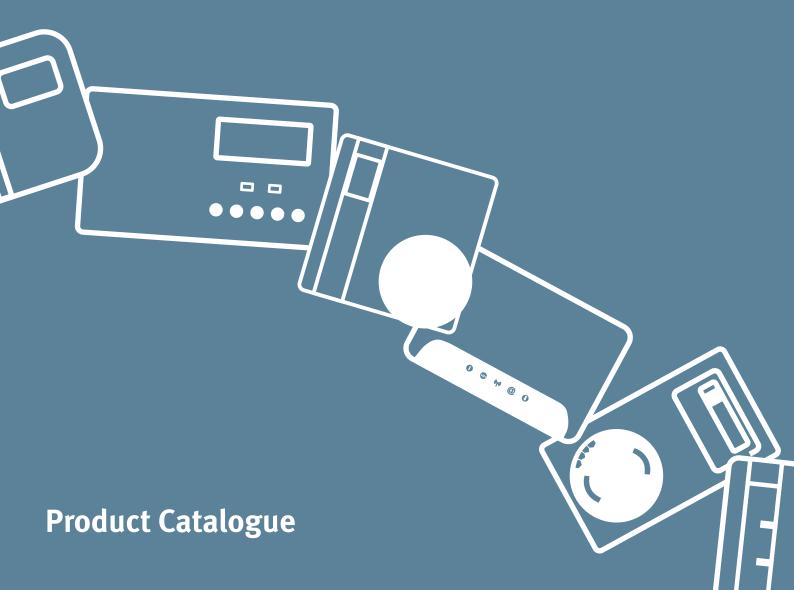
# HORSTMANN



## Horstmann, advanced simplicity

Control, it's what we're good at and in domestic central heating and hot water installations that means more accurate control of time and temperature all around the system.

Sometimes the solution needs to be simple, like a room stat and timer installation or it can be more sophisticated requiring 3 or 4 channel electronic programmers which can independently handle hot water and separate heating zones.

Our latest electronic room thermostats are clever too. Their latest thermostat technology is proven to save up to 10% in energy costs\* by increasing the efficiency of the boiler firing regime.

Wireless, mains or battery versions of our controls are available across the Horstmann range. Well worth checking out.

Horstmann... Together, we're in control.

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# C-Stat 11-ZW and 17-ZW

# Wireless Z Wave programmable room thermostat with mains powered receiver



Programmable room thermostats are widely recognised as one of the best ways in which to control central heating. Our C-Stat programmable room thermostats have a large display and intuitive user interface, making them easy to set up and use. C-Stat uses a sophisticated time proportional integral (TPI) algorithm for accurate temperature control and energy efficiency. The latest Z Wave wireless technology is employed for superior reliability

C-Stat is the ideal control for combi boilers, extra heating zones or for retro fitting into an existing system with no room stat.

#### **Features**

- Battery powered wireless room thermostat
- Mains powered receiver voltage free contacts
- Choice of 24 hour or 7 day versions
- Up to six target temperature settings per day
- Menu driven programming via large back-lit display, with prompts to aid the user
- Automatic daylight saving time adjustment
- Target temperature and actual room temperature indication
- Temporary temperature override
- Holiday programme
- Tamperproof security code
- Optional optimum start facility
- Temperature settings 5°c to 30°c





### C-Stat 11-ZW and 17-ZW

- · Reduced energy costs
- No additional wiring when installing the Z Wave wireless version in existing installations
- No disruption to decor
- Reliable Z Wave wireless connection
- Battery and Mains versions are also available in this range

## **Specification**

#### **Thermostat**

POWER SUPPLY 2 x AA Batteries
CONTACT TYPE Micro-disconnection
WIRING CONFIGURATION Voltage free c/o
contacts (SPDT)

TTACT VOLTAGE RATING 230V AC 50Hz (30V

d

0.5°C

TEMPERATURE

DIFFERENTIAL
TEMPERATURE ACCURACY

TEMPERATURE ACCURACY +/- 0.5°c at 21°c

DESIGN STANDARDS BS EN 60730-2-9

DIMENSIONS 100 x 120 x 26.5mm

ENCLOSURE Flame retardant thermoplastic

ENCLOSURE PROTECTION IP30

POLLUTION DEGREE Degree 2

INSULATION CLASS Double insulated

OPERATING TEMPERATURE

RANGE 0° C to 40 ° C
CLOCK 12 / 24 Hour with

Automatic BST / GMT adjustment

SETTINGS PER DAY 6 target temperature

settings per day

TRANSMITTER FREQUENCY 868 MHz
RECIEVER CATEGORY Category 3
POWER CLASS Class B

#### Receiver

POWER SUPPLY 230V AC 50Hz
CONTACT TYPE Micro-disconnection,

Voltage Free Contact 3 (1) Amps 230V AC

OPERATING TEMPERATURE

VOLTAGE RATING

OPERATING TEMPERATURE

INSULATION CLASS
RATED IMPULSE VOLTAGE
POLUTION DEGREE
ENCLOSURE PROTECTION

Degree 2
ON Flame retardant thermoplastic

o °C to 40 °c

Double insulated

DIMENSIONS 86 x 86 x 36.25mm
MOUNTING 6 terminal plug in

wall plate



# **C-Stat 11-B and 17-B**

### Battery powered programmable room thermostat



Programmable room thermostats are widely recognised as one of the best ways in which to control central heating. Our C-Stat programmable room thermostats have a large display and intuitive user interface, making them easy to set up and use. C-Stat uses a sophisticated time proportional integral (TPI) algorithm for accurate temperature control and energy efficiency. Being battery powered, these models are suitable for replacing most existing room thermostats.

C-Stat is ideal for combi boilers, extra heating zones or upgrading older inefficient room thermostats.

#### **Features**

- Voltage free contacts
- Choice of 24 hour or 7 day versions
- Up to six target temperature settings per day
- Temperature Settings 5°c to 30°c
- Menu driven programming via large back-lit display, with prompts to aid the user
- Automatic daylight saving time adjustment
- Target temperature and actual room temperature indication
- Temporary temperature override
- Holiday programme
- Optional high and low temperature limits
- Tamperproof security code
- Optional optimum start facility



## C-Stat 11-B and 17-B

- · Reduced energy costs
- Minimal boiler cycling and reduced flow temperatures through use of sophisticated TPI control algorithms
- Runs on 2 standard AA type batteries
- No need for additional wiring when replacing an existing thermostat
- Frost protection setting

Wireless and Mains versions are also available in this range

# **Specification**

POWER SUPPLY 2
CONTACT TYPE M
WIRING CONFIGURATION V

2 x AA Batteries Micro-disconnection Voltage free c/o contacts (SPDT) 230V AC 50Hz (30V

CONTACT VOLTAGE RATING

dc)

CONTACT CURRENT RATING TEMPERATURE

8A (1A inductive)

DIFFERENTIAL
TEMPERATURE ACCURACY
DESIGN STANDARDS
DIMENSIONS

0.5°c +/- 0.5°c at 21°c BS EN 60730-2-9 100 x 120 x 26.5mm

ENCLOSURE

Flame retardant thermoplastic

ENCLOSURE PROTECTION
POLLUTION DEGREE
INSULATION CLASS
OPERATING TEMPERATURE

IP30 Degree 2 Double insulated

ANGE

o °C to 40 °C 12 / 24 Hour with

12 / 24 Hour with Automatic BST / G

adjustment

SETTINGS PER DAY

6 target temperature

IOUNTING

settings per day 6 terminal plug in

wall plate



# C-Stat 11-M and 17-M

## Mains powered programmable room thermostat



Programmable room thermostats are widely recognised as one of the best ways in which to control central heating. Our C-Stat programmable room thermostats have a large display and intuitive user interface, making them easy to set up and use. C-Stat uses a sophisticated time proportional integral (TPI) algorithm for accurate temperature control and energy efficiency. Being mains powered these models won't need the batteries changing every two years.

C-Stat –M is ideal for control of combi boilers or extra heating zones where no thermostat has been fitted previously.

#### **Features**

- Voltage free contacts
- Choice of 24 hour or 7 day versions
- Up to six target temperature settings per day
- Menu driven programming via large back-lit display, with prompts to aid the user
- · Automatic daylight saving time adjustment
- Target temperature and actual room temperature indication
- Temporary temperature override
- Holiday programme
- Tamperproof security code
- Optional optimum start facility
- Battery Reserve



## C-Stat 11-M and 17-M

- Reduced energy costs
- Minimal boiler cycling and reduced flow temperatures through use of sophisticated TPI control algorithms
- Frost protection setting
- No battery replacement required

Wireless and Battery versions are also available in this range

# **Specification**

POWER SUPPLY 230V 50HZ
CONTACT TYPE Micro-disconnection
WIRING CONFIGURATION Voltage free c/o
contacts (SPDT)

CONTACT VOLTAGE RATING 230V AC 50Hz (30V
dc)

CONTACT CURRENT RATING 8A (1A indu

TEMPERATURE

DIFFERENTIAL 0.5°C

TEMPERATURE ACCURACY +/- 0.5°c at 21°c
IMPULSE RATING Category II 2500V
DESIGN STANDARDS BS EN 60730-2-9
DIMENSIONS 100 x 120 x 26.5mm
ENCLOSURE Flame retardant thermoplastic

ENCLOSURE PROTECTION IP30

POLLUTION DEGREE Degree 2

INSULATION CLASS Double insulated

OPERATING TEMPERATURE

RANGE o °C to 40 °C
CLOCK 12 / 24 Hour with

Automatic BST /

SETTINGS PER DAY

6 target temperature settings per day 6 terminal plug in

OUNTING 6 terminal plug in

wall plate



# ThermoPlus AS2-RF

## Wireless Programmable Room Thermostat



The ThermoPlus AS2-RF is an intelligent wireless programmable thermostat, which transmits control signals to an RF receiver unit via Z-wave mesh radio technology. The ThermoPlus range was designed following research showing the difficulties visually or dextrally impaired people have whilst using heating controls, it is easy to install and easy to use. Perfect where installing additional wiring is difficult and where a straightforward easy to use programmable thermostat is required.

