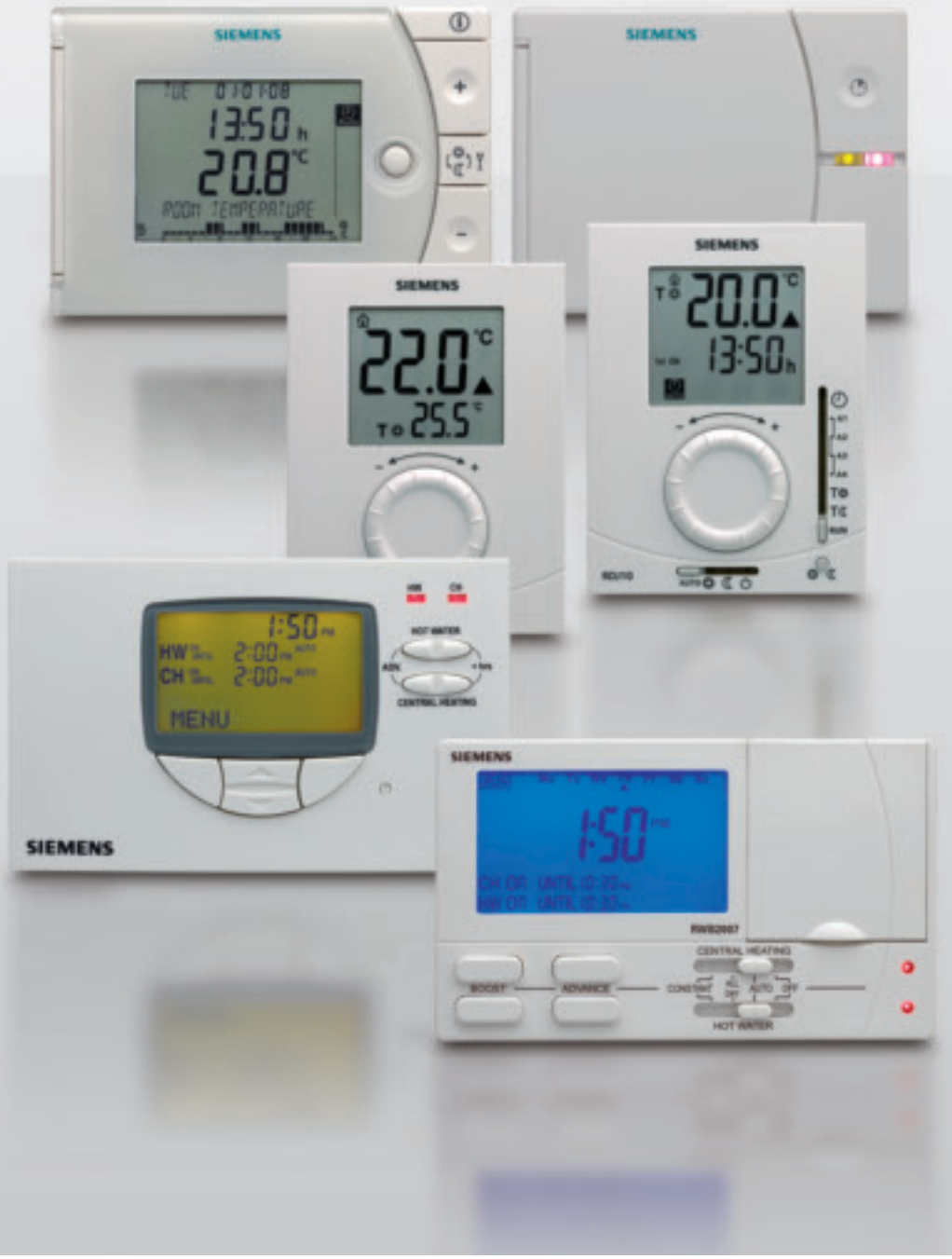
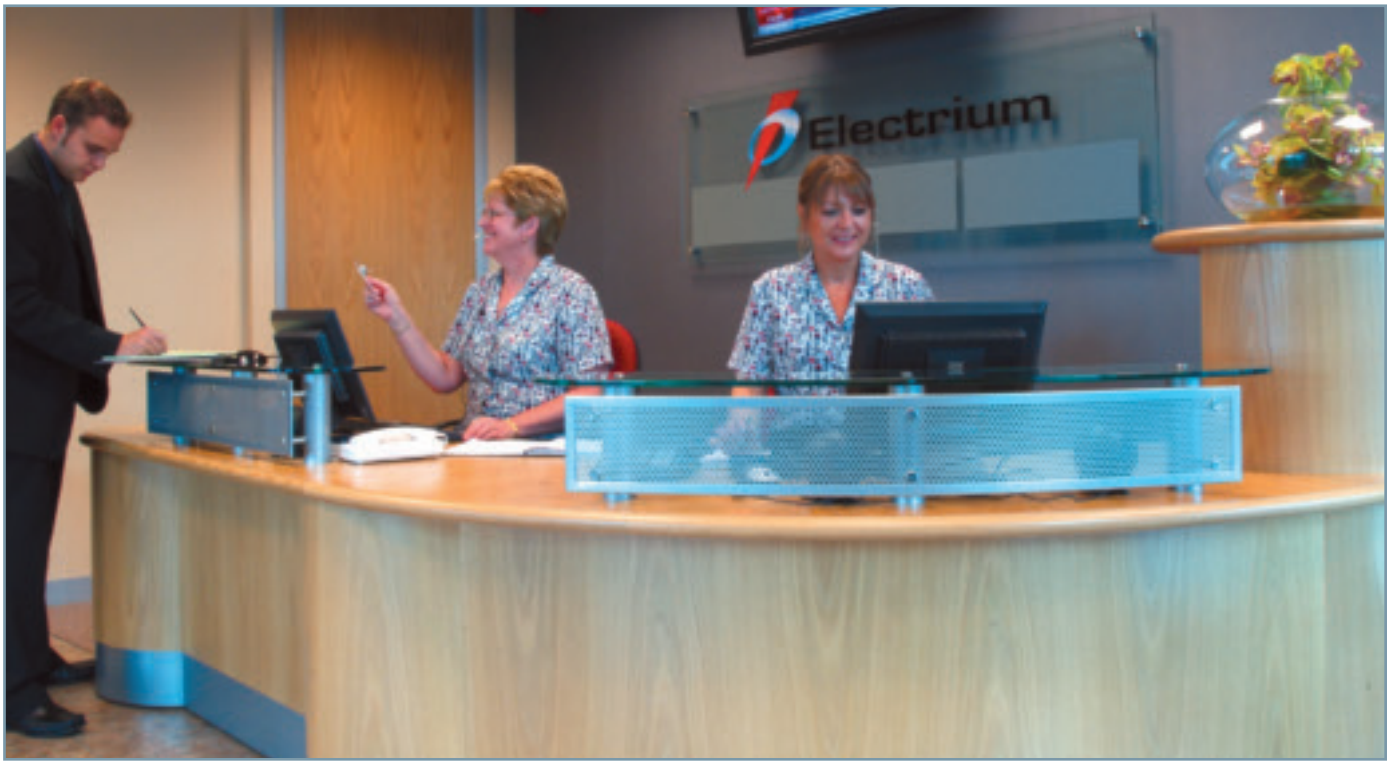
Siemens Heating Controls Residential Product Selection Guide



Heating Controls

SIEMENS



Introduction

Siemens Heating Controls, are one of the World's leading suppliers of products for the safe and efficient control of heating systems in domestic residential and commercial installations.

Our reputation is second to none, we aim to maintain this reputation through our commitment to design and product quality, backed by a dedicated technical support team.

This highly trained and knowledgeable team can be contacted on a local rate number from anywhere in the UK.

Siemens Heating Controls is part of one of the UK's largest electrical groups, which has global manufacturing sites.

Contents

Programmers & Timeswitches at-a-glance

	 RWB27	 RWB29	 RWB27Si	 RWB29Si	 RWB30e	 RWB2e	 RWB1001	 RWB1007	 RWB2001	 RWB2007
Menu driven programming	■	■	■	■						
Large, backlit display	■	■	■	■			■	■	■	■
Simple operation	■	■	■	■	■	■	■	■	■	■
24-hour programming	■	■	■	■	■	■	■		■	
7-day or 5/2-day weekend/weekday program	■	■	■	■			■	■	■	■
Two or three ON/OFFs per day	■	■	■	■			■	■	■	■
Two ON/OFFs per day					■	■				
Clock with auto summer/winter changeover	■	■	■	■			■	■	■	■
Holiday programming	■	■	■	■						
LED 'ON' light	■	■	■	■	■	■	■	■	■	■
Advance facility	■	■	■	■	■	■	■	■	■	■
1-hour Boost facility					■	■	■	■	■	■
Up to 3-hour Boost	■	■	■	■						
Override facility	■	■	■	■	■	■	■	■	■	■
Service Interval Function			■	■			■	■	■	■
Visual service reminder							■	■	■	■
Audible service reminder			■	■			■	■	■	■
Independent timing for hot water and central heating		■		■					■	■
Gravity or fully pumped systems		■		■		■			■	■
Direct replacement with little or no rewiring of most other manufacturers products	■	■	■	■	■	■	■	■	■	■
Industry standard backplate little or no rewiring	■	■	■	■	■	■	■	■	■	■
Battery back-up	■	■	■	■			■	■	■	■
Combi Boilers	■		■		■		■	■		
Volt free contacts	■		■		■		■	■		

Time Controls

RWB27 and RWB27Si Timeswitch

- Unique menu driven programming
- Large backlit display
- Simple operation
- Up to 3 hour boost facility
- Ideal for Combi Boilers

The RWB27Si is the same specification as the RWB27 but has the added benefit of the Service Interval Function.

Operating Voltage: AC230V ±10%

Switching Voltage: 12/250V

Frequency: 50Hz

Contact rating – (resistive): 6A
– (inductive): 2A

Ambient temperature range: 0°C to 40°C

Housing: ABS resistant to fire as IEC 730 standard

Dimensions W x H x D: 145mm x 90mm x 34mm

Ordering Specification

RWB27: Single channel timeswitch with one volt free changeover contact
RWB27Si: Single channel service interval timeswitch with one volt free changeover contact

RWB29 and RWB29Si Programmer

- Unique menu driven programming
- Large backlit display
- Simple operation
- Up to 3 hour boost facility
- Ideal for Gravity or fully pumped systems

The RWB29Si is the same specification as the RWB29 but has the added benefit of the Service Interval Function.

Operating Voltage: AC230V ±10%

Frequency: 50Hz

Contact rating – (resistive): 6A
– (inductive): 2A

Ambient temperature range: 0°C to 40°C

Housing: ABS resistant to fire as IEC 730 standard

Dimensions W x H x D: 145mm x 90mm x 34mm

Ordering Specification

RWB29: Twin channel programmer with two changeover contacts
RWB29Si: Twin channel service interval programmer with two changeover contacts

Time Controls

RWB30e Traditional Daily Timeswitch

- 1 hour boost facility
- Two On/Off periods per day
- Ideal for Combi Boilers

Operating Voltage: AC230V ±10%

Switching Voltage: 12/250V

Frequency: 50Hz

Contact rating – (resistive): 6A
– (inductive): 2A

Ambient temperature range: 0°C to 40°C

Housing: ABS resistant to fire as IEC 730 standard

Dimensions W x H x D: 145mm x 90mm x 50mm

Ordering Specification

RWB30e: Single channel timeswitch with one volt free changeover contact

RWB2e Traditional Daily Programmer

- 1 hour boost facility
- Two On/Off periods per day
- Ideal for Gravity or fully pumped systems

Operating Voltage: AC230V ±10%

Frequency: 50Hz

Contact rating – (resistive): 6A
– (inductive): 2A

Ambient temperature range: 0°C to 40°C

Housing: ABS resistant to fire as IEC 730 standard

Dimensions W x H x D: 145mm x 90mm x 50mm

Ordering Specification

RWB2e: Two channel programmer with two changeover contacts

RWB1001

- Large backlit display
- Simple operation
- Service interval capable
- Ideal for Combi Boilers

Operating Voltage: AC220V ±10%

Switching Voltage: 12/240V

Frequency: 50Hz

Contact rating: 6A (2A)

IP rating: IP30

Ambient temperature range: 0°C to 50°C

Dimensions W x H x D: 140mm x 85mm x 34mm

Ordering Specification

RWB1001: Single channel daily timeswitch with one volt free changeover contact

Time Controls

RWB1007

- Large backlit display
- Simple operation
- Service interval capable
- Ideal for Combi Boilers

Operating Voltage: AC220V ±10%

Switching Voltage: 12/240V

Frequency: 50Hz

Contact rating: 6A (2A)

IP rating: IP30

Ambient temperature range: 0°C to 50°C

Dimensions W x H x D: 140mm x 85mm x 34mm

Ordering Specification

RWB1007: Single channel weekday/weekend or 7 day timeswitch with one volt free changeover contact

RWB2001

- Large backlit display
- Simple operation
- Service interval capable
- Ideal for gravity or fully pumped systems

Operating Voltage: AC220V ±10%

Switching Voltage: 240V

Frequency: 50Hz

Contact rating: 6A (2A)

IP rating: IP30

Ambient temperature range: 0°C to 50°C

Dimensions W x H x D: 140mm x 85mm x 34mm

Ordering Specification

RWB2001: Twin channel daily programmer with two changeover contacts

RWB2007

- Large backlit display
- Simple operation
- Service interval capable
- Ideal for gravity or fully pumped systems

Operating Voltage: AC220V ±10%

Switching Voltage: 12/240V

Frequency: 50Hz

Contact rating: 6A (2A)

