wiser UFH will be removed from the system
Identify device from the app	All LEDs	All LEDs flash	To identify the Wiser UFH
	Heating/ Cooling LED		In cooling mode
	Heating/ Cooling LED		Dew sensor activated
	Pump LED		Pump activated
	Boiler LED		Boiler activated

LED behaviour
Electrical Heat Switch

State	Button Press	LED Status	Behaviour
			Output is on
	Single press		Indicates joining is in progress
			Flashes for 5 seconds for join success
			Flashes for 5 seconds for failure to join

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