- · Wireless radio frequency connection
- Colour coded, bright LED Warm/ Cool display and Braille markings on the main override buttons
- · Preset clock with battery back-up
- Automatic BST / GMT time change
- Audible and tactile feedback
- · Back lit LCD display







ASR-RF is a mains powered receiver for connecting where a mains supply is readily available.

AS2-RF thermostat transmits via Z wave mesh radio technology and is capable of operation in most domestic houses with an operating range of approximately 30 metres. Ideal for controlling combi boilers, it can be mounted in any suitable location without the need to disturb existing wiring or décor. Operates from 3 standard AA batteries, with 2 years+ life and separate clock battery.

For day-to-day use only, 3 buttons are needed. The centre 'Warm/Cool' button changes the temperature state and the '+' and '-' buttons provide fine user adjustment as well as audible feedback. Each adjustment is immediately reflected in changes to the bright red and blue LED display.

The built-in clock is programmed to the correct time during manufacture and a built-in calendar will automatically adjust for summer and winter time changes, so there's never any need for user adjustment.

## **Specification**

CONTACT RATING

CONTACT TYPE

BATTERY TYPE

SUPPLY

POLLUTION DEGREE DOUBLE INSULATED

ENCLOSURE PROTECTION OPERATING TEMPERATURE

TEMPERATURE CONTROL

STANDBY TEMPERATURE

CASE MATERIAL

DISPLAY

CLOCK

DISPLAYED TIME

SWITCHED TIME ADJUSTMENTS

OPERATING PERIODS

PER DAY

PROGRAMME SETTINGS

OPERATING FREQUENCY

3 (1) Amps 230-240V

Micro disconnection

Voltage Free

RF)

IP30

+5 °C to +30 °C

+5°C to +10°C Thermoplastic flame

retardant

120 X 90 X 32 mm

Liquid Crystal, back

Warm – 3 per day

Auto, Standby

Instant Warm / Cool

6 pin plate 868 MHz



# ThermoPlus AS1, AS2 & PRT1

## **Programmable Room Thermostats**



Mains and battery powered programmable room thermostats designed for ease of use with a unique 3 button user interface. ThermoPlus allows a high and low temperature setting to be pre-programmed with simple user overrides available for the user.

Despite the simple user interface ThermoPlus contains the latest TPI energy saving software and can make a significant contribution to saving energy. ThermoPlus has voltage free contacts and is ideal for use with combi boilers.

- Simple 3 button operation
- Colour coded, bright LED Warm / Cool display and Braille markings on the main override buttons
- · Preset clock
- Automatic BST/GMT time change
- · Preset or custom heating profiles
- · Back lit LCD display
- · Audible and tactile feedback
- Fixed hypothermia protection (PRT1)
- Frost protection setting



#### AS1 & PRT1

AS1 is mains powered for applications where a permanent mains supply is readily available.

PRT1 is identical to the AS1 but with a fixed hypothermia setting of 15C.



#### AS<sub>2</sub>

AS2 is battery powered for applications where no mains supply is readily available to operate the unit or an existing thermostat is being replaced.

Additional features include 3 standard AA batteries, 2 years+ battery life and separate clock power back-up. Battery life is conserved by means of an 8 second auto power down mode to all indicator lights.

## **Specification**

CONTACT RATING

CONTACT TYPE

Micro disconnection

3 (1) Amps 230-240V

Voltage Free

SUPPLY AS1/PRT1 – 230V AC

50Hz

RESERVE BATTERY TYPE POLLUTION DEGREE DOUBLE INSULATED

Degree 2

ENCLOSURE PROTECTION OPERATING TEMPERATURE

o °C to 40 °C

TEMPERATURE CONTROL

+5 °C to +30 °C

**RANGE** 

STANDBY TEMPERATURE

+5°C to +10°C Thermoplastic flame

CASE MATERIAL

retardant

DIMENSIONS DISPLAY

Liquid Crystal, back

24 Hour

1 minute steps

15 minute steps

Warm – 3 per day

CLOCK DISPLAYED TIME

ADJUSTMENTS

SWITCHED TIME

**ADJUSTMENTS** 

OPERATING PERIODS

PER DAY

PROGRAMME SETTINGS

Auto, Standby Instant Warm / Cool AS<sub>1</sub>/PRT<sub>1</sub> – 6 pin

box fixing



# **ChannelPlus XL Series 2**

## **Electronic Programmers**



A range of electronic programmers that offer up to four independent channels and feature a large, easily read display and simple menu driven programming. Three and four channel models are made for multiple zone control with single and two channel models used with combi boiler systems and stored hot water systems.

- 1, 2, 3 or 4 channels
- 24 hour or 7 day
- Back-lit LCD display
- Simplified menu driven programming
- Advance and boost on each channel
- · Preset clock
- Automatic Winter / Summer time changes
- 5 year warranty









#### **CHANNELPLUS H47XL**

Programmer with 7 day setting over four independent channels. Designed for use with fully pumped central heating systems using four separate zone valves in addition to many other applications.

#### **CHANNELPLUS H37XL**

Programmer with 7 day setting over three independent channels. Designed for use with fully pumped central heating systems using three separate zone valves. Meets zoning requirements of Part L1 of the Building Regulations.

#### **CHANNELPLUS H37VXL**

The same as the H<sub>37</sub>XL but with volt free contacts

#### **CHANNELPLUS H27ZXL**

Two channel with 7 day programming and independent timing of zone 1 and zone 2.

#### **CHANNELPLUS H27XL**

Two channel with 7 day programming and independent timing of heating and hot water.

#### CHANNELPLUS H21XL

Two channel with 24 hour programming and independent timing of heating and hot water.

#### **CHANNELPLUS H17XL**

Single channel time switch with full 7 day programming

#### **CHANNELPLUS H11XL**

Single channel time switch with 24 hour programming.

Voltage free contacts make both the H11 and H17 units ideal for combi boilers.

## **Specification**

CONTACT RATING

CONTACT TYPE

**SUPPLY** 

POLLUTION DEGREE CLASS A SOFTWARE

ENCLOSURE PROTECTIONS DOUBLE INSULATED OPERATING TEMPERATURE

BATTERY LIFE CASE MATERIAL

DIMENSIONS DISPLAY CLOCK

DISPLAYED TIME

**ADJUSTMENTS SWITCHED TIME** ADJUSTMENTS

PROGRAMME OPTIONS

OPERATING PERIODS

PER DAY

OVERRIDE (EACH CHANNEL) 1 or 2 hour boost

3 (1) Amps 230V AC Micro-disconnection

Voltage free (not 230V 50 Hz Degree 2 IP30

Thermoplastic flame

retardant 101 x 163 x 37 mm

24 hour or 12 hour AM/PM

10 minute steps ON, OFF, All Day,

3 for each channel

1 or 2 hour extension to ON period Instant advance

9 pin wall fixing plate



# **ChannelPlus H37XL Series 2**

## **Electronic Programmers**



A three channel programmer giving independent timing of each channel on a 7 day programme.

Ideal for the control of two heating zones as well as hot water via separate thermostats and zone valves.

- Back-lit LCD display
- · Preset clock
- Automatic Winter / Summer time changes
- Simplified menu driven programming
- Advance and boost on each channel
- Full 7 day operation
- Volt free version
- 5 year warranty



### **ChannelPlus H37XL Series 2**

Programmer with 7 day setting over 3 independent channels (e.g. Zones 1, 2 and 3 or hot water, heating 1 and 2)

Designed for use with fully pumped central heating systems using three separate 2 port zone valves.

Part L1 of the Building Regulations requires properties above 150 sq m floor space to have two separate heating

This is an ideal application for the H<sub>37</sub>XL.

Also available:

#### ChannelPus H<sub>37</sub>VXL

The same as the H<sub>37</sub>XL but with volt free contacts

## **Specification**

CONTACT RATING CONTACT TYPE

3 (1) Amps 230V AC Micro-disconnection

Voltage free (not 230V 50 Hz

Degree 2

IP30

SUPPLY POLLUTION DEGREE DOUBLE INSULATED

OPERATING TEMPERATURE

o° C to 40 °c BATTERY LIFE

Thermoplastic flame

retardant

DISPLAY CLOCK

101 x 163 x 37 mm 24 hour or 12 hour

AM/PM

DISPLAYED TIME

**ADJUSTMENTS** 

SWITCHED TIME

**ADJUSTMENTS** PROGRAMME OPTIONS

ON, OFF, All Day, Auto & Holiday

OPERATING PERIODS

PER DAY

OVERRIDE (EACH CHANNEL) 1 or 2 hour boost

1 or 2 hour extension to ON period

3 for each channel

9 pin wall fixing plate

RATED IMPULSE VOLTAGE POLLUTION DEGREE ENCLOSURE PROTECTION

thermoplastic



# **ChannelPlus H47XL Series 2**

## **Electronic Programmers**



A four channel version of the ChannelPlus programmer for larger dwellings, featuring zone control of Hot Water and Heating as well as many other zoning applications including Underfloor heating.

- Full 7 day operation over 4 independent channels
- Back-lit LCD display
- Preset clock
- Automatic Winter / Summer time changes
- Simplified menu driven programming
- Advance and boost on each channel
- 5 year warranty



## **ChannelPlus H47XL Series 2**

A user friendly 4 channel programmer designed for domestic use, providing advanced, easily programmed features.

The latest Building Regulations Domestic Heating Compliance Guide requires each heating zone that exceeds 150 sq m to have independent time and temperature control.