IP rating: IP30

Ambient temperature range: 0°C to 50°C

Dimensions W x H x D: 140mm x 85mm x 34mm

Ordering Specification

RWB2007: Twin channel weekday/weekend or 7 day programmer with two changeover contact

Room Thermostats at-a-glance

	 RAA20-GB	 RAA20LD-GB	 RAA10	 RAA30.16/GR	 RDD10	 RDH10	 RDD10.1DHW
Combi Boilers	■	■	■		■	■	
Gas filled bellows	■	■	■	■			
12-250V					■		
24-250V	■	■	■			■	■
Change over contacts	■	■	■	■	■	■	■
Battery or mains version					■		
Setting range 5°-30°C	■	■	■	■			■
Setting range 5°-35°C					■		
Limiting or locking ability	■	■	■	■			
Timed set back 30mins - 24 hours					■		
Set back temperature 5°-35°C					■		■
Double insulated (no earth needed)	■	■	■	■	■	■	■
Electronic display					■	■	■
LED 'ON' light				■			
Heating or cooling operation	■	■	■	■	■	■	
Tamperproof			■				
5 Amp rated					■	■	■
6 Amp rated	■	■	■				
10 Amp rated				■			

Room Thermostats

RAA20-GB Standard Room Thermostat

- Gas bellows type operation (No neutral needed)
- Double insulated (No earth needed)
- 24 - 250V Ideal for Combi Boilers

Temperature range: 5°C - 30°C (lockable)

Contacts: 6 (2) A SPDT IP30

Ambient temperature range: 0°C to 50°C

Nominal voltage: 24 - 250V

Dimensions W x H x D: 96.4mm x 99.6mm x 42.8mm

Ordering Specification

RAA20-GB: Standard room thermostat

RAA20LD-GB Large Dial Room Thermostat

- Gas bellows type operation (No neutral needed)
- Double insulated (No earth needed)
- 24 - 250V Ideal for Combi Boilers

Temperature range: 5°C - 30°C (lockable)

Contacts: 6 (2) A SPDT IP30

Ambient temperature range: 0°C to 50°C

Nominal voltage: 24 - 250V

Dimensions W x H x D: 105mm x 124mm x 44mm

Ordering Specification

RAA20LD-GB: Large dial room thermostat

RAA30.16GR Standard Room Thermostat with LED 'ON' Light

- Gas bellows type operation
- 5°C to 30°C (lockable)
- 10 Amp contacts
- Change over contacts, can be used for heating or cooling

Neutral required

Temperature range: 8°C - 30°C (lockable)

Contacts: 10 (2.6) A SPDT IP30

Nominal voltage: 230V ± 10%

Dimensions W x H x D: 96.4mm x 99.6mm x 42.8mm

Ordering Specification

RAA30.16GR: Room thermostat with LED and on/off switch

RAA10 Tamperproof Double Insulated Room Thermostat

- Gas bellows type operation (No neutral needed)
- Double insulated (No earth needed)
- Tamperproof
- 24 - 250V Ideal for Combi Boilers

Temperature range: 5°C - 30°C (lockable)

Contacts: 6 (2) A SPDT IP30

Ambient temperature range: 0°C to 50°C

Nominal voltage: 24 - 250V

Dimensions W x H x D: 96.4mm x 99.6mm x 42.8mm

Ordering Specification

RAA10: Tamperproof Double insulated room thermostat

Room Thermostats

RDD10 Digital Room Thermostat

- Stylish, slim design
- User friendly
- Selectable setback
- Mains and battery operated versions
- Ideal for Combi Boilers

Battery and mains operated versions available

Double insulated

Temperature range: 5°C - 35°C

Contacts: 5 (2) A SPDT

Ambient temperature range: 0°C to 50°C

Switching voltage: 12 - 250V

Dimensions W x H x D: 96mm x 119mm x 23.8mm

Ordering Specification

RDD10: Mains operated digital room thermostat
RDD10.1: Battery operated digital room thermostat

RDH10-GB Digital Room Thermostat

- Battery Powered
- Volt free contacts (24-250V)
- RF or fixed installation (hard wired) models available
- Ideal for Combi Boilers

Power supply: 2 x 1.5V AA batteries

Temperature range: 5°C - 30°C

Switching voltage: 24V...250V

Current rating: 5(2)A

Dimensions W x H x D: 90mm x 120mm x 35mm

Ordering Specification

RDH10-GB: Battery operated digital room thermostat

RDD10.1DHW

- 2 position control with ON/OFF output for heating
- Independent ON/OFF control of DHW
- Operating modes: Normal operation, energy saving and frost protection
- Battery Powered

Power supply: 2 x 1.5V AA batteries

Temperature range: 5°C - 35°C

Switching voltage: 24V...250V

Current rating: 5(2)A

Dimensions W x H x D: 102mm x 128mm x 30mm

Ordering Specification

RDD10.1DHW: Battery operated digital room thermostat and DHW output

Programmable Room Thermostats at-a-glance

	 RDJ10-GB	 RDE10	 RAV...	 REV13	 REV17	 REV24	 REV100	 REV200	 RDE10.1DHW
Combi Boilers	■	■	■	■	■	■	■	■	
Underfloor heating	■	■	■	■	■	■	■	■	■
Self-learning logic			■	■	■	■	■	■	
Digital display	■	■		■	■	■	■	■	■
Programmable away from backplate	■	■		■	■	■	■	■	■
PID (TPI) control			■	■	■	■	■	■	
12 - 240V	■	■	■	■	■	■	■	■	
Touch screen programming							■	■	
Analogue clock			■						
24-hour operation	■		■	■			■		
Weekday/weekend					■				
7-day operation		■	■			■		■	■
Battery or mains versions available		■							
Lockable display							■	■	
Holiday program						■	■	■	
Optimum start						■		■	
Set back facility	■	■	■	■		■	■	■	■
Frost protection	■	■	■	■	■	■	■	■	■
Change over contacts	■	■	■	■		■		■	■
Party Mode (up to 9 hour boost)				■	■	■			

Cost effective and simple to program mains and battery operated room thermostats

Programmable Room Thermostats

RDJ10-GB (Digital)

- Daily digital programmable room thermostat
- Large, easy to read display
- Battery powered
- Volt free contacts (24-250V)
- Ideal for Combi Boilers
- RF model available
- Large, control dial
- Advance and override functions

Power supply: 2x1.5 V AA batteries

Switching Voltage: 24 - 250V

Current rating: 5(2)A

Temperature setting range: 5°C to 30°C

Dimensions W x H x D: 90mm x 120mm x 35mm

Ordering Specification

RDJ10-GB: Daily digital programmable room thermostat

RDE10 (Digital)

- Simple 7 day programming
- Multiple Ons and Offs
- Ideal for Combi Boilers and zoning

Temperature range: 5°C - 35°C

Contacts: 5 (2.5) A SPDT

Ambient temperature range: 0°C to 50°C

Switching voltage: 24 - 250V

Dimensions W x H x D: 96mm x 115mm x 25mm

Ordering Specification

RDE10: Mains operated programmable room thermostat 7 Day
RDE10.1: Battery operated programmable room thermostat 7 Day

RDE10.1DHW

- 2 position control with ON/OFF output for heating
- Independent ON/OFF control of DHW
- Operating modes: Auto, normal operation, energy saving and frost protection
- 7 day time switch and manual control
- Battery Powered

Power supply: 2 x 1.5V AA batteries

Temperature range: 5°C - 35°C

Switching voltage: 24V...250V

Current rating: 5(2)A

Dimensions W x H x D: 102mm x 128mm x 30mm

Ordering Specification

RDE10.1DHW: Battery operated digital room thermostat

Cost effective and simple to program battery operated room thermostats

Programmable Room Thermostats

RAV11.1 (Analogue)

- Simple programming
- Multiple Ons and Offs
- PID (TPI) control self learning
- Volt free contacts (24-250V)
- Ideal for Combi Boilers, underfloor heating and zoning
- Daily programming

Temperature range: 3°C - 29°C

Contacts: 8 (3.5) A

Switching voltage: 24 - 250V

Dimensions W x H x D: 138mm x 104mm x 37mm

Ordering Specification

RAV11.1: Battery operated programmable room thermostat Daily

RAV11.7 (Analogue)

- Simple programming
- Multiple Ons and Offs
- PID (TPI) control self learning
- Volt free contacts (24-250V)
- Ideal for Combi Boilers, underfloor heating and zoning
- 7 day programming

Temperature range: 3°C - 29°C

Contacts: 8 (3.5) A

Switching voltage: 24 - 250V

Dimensions W x H x D: 138mm x 104mm x 37mm

Ordering Specification

RAV11.7: Battery operated programmable room thermostat 7 Day

Programmable Room Thermostats

REV13

- Mains-independent, battery-operated room temperature controller
- Self-learning two-position controller with PID (TPI) control
- Large, easy to read display
- User friendly
- Operating modes: Auto, continuous comfort, energy saving and frost protection

Temperature range: 3°C - 35°C

Contacts: 6 (2.5)A

Ambient temperature: 5°C - 40°C

Switching voltage: 24V - 250V

Dimensions W x H x D: 130mm x 94mm x 30mm

Power supply: 2 x 1.5V AAA batteries

Ordering Specification

REV13: Daily programmable room thermostat

REV17

- Mains-independent, battery-operated room temperature controller
- Self-learning two-position controller with PID (TPI) control
- Large, easy to read display
- User friendly
- Operating modes: Auto, continuous comfort, energy saving and frost protection

Temperature range: 3°C - 35°C

Contacts: 6 (2.5)A

Ambient temperature: 5°C - 40°C

Switching voltage: 24V - 250V

Dimensions W x H x D: 134.5mm x 94mm x 30mm

Power supply: 2 x 1.5V AAA batteries

Ordering Specification

REV17: 5/2 day programmable room thermostat

REV24

- Mains-independent, battery-operated room temperature controller
- Self-learning two-position controller with PID (TPI) control
- Large, easy to read display
- User friendly
- Operating modes: Auto, continuous comfort, energy saving and frost protection

Temperature range: 3°C - 35°C

Contacts: 6 (2.5)A

Ambient temperature: 5°C - 40°C

Switching voltage: 24V - 250V

Dimensions W x H x D: 134.5mm x 94mm x 30mm

Power supply: 2 x 1.5V AAA batteries

Ordering Specification

REV24: 7-day programmable room thermostat

Touch Screen Digital Programmable Room Thermostats

Programmable Room Thermostats

REV100

- Simple daily programming
- Holiday programming
- PID (TPI) control self learning
- Battery powered display allows programming "in hand"
- Lockable display
- Frost protection
- Ideal for Combi Boilers, underfloor heating and zoning

Switching Voltage: 12/250V

Battery operated

Temperature range (normal): 3°C - 29°C
(frost protection): 3°C - 16°C

Contacts: 8 (3.5) A

Ambient temperature range: 3°C to 35°C

Dimensions W x H x D: 120mm x 98mm x 31mm

Ordering Specification

REV100: Battery operated touch screen daily programmable room thermostat (White)
REV100S: Available in Silver

REV200

- RF version available (REV200RF)
- Simple 7 day programming
- Holiday programming
- PID (TPI) control self learning
- Battery powered display allows programming "in hand"
- Lockable display
- Frost protection
- Ideal for Combi Boilers, underfloor heating and zoning

Switching Voltage: 12/250V

Battery operated

Temperature range (normal): 3°C - 29°C
(frost protection): 3°C - 16°C

Contacts: 8 (3.5) A SPDT

Ambient temperature range: 3°C to 35°C

Dimensions W x H x D: 130mm x 110mm x 33mm

Ordering Specification

REV200: Battery operated touch screen 7-day programmable room thermostat (White)
REV200S: Available in Silver

RF (Wireless) Thermostats at-a-glance

	 RDH10RF/SET-GB	 RDJ10RF/SET-GB	 REV24RF/SET	 REV200RF/SET
Combi Boilers	■	■	■	■
Underfloor heating	■	■	■	■
12-240V volt free contacts	■	■	■	■
Large digital display	■	■	■	■
Backlit display			■	■
Set back		■	■	■
Changeover contacts	■	■	■	■
Advance		■	■	■
24 hour operation	■	■	■	■
5/2 day operation			■	■
7 day operation			■	■
Large control dial	■	■		
Self learning			■	■
Optimum start			■	■
PID (TPI) control			■	■
433Mhz	■	■		
868Mhz			■	■
Double insulated	■	■	■	■
Touch screen				■
Screen lock				■
Holiday mode			■	■
Frost protection		■	■	■
Override		■	■	■
Manual override switch (on receiver)	■	■	■	
Party mode (up to 9 hour boost)			■	
RF signal strength indicator			■	

Wireless Room Thermostats

RDH10RF/SET-GB

- Range 20 metres line of sight between transmitter and receiver
- Battery Powered
- Volt free contacts (24-250V)
- RF or fixed installation (hard wired) models available
- Ideal for Combi Boilers
- Manual override switch on receiver

Power supply: 2 x 1.5V AA batteries

Temperature range: 5°C - 30°C

Switching voltage: 24V...250V

Current rating: 8(3)A

Dimensions W x H x D: 90mm x 120mm x 35mm

Ordering Specification

RDH10RF/SET-GB: Digital room thermostat and receiver

RDJ10RF/SET-GB

- Range 20 metres line of sight between transmitter and receiver
- Daily digital programmable room thermostat
- Large, easy to read display
- Battery powered
- Volt free contacts (24-250V)
- Ideal for Combi Boilers
- RF or fixed installation (hard wired) models available
- Large, control dial
- Advance and override functions
- Manual override switch on receiver