## **Specification**

CONTACT RATING 3 (1) Amps 230V AC
CONTACT TYPE Micro-disconnection
SUPPLY 230V 50 Hz
POLLUTION DEGREE Degree 2
CLASS SOFTWARE Type 1 Control
ENCLOSURE PROTECTION IP30

ENCLOSURE PROTECTION IP30 DOUBLE INSULATED Yes

OPERATING TEMPERATURE

RANGE o° C to 40 °C BATTERY LIFE Lithium

ASE MATERIAL Thermoplastic flame

retardant

DIMENSIONS 101 x 163 x 37 mm

DISPLAY Back lit liquid crytal

CLOCK 24 hour or 12 hour

AM/PM

DISPLAYED TIME

ADJUSTMENTS

SWITCHED TIME

ADJUSTMENTS 10 minute steps
PROGRAMME OPTIONS ON, OFF, All Day,

Auto & Holiday

OPERATING PERIODS

PER DAY 3 for each channel OVERRIDE (EACH CHANNEL) 1 or 2 hour boost

1 or 2 hour extension

to ON period
Instant advance

MOUNTING 9 pin wall fixing plate

RATED IMPULSE VOLTAGE POLUTION DEGREE ENCLOSURE PROTECTION

Degree 2
Flame retardant thermoplastic



# **CentaurPlus Series 2**

#### Electronic time controls



CentaurPlus single channel time switches and two channel programmers are highly popular and affordable with the latest Series 2 units now featuring an upgraded back lit display screen and incorporating an automatic GMT/BST clock.

All models feature an industry standard six pin backplate which permits easy replacement/upgrade with the C11 and C17 controls being suited for use with combi boilers and the C21 and C27 versions for non combi boiler installations where a hot water cylinder is in use.

- 24 hour and 7 day options
- Up to 3 ON/OFF's a day
- · Hot water boost and central heating advance
- Programme options: ON, OFF, ALL DAY or AUTO
- Mains powered with battery back up
- Standard wall plate Simple to plug in and replace









## CentaurPlus C27

Two channel 7 day control allowing independent time control of central heating and hot water

#### CentaurPlus C21

Simple, low cost 24 hour version of the C27

#### CentaurPlus C<sub>17</sub>

Single channel, 7 day time control suitable for combi boiler applications, an extra heating zone or the pump on a solid fuel boiler.

#### **CentaurPlus C11**

Simple, low cost 24 version of the C17

	Single Channel	Two Channel	24 Hour	7 Day
CentaurPlus C27		•		•
CentaurPlus C21		•	•	
CentaurPlus C17	•			•
CentaurPlus C11	•		•	

## **Specification**

CONTACT RATING
CONTACT TYPE

3 (1) Amps 230V AC Micro-disconnection Voltage free (C11 &

C<sub>17</sub> only)

o °C to +40 °C

Degree 2

SUPPLY

POLLUTION DEGREE
CLASS A SOFTWARE
OPERATING TEMPERATURE

RANGF

BATTERY LIFE

CASE MATERIAL

DIMENSION DISPLAY CLOCK

DISPLAYED TIME
ADJUSTMENTS
SWITCHED TIME
ADJUSTMENTS
OPERATING PERIODS

Thermoplastic flame

retardant 84 x 150 x 29mm

continuous operation

12 Hour AM/PM
Auto BST/GMT
changeover

10 minute steps

C11 & C17 – 3 per day C21 & C27 – 3 per day for CH & 3 per day for

HW

C<sub>17</sub> & C<sub>27</sub> – Separate programmes possible for each day of the

week

DE C11 & C17 – 1 hour

boost, 1 hour extension to ON period & Instant Advance

C21 & C27 – 1 hour boost (HW only), 1 hour extension to ON period (HW only) & Instant advance (CH

only)

6 terminal plug in

wall plate



# **CentaurPlus ZW**

#### Combined wireless room stat and timeswitch





The innovative Horstmann CentaurPlus ZW combined wireless room stat and timeswitch offers installers and householders the opportunity to easily and cost effectively upgrade existing combi boiler control systems.

There are millions of combi boilers currently installed in the UK with no room thermostat. The CentaurPlus ZW combined timeswitch and wireless room thermostat offers a quick, simple and cost effective solution. Simply replace the existing timeswitch and install the wire free room thermostat which will then start to save energy of up to 10%\* compared with the installation with no room thermostat.

The timeswitch features an upgraded back lit display and incorporates an automatic GMT/BST clock. It uses proven Z wave wireless technology to communicate with the energy saving room thermostat that uses the latest TPI energy saving software.

(\*Source: TACMA)





#### **CentaurPlus ZW**

The CentaurPlus ZW timeswitch and thermostat communicate using proven Z wave wireless technology with the installation highly suited for use with combi boilers. It is ideal as a system upgrade, in most cases requiring no wiring. The back plate on the CentaurPlus ZW is an industry standard 6 pin unit usually enabling a simple push fit replacement. The HRT4-ZW is battery powered and requires no disruptive wiring, enabling it to be positioned in the most efficient area of a room.

The thermostat incorporates the latest TPI energy saving software and Z wave wireless technology. It features a back lit display, conventional knob temperature adjustment, set temperature display and displays the actual room temperature at a touch of the

CentaurPlus ZW combined wireless room stat and timeswitch

- Suitable for combi boilers
- Volt free contacts
- Automatic BST/GMT time change
- Back lit display
- **Boost and Advance**
- Helps to meet Part L of Building Regs
- Built in Z wave receiver
- Industry standard 6 terminal wall plate
- ZW wireless technology
- TPI energy saving software
- Clear backlit display
- Temperature range 5-30°C
- Battery operated for wire free installation

## **Specification**

CONTACT RATING 3 (1) Amps 230V AC Micro-disconnection CONTACT TYPE Voltage free

230V AC 50Hz only **SUPPLY** 

POLLUTION DEGREE Degree 2 CLASS A SOFTWARE OPERATING TEMPERATURE o°C to +40°C

BATTERY LIFE Minimum 10 months continuous operation

CASE MATERIAL Thermoplastic flame

84 x 150 x 29mm DISPLAY Back lit liquid crystal CLOCK

Auto BST/GMT

DISPLAYED TIME 1 minute steps

**ADJUSTMENTS** SWITCHED TIME

3 per day (Separate programmes possible

for each day of the

OVERRIDE 1 hour boost, 1 hour

> extension to ON period & Instant

Advance

6 terminal plug wall

TRANSMITTER FREQUENCY

HRT4-ZW ROOM THERMOSTAT

POWER SUPPLY 2 x AAA alkaline

batteries

OPERATING TEMPERATURE o°C to +40°C

TEMPERATURE RANGE 5°C to 30°C

Thermoplastic flame

retardant

**DIMENSIONS** 86 x 86 x 36.25mm RATED IMPULSE VOLTAGE

**ENCLOSURE PROTECTION** TRANSMITTER FREQUENCY 868MHz



# ServicePlus Series 2

## Service Interval Programmers



ServicePlus is a range of programmers and time switches developed to facilitate compliance with the Gas Safety (installation and Use) Regulations 1998. Although not intended to replace the normal servicing regime, ServicePlus can act as a supplementary reminder to enabling compliance.

Features an upgraded back lit display screen and incorporates an automatic GMT/BST clock.

- Service interval safety check clock
- Can fully or partially shut down the system once a service period is overdue
- Service period is set by installer using unique key code
- · Facilitates compliance with Gas Safety Regulation 36
- Building Regs Part L compliant

## **Specification**

The ServicePlus service interval timer range is based on the popular Centaurplus range of domestic central heating programmers and timeswitches. All the functions and facilities available in the CentaurPlus range are also available in the equivalent ServicePlus model. E.G. S27R is based on C27, S17R is based on C17

The ServicePlus range of programmers and time switches are designed to carry out a full or partial boiler shutdown once the servicing date has become overdue.

The Installer can set the ServicePlus so that either a full shutdown will occur after a 28 day warning period of the boiler service becoming due or partial shutdown can be selected where a 15 minute period of heating and hot water will occur every hour. These 15 minute periods will occur every hour but never consecutively from one hour to the next.

If programmed on installation, the 15 minute 'On' periods will reduce the effectiveness of the heating system so that it becomes uncomfortable for the occupier without it providing no heating at all. This should have the effect of encouraging the householder to call the service engineer to check the system.

(For more detailed information on these products, please refer to CentaurPlus Series 2)

## **S27R 7 day programmer** S21R 24 hour programmer

## S<sub>17</sub>R 7 day timeswitch S11R 24 hour timeswitch

	Single Channel	Two Channel	24 Hour	7 Day
CentaurPlus S27		•		•
CentaurPlus S21		•	•	
CentaurPlus S17	•			•
CentaurPlus S11	•		•	

CONTACT RATING CONTACT TYPE

Voltage free (S11 & S17 only) with optional mains switched supply

3 (1) Amps 230V AC

continuous operation

POLLUTION DEGREE Type 1 Control CLASS A SOFTWARE OPERATING TEMPERATURE o°C to +40°C

BATTERY LIFE

**SUPPLY** 

CASE MATERIAL

Thermoplastic flame

DIMENSIONS DISPLAY **CLOCK** DISPLAYED TIME **ADJUSTMENTS** SWITCHED TIME

**ADJUSTMENTS** OPERATING PERIODS PER 10 minute steps

12 Hour AM/PM

1 minute steps

retardant

*S11* & *S17* – 3 per day for CH & 3 per day for

*S*<sub>17</sub> & *S*<sub>27</sub> – Separate programmes possible for each day of the

week

S11 & S17 - 1 hour boost, 1 hour extension to ON period & Instant

S21 & S27 - 1 hour boost (HW only), 1 hour extension to ON period (HW only) & Instant advance (CH

6 terminal plug wall







# **425 Series**

## **Electro-mechanical Programmers**



425 series mechanical programmers are the simplest way to control hot water and central heating in the home.

- Simple to use with easily understood settings adjusted in seconds
- Rotating 24 hour dial and tappet arrangement
- Easy to install using a nine pin backplate
- Advance control to allow manual override ON or OFF
- Programme options: ON, OFF, All Day or Auto



#### **425 DIADEM**

This twin circuit, hot water and central heating programmer, with indicator lights, has 16 programmes available for fully pumped systems, including independent programming of heating and hot water and 10 programmes for gravity hot water / pumped heating systems.

The Diadem is ideal for gravity systems and fully pumped systems with zone valves.



#### **425 TIARA**

The Tiara has all the capability and features of the 425 Diadem, but without the indicator lights.

The Tiara is ideally suited for both gravity systems and fully pumped systems with either mid-position or zone valves.



#### **425 CORONET**

A single circuit timeswitch for straight forward, accurate time control.

The 425 Coronet is particularly suitable for combi boiler systems, warm air systems and extra zone control.

	Single Circuit	Twin Circuit	Permanent ON/OFF	ON All Day	ON / OFF twice a day	Combi Boilers	Pumped Systems	Gravity HW	Independent CH / HW	Immersion Heaters	Indicator Lights
425 Diadem		•	•	•	•		•	•	•		•
425 Tiara		•	•	•	•		•	•	•		
425 Coronet	•		•	•	•	•	•			•	

## **Specification**

425 TIARA & DIADEM

Double circuit 6 (2.5) CONTACT RATING

Amps 230V AC CONTACT TYPE

Micro-disconnection changeover Voltage

Synchronous 230V

Double Insulated

POWER CONSUMPTION

DIRT PROTECTION MOISTURE PROTECTION

**ENCLOSURE PROTECTION** MAXIMUM OPERATING

TEMPERATURE DIAL SETTING 2 ON, 2 OFF Tappets

Min. ON/OFF period

DIMENSIONS

425 CORONET

CONTACT RATING Single circuit 13 (6) A

230V AC

CONTACT TYPE Micro-disconnection

changeover Voltage

Synchronous 230V

**Double Insulated** 

POWER CONSUMPTION

DIRT PROTECTION MOISTURE PROTECTION Ordinary

ENCLOSURE PROTECTION MAXIMUM OPERATING +55°C TEMPERATURE

DIAL SETTING 2 ON, 2 OFF Tappets

Min. ON/OFF period

45 mins

**DIMENSIONS** 



# HRT4-ZW and HRT4-B

#### **Electronic Room Thermostats**



Wireless or wired, this range of purpose designed room thermostats from Horstmann offer the latest energy saving control technology combined with established Horstmann design and manufacturing expertise, making them suitable for use in most types of heating system.

They are also perfect partners for use with Horstmann Programmers and Zone valves.

- Wireless or wired (battery operated) versions
- TPI temperature control software
- Clear backlit digital display
- Temperature range 5-30°C
- · Easy to install and use



#### **HRT4-ZW** with ASR-ZW receiver

Wireless Z-wave electronic room thermostat and ASR-ZW receiver with TPI energy saving software - avoids disruptive and time consuming wiring – compatible with most heating systems.

With proven Z-wave wireless technology using the 868.42MHz operating frequency, the thermostat unit features a constant RF status display with its receiver being mains powered with volt free contacts.



#### HRT4-B

The HRT4-B is a wired battery operated room thermostat with TPI energy saving software - for use with new installations or as a replacement for existing room thermostats.

The HRT4-B has 3 amp volt free change over contacts making it ideal for use with combi boilers as well as conventional mains operated equipment.

Designed to look good, these thermostats will out perform many older styles of thermostat and can often produce savings in the order of 10% over and above those achieved by traditional units using older technology.

The TPI settings are adjustable for Gas, Oil and Electric systems and the display shows 1°C resolution, heating ON symbol, target and actual temperatures at the touch of the dial and an energy saving back light that switches off after 7 seconds.

Available in wireless and wired versions - for new and replacement situations - there is a Horstmann thermostat to suit most installations.

The wireless version employs the latest Z-wave radio frequency (RF) technology resulting in a highly reliable and trouble free wireless connection with minimal setting up procedures.

Thermostat battery life is in excess of two years using 2 standard AAA batteries which are supplied. A battery low indication tells the user when the batteries need changing.

## **Specification**

HRT4-ZW

POWER SUPPLY 2 x AAA alkaline

batteries

POLLUTION DEGREE Degree 2 TEMPERATURE ACCURACY +/- o.5°C TEMPERATURE RANGE

OPERATING TEMPERATURE

o° C - 40 °C

CASE MATERIAL Thermoplastic flame

retardant

DIMENSIONS

86 x 86 x 36.25mm

RATED IMPULSE VOLTAGE **ENCLOSURE PROTECTION** 

IP30

**DESIGN STANDARD** 

TRANSMITTER FREQUENCY 868 MHZ

**ASR-ZW** 

POWER SUPPLY CONTACT TYPE

230 V AC 50 Hz Micro disconnection

Voltage free

**CONTACT RATING** 

POLLUTION DEGREE Degree 2 OPERATING TEMPERATURE

CASE MATERIAL

Thermoplastic flame

retardant

86 x 86 x 36.25mm RATED IMPULSE VOLTAGE

**ENCLOSURE PROTECTION** 

IP30

POWER SUPPLY

2 x AAA alkaline

**batteries** 

CONTACT TYPE

Micro disconnection

Voltage free change-

CONTACT RATING

POLLUTION DEGREE TEMPERATURE ACCURACY TEMPERATURE RANGE

Degree 2

CASE MATERIAL

Thermoplastic flame

retardant

**DIMENSIONS** 

RATED IMPULSE VOLTAGE **ENCLOSURE PROTECTION** 

IP30

**DESIGN STANDARD** 

EN60730 - 2-9



# HRT4-A, HFT4 and HTT4

#### Mains Operated Electronic Room Thermostats



This range of purpose designed room thermostats from Horstmann offer the latest energy saving control technology combined with established Horstmann design and manufacturing expertise. This makes them suitable for use in most types of heating system that respond to a 230 volt mains electrical On/Off signal.

They are also perfect partners for use with Horstmann Programmers and Zone valves.

- 230 volt mains operation
- TPI temperature control software
- Standard, Frost and Tamperproof versions
- Easy to install and use

Designed to look good, these thermostats will out perform many older styles of thermostat and can often produce savings in the order of 10% over and above those achieved by traditional units using older technology.

The temperature control accuracy of +/-  $0.5^{\circ}$ C and different TPI settings – for Gas, Oil and Electric systems – will reduce the temperature swing that normally occurs with older style thermostats. As a consequence these thermostats will help to save energy as the control algorithm allows the boiler to operate in condensing mode for longer periods.



## **HRT4-A - Room Thermostat**

Mains powered, electronic unit with TPI technology for new and replacement installations.

Temperature setting range 5-30 °C



## HTT4 – Tamper proof Room Thermostat

A tamper proof version of the HRT4-A for use in public areas or other situations where subsequent temperature adjustment is not required/desirable.

- · Internal setting dial
- Temperature setting range 10-30°C



#### **HFT4** - Frost Thermostat

Electronic mains operated frost protection thermostat. Ensures heating will switch on whenever frost conditions are detected.

- · Internal setting dial
- Temperature setting range o-20°C

## **Specification**

POWER SUPPLY CONTACT RATING CONTACT TYPE POLLUTION DEGREE

TEMPERATURE ACCURACY

TEMPERATURE RANGE

CASE MATERIAL

RATED IMPULSE VOLTAGE ENCLOSURE PROTECTION DESIGN STANDARD 230v 50Hz 3 (1) Amps 230V AC Micro-disconnection

egree 2

+/- 0.5°C (at 21 °C with 0.5 amp load)

HRT4-A - 5-30°C HTT4 - 10-30°C

HFT4 – o-20°C Thermoplastic flame

retardant

86 x 86 x 36.25mm

IP30

EN60730 - 2-9



# HCT<sub>2</sub>

## Hot Water Cylinder Thermostat



This cylinder thermostat is fitted to the hot water cylinder to ensure that water temperature is controlled to a safe temperature whilst also saving energy by stopping uncontrolled heating of the hot water.

This type of cylinder stat is intended for use as part of a fully pumped heating and hot water system in conjunction with motorised zone valves a room thermostat and a two channel central heating programmer.

- 230V mains operation
- Adjustable temperature range 20°C to 90°C
- 16 Amp changeover (S.P.D.T.) contacts
- · Switching differential of approximately 8°C
- · Bimetallic sensor system



## Cylinder Thermostat - HCT2

With an adjustable temperature range of between 20°C to 90°C, the Horstmann cylinder thermostat is suitable for mounting on either domestic hot water cylinders or large heating pipes.

# **Specification**

CONTACT CONFIGURATION
OPERATING VOLTAGE
SWITCH CURRENT

TEMPERATURE RANGE SWITCHING DIFFERENTIAL ENCLOSURE PROTECTION SENSOR SYSTEM DIMENSIONS SPDT
220/240V 50/60Hz
250V AC
16 Amps maximum
+20 °C to +90 °C
+8 °C Approx
IP40
Bimetallic



# **ZonePlus Z Series**

#### **Motorised Valves**



A range of motorised valves that combine proven controls technology with the latest Horstmann design features, permitting easy installation and maintenance.

There are 3 models in the range: 22mm and 28mm 2 port spring return valves and a 22mm 3 port mid position diverter valve.

- Easily replaceable actuator
- Industry standard fittings and wiring
- Extra long 1.4 metre cable
- Hansen Class F Synchron motor





22mm mid-position diverter valve complete with compression fittings.

#### **ZonePlus Z222**

22mm spring return zone valve with auxiliary switch complete with compression fittings.

#### **ZonePlus Z228**

28mm spring return zone valve with changeover auxiliary switch complete with compression fittings.

	2 Port	3 Port	22mm	28mm
ZonePlus Z222	•		•	
ZonePlus Z228	•			•
ZonePlus Z322		•	•	

# **Specification**

CONTACT AND 3 Amp 250V AC
POWER SUPPLY 230V 50Hz
POWER CONSUMPTION 5W

LEAD SUPPLIED 1.4 Metre, Industry

coding. 50°C

88°C

o.5 bar

8.6 bar

MAXIMUM AMBIENT

TEMPERATURE

MAXIMUM FLUID

TEMPERATURE

MAXIMUM DIFFERENTIAL

PRESSURE

MAXIMUM STATIC

PRESSURE

ALL Ethylene Propylene

Dio Mono (EPDM) Thermoplastic

VALVE BODY Brass

PIPE FITTING SIZE Z222 & Z322 – 22mm

compression (supplied) Z228 – 28mm compression (supplied)



# **Electrisaver**

#### **Electronic Timer**



The Electrisaver is a simple push button electronic timer that saves energy by remembering to switch off an appliance when you might forget!