Power supply: 2x1.5 V AA batteries

Switching Voltage: 24 - 250V

Current rating: 8(3)A

Temperature setting range: 5°C to 30°C

Dimensions W x H x D: 90mm x 120mm x 35mm

Ordering Specification

RDJ10RF/SET-GB: Daily digital programmable room thermostat and receiver

Wireless Self Learning Programmable Room Thermostats

REV24RF/SET

- Up to 9 hours boost facility
- RF signal strength indicator
- Auto summer/winter changeover
- Range 20 metres line of sight between transmitter and receiver
- Simple programming
- 24-hour, 7 day or 5/2 day
- Holiday programming
- PID (TPI) control self learning
- Battery powered display allows programming "in hand"
- Frost protection
- Ideal for Combi Boilers, underfloor heating and zoning
- Table stand

Switching Voltage: 12 - 250V

Battery operated

Temperature range (normal): 5°C - 29°C

Contacts: 6 (2.5) A

Ambient temperature range: 3°C to 35°C

Transmission frequency: 868MHz

Dimensions W x H x D: 140mm x 105mm x 30mm

Ordering Specification

REV23RF SET: Battery operated programmable room thermostat and receiver

REV200RF/SET

- Simple 7 day programming
- Holiday programming
- PID (TPI) control self learning
- Battery powered display allows programming "in hand"
- Lockable display
- Frost protection
- Ideal for Combi Boilers, underfloor heating and zoning

Switching Voltage: 24 - 250V

Battery operated

Temperature range: (normal) 3°C - 29°C
(frost protection) 3°C - 16°C

Contacts: 6 (2.5) A SPDT

Ambient temperature range: 3°C to 35°C

Dimensions W x H x D: 130mm x 110mm x 33mm

Ordering Specification

REV200RF/SET: Battery operated touch screen 7-day programmable room thermostat and receiver

PID (Proportional Integral Derivative)
TPI (Time Proportional + Integral)
Proportional control is designed to eliminate the cycling above and below the set point associated with On-Off control by calculating the demand and controlling the heating in shorter periods as it approaches the set point, as a consequence PID (TPI) allows the flow temperature to reduce and utilises the residual heat in the system.

Each unit has Siemens patented self learning PID (TPI) control technology that provides a comfortable room temperature at the desired setting. The unit will self learn how quickly heat is delivered into the home, reacts to maintain the desired temperature and maximises the residual heat in the heating system.

REV24RF/SET base unit mounted on its table stand

Cylinder/Pipe & Frost Thermostats at-a-glance

	 RAM1	 RAM1.T	 RAD1.F	 RAK-TW
Bi Metallic Sensing	■	■		
Liquid Sensing				■
Gas filled bellows			■	
15° to 90°C	■	■		
minus 10° - 120°C				■
SPDT Contacts	■	■		
Can be used on pipe up to 41mm	■	■		■
Tamperproof cover		■		
Fixed setting at 5°C			■	
10 amp contacts			■	
6-10 amp contacts				■
Changeover contacts			■	
3 mounting choices (pipe, wall or pocket)				■

Cylinder/Pipe & Frost Thermostats

RAM1 Cylinder/Pipe Thermostat

- Bi-metallic
- Temperature setting range: 15°C to 90°C
- Contacts: 15A, SPDT
- IP Rating: IP40
- Can be used as a pipe thermostat up to 41mm dia.
- Dimensions W x H x D: 50mm x 116mm x 59mm

Ordering Specification

RAM1: BI-metallic cylinder/pipe thermostat

RAM1.T Tamperproof Cylinder/Pipe Thermostat

- Bi-metallic
- Tamperproof
- Temperature setting range: 15°C to 90°C
- Contacts: 15A, SPDT
- IP Rating: IP40
- Can be used as a pipe thermostat up to 41mm dia.
- Dimensions W x H x D: 50mm x 116mm x 59mm

Ordering Specification

RAM1T: Tamperproof cylinder/pipe thermostat

RAD.1F Frost Thermostat

- Tamperproof fascia
- Changeover contacts
- Gas bellows operation
- No neutral required
- Temperature range: 5°C (Fixed)
- Contacts: 10 (2.6) A SPDT
- IP Rating: IP30
- Ambient temperature range: 0°C to 50°C
- Nominal voltage: 12 - 250V
- Dimensions W x H x D: 76mm x 76mm x 34mm

Ordering Specification

RAD1F: Frost thermostat

RAK-TW Immersion/Frost Thermostat

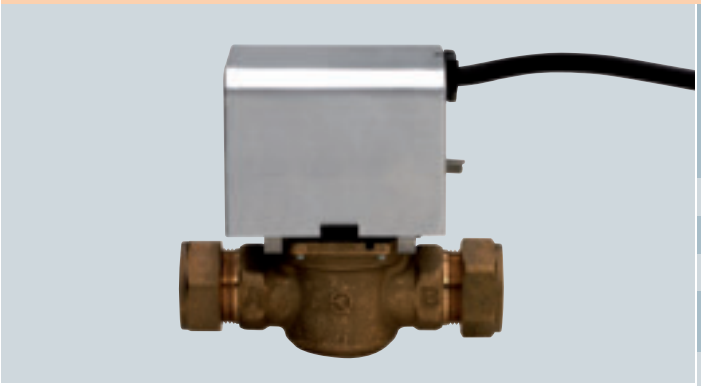
- -10 - +120°C
- Liquid sensing
- Electro mechanical switching*
- Contact terminals: 1-2 10 (2.5) A
  1-3 6 (2.5) A
- Ambient temperature range: Max. 50°C
- Nominal voltage: 24 - 250V
- IP Rating: IP43
- Mounting choices: pipe, pocket, wall
- Dimensions W x H x D: 52mm x 131mm x 57mm
- Pocket: 100mm

Ordering Specification

RAK-TW.1000B: 15°C to 95°C Electromechanical thermal reset limit thermostat
RAK-TW.1200B: 40°C to 120°C Electromechanical thermal reset limit thermostat
RAK-TW.5000S: 5°C to 65°C Electromechanical thermal reset limit thermostat
RAK-TW.5010S: -10°C to 50°C Electromechanical thermal reset limit thermostat

Motorised Valves

CZV... 22 and 28mm 2-port motorised valves



- Demountable actuator (power head)
- Replaceable motor
- Wedge type actuator
- Spring return operation
- Manual lever for flushing or filling the system
- Industry standard wiring

Standard motor voltage: 230V 50Hz

Motor power: 5W

Maximum static pressure: 8.6 bar

Maximum differential pressure: 22mm 0.7 bar
28mm 0.6 bar

Water temperature: 5° C to 88° C

Maximum ambient temperature: 50° C

Valve body: Brass

Connections: 22mm or 28mm compression

Lead length: 1 metre

Switch ratings: 2-port 24V - 230V AC 3(1)A
3-port 230V AC 3(1)A

Ordering Specification

Complete valve and actuator
CZV222: 22mm 2 port zone valve 5 wire
CZV228: 28mm 2 port zone valve 6 wire
CMV322: 22mm 3 port mid position valve
CMV328: 28mm 3 port mid position valve

Actuator only
DVA3: Actuator CMV valves
DVA2/5: Actuator CZV 22mm valves
DVA2/6: Actuator CZV 28mm valves

CMV... 22 and 28mm 3-port motorised valves

Demountable Actuator

Trade TRV & By-pass valve

Trade TRV

- Wax sensor offers sensitivity and accuracy
- Reverse flow fitting allow installation in either flow or return without regard to head position
- Comes complete with 10 and 15mm fittings
- Temperature limiters
- Frost protection setting
- EN 215 approval
- We recommend the installation of an Auto by-pass valve to achieve maximum efficiency from the system (Part No. BPV22)

Ordering Specification

Trade TRV

Automatic By-pass valve BPV22

- Allows for constant water circulation through the boiler/system when theromostatic radiator valves close
- Reduces pump burn out
- Reduces system and boiler noise
- Improves system efficiency

22mm fittings only

Body in brass

Temperature maximum: 110°C

Pressure maximum: 6 bar

Ordering Specification

BPV22: Automatic by-pass valve

TRV Packs

TRV pack 1

- Contains: TRV, angled 10/15mm & lockshield

Ordering Specification

TRV pack 1

TRV pack 2

- Contains: TRV, angled 10/15mm, lockshield & drain off

Ordering Specification

TRV pack 2

TRV pack 3

- Contains: TRV, angled 10/15mm, lockshield & push fit elbows

Ordering Specification

TRV pack 3

TRV pack 4

- Contains: TRV, angled 10/15mm, lockshield, push fit elbows & drain off

Ordering Specification

TRV pack 4

TRV Packs

TRV pack 5

- Contains: TRV, straight 10/15mm & lockshield

Ordering Specification

TRV pack 5

TRV pack 6

- Contains: Chrome TRV head & angled 10/15mm body

Ordering Specification

TRV pack 6

TRV pack 7

- Contains: Chrome TRV head & straight 10/15mm body

Ordering Specification

TRV pack 7

TRV pack 8

- Contains: Chrome TRV, straight 10/15mm & lockshield

Ordering Specification

TRV pack 8

TRV Packs

TRV pack 9

- Contains: Angled 10/15mm body with lockshield & wheelhead caps

Ordering Specification

TRV pack 9

TRV pack 10

- Contains: Drain off valve

Ordering Specification

TRV pack 10

TRV pack 11

- Contains: MTN51GB, TRV body with lockshield & wheelhead caps & drain off valve

Ordering Specification

TRV pack 11

TRV pack 12

- Contains: 2x TRV body with lockshield & wheelhead caps & drain off valve

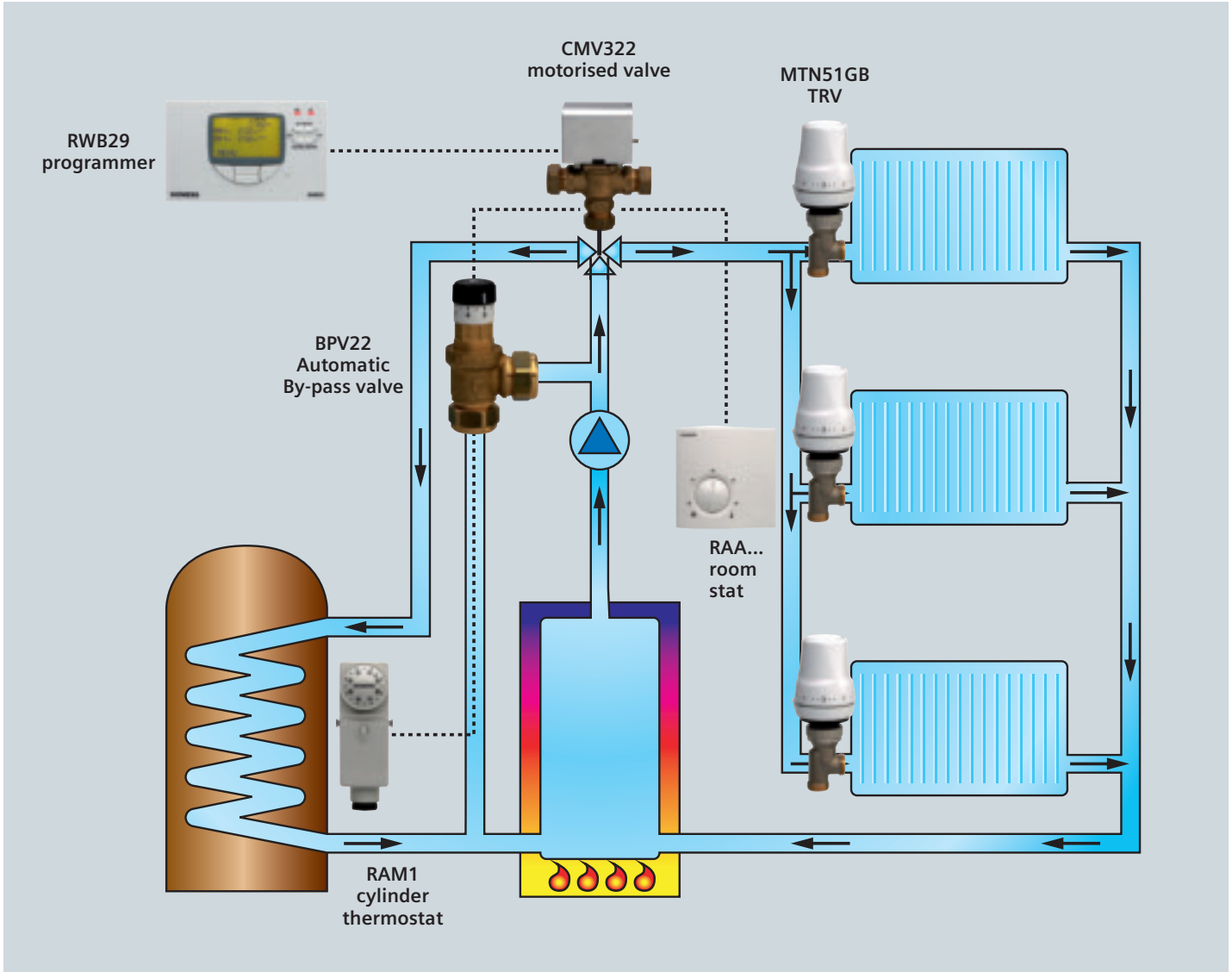
Ordering Specification

TRV pack 12

Guidance on how to comply with the 2010 Building Regulations Part L

New for 2010

- All new systems in dwellings that aren't open plan must have at least two heating zones, each controlled by a thermostat and zone valve. In addition, all radiators must have Thermostatic Radiator Valves (TRVs) fitted except those in rooms with a room thermostat and those in bathrooms.
- When replacing a boiler in an existing system it is now good practice to install TRVs on all radiators except those in rooms with a room thermostat and those in bathrooms while the system is drained down.
- At Siemens we cater for the ever increasing needs of the installer & as such have created a number on control packs which allow easy selection of programmer, thermostats & motorised valves all in 1 box.