Suitable for loads up to 3kW, Electrisaver is a perfect boiler override or extension timer and can also be used on electrical equipment such as panel heaters, immersion heaters, heated towel rails and oil filled radiators.

- Flush or surface mounting
- Wiring is simple with easy access terminals



#### **Electrisaver**

Simply press the boost button and walk away, safe in the knowledge that if you forget, Electrisaver won't!

The 3kW rating makes Electrisaver suitable for use with immersion heaters with a range of applications in shops, offices, schools, church halls, student accommodation and all around the home.

- · Oil fired radiators
- Towel rails
- Boiler override
- Panel heaters

There are three Electrisaver models which offer preset time periods.

- E15 15-60 minutes
- E30 30-120 minutes
- E246 2-6 hours

## **Specification**

CONTACT RATING 13 Amps 230V AC

Suitable for loads up

to 3kW

Degree 2

IP30

SUPPLY
POLITION DECREE

ENCLOSURE PROTECTION SHOCK PROTECTION

LIVE PARTS

OPERATING TEMPERATURE o°c to 35°C

RANGE

DIMENSIONS

87mm x 87mm x 16mm (Flush

mounting) or 51mm (Surface mounting)

Single gang moulded box (Min. 35mm deep,

not supplied)



# **Electronic 7 Series 3**

#### **Immersion Heater Control**



The Horstmann Electronic 7 is the digital equivalent to the renowned Horstmann Economy 7 Quartz timer and is designed for use with Economy 7 and other more recent cheap rate tariff arrangements.

Where hot water is heated by off peak electricity it is important that the immersion heater controller offers ease of use coupled with the most efficient performance. This is where the Horstmann Electronic 7 Series 3 controller comes into its own.

- Compatible with most cheap rate or off peak tariff structures, the Electronic 7 is fully interchangeable with all past and present Horstmann Economy 7 controllers
- Built in clock automatic Summer / Winter time change
- Up to three off peak settings per 24 hours
- Programmable and manual boost
- Programme security feature
- Suitable for use with single, dual or twin element immersion heaters



#### **Electronic 7 Series 3**

The Electronic 7 is designed to control one or two 3kW immersion heaters, utilizing off peak electricity tariffs to provide a tank full of hot water each morning. Additional off peak settings are available to take advantage of the latest off peak tariff arrangements.

A boost button is provided to top up the hot water if supplies are running low and an automatic boost setting to provide a pre-programmed daily boost is also available.

The Electronic 7 Series 3 is interchangeable with previous Economy 7 controllers using the standard size Economy 7 wall box and plug in connectors.

A lithium battery provides more than adequate back up to maintain time and programme settings in the event of a power failure.

#### **Specification**

CONTACT RATING 13 Amps 230V AC

Suitable for

immersion heaters up

to 3kW

CONTACT TYPE Micro-disconnection

on control
Disconnection to
immersion heaters on

double-pole rocker

switch

POLLUTION DEGREE Deg

Normal situations

MOISTURE PROTECTION
ENCLOSURE PROTECTION
SHOCK PROTECTION
LIVE PARTS

Class 1 Enclosed

Ordinary

IP30

OPERATING TEMPERATURE

o°c to 35°C

**RANG** 

SUPPLY

BATTERY RESERVE Approximately 2 years

total power

DIMENSIONS 170 x 115 x 60 mm

(Excluding rocker

switch)

CLOCK AM/PM Indication

Winter/Summer

indication

PROGRAMME OPTIONS OFF PEAK - Up to 3

On/Off time periods

BOOST -Programmable

automatic boost and

boost

BEAB APPROVED Yes



# **Economy 7 Quartz**

#### **Immersion Heater Control**



Designed for use with Economy 7 off peak rate overnight electricity, the Economy 7 Quartz is the standard by which all other water heating controls are judged and is the all-time best seller in water heating controls.

- Quartz controlled within 10 minutes a year
- Rechargeable battery keeps time during power interruptions
- Summer and winter time settings instantly visible
- · Large terminals and back box for easy installation
- Indicator lights show whether on-peak or off-peak power is being used
- Up to 60 minute boost means extra hot water at any time
- Industry standard wall box and connections



#### **Economy 7 Quartz**

A proven, reliable and accurate unit, the Economy 7 Quartz is easy to install and set, providing a tankful of hot water to start each day utilizing Economy 7 off peak rate overnight electricity. The manual boost timer provides extra hot water in the day time – should it be needed.



#### E 7 Quartz 2 Hour

The E7 Quartz 2 hour model has the same specification as the Economy 7 Quartz but with o - 120 minutes boost timer.

## **Specification**

CONTACT RATING 13 Amps 230V AC

Suitable for

immersion heaters up

to 3kW

CONTACT TYPE Micro-disconnection

on control
Disconnection to
immersion heaters on

double-pole rocker

switch 230V 50Hz

Ordinary

o°c to +35°C

150 hours

SUPPLY
POLLUTION DEGREE
MOISTURE PROTECTION
ENCLOSURE PROTECTION
SHOCK PROTECTION

ENCLOSURE PROTECTION IP30
SHOCK PROTECTION Class 1
LIVE PARTS Enclosed
IMPULSE RATING 4000V

OPERATING TEMPERATURE

RANG

BATTERY RESERVE

DIMENSIONS

(Excluding switches)

CLOCK AM/PM Indication

Winter/Summer indication

PROGRAMME OPTIONS OFF PEAK -

Adjustable between 4½ & 7 hours BOOST – Economy 7 Quartz – 0-60 minutes

E7 Quartz 2 Hour – o-

20 minutes

BEAB APPROVED Ye



# BX2000

#### **Water Heating Boost Control**



This simple boost control is intended for use with electric water heating systems where the immersion heater(s) are controlled by the Electricity Company's Radio Teleswitch, Radio Telemeter or Tariff time switch.

The BX2000 allows the user to 'top up' the hot water if extra supplies are needed during the day time with the main water heating taking place overnight using off peak electricity.

- Makes the most effective use of the latest cheap-rate tariff structures, electronically
- 1 hour or 2 hour boost
- Always gives priority to off-peak supply



#### **BX2000**

- Automatically cancels any boost that has been selected prior to the off-peak supply becoming available
- Indicator lights show when 'boost' or 'off-peak' are operational
- Incorporates two double pole switches: one for 24 hour supply: one for off-peak (cheap rate) supply
- Accepts all incoming and outgoing wiring for single, dual or two separate 3kW immersion heater applications

# **Specification**

CONTACT RATING 13 Amps 230V AC

Suitable for

immersion heaters up

to 3kW

CONTACT TYPE

Disconnection to mmersion heater on

double-pole switch 230 V 50Hz

POWER SUPPLY
POLLUTION DEGREE
ENCLOSURE PROTECTION
SHOCK PROTECTION
LIVE PARTS

Degree 2
IP30
Class 1
Enclosed

o °C to 35 °C

OPERATING TEMPERATURE

RANGE

TIME PERIOD DIMENSIONS

BRITISH STANDARDS

or 2 hours

Designed to meet BS-

EN 60730-2-7



# E7BX

#### **Water Heating Boost Control**



This simple boost control is intended for use with electric water heating systems where the immersion heater(s) are controlled by the Electricity Company's Radio Teleswitch, Radio Telemeter or Tariff time switch.

The E7BX allows the user to 'top up' the hot water if extra supplies are needed during the day time with the main water heating taking place overnight using off peak electricity.

- Designed to accept wiring from both 24 hour and off peak circuits
- Adjustable 0-120 minute run-back boost timer
- Simple to install and use



#### E7BX

- Simple to install and use
- Boost period adjustable between o and 120 minutes
- Neon indicator shows when boost timer is running
  - Can be used with one or two immersion heaters
- Suits earth-leakage circuit breaker installations

# **Specification**

CONTACT RATING 13 Amps 230V AC

Suitable fo

immersion heaters up

to 3kW

CONTACT TYPE Disconnection to 'off

peak' immersion

heater on double-pole

witch

POWER SUPPLY 230 V 50Hz
POLLUTION DEGREE Degree 2
ENCLOSURE PROTECTION IP30
SHOCK PROTECTION Class 1
LIVE PARTS Enclosed
OPERATING TEMPERATURE 0 °C to 35 °C

RANGE

TIMER BOOST DURATION

DIMENSIONS

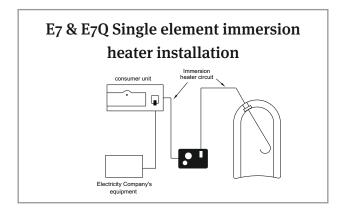
BRITISH STANDARDS

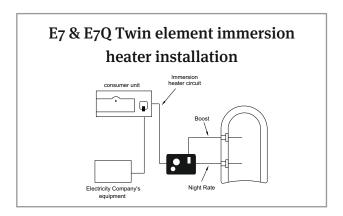
0-120 minutes 170 x 115 x 56 mm Designed to meet BS-

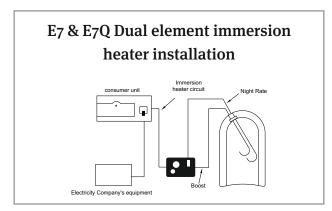
EN 60730-2-7 BEAB APPROVED

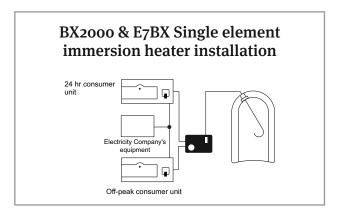
#### Electric Water Heating Controls - Schematic System Diagrams

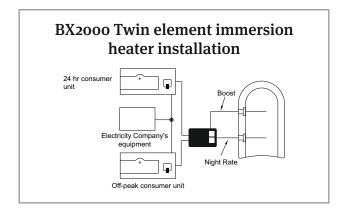
These diagrams show the schematic installation wiring for each of the Horstmann electric water heating controls

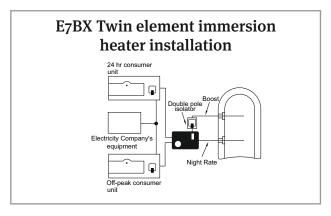










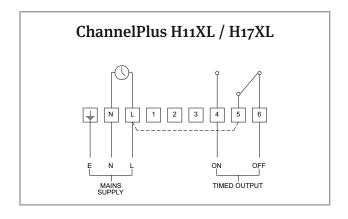


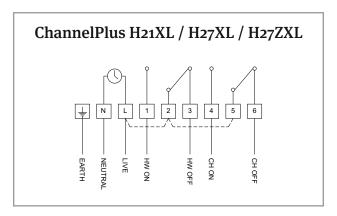
# **Internal Wiring Diagrams**

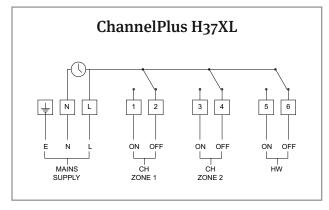


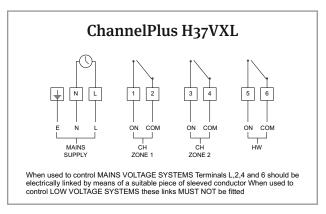
#### **Programmers and Timeswitches**

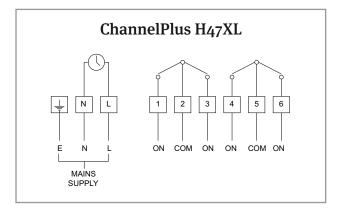
These diagrams are intended for guidance only and show the switched outputs for each model. Full system wiring diagrams are supplied with each set of installation instructions.

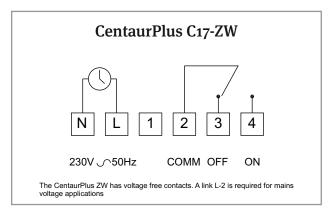


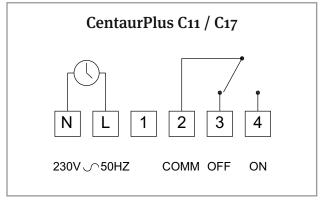


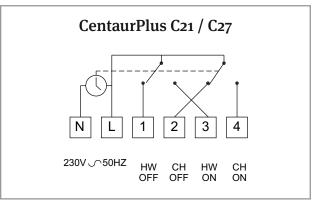




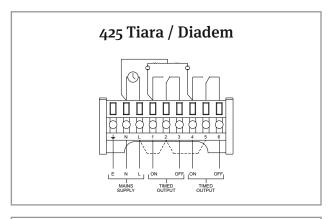


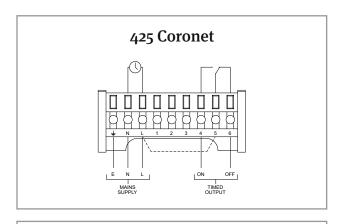


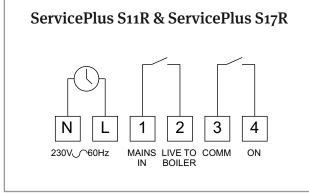


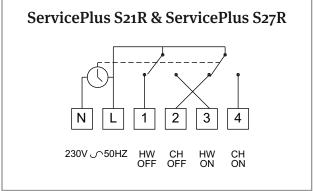


Installation and connection must be carried out by a suitably qualified person and in accordance with the current edition of the IET wiring regulations





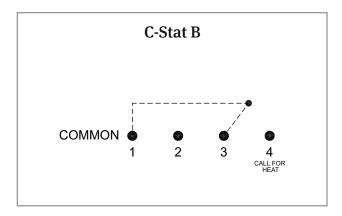


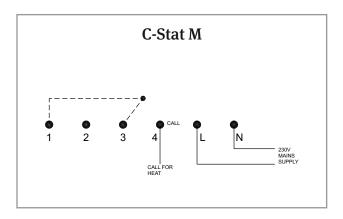


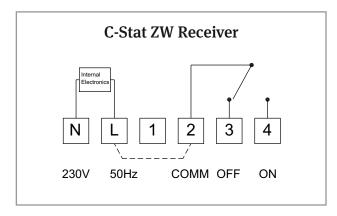
#### **Thermostats**

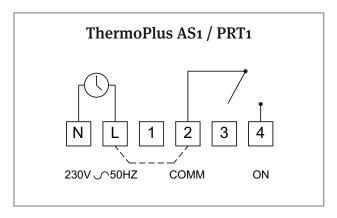
These diagrams are intended for guidance only and show the switched outputs for each model. Full system wiring diagrams are supplied with each set of installation instructions.

#### **Programmable Room Thermostats**

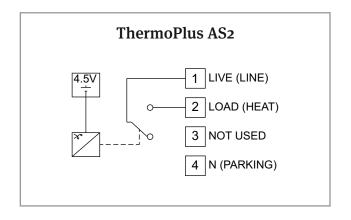


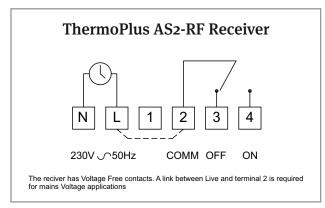


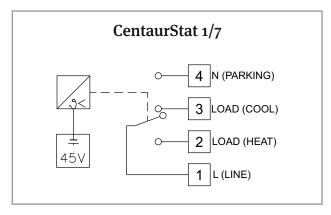


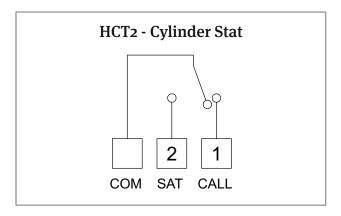


Installation and connection must be carried out by a suitably qualified person and in accordance with the current edition of the IET wiring regulations

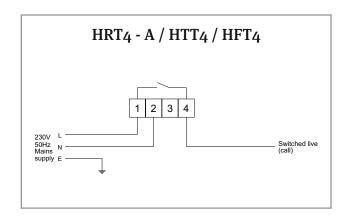


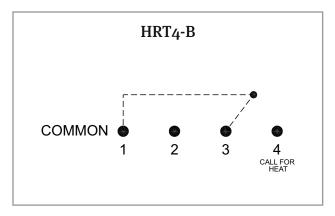


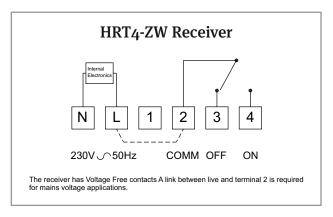


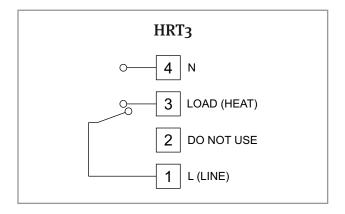


#### **Room Thermostats**









Installation and connection must be carried out by a suitably qualified person and in accordance with the current edition of the IET wiring regulations

# **TPI energy saving software**



#### where it is used - the benefits

Time Proportional Integral (TPI) energy saving software is key to the performance of thermostats in a number of Horstmann's central heating controls – notably the HRT range of room thermostats, C-Stat programmable room thermostats, the CentaurPlus ZW combined wireless room 'stat and time-switch and the ThermoPlus range of easy-to-use programmable room thermostats.

TPI has proven energy saving features that have been independently assessed (by TACMA) to save the householder up to 10% annually on fuel costs.

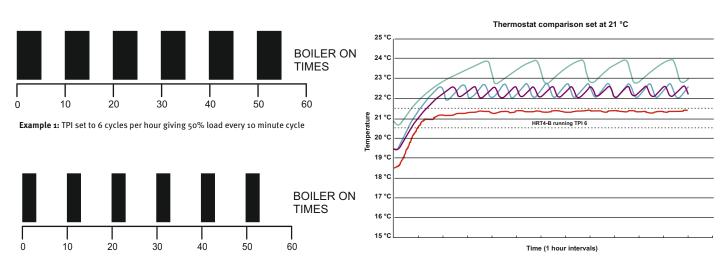
#### So, how does it work?

Traditionally, room stats use either mechanical bellows or thermally operated switches. These are much less accurate in maintaining the room temperature at the 'set point' as they produce fairly large swings of temperature caused by the differential between the on and off switch point. In turn, this causes the boiler to fire inefficiently and often over-heat the room.

A thermostat controlled by TPI software makes a series of precise calculations once it has entered the control or proportional band. When set to 6 cycles per hour the software will calculate the amount of heat needed during each 10 minute period and switch the boiler on for a proportion of that 10 minutes to maintain the set temperature.

This stops the wide fluctuations in temperature that can occur with conventional thermostats. The TPI software then 'fine tunes' the calculations to constantly review performance and carry out further, fine, adjustments if necessary.

When used with a condensing boiler, the TPI thermostat will help to save energy as the control algorithm allows the boiler to operate in condensing mode more consistently compared to older types of thermostat. This effect is achieved by keeping the return water temperature below the critical  $56^{\circ}$ C needed for the boiler to operate in condensing mode for longer.



**Example 2:** TPI set for 6 cycles per hour giving approximately 25% load very 10 minute cycle

Actual test results of 3 common mechanical room thermostats and the Horstmann HRT4-ZW room thermostat

# **Optimum start**



#### C-Stat programmable room thermostat

The Horstmann C-Stat is an electronic programmable room thermostat that combines time and temperature control in a stylish design that features simple, menu driven programming and a clear, back lit user interface. Among its many new features the C-Stat features an (optional) optimum start function.

C-Stat also uses the latest TPI energy saving software for accurate temperature control.

TPI is highly accurate and sensitive and can produce savings of as much as 10% annually\* on central heating fuel costs.