Product Interchange and wiring guide

Contents

Product Comparison Range

Product Description	Siemens	Drayton	Danfoss Randall	Honeywell	Horstmann	Sunvic	Pegler	Myson	Potterton
Daily electromechanical programmer 10 or 16 way	RWB2E	400 805 600 SM2	3020P 3060 4033 SET3M		H425 Tiara H425 Diadem	MP2	TMP2		
Daily electromechanical timeswitch 10 or 16 way	RWB30E	300 SM1	103		H425 Coronet		TMP1		
Daily electronic mini-programmer	RWB29		102ES 102E7 SET2E 102E5	ST6200A					
Daily electronic programmer 10 or 16 way	RWB29 RWB2001	LP112 LP241 Tempus 3 Tempus 6	CP715 FP715 SET3E FP975	ST699	Centaurplus C21 H21XL	Simplex 200 Select 207XL	TP2	MEP2c	EP2000
5-day/2-day electronic programmer	RWB29 RWB2007	LP522 Tempus 6	CP715 FP715 FP975			Select 207XL		MEP2c	EP2002
7-day electronic programmer	RWB29 RWB2007	LP722 Tempus 7	CP715 FP715 FP975	ST799 ST6400	Centaurplus C27 H27XL	Select 207XL		MEP2c	EP3002 EP6002
24 hour electronic timeswitch	RWB27 RWB1001	LP111 Tempus 1	TS715 SET1E	ST6100	Centaurplus C11 H11XL	Simplex 100 Select 107XL	TP1	MEP1c	EP4000
5-day/2-day electronic timeswitch	RWB27 RWB1007	Tempus 2	TS715 TS975			Select 107XL		MEP1c	EP4002
7-day electronic timeswitch	RWB27 RWB1007	LP711 Tempus 2	TS715 TS975	ST6100	Centaurplus C17 H17XL	Select 107XL		MEP1c	EP5002
Daily programmable room thermostat	REV13 REV100	Digistat 2 Digistat 4	TP4	CM61	PRT1 AS1 Centaurstat 1				
5-day/2-day programmable room thermostat	REV24 RV200		TP5 TP6000M TP5000						
7-day programmable room thermostat	REV24 REV24RF	Digistat 3	TP7000	CM67	Centaurstat 7	TLX6501		MPRT	
Room thermostat	RAA20	RTS8	RET 24 RET230 RMT24 RMT230	T6360	HRT1 HRT2	TLX2251/2259 TLX2356/2357/2358 TLX3101/TLX5101 TLX9201/TLM2802	TRT1	MRT1	PRT2 PRT100ST
Cylinder thermostat	RAM1	HTS3 PTS1	ATC	L641	HCT1	SA2452	TCT1	MCT1	PTT100
Mid-position 3-port motorised valve 22mm	*CMV322	MA1/6793 679H 340-0L0	HSV3B 22 HSV3	V4073A109	Z322XL	SDV2211 SDMV2304	TMPV22	MPE322	PMV3 MSV322
Mid-position 3-port motorised valve 28mm	*CMV328	779H 340-3OLO	HS3B28 HS3	V4073A1088		SDMV2320	TMPV28	MPE328	
2-port motorised zone valve 22mm	CZV222	679H 308-OL1	HPV22B HPV22	V4043H1056	Z222XL	SZV2212 SZMV2305 SMV2217	TZV22	MPE222	PMV2 MSV222
2-port motorised zone valve 28mm	CZV228	ZA6/779 779H 335-3OLO	HPV28B HPV28	V4043H1106	Z228XL	SZV2228 SZMV2323	TSZ28	MPE228	
Diverter 3-port motorised valve	*		HS3D, HS3DB	V4044C1288		SDV2291		MPE322DV	
TRV angle valve 10/15mm	MTN51GB	RT111	RAS-C2	VT117E, VT15, VT200	Thermoplus XL	TRV400			

*To replace a diverter valve with a mid-position valve, replace old brown wire with grey and white together and make the orange safe.

RWB29 RWB2E RWB2001 RWB2007 Programmers

Manufacturer	Model(s)	E	Mains N	L	HW Off 1	HTG Off 2	HW On 3	HTG On 4	Wiring
Siemens	RWB29	E	N	L	1	2	3	4	-
	RWB2E	E	N	L	1	2	3	4	-
	RWB2001	E	N	L	1	2	3	4	-
	RWB2007	E	N	L	1	2	3	4	-
A.C.L. Drayton	2000	-	N	L	HW OFF	HTG OFF	HW ON	HTG ON	Links between L-C-C not required
	FP	-	2	1	8	11	6	10	Links between 1-5-7 not required
	LP112		N	L	1	2	3	4	Direct replacement
	LP241, LS241		N	L	1	2	3	4	Direct replacement
	LP522, LS522		N	L	1	2	3	4	Direct replacement
	LP722, LS722		N	L	1	2	3	4	Direct replacement
	MP		2	1	-	-	6	10	Links between 1&4 and 6&11 not required
	Tempus 3, 4, 6 & 7	E	N	L	1	2	3	4	Need to replace backplate
A.M.F. (Venner)	All models								Contact Siemens helpline 0870 850 0184
Barlo	EPR1	E	N	L	1	2	3	4	
Boss Therm	RPF7	E	N	L	1	2	3	4	Direct replacement
	RP24	E	N	L	1	2	3	4	Direct replacement
	BUP	E	N	L	1	2	3	4	Direct replacement
Danfoss Randall	102, 102E5, 102E7	E	5	6	-	-	1	2	Links between 6-3 not required
	105	E	5	6	-	2	3	1	
	701, 702	E	N	L	4	2	3	1	Links between L-5-6 not required
	922, 972	E	N	L	1	4	3	6	Links between L-5-6 not required
	3002	E	N	L	3	-	1	4	Links between 6-3 not required
	3020p	E	1&7	6	-	-	4	2	If term 3 wired keep cables together in separate block/if no roomstat term 2-3 may have been linked
	3033	E(8)	1&7	6	5	3	4	2	Terminal 8 earth
	3060	E(8)	1&7	6	-	-	4	2	If term 3 wired keep cables together in separate block/if no roomstat term 2-3 may have been linked
	4033	E	7	1&6	5	3	4	2	
	CP15, CP75, CP715, FP15, FP50C, FP715, MP15, MP75	-	N	L	1	2	3	4	Direct replacement
	FP975	E	N	L	3	6	1	4	Links between L-2-5 not required/can be volt free (9 way backplate)
	R6 MK2	E	3	1&2	-	-	4	5	If roomstat fitted wires in term 6 connect in separate block
	Set2/Set2e, Set3/ Set3e, Set3m, Set5	E	N	L	3	6	1	4	Link between L-2-5 not required
	TSR/2P	E	3	1	-	-	5	7	Links between 1-2 & 5-6 not required
	TSR/3+3	E	3	1	2	5	1	4	
Elberle	All models								Contact Siemens helpline 0870 850 0184
Gloworm	Mastermind	-	N	L	1	2	3	4	Direct replacement

RWB29 RWB2E RWB2001 RWB2007 Programmers

Manufacturer	Model(s)	E	Mains N	L	HW Off 1	HTG Off 2	HW On 3	HTG On 4	Wiring
Siemens	RWB29	E	N	L	1	2	3	4	-
	RWB2E	E	N	L	1	2	3	4	-
	RWB2001	E	N	L	1	2	3	4	-
	RWB2007	E	N	L	1	2	3	4	-
Honeywell	ST499A	-	N	L	-	-	6	3	Links between L-2-5 not required/Zone systems only
	ST1000	E	N	L	3	6	1	4	Links between L-2-5 not required
	ST6200A 1009	-	N	L	1	2	3	4	Need to replace backplate
	ST6300A 1007	-	N	L	1	2	3	4	Need to replace backplate
	ST6400A 1003	-	N	L	1	2	3	7	Need to replace backplate
	ST6400B 1003	-	N	L	1	2	3	4	Need to replace backplate
	ST6400C 1003	-	N	L	1	2	3	4	Need to replace backplate
	ST6450B 1017	-	N	L	1	2	3	4	Need to replace backplate
	ST699B 1002	-	N	L	7	4	6	5	Links between L-5-8 not required
	ST699B 1002	-	N	L	-	-	8	5	Links between L-5-6 & 3-7 not required
	ST699C	-	N	L	7	4	6	3	Links between L-5-8 not required
	ST7000A 1002	-	-	L	2	-	3	4	Battery powered will need neutral connection to operate modern units
	ST7100	-	N	L	HW OFF	HTG OFF	HW ON	HTG ON	Links between L-3-6 not required
	ST7100A 1000	-	N	L	7	4	8	5	Links between L-3-6 not required
	ST799A 1003	-	N	L	7	4	6	3	Links between L-5-8 not required
Horstmann	Amethyst 7 & 10	-	2&3	1	4	6	5	7	
	Amethyst 423	E	2	1	4	6	5	7	Link between 2-3 not required
	Centaur Plus C121	E	N	L	1	2	3	4	Direct replacement
	Centaur Plus C21	E	N	L	1	2	3	4	Direct replacement
	Centaur Plus C27	E	N	L	1	2	3	4	Direct replacement
	Centaur Plus C127	E	N	L	1	2	3	4	Direct replacement
	Centaur Plus H21, Centaur Plus H27	-	N	L	3	6	1	4	Links between L-2-5 not required
	Centaur TC1/TC7	-	N	L	1	2	3	4	Direct replacement
	Channel Plus H121/ H21/ H27	E	N	L	3	6	1	4	Links between L-2-5 not required
	Coral 423/424	-	2	1	-	-	8	4	Links between 7-8 not required
	Diadem 425	E	N	L	3	6	1	4	Links between L-2-5 not required
	Diamond 423, Diamond 424	E	N	L	-	-	2	4	Links between L-1-3 not required term 5 spare if used keep wires together in separate block
	Tiara 425, 525	E	N	L	3	6	1	4	Links between L-2-5 not required
Landis & Gyr	RWB1	-	N	L	1	2	3	4	Direct replacement: Note if terminals 1 & 2 have been used these wires should be removed and placed in separate connectors
	RWB2	-	N	L	-	-	3	4	Direct replacement
	RWB20	-	-	L	1	2	3	4	Direct replacement, but check neutral connected and fit if required
	RWB40	-	N	L	1	2	3	4	Direct replacement
	RWB102	-	N	L	-	-	3	4	Direct replacement (Use 10 mode)
	RWB200, RWB252, RWB270, RWBXP	-	N	L	1	2	3	4	Direct replacement

RWB29 RWB2E RWB2001 RWB2007 Programmers

Manufacturer	Model(s)	Mains E	Mains N	Mains L	HW Off 1	HTG Off 2	HW On 3	HTG On 4	Wiring
Siemens	RWB29	E	N	L	1	2	3	4	-
	RWB2E	E	N	L	1	2	3	4	-
	RWB2001	E	N	L	1	2	3	4	-
	RWB2007	E	N	L	1	2	3	4	-
Myson	Microtimer Seven	-	N	L	7	4	6	3	
	MEP2C	-	N	L	1	2	3	4	Backplate will need replacing
Potterton	EP2000, EP2001, EP2002, EP3000, EP3001, EP3002 EP6000, EP6002	-	N	L	1	2	3	4	Link between L & 5 not required
	Miniminder, Miniminder E	-	N	L	1	2	3	4	Direct replacement
Sangamo	All Models								Contact Siemens helpline 0870 850 0184
Satchwell, Sunvic & Pegler	DHP2201	E	N	L	8	5	6	3	Links between L-4-7 not required
	ET1401, ET1451	-	N	L	8	5	7	4	Links between 2-3-6 not required
	Libra	E	N	L	8	5	6	3	Links between 2-4-7 not required
	MP2	E	N	L	HW OFF	-	HW ON	CH ON	
	Select 207, 207XL, Simplex	-	N	L	1	2	3	4	Direct replacement
	SP25, SP30	-	N	L	1	-	2	5	
	SP50, SP100	E	N	L	1	4	2	5	Link between L-3 not required
Smiths Industries	All Models								Contact Siemens helpline 0870 850 0184
Sopac	All Models								Contact Siemens helpline 0870 850 0184
Switchmaster	SM320, SM350	E	N&2	L	-	-	3	1	Link L-4 not required (RWB must be set to 10 mode)
	SM400, SM600	E	N	L	-	4	3	1	
	SM800, SM805, SM905	E	N	L	4	2	3	1	
	SM900, SM9000, SM9001	E	N	L	4	2	3	1	A,B,C spare terminals
Tower/Grasslin/ Towercron	2000, T2003, T2003Q	-	E	L	HW OFF	HTG OFF	HW ON	HW ON	
	T2002, T2002Q	-	E	L	-	-	HW ON	HTG ON	
	DP72	-	E	L	HW OFF	HTG OFF	HW ON	HW ON	Direct replacement
	FP	-	2	1	8	11	6	10	Links between 1-5-7 not required
	MP	-	2	1	-	-	6	10	3,7 & 8 spare terminals, links between 1 & 4 and 5 & 11 not required
	QE2	E	N	L	1	2	3	4	Direct replacement
Wickes	RWB2/6832	-	N	L	1	2	3	4	Direct replacement
	RWB200.cw	-	N	L	1	2	3	4	Direct replacement
	RWB252.cw	-	N	L	1	2	3	4	Direct replacement
	RWB2E.cw	-	N	L	1	2	3	4	Direct replacement
	RWB9.cw	-	N	L	1	2	3	4	Direct replacement

If the manufacturer or model of the programmer you are replacing is not listed above, please contact the Siemens helpline on 0870 850 0184.

RWB27 RWB30E RWB1001 RWB1007 Timeswitches

Manufacturer	Model(s)	Mains E	Mains N	Mains L	Spare 1	Common 2	Off 3	On 4	Wiring
Siemens	RWB27	E	N	L	1	2	3	4	-
	RWB30E	E	N	L	1	2	3	4	-
	RWB1001	E	N	L	1	2	3	4	-
	RWB1007	E	N	L	1	2	3	4	-
A.C.L. Drayton	LP111, LS111,	-	N	L	-	1	2	4	Replace link L-1 onto L-2 only if fitted
	Lifestyle, LP711 LS711	-	N	L	-	1	2	3	Replace link L-1 onto L-2 only if fitted
	Towercron TC	-	2	1	-	-	-	7	Replace link 4-6 onto L-2 only if fitted
	Tempus 1 & 2 (new models)	E	N	L	4	1	2	3	Replace link L-1 onto L-2 only if fitted
	Tempus 1 & 2 (old models)	-	N	L	4	1	3	2	Replace link L-1 onto L-2 only if fitted
	SM1	E	N	L	-	1	2	3	Replace link L-1 onto L-2 only if fitted
A.M.F. (Venner)	All models								Contact Siemens 0870 850 0184
Boss	RT7, RT24, BUT	E	N	L	-	2	3	4	Direct replacement
	RTF7	-	N	L	1	2	3	4	Direct replacement
Danfoss Randall	103, 103 E5, 103 E7	E	5	6	2	3	-	1	Replace link 6-3 onto L-2 only if fitted
	151	E	5	6	-	3	2	1	Replace link 6-3 onto L-2 only if fitted
	911, 971	E	N	L	-	5	4	6	Replace link L-5 onto L-2 only if fitted
	3001	E	N	L	-	5	2	4	Replace link L-5 onto L-2 only if fitted
	3020	E	1&7	6	-	-	-	4	Insert link L-2 on RWB backplate
	Set 1 , Set 1e, Set 4	E	N	L	-	5	6	4	Replace link L-5 onto L-2 only if fitted
	TS15, TS75	E	N	L	-	1	2	4	Replace link L-1 onto L-2 only if fitted
	TS715	-	N	L	3	1	2	4	Replace link L-1 onto L-2 only if fitted
	TS975	E	N	L	1:2:3	5	6	4	Replace link L-5 onto L-2 only if fitted
	TSR/2	E	2&3	L	-	-	-	5	Insert link L-2 on RWB backplate
Eberle	All models								Contact Siemens 0870 850 0184
Honeywell	ST6100A 1001, ST6100C 1009	-	N	L	-	1	2	4	Replace link L-1 onto L-2 only if fitted
	ST7000B 1001	E	N	L	-	-	2	3	Need to connect Neutral
Horstmann	517	E	N	L	-	5	6	4	Replace link L-1 onto L-2 only if fitted
	Centaur Plus C11, Centaur Plus C17	E	N	L	1	2	3	4	Replace link L-5 onto L-2 only if fitted
	Centaur Plus H11, Centaur Plus H17	E	N	L	-	5	6	4	Replace link L-5 onto L-2 only if fitted
	Centaur SC1, Centaur SC7	E	N	L	4	1	2	3	Replace link L-1 onto L-2 only if fitted
	Channel Plus H11, Channel Plus H17	E	N	L	1:2:3	5	6	4	Replace link L-5 onto L-2 only if fitted

RWB27 RWB30E RWB1001 RWB1007 Timeswitches

Manufacturer	Model(s)	E	Mains N	L	Spare 1	Common 2	Off 3	On 4	Wiring
Siemens	RWB27	E	N	L	1	2	3	4	-
	RWB30E	E	N	L	1	2	3	4	-
	RWB1001	E	N	L	1	2	3	4	-
	RWB1007	E	N	L	1	2	3	4	-
Landis & Gyr	RWB3	E	N	L	-	-	3	4	Insert link between L and 2
	RWB7, RWB30, RWB50, RWB100, RWB152, RWB170, RWBXT	E	N	L	-	2	3	4	Direct replacement
Myson	MEP1C	-	N	L	-	-	2	4	Replace link L-2 on RWB backplate
Potterton	EP4000, EP4001, EP 4002	E	N	L	ABCD	5	2	4	Replace link L-5 onto L-2 only if fitted
	EP5000, EP5001	-	N	L	-	5	2	4	Replace link L-5 onto L-2 only if fitted
	EP5002	E	N	L	ABCD	2	-	4	Replace link L-5 onto L-2 only if fitted
	Miniminder ES	E	N		-	2	3	4	Insert link L-2 on RWB backplate
Sangamo	All models								Contact Siemens 0870 850 0184
Smiths Industries	All models								Contact Siemens 0870 850 0184
Sopac	All models								Contact Siemens 0870 850 0184
Sunvic (Satchwell)	SP20	E	N	L	-	3	-	5	Replace link L-3 onto L-2 only if fitted
	SP35	E	N	L	-	3	4	5	Replace link L-3 onto L-2 only if fitted
	Select 107	-	N	L	-	1	2	3	Replace link L-1 onto L-2 only if fitted
Switchmaster	SM300	E	N	L	-	4	-	1	Replace link L-4 onto L-2 only if fitted
	SM950	E	N	L	ABC	-	2	1	Insert link L-2 on RWB backplate
	SM980	-	N	L	-	4	1	1	Replace link L-4 onto L-2 only if fitted
Tower/Grasslin/ Towercron	2000C, 2000CQ, T2001/2001Q	E	N	L	-	-	-	7	
	2001C, 2001CQ	-	N	L	-	4	-	7	
	DT71	-	N	L	-	3	2	4	Replace link L-3 onto L-2 only if fitted
	Towercron DP71	E	N	L	-	-	2	4	
	Towercron DT71	E	N	L	-	3	2	4	Replace link L-3 onto L-2 only if fitted
	Towercron TC	E	2	1	-	-	-	7	
	Towercron QE1	E	N	L	-	3	2	4	Replace link L-3 onto L-2 only if fitted
	Towercron QM1	E	N	L	-	3	2	4	Replace link L-3 onto L-2 only if fitted
Wickes	RWB7.cw	E	N	L	-	2	3	4	Direct replacement
	RWB152.cw	E	N	L		2	3	4	Direct replacement

If the manufacturer or model of the timeswitch you are replacing is not listed above, please contact the Siemens helpline on 0870 850 0184.

Room Thermostats

Manufacturer	Model	COM	DEM	SAT	L	N	E
Siemens	RAA20	L	Y1	Y2	-	-	-
ACL	TA350/1	1	3	-	-	-	-
	TS142	1	2	-	L	4	E
ACL Drayton	RTS1/2, RTS 3	L	3	-	-	N	_
	RTC	3	1	2	L	N	-
	RTE	4	1	2	3	-	-
	RTS4/6	1	3	2	L	N	
Boss Therm	BRT	1	2	3	-	-	E
Danfoss Randall	RMT230	1	2	3	-	N	-
Honeywell	T6360B	1	3	-	-	2	-
	T6160B	1	3	4	-	2	-
Horstmann	HRT2	1	2	-	-	4	-
Landis & Gyr	RAA02	1	2	3	-	-	E
	RAD1	1	2	3	-	-	E
	RAD2	1	2	-	-	N	E
	RAD5R6521	6	2	-	-	4	-
Myson	MRT1	1	3	2	-	4	-
Pegler (Terrier)	TRT	1	3	4	-	2	-
Potterton	PRT1, PRT100	L	H	-	-	N	-
Randall	RD3	1	2	-	-	4	-
Satchwell or Sunvic	TLM2206, TLM 2253	1	3	-	-	4	E
	TLX2259, TLX2284, TLX2357	3	1	-	-	4	E
	TLX2322, TLX2356	3	1	2	-	4	E
Sopac	TA350/351	1	3	-	-	-	E
Switchmaster	SRT2	1	3	-	-	-	5

If the manufacturer or model of the room thermostat you are replacing is not listed above, please contact the Siemens helpline on 0870 850 0184.

Cylinder Thermostats

Manufacturer	Model	COM	DEM	SAT	L	N	E
Siemens	RAM1	1	2	3	-	-	E
ACL Drayton	HTS3	C	1	2	-	-	-
Barlo	CT1	RED	BLK	YEL	-	-	-
Boss Therm	BCT	1	2	3	-	-	E
Danfoss Randall	CN4, ATC	1	2	3	-	-	E
Drayton	CS1	1	2	3	-	-	E
Drayton Pipe Stat	PTS1	1	2	4	-	-	E
Honeywell	L641A	C	1	2	-	-	-
Horstmann	HCT1	1	2	3	-	-	E
Landis & Gyr	RAM1 RAM2	1 RED	2 BLK	3 GREY	-	-	E
Potterton	PTT100	L	H	C	-	-	E
Satchwell/Sunvic	SA1452, 2451	3	1	2	-	-	E
Sopac	SAY	C	1	2	-	-	E
Switchmaster	SCT1	1	2	3	-	-	E

If the manufacturer or model of the cylinder thermostat you are replacing is not listed above, please contact the Siemens helpline on 0870 850 0184.

Programmable Room Thermostats

Daily programmable Thermostat Type	Model	COM	DEM	SAT	L	N	E
Siemens	REV13						
	REV12	L	L1	-	-	-	-
	REV11	L	L1	-	-	-	-
	REV10	Q1	Q2	-	-	-	-
	REV100 (Touch Screen)	L	L1	-	-	-	-
ACL Drayton	PT271	1	3	2	-	-	-
	Digistat 2/4	1	3	2	-	-	-
Danfoss Randall	TP2	1	3	2	-	-	-
	TP4	1	3	2	-	-	-
Honeywell	CM61	A	B	C	-	-	-
Horstmann	Centaurstat	1	2	3	-	-	-
Sunvic	TLX6501	1	2	3	-	-	-

5/2 day programmable Thermostat Type	Model	COM	DEM	SAT	L	N	E
Siemens	REV17						
	REV21	Q1	Q2	Q3	-	-	-
	REV22	L	L1	L2	-	-	-
	REV23	L	L1	L2	-	-	-
ACL Drayton	Digistat 3	1	3	2	-	-	-
ACL Lifestyle	CT171	1	3	2	-	-	-
Danfoss Randall	TP3	1	3	2	-	-	-
	TP5	1	3	2	-	-	-
	TP75	3	5	6	-	-	-
	TP5000	B	C	A	-	-	-
Horstmann	Centaurstat 7	1	2	3	-	-	-
Honeywell	CM67	A	B	C	-	-	-

7 day programmable Thermostat Type	Model	COM	DEM	SAT	L	N	E
Siemens	RDE10	Q11	Q14	Q12	L	N	-
	RDE10.1	Q11	Q14	Q12	-	-	-
	REV23	L	L1	L2	-	-	-
	REV23RF	LX	L1	L2	L	N	-
	REV200 (Touch Screen)	L	L1	L2	-	-	-
	REV24						
ACL Drayton	Digistat 3	1	3	2	-	-	-
	Digistat RF3	1	3	2	L	N	-
Danfoss Randall	TP75	3	5	6	-	-	-
	TP700	1	2	3	-	-	
	TP75RF	2	3	4	L	N	-
	TP7000RF	1	2	3	L	N	-
Honeywell	CM67	A	B	C	-	-	-
	CM67RF	A	B	C	L	N	-
Horstmann	Centaurstat 7	1	2	3	-	-	-

If the manufacturer or model of the programmable thermostat you are replacing is not listed above, please contact the Siemens helpline on 0870 850 0184.

Motorised Valves

3-Port Mid-Position 22mm and 28mm

Siemens/L&S MA-V322
Honeywell V4073A
Danfoss DMV3M
Drayton Flowshare
Tower MP3
ACL 679H340

orange	HOT WATER ON	orange
grey	HOT WATER OFF	grey
white or brown	HEATING ON	white
blue	NEUTRAL	blue
green/yellow	EARTH	green/yellow

Flowminder CMV322, CMV328

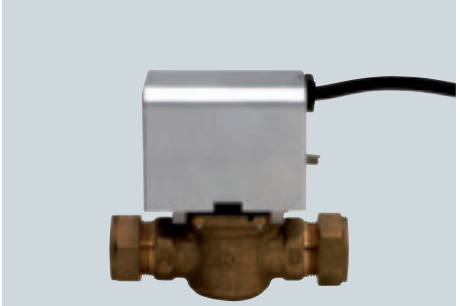
Landis & Gyr SK3
Sunvic SD1701
Potterton PMV3
Randall HSA3

orange	HOT WATER ON	orange
grey	HOT WATER OFF	grey
brown	HEATING ON	white
blue	NEUTRAL	blue
	EARTH	green/yellow

2-Port Zone 22mm and 28mm

Honeywell V4043H
Danfoss DMV2C
Tower MV2
ACL 6799H308
Landis & Gyr ZA-V222

grey	PERMANENT LIVE	grey
orange	SWITCHED LIVE	orange
brown	MOTOR OPEN	brown
blue	NEUTRAL	blue
green/yellow	EARTH	green/yellow



Zoneminder CZV222, CZV228

Landis & Gyr SK2
Sunvic SZ1326
Potterton PVM2
Randall HP2
ACL 679H308

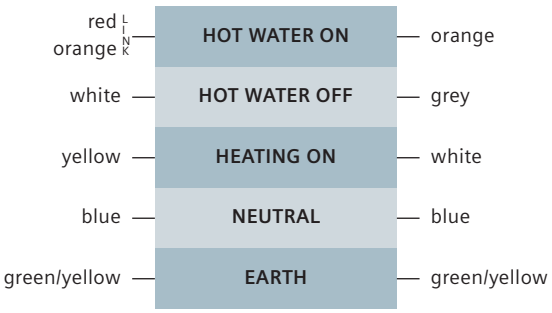
grey	PERMANENT LIVE	grey
orange	SWITCHED LIVE	orange
brown	MOTOR OPEN	brown
blue	NEUTRAL	blue
	EARTH	green/yellow

In the event of motor failure all products can be replaced without drain down using DVA actuators (see next page)

Motorised Valves

3-Port Mid-Position 22mm and 28mm

Switchmaster VB1



Flowminder CMV322, CMV328

Switchmaster valve is not sprung return hence the extra wire (orange) to move the paddle into the hot water ON position.
Insert link on junction box between red and orange of old valve and wire orange to orange.