Models in the range feature 24 hour and 7 day programming with up to six temperature settings per day. The intuitive interface ensures they are easy to set up and use.

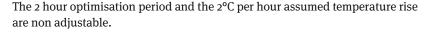
#### The Optimum Start feature:

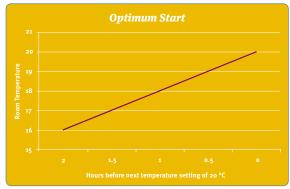
This (optional) setting will allow the C-Stat to anticipate the next set temperature and switch on the central heating up to 2 hours in advance to ensure the set room temperature has been reached by the time it is due to take effect.

As a consequence the 'switch on' time could take place anywhere between 2 hours and zero minutes before the set time.

It is assumed that the heating can increase at a rate of 2°C per hour.

Therefore, the maximum extent of this setting is that it can switch on up to 2 hours before the set temperature and raise the temperature by 4°C (with an assumed warm up rate of 2°C per hour).





The optimisation process will be cancelled if any overrides are used during the 2 hour period of operation.

#### Benefits

For units without an optimum start or delayed start feature, normal practice is to set the heating to come on approximately 1 hour before it is expected to be up to the set room temperature.

For example, if a householder gets up at 6.30am, the heating will typically be set to come on at 5.30am to allow the house to be warm by 6.30am.

The benefit of the optimum start feature is that the heating switch on time is calculated based on the temperature sensed 2 hours before the set time.

The actual switch on time is then delayed as long as possible whilst still achieving the correct required temperature at the set time.

In mild weather conditions, the start time will be delayed until the last possible moment achieving considerable (energy) savings over a fixed 1 hour warm up time.

By contrast, in exceptionally cold weather conditions, the heating may be brought on up to 2 hours before the time required but this will not be normal (in the UK) and savings should outweigh the extra heating needed in exceptionally cold conditions.

The added benefit of optimum start is that comfort conditions will be improved as the heating will be better controlled and less likely to overheat the house on mild mornings.

# Heating Programmer Replacement and Wiring Guide



If you're replacing a central heating programmer you could just fit what was there before, or go one better and fit Horstmann. This handy guide shows you which of our programmers, from a straightforward electro mechanical unit to a 2 channel 7 day electronic programmer, is the perfect match. Often you can simply plug in without even having to rewire. Whichever one you select, you can be sure that it's well designed, beautifully engineered and bang up to date with the latest spec. You won't be replacing it in a hurry.

#### **Using the Guide**

First locate the existing programmer or timeswitch in the left hand column of the Programmer Compatibility Guide. Then simply follow the colour coded line over to the far right to find the recommended Horstmann replacement. The colour of the line indicates if it is a direct plug-in replacement or not. Where a 24 hour programmer or timeswitch is recommended, its 7 day equivalent can be used and fitted in the same way.

#### Wiring Comparison Table

Before removing any existing programmer it is essential to make a note of wire colours, terminal positions and numbers in relation to the existing backplate. The charts only include programmers or timeswitches where wiring changes are necessary when fitting our recommended replacement. Where a direct plug-in replacement is available or where terminal connections do not change, the appropriate replacement is shown on the Programmer Compatibility Guide.

For clarity the Compatibility Guide recommends replacements which are 24 hour programmers/timeswitches. All cases where a 24 hour programmer is stated as the recommended replacement, it's 7 day equivalent can be used and fitted in the same way.

Installation and connection should only be carried out by a suitably qualified person and in accordance with the current edition of the IET wiring regulations. The information contained in this manual is intended for guidance only and is believed to be correct. Secure Controls (UK) Limited can accept no liability for any errors or omissions and reserve the right to make changes at any time without notice.

# 24 hour 7 Day CentaurPlus C11 CentaurPlus C17 ChannelPlus H11XL CentaurPlus C21 ChannelPlus C21 CentaurPlus C27 ChannelPlus H21XL ChannelPlus H27XL

#### Download our wiring guide here









# **Programmer Compatibility Guide**

	Direct plug in replacement				plug i imple										t and i requi	re-wiring Replace backplate but termina connections remain the same
Manufactu	irer Model	Electro-mechanical	Electronic	24 Hour	5/2 day	7 day	Single Channel	Two Channel	Single Circuit	Two Circuit	1.5 Circuits	Timeswitch	Mini-Programmer	Programmer	Common Time Base	*Please see wiring comparison tables located in this guide  Recommended Replacement
DANFOSS	102	•		•			•				•		•		•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
RANDALL	102E		•	•			•				•		•		•	CentaurPlus C21 or ChannelPlus H21XL
	102E5		•	•	•		•				•		•		•	CentaurPlus C27 or ChannelPlus H27XL
	102E7	•	•		•	•	•				•		•		•	CentaurPlus C27 or ChannelPlus H27XL
	103 103E	•	•	•			•		•			•				425 Coronet or CentaurPlus C11 or ChannelPlus H11XL CentaurPlus C11 or ChannelPlus H11XL
	103E5		•	•	•		•		•			•				CentaurPlus C17 or ChannelPlus H17XL
	103E7		•		•	•	•		•			•				CentaurPlus C17 or ChannelPlus H17XL
	3001	•		•			•		•			•				425 Coronet or ChannelPlus H11XL
	3002 3060	•		•			•			•	•		•	•	•	425 Diadem/Tiara or ChannelPlus H21XL 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	4033	•		•			•			•			•		•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	3020P	•		•			•				•		•		•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	911		•	•			•		•			•				CentaurPlus C11 or ChannelPlus H11XL
	917		•	•		•	•	•	•	•		•		•		CentaurPlus C17 or ChannelPlus H17XL
	922 971		·	•		•	•	•	•			•				CentaurPlus C21 or ChannelPlus H21XL CentaurPlus C17 or ChannelPlus H17XL
	972		•			•		•		•				•		CentaurPlus C27 or ChannelPlus H27XL
	CP15		•	•			•			•				•	•	CentaurPlus C21
	CP75		•			•	•			•				•	•	CentaurPlus C27
	CP715 FP15		•	•	•	•		•		•				•	•	CentaurPlus C27 CentaurPlus C21
	FP75		•					•		•				•		CentaurPlus C27
	FP715		•	•	•	•		•						•		CentaurPlus C27
	FP975		•		•	•		•						•		ChannelPlus H27XL
	MP15		•				•				•		•	•	•	CentaurPlus Coz
	MP75 SET1/SET1E		•	•		•	•		•		•	•	•		•	CentaurPlus C27 ChannelPlus H11XL
	SET2/SET2E		•	•			•				•		•		•	ChannelPlus H21XL
	SET <sub>3</sub> E		•	•			•			•				•	•	ChannelPlus H21XL
	SET <sub>3</sub> M	•		•			•			•				•	•	425 Diadem/Tiara or ChannelPlus H21XL
	SET <sub>4</sub>		•		•		•		•	•		•		•	•	ChannelPlus H17XL ChannelPlus H27XL
	TS15		•	•			•		•			•				CentaurPlus C11
	TS75		•			•	•		•			•				CentaurPlus C17
	TS715		•	•	•	•			•			•				CentaurPlus C17
DRAYTON/	TS975		•	•	•	•	•		•			•				ChannelPlus H17XL
ACL/INVENSY	LP 111 S I P 112		·	•			÷		•	•				•	•	CentaurPlus C11 CentaurPlus C21
,	LP 241		•	•				•		•				•		CentaurPlus C21
	LP 522		•		•			•		•				•		CentaurPlus C27
	LP 711		•			•	•		•	_		•		_		CentaurPlus C17
	LP722 LS 111		•	•		•	•	•	•	•		•		•		CentaurPlus C27 CentaurPlus C11
	LS 112		•	•			•				•		•		•	Centaur Nus C21 or ChannelPlus H21XL
	LS 241		•	•				•		•				•		CentaurPlus C21
	LS 522		•		•	•	•	•	•	•		•		•		CentaurPlus C27 CentaurPlus C17
	LS 711 LS 722		•			•	•	•		•		-		•		CentaurPlus C17 CentaurPlus C27
	FP FP	•		•			•			•				•	•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	MP	•		•			•			•				•	•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	TC	•		•			•		•			•				425 Coronet or CentaurPlus C11 or ChannelPlus H11XL
	Switchmaster 300 Switchmaster 320/350	•		•			•		•		•	•	•		•	425 Coronet or CentaurPlus C11 or ChannelPlus H11XL 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	Switchmaster 400	•		•			•				•		•		•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	Switchmaster 600	•		•			•				•		•		•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	Switchmaster 805	•		•			•			•				•	•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	Switchmaster 900 Switchmaster 905	•		•			•			•				•	•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL
	Switchmaster 9000/900		•	•			•			•				•	•	CentaurPlus C21 or ChannelPlus H21XL
	Switchmaster 980	•		•			•		•			•				425 Coronet or CentaurPlus C11 or ChannelPlus H11XL
	Switchmaster Sonata SM1	•	•	•		•		•	•	•		•		•		CentaurPlus C27 or ChannelPlus H27XL 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL
	31917			-			•					-				
	SM2	•		•			•			•				•	•	
			•				•		•	•		•		•	•	425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL CentaurPlus C11 or ChannelPlus H11XL