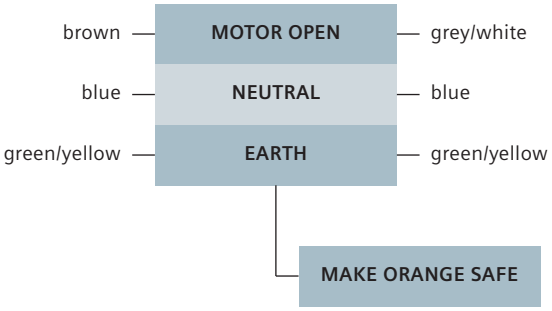
Diverter Valve

Siemens DAV322

Honeywell V4044C

ACL 679H314

Danfoss DMV3D



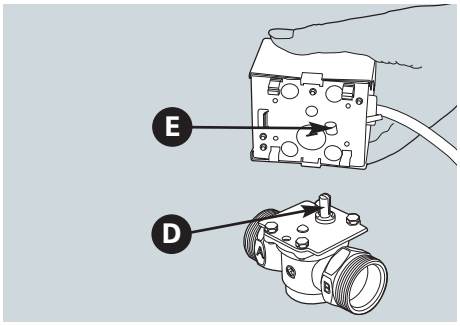
Flowminder CMV322, CMV328

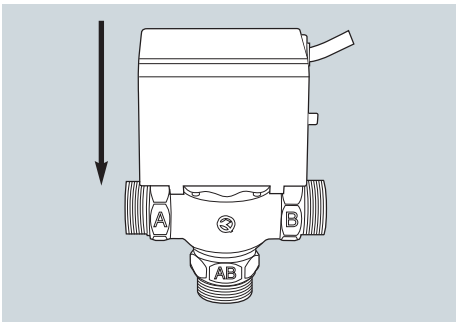
To replace a diverter valve with a mid-position valve, replace old brown wire with grey and white together and make the orange safe.

Replacing demountable actuators

Removing actuator
First isolate from electrical mains supply, disconnect cable from junction box taking note of position and colour of wires and replace with new actuator cable (it may be advisable to replace wire for wire to ensure accuracy) pull actuator from brass body.

Attaching valve actuator
Engage drive shaft D with actuator E and push down firmly until spring clips engage fully with valve body. When all work has been carried out reconnect electrical supply.

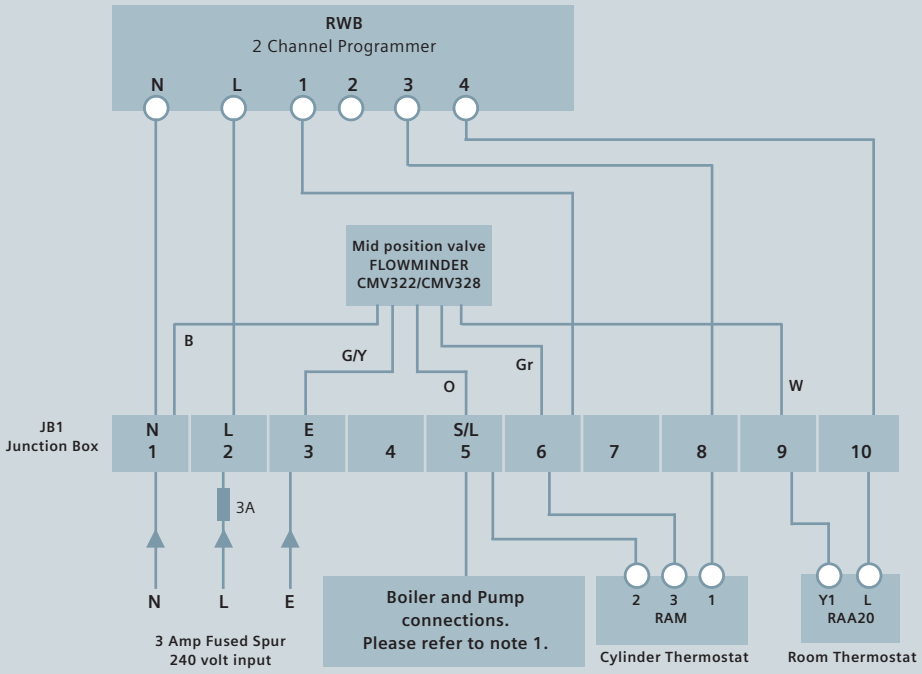


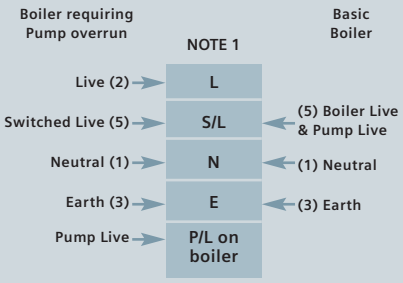


Mid-Position system, fully pumped

Mid-Position Fully Pumped system for boilers with or without pump overrun

For systems up to 8 radiators.
Time and temperature control of Central Heating and Hot Water.
Selector to 16 programmers.
Possible to have Central Heating only, Hot Water only or both together.



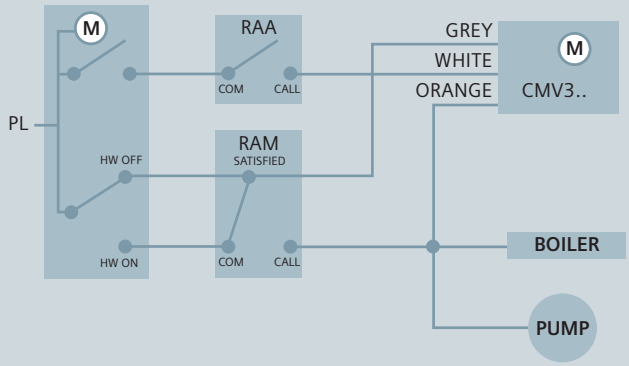


RWB Terminal Configuration
1. Off - Hot Water
2. Off - Central Heating
3. On - Hot Water
4. On - Central Heating

Flowminder Colour Codes
G/Y = Green/Yellow
B = Blue
O = Orange
Gr = Grey
W = White

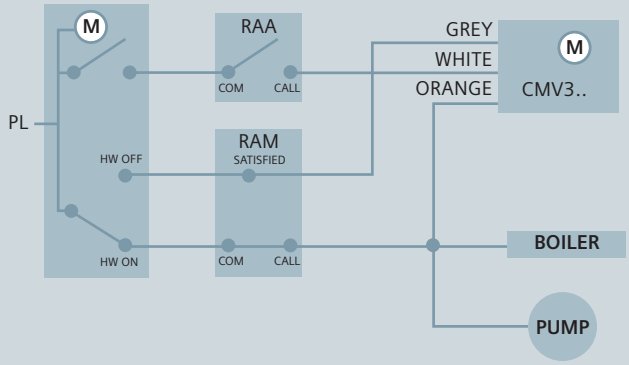
Time and temperature control of Central Heating and Hot Water.
Possible to have Central Heating only, Hot Water only or both together.

Three Port Valve System CMV32



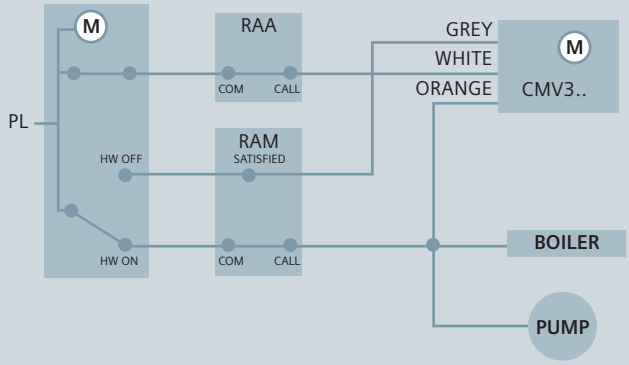
NO DEMAND

Only Grey of motorised valve is live.



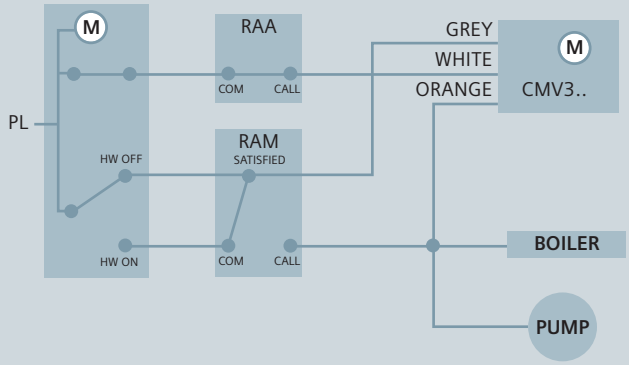
HOT WATER ONLY DEMAND

Cylinder thermostat fires boiler, default of valve is to allow flow to hot water.



HOT WATER AND CENTRAL HEATING DEMAND

Motorised valve is moved to mid-position via White of motorised valve, cylinder thermostat continues to fire boiler.



CENTRAL HEATING ONLY DEMAND

Power to Grey and White wires of motorised valve moves valve over to central heating only and Orange becomes live to continue firing of boiler.

Mid-Position system fault finding

The fault finding table enables quick electrical checks to be carried out on installed Mid-Position systems. It will help in commissioning and pinpointing the source of any electrical problems. Only suspect faulty components after you have checked the wiring and you are satisfied that the wiring is correct.

Fault Finding Identification

Programmer
Check links are in place (where relevant). Check mains supply to terminal L.

Suspect programmer
a. After you have checked that the switching times are correctly set (refer to user manual), and the programmer time is set within a switching period.
b. If live does not appear at JB terminal 8 when HW only is selected ON, ONCE or ALL DAY
c. If live does not appear at JB terminal 10 when CH only is selected ON, ONCE or ALL DAY.

To carry out the following checks set programmer HW and CH to 24h, ON or CONTINUOUS.

RAM1 Cylinder Thermostat
Check wiring against relevant wiring diagram, disconnect mains supply, remove wire from terminals 2 and 3 and make safe separately. Re-connect supply. Check mains supply is live to terminal 1.

Suspect RAM1
a. If terminal 2 is not live when calling for heat turn thermostat to maximum.
b. If terminal 3 is not live when satisfied turn thermostat to minimum.

Room Thermostat
Check wiring against relevant wiring diagram, disconnect mains supply, remove wire from terminal Y1 and make safe, reconnect supply. Check mains supply to terminal L.

Suspect RAA20
a. If terminal Y1 is not live when calling for heat turn thermostat to maximum.
b. If terminal Y2 is not live when satisfied turn thermostat to minimum.

CMV3.. Mid-Position Valve
Suspect valve if, in any of the following checks the valve does not operate as described. Switch programmer to ON position.

Check A Heating Only
Disconnect mains supply. Disconnect Grey and White wires from JB terminals 6 & 9. Connect Grey and White wires to JB terminal 2.

Reconnect mains supply, valve should open to port A. The boiler and pump will fire and the pipe from port A will get progressively warmer.

Check B Hot Water Only
Disconnect mains supply. Valve will return to open port B and close port A. Disconnect White wire and make safe ie. use spare JB terminal 7. Connect boiler and pump wire from JB terminal 5 to JB terminal 2. Switch on mains supply. The boiler and pump will fire and the pipe from port B will get progressively warmer.

Check C Heating and Hot Water
Disconnect mains supply. Remove Grey wire from JB terminal 2 and make safe. Connect White wire to JB terminal 2. Switch on mains supply.

The valve will motor to the mid-position and stop. Both ports A & B are open. The boiler and pump will fire and the pipes from ports A & B will get progressively warmer.

Disconnect mains supply. Reconnect White wire to JB terminal 9, Grey wire to JB terminal 6 and the boiler and pump live to JB terminal 5.

Mid-Position system fault finding table

System component	Programmer setting central heating only ON	Hot water only ON	Central heating and hot water ON
Programmer RWB2/9/20/29/ 40/200/252/270	Live on terminals L, 1 & 4 and junction box terminal 10. (see note 7).	Live on terminals L, 2 & 3 and junction box terminal 8 (see note 7).	Live on terminals L, 3 & 4 and junction box terminals 8 & 10
RAM1 Cylinder Thermostat	Live on terminals 2 & 3. Terminal 2 only live when valve opens and boiler fires. Live also on junction box terminals 5 & 6.	Turn set temperature up to call for Hot Water. Live on terminals 1 & 2 and junction box terminals 5 & 8 (see notes 2 & 6).	Turn set temperature up to call for Hot Water. Live on terminals 1 & 2 and junction box terminals 5 & 8 (see notes 2 & 6).
RAA20 Room Thermostat	Turn set temperature up to call for heating. Live on terminals L & Y1 and junction box terminals 9 & 10. (see notes 2 & 5).	Turn set temperature up to call for heating. No live terminals. For junction box terminals (see notes 2 & 5).	Turn set temperature up to call for heating. Live on terminals L & Y1 and junction box terminals 9 & 10.
CMV3.. Mid-Position Valve	Live on White, Grey & Orange wires. Valve opens port A only. Junction box terminals 5, 6, 9 & 10 live (see note 5).	Live on Orange. Valve opens port B only. Junction box terminal 5 live (see notes 2 & 6).	Live on White & Orange wires. Valves move to mid-position. Junction box terminals 5 & 9 live (see notes 2, 5 & 6).
Boiler & Pump	Boiler & Pump fired from Orange wire. Live on junction box terminal 5.	Boiler & Pump fired from Orange wire. Live on junction box terminal 5.	Boiler & Pump fired from Orange wire. Live on junction box terminal 5.
Mains Input	Live on junction box terminal 2.	Live on junction box terminal 2.	Live on junction box terminal 2.

'Live' when referred to above means 240V AC.

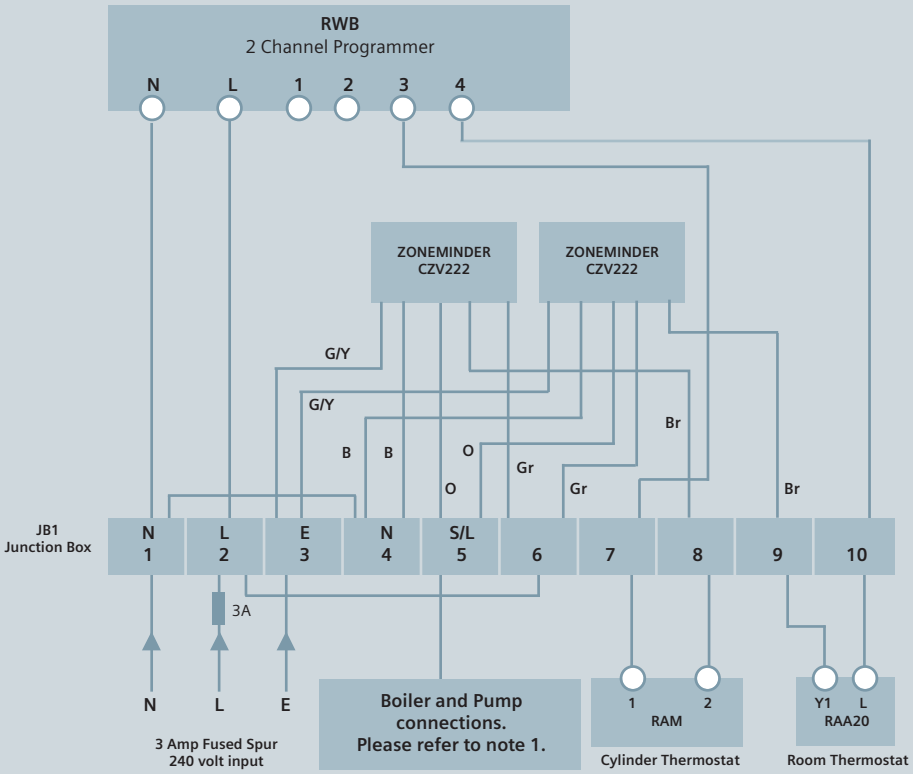
Notes

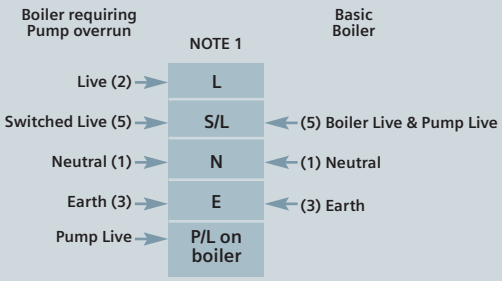
1. Checks to be conducted by a qualified electrician.
2. Low AC voltage may appear on certain wires or terminals due to back feed from CMV3.. valve. If in doubt switch off supply, disconnect Grey or White wire as appropriate, switch on supply and check again. Alternatively check with a meter with low voltage capacity.
3. Terminals marked E on RAM must be connected to earth, JB terminal 3.
4. Blue wire on CMV3.. must be connected to JB terminal 4 permanent neutral.
5. For this condition the room thermostat RAA.. must be turned up to call for heat.
6. For this condition the cylinder thermostat RAM1 must be turned up to call for heat.
7. If RAM1 cylinder thermostat is satisfied then terminal 1 on programmer RWB will be live.
8. Please ensure all Earths are connected where applicable.

Zone Control system

Zone Control system for boilers with or without pump overrun

Increased flexibility over mid-position system.
Able to have several CH and HW controlled independently.



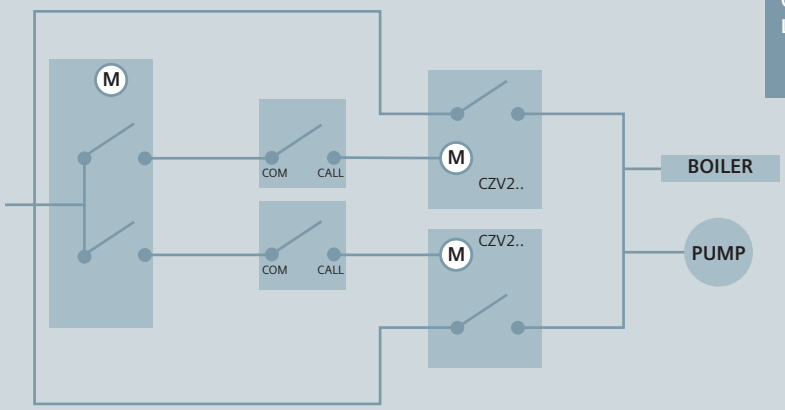


RWB Terminal Configuration
1. Off - Hot Water
2. Off - Central Heating
3. On - Hot Water
4. On - Central Heating

Zoneminder Colour Codes
G/Y = Green/Yellow
B = Blue
O = Orange
Gr = Grey
Br = Brown

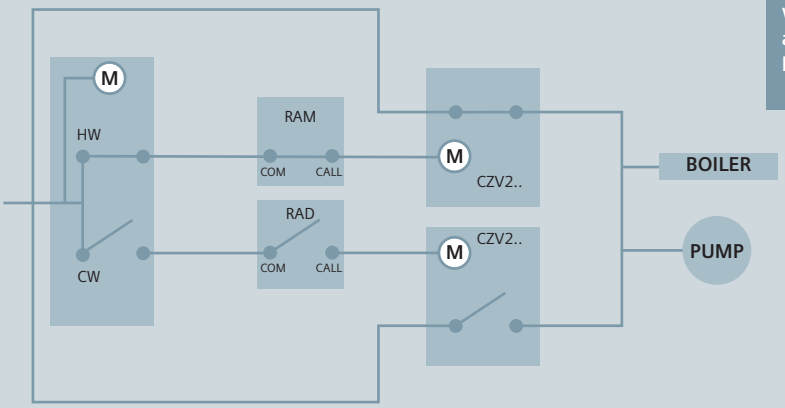
Time and temperature control of Central Heating and Hot Water.
Possible to have Central Heating only, Hot Water only or both together.

Two Port Valve System CZV22



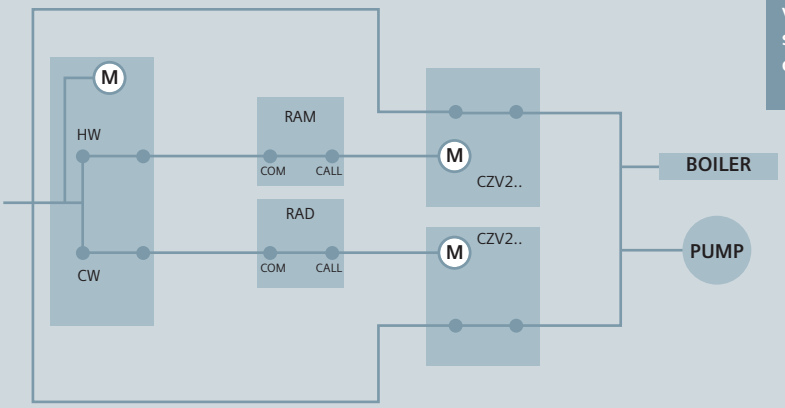
NO DEMAND

Only Grey of motorised valve is live (Permanent Live).



HOT WATER ONLY DEMAND

Cylinder thermostat drives valve open via Brown wire of motorised valve, micro switch is activated allowing Grey to switch out on Orange and fire boiler.



HOT WATER AND CENTRAL HEATING DEMAND

Cylinder and room thermostats drive valves open via Brown wire of motorised valve, micro switches are activated allowing Grey to switch out on Orange and fire boiler.

Zone Control system fault finding

The fault finding table enables quick electrical checks to be carried out on installed Zone Control systems. It will help in commissioning and pinpointing the source of any electrical problems.

Only suspect faulty components after you have checked the wiring and you are satisfied that the wiring is correct.

Fault Finding Identification

Programmer
Check links are in place (where relevant). Check mains supply to terminal L.

Suspect programmer
a. After you have checked that the switching times are correctly set (refer to user manual), and the programmer time is set within a switching period.
b. If live does not appear at JB terminal 7 when HW only is selected ON, ONCE or ALL.DAY
c. If live does not appear at JB terminal 10 when CH only is selected ON, ONCE or ALL DAY.

To carry out the following checks set programmer HW and CH to 24h, ON or CONTINUOUS.

RAM1 Cylinder Thermostat
Check wiring against relevant wiring diagram, disconnect mains supply, remove wire from terminal 2. Re-connect supply. Check mains supply is live to terminal 1.

Suspect RAM1
a. If terminal 2 is not live when calling for heat turn thermostat to maximum.
b. If terminal 3 is not live when satisfied turn thermostat to minimum.

RAA20 Room Thermostat
Check wiring against relevant wiring diagram. Disconnect mains supply, remove wire from terminal Y1. Reconnect supply. Check mains supply is live to terminal L.

Suspect RAA20
a. If terminal Y1 is not live when calling for heat turn thermostat to maximum.
b. If terminal Y2 is not live when satisfied turn thermostat to minimum.

CZV2.. Zone Valve
This fault finding applies to either Heating or Hot Water Zone valves. Check that there are no faults on either of the thermostats. Suspect the valve is faulty only:

1. If the motor fails to run when the relevant thermostat is turned to maximum. The motor is held in this position until the thermostat is satisfied. Turn the thermostat to minimum and the valve will close under spring return.

2. If the Orange wire does not become live when the actuator is fully opened (the Grey wire should be connected to a permanent live. See note 2).

3. Any auxiliary equipment connected to the valve ie, boiler/pump, continues to operate when the cylinder thermostat and/or room thermostat is satisfied, or the programmer is in the OFF position.

Zone Control system fault finding table

System component	Programmer setting central heating only ON	Hot water only ON	Central heating and hot water ON
Programmer	Live on both terminals L & 4 and junction box terminal 10.	Live on both terminals L & 3 and junction box terminal 7.	Live on both terminals L, 3 & 4 and junction box terminals 7 & 10.
RAM1 Cylinder Thermostat	No live terminals on cylinder thermostat.	Turn set temperature up to call for Hot Water. Live on terminals 1 & 2 and junction box terminals 7 & 8.	Turn set temperature up to call for Hot Water. Live on terminals 1 & 2 and junction box terminals 7 & 8.
RAA20 Room Thermostat	Turn set temperature up to call for heating. Live on terminals L & Y1 and junction box terminals 9 & 10.	No live terminals on room thermostat.	Turn set temperature up to call for heating. Live on terminals L & Y1 and junction box terminals 9 & 10.
CZV2.. Heating Valve	Live on Brown, Orange & Grey wires and junction box terminals 5, 6 & 9.	Live on Orange & Grey wires & junction box terminals 5 & 6 (see note 5).	Live on Brown, Orange & Grey wires and junction box terminals 5, 6 & 9.
CZV2.. Hot Water Valve	Live on Orange & Grey wires & junction box terminals 5 & 6 (see note 5).	Live on Brown, Orange & Grey wires and junction box terminals 5,6 & 8.	Live on Brown, Orange & Grey wires and junction box terminals 5, 6 & 8.
Boiler & Pump	Boiler & Pump fired from Orange wire. Live on junction box terminal 5.	Boiler & Pump fired from Orange wire. Live on junction box terminal 5.	Boiler & Pump fired from Orange wire. Live on junction box terminal 5.
Mains Input	Live on junction box terminals 2 & 6.	Live on junction box terminal 2 & 6.	Live on junction box terminals 2 & 6.

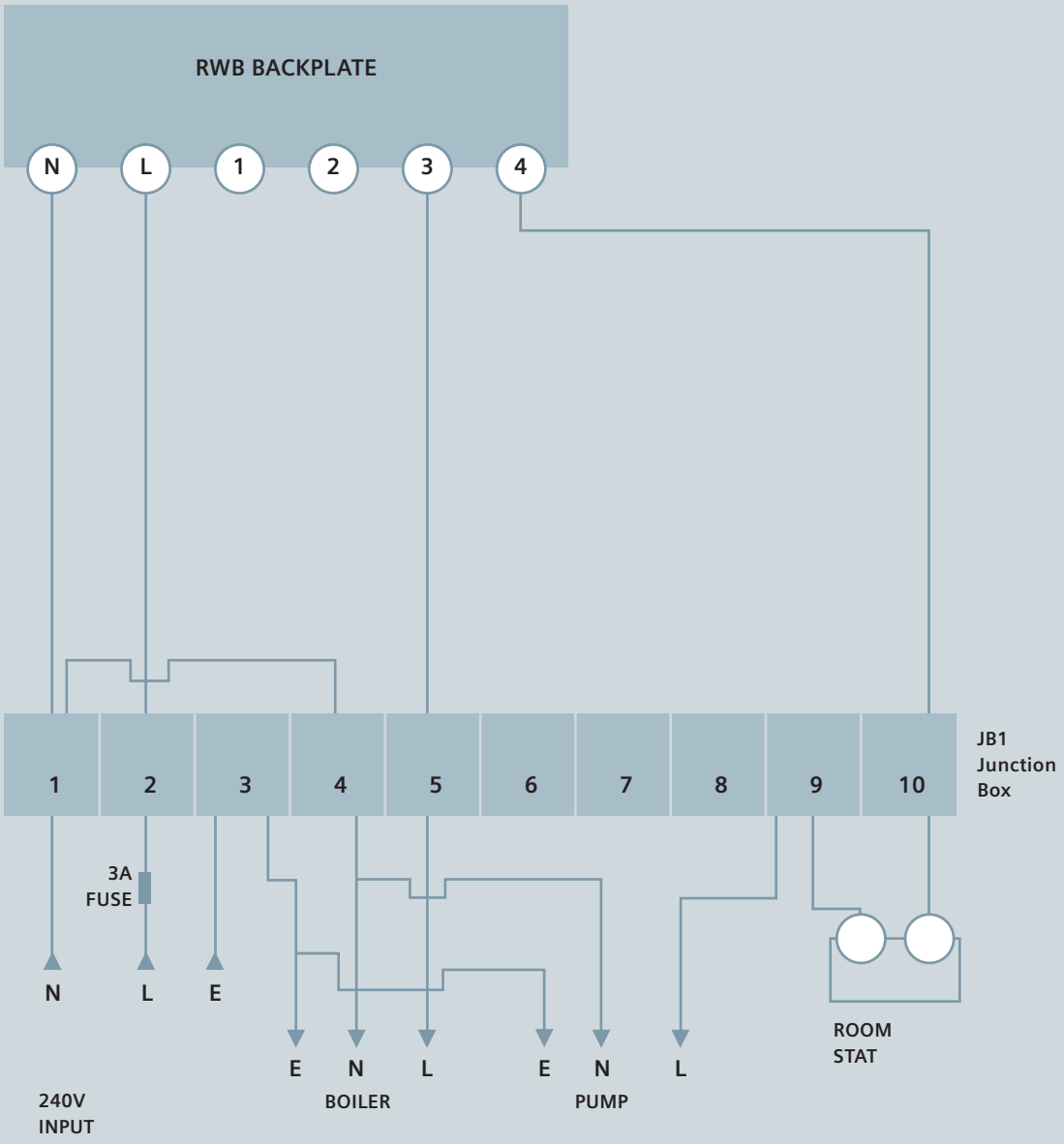
'Live' when referred to above means 240V AC.

Notes

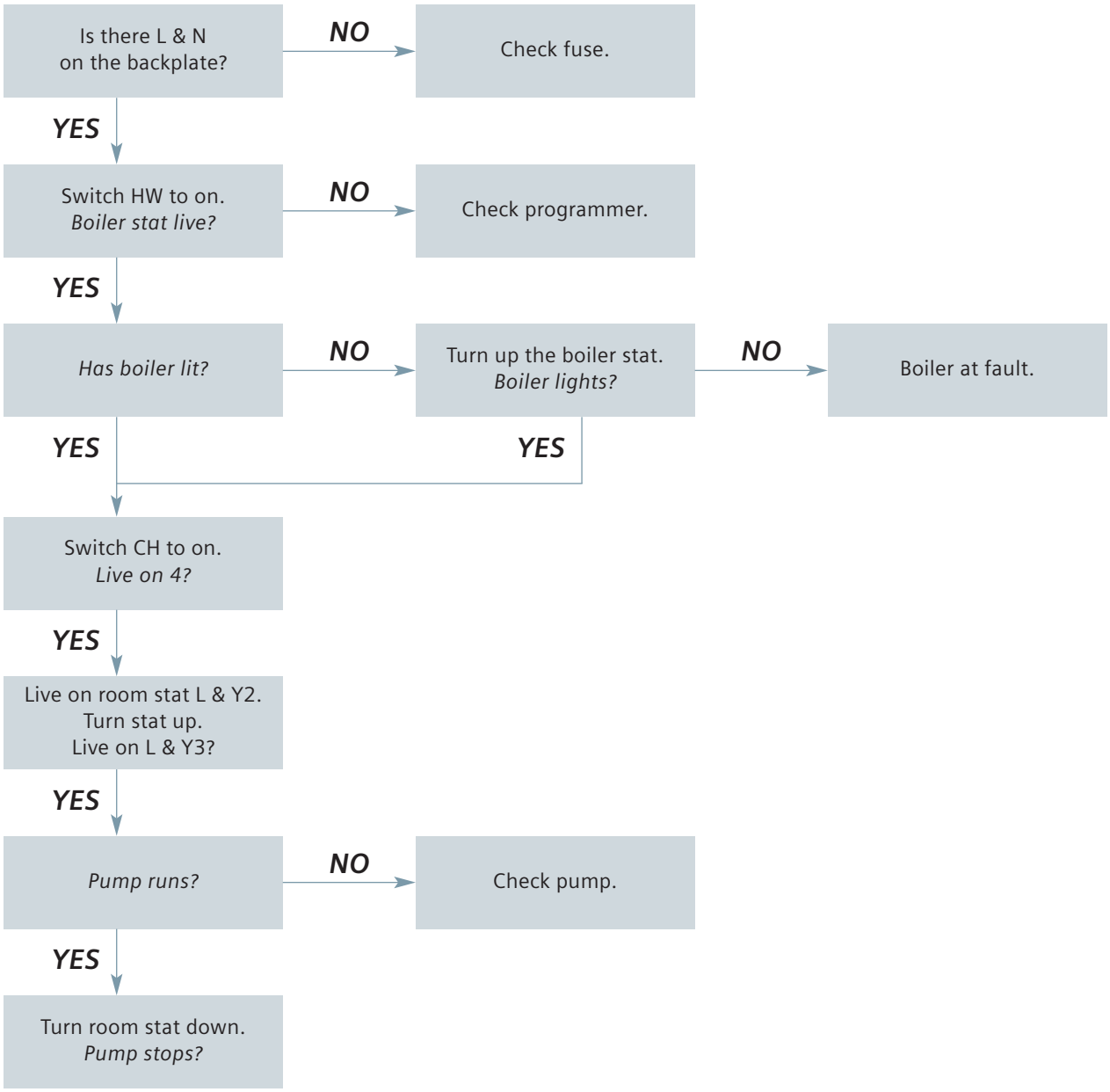
1. Checks to be conducted by a qualified electrician.
2. Grey wire on both heating and hot water valves must be connected to a permanent live – JB terminal 6. Insert lin from terminal 2 to terminal 6.
3. Blue wire on both heating and hot water valves must be connected to a permanent neutral – JB terminal 4.
4. Terminals marked E on RAM must be connected to earth – JB terminal 3.
5. Orange wire only becomes live when other 2 port valve has opened.
6. Please ensure all Earths are connected where applicable.

Gravity hot water, pumped central heating system

Basic system, gravity fed HW.
Move selector to 10 programmes.
Cheap installation but inefficient.
No control of HW other than boiler thermostat.
Room thermostat controls pump switching.



Gravity system fault finding



Gravity system fault finding table

System component	Programmer setting Hot water only ON	Central heating and hot water ON
Programmer	Live on terminal L & 3 and junction box terminal 5.	Live on terminals L, 3 & 4 and junction box terminals 5 & 10.
RAA20 Room Thermostat	No live terminals on room thermostat.	Turn set temperature up to call for heating. Live on terminals L & Y1 and junction box terminals 5, 9 & 10 (see note).
Boiler	Live on junction box terminal 5.	Live on junction box terminal 5.
Pump		Live on junction box terminal 9.

'Live' when referred to above means 240V AC.

Timeswitches for combi-boilers

	RWB Time switches terminals						
Manufacturer	**Model(s)**	**Mains**	**Mains**	**Not used**	**Common**	**Off**	**On**
Siemens	RWB27	N	L	1	2	3	4
	RWB30E	N	L	1	2	3	4
	RWB1001	N	L	1	2	3	4
	RWB1007	N	L	1	2	3	4
	Boiler terminals				* These two terminals are number as below by the boiler manufacturer		
Manufacturer	**Model(s)**	**Mains**	**Mains**	**Not used**	**Common***	**Off**	**On***
Baxi	Maxflow FS	N	L		1		2
	Maxflow WM	N	L		1		2
Glow-worm	XTRAFAST 96	N	L		*E		*E
	XTRAFAST 120	N	L		*E		*E
	XTTRAMAX 24Ci, 30Ci, 35Ci, 24Cxi, 30Cxi, 38Cxi, 18Si, 30Si (NOTE REMOVE LINK E-E)	N	L		*E		*E
Halstead	ACE, ACE HIGH FINEST, PLATINUM	N	L		L1		L3
Ideal	C80, 95FF	N	L		R1		R2
	RESPONSE 80,100,120	N	L		R1		R"
Potterton	PERFORMANCE RANGE	N	L		1		2
Saunier Duval	Clasic Range (remove Link *-*)	N	L		*		*
Vaillant		N	L		3		4
Ferroli	Optimax 255, 25C, 240V	N	L		4		5
	F23, F24	N	L		3		4
Worcester	24, 24i Junior	N	L		LS		LR
	Cdi 24, 28, Si, R25HE, R30HE	N	L		LS		LR

If boiler you are using is not shown above please refer to the manufacturers instructions

Programmable thermostats for combi-boilers

	Connection terminals			
Manufacturer	**Model(s)**	**Common**	**Off**	**On**
Siemens	REV13	L		L1
	REV17	L		L1
	REV24	L		L1
	REV100	L		L1
	REV200	L		L1
	RDJ10	Lx		L1
	RDD10.1	Q11		Q14
	Boiler terminals	* These two terminals are number as below by the boiler manufacturer		
Manufacturer	**Model(s)**	**Common***	**Off**	**On***
Baxi	Maxflow FS	1		2
	Maxflow WM	1		2
Glow-worm	XTRAFAST 96	*E		*E
	XTRAFAST 120	*E		*E
	XTTRAMAX 24Ci, 30Ci, 35Ci, 24Cxi, 30Cxi, 38Cxi, 18Si, 30Si (NOTE REMOVE LINK E-E)	*E		*E
Halstead	ACE, ACE HIGH FINEST, PLATINUM	L1		L3
Ideal	C80, 95FF	R1		R2
	RESPONSE 80,100,120	R1		R"
Potterton	PERFORMANCE RANGE	1		2
Saunier Duval	Clasic Range (remove Link *-*)	*		*
Vaillant		3		4
Ferroli	Optimax 255, 25C, 240V	4		5
	F23, F24	3		4
Worcester	24, 24i Junior	LS		LR
	Cdi 24, 28, Si, R25HE, R30HE	LS		LR

If boiler you are using is not shown above please refer to the manufacturers instructions

Thermostats terminal numbering

Type	Model	COM	DEM	SAT	L	N	E
Standard	RAA02.1N	1	2	3	-	-	E
	RAA02.16N (Neon)	1	2	3	-	6	E
	RAA10 (Tamperproof)	L	Y1	Y2	-	-	-
	RAA20	L	Y1	Y2	-	-	-
	RAD1F (Frost)	1	2	3	-	-	E
Digital Display	RDD10 (Mains operated)	Q11	Q14	Q12	L	N	-
	RDD10.1 (Battery operated)	Q11	Q14	Q12	-	-	-
Programmable Analog	RAV11 (Battery operated)	L	L1	L2	-	-	-
Programmable Digital	REV12	L	L1	-	-	-	-
	REV22	L	L1	L2	-	-	-
	REV23	L	L1	L2	-	-	-
	REV23RF	LX	L1	L2	L	N	-
	REV100 (Touch Screen)	L	L1	-	-	-	-
	REV200 (Touch Screen)	L	L1	L2	-	-	-
	RDE10 (mains operated)	Q11	Q14	Q12	L	N	-
	RDE10.1 (Battery operated)	Q11	Q14	Q12	-	-	-
	RDE20.1 (Battery operated	Q11	Q14	Q12	-	-	-
Daily Programmable	REV13	L	L1	L2	-	-	-
	RDJ10	LX	L1	L2	-	-	-
	RDJ10RF	LX	L1	L2	-	-	-
5/2 Programmable	REV17	L	L1	L2	-	-	-
5/2 Programmable	REV24	L	L1	L2	-	-	-
	REV24RF	LX	L1	L2	-	-	-
Digital	RDH10	LX	L1	L2	-	-	-

Siemens Heating Controls
Electrium Sales Limited
Commercial Centre
Lakeside Plaza
Walkmill Lane
Bridgtown
Cannock
Staffordshire
WS11 0XE
Tel: 01543 455000
Fax: 01543 455033
Helpline: 0870 850 0184
email: sales.uk.sbt@siemens.com

www.siemens.com