\*Please see wiring comparison Common Time Base Mini-Programmer tables located in this guide Single Channel Single Circuit Electronic 24 Hour 5/2 day Manufacturer Model **Recommended Replacement** Tempus 3 • • • • CentaurPlus C21 Tempus 4 CentaurPlus C27 CentaurPlus C21 Tempus 6 Tempus 7 CentaurPlus C27 • Tempus 6-2 • CentaurPlus C27 Tempus 7-2 • • • • • CentaurPlus C27 CentaurPlus C17 or ChannelPlus H17XL Tempus 1-Mk2 Tempus 2-Mk2 • CentaurPlus C17 or ChannelPlus H17XL GLOWORM Masterminder • • • • • HONEYWELL ST1000 ST1501 • ChannelPlus H21XL ST1507 • • CentaurPlus C11 or ChannelPlus H11XL • ST6100A ST6100C • • CentaurPlus C17 or ChannelPlus H17XL ST6200A • ST6300A CentaurPlus C21 ST6400C CentaurPlus C27 ST6450B • CentaurPlus C27 ST699B Fully Pumped • . • CentaurPlus C21 or ChannelPlus H21XL ST699B Gravity • CentaurPlus C21 or ChannelPlus H21XL ST7000A CentaurPlus C21 or ChannelPlus H21XI ST7000B CentaurPlus C11 or ChannelPlus H11XL • ST7100 CentaurPlus C27 or ChannelPlus H27XL ST799A . . • • CentaurPlus C27 or ChannelPlus H27XL ST9100A CentaurPlus C11 or ChannelPlus H11XL ST9100C CentaurPlus C17 or ChannelPlus H17XL ST9400A CentaurPlus C21 or ChannelPlus H21XL ST9400C CentaurPlus C27 or ChannelPlus H27XL ChannelPlus H27XL ST9500C . • • • HORSTMANN 423 Amethyst 10 • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 423 Amethyst 7 • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 423 Diamond • • • 423 Emerald • • 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL 423 Pearl Auto • • • • • 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL 424 Coral 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 424 Diamond • • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL 424 Emerald • • . • • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 424 Gem • 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL 424 Pearl Auto • • • • • 425 Coronet • • • 425 Diadem or ChannelPlus H21XL 425 Diadem 425 Tiara • • • • 425 Tiara or ChannelPlus H21XL ChannelPlus H17XL (75mm clearance required to left of existing programmer) 517 • ChannelPlus H21XL (75mm clearance required to left of existing programmer) 525 527 Centaur SC<sub>1</sub> • • CentaurPlus C11 or ChannelPlus H11XL Centaur SC7 • • • • CentaurPlus C17 or ChannelPlus H17XL Centaur TC1 . CentaurPlus Con Centaur TC7 CentaurPlus C27 MYSON CentaurPlus C21 or ChannelPlus H21XL Microtimer One Microtimer Seven • CentaurPlus C27 or ChannelPlus H27XL MEP<sub>1</sub>C • • • • • CentaurPlus C17 or ChannelPlus H17XL MFP<sub>2</sub>C . CentaurPlus C27 or ChannelPlus H27XL POTTERTON EP 2000 • • • • • CentaurPlus C21 or ChannelPlus H21XL EP2001/EP2002 CentaurPlus C27 or ChannelPlus H27XL EP3000 CentaurPlus C27 or ChannelPlus H27XL EP3001/EP3002 • • • CentaurPlus C27 or ChannelPlus H27XL EP4000 • • CentaurPlus C11 or ChannelPlus H11XL EP4001/EP4002 • CentaurPlus C17 or ChannelPlus H17XL EP5001/EP5002 CentaurPlus C17 or ChannelPlus H17XL • EP6000/EP6002 CentaurPlus C27 or ChannelPlus H27XL Mini Minder • • Mini Minder E • CentaurPlus C21 Mini Minder ES • • CentaurPlus C11 SALUS EP100 CONTROLS EP101 • EP200 CentaurPlus C27 • •

Direct plug in replacement with simple wiring changes\*

Replacement and re-wiring of backplate required\*

Replace backplate but terminal connections remain the same

\*Please see wiring comparison Electro-mechanical Common Time Base tables located in this guide Mini-Programmer Single Channel Single Circuit Two Channel Programmer 1.5 Circuits Timeswitch Two Circuit Electronic 24 Hour 5/2 day Manufacturer Model **Recommended Replacement** SANGAMO • • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL Ms M6 425 Coronet or CentaurPlus C11 or ChannelPlus H11Xl 'SIEMENS/ RWB100 • • LANDIS & CentaurPlus C21 (Mid Position System - Use Gravity Mode) RWB102 • • • STAEFA and RWB152 • . CentaurPlus C17 **LANDIS & GYR** RWB170 • • CentaurPlus C<sub>17</sub> RWB2/RWB2E CentaurPlus C21 RWB200 • CentaurPlus C21 RWB252 • • • CentaurPlus C27 RWB270 . CentaurPlus C27 RWB3o/RWB3oE • • • CentaurPlus C11 RWB40 • RWB50 • CentaurPlus C11 RWB<sub>7</sub> • • • • CentaurPlus C<sub>17</sub> • CentaurPlus C27 RWB9 • • . RWB27 • • • • CentaurPlus C17 RWB29 • RWB1001 • CentaurPlus C11 RWB1007 CentaurPlus C17 • • • RWB2001 • CentaurPlus C21 CentaurPlus C2 RWB2007 • SUNVIC MP2 • • CentaurPlus C21 or ChannelPlus H21XL Select 107/107 XLS • Select 207/207 XLS • SP100 CentaurPlus C27 or ChannelPlus H27XL • SP<sub>20</sub> • • . • . CentaurPlus C11 or ChannelPlus H11XL SP<sub>35</sub> • CentaurPlus C11 or ChannelPlus H11XL SP25/SP30 CentaurPlus C21 or ChannelPlus H21XL SP50 CentaurPlus C21 or ChannelPlus H21XL TIMEGUARD/ 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL Centroller 100 • **SMITHS** Centroller 1000 • • • • CentaurPlus C21 Centroller 30/50 • • • 425 Coronet or CentaurPlus C11 or ChannelPlus H11XI Centroller 60/90 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL Centroller 70 • • • TRTo34 CentaurPlus C<sub>17</sub> or ChannelPlus H<sub>17</sub>XL TRTo36 • • • CentaurPlus C27 or ChannelPlus H27XL TOWERCHRON/ DP72 • CentaurPlus C27 GRASSLIN CentaurPlus C17 or ChannelPlus H17XL DT71 QE<sub>1</sub> CentaurPlus C17 or ChannelPlus H17XL • • • • • 0E2 CentaurPlus C27 QM<sub>1</sub> • • • • 425 Coronet QM2 425 Tiara T2001/T2001Q • • 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL • T2002/T20020 • • T2003/T2003Q • . 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL VENNER T10 • • • • 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL • • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL T20/T30 • • Venotime 425 Coronet or CentaurPlus C11 or ChannelPlus H11XL Venetrol 8o/8oM/8oP • 425 Diadem/Tiara or CentaurPlus C21 or ChannelPlus H21XL

# Wiring comparison table - Timeswitches

Model  23 23E 23E 23E 23E 23E 23E 23E 23E 23E	E	N	6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Plus C11 c  1  2  2  2  2  2  2  4  4  4  4  4	2 3 3 3 3 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 3 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2	0N  1 1 1 1 6 6 6 4 4 4 3 3 3 1 1 1 2 2 3
23 23E 23E 23E 23E 23E 23E 23E 23E 23E 2	4 4 4 4 E E	N 5 5 5 5 5 N N N N N N N N N N N N N N	6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 3 3 3 4 4 4 4 4 4	3 3 3 3 3 5 5 5 5 1 1 1 1 1 4 4 4 1	4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3	1 1 1 1 6 6 6 4 4 4 3 3 3 3 1 1 1 3 7 2 2 2
23 23E 23E 23E 23E 23E 23E 23E 23E 23E 2	4 4 4 4 E E	N 5 5 5 5 5 N N N N N N N N N N N N N N	6 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 3 3 3 4 4 4 4 4 4	3 3 3 3 3 5 5 5 5 1 1 1 1 1 4 4 4 1	4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3	1 1 1 1 6 6 6 4 4 4 3 3 3 3 1 1 1 3 7 2 2 2
23 23E 23E 23E 23E 23E 23E 23E 23E 23E 2	4 4 4 4 E E	5 5 5 N N N N N N N N N N N N N N N N N	6 6 6 1 L L L L L L L L L L L L L L L L	2 2 2 2 2 2 2 2 2 3 3 3 4 4 4 4 4 4 4	3 3 3 3 5 5 5 5 1 1 1 1 1 1 4 4 4 1	4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3	1 1 1 1 6 6 6 4 4 4 3 3 3 3 1 1 1 3 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
93E 93E 93E5 93E7 11 12 13 15 15 15 15 15 15 15 17 11 15 17 11 15 17 11 15 17 11 15 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 11 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	4 4 4 E E	5 5 N N N N N N N N N N N N N N N N N N	6 6 6 L L L L L L L L L L L L L L L L L	2 2 2 2 2 2 3 3 3 4 4 4 4 4 4 4	3 3 3 5 5 5 1 1 1 1 1 1 1 4 4 1	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 1 6 6 6 4 4 4 3 3 3 1 1 1 3 7 2 2
23E5 23E7 24 25 25 25 25 25 25 25 25 25 25 25 25 25	4 4 E E	5 N N N N N N N N N N N N N N N N N N N		2 2 2 2 2 3 3 3 4 4 4 4 4 4 4 4	3 3 5 5 5 1 1 1 1 1 1 1 4 4 1	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 6 6 6 4 4 4 3 3 3 3 1 1 1 3 7 2 2
93E7 11 17 17 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	4 E E	5 N N N N N N N N N N N N N N N N N N N		2 2 2 3 3 3 4 4 4 4 4 4 4	3 5 5 5 1 1 1 1 1 1 4 4 1	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 6 6 6 4 4 4 3 3 3 3 1 1 1 3 7 2 2
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	E E	N N N N N N N N N N N N N N N N N N N		2 2 2 3 3 3 4 4 4 4 4 4 4 4	5 5 5 1 1 1 1 1 1 4 4 1	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	6 6 6 4 4 4 3 3 3 3 1 1 1 3 7 2 2
77 71 71 7515 7715 7711 7711 7711 7711	Е	N N N N N N N N N N N N N N N N N N N		2 2 3 3 3 4 4 4 4 4 4 4	5 5 1 1 1 1 1 1 4 4 4 1	4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	6 6 4 4 4 3 3 3 3 1 1 2 2
71 515 575 57715 5711 5711 5711 5711 6711 6		N N N N N N N N N N N N N N N N N N N		2 3 3 3 4 4 4 4 4 4 4	5 1 1 1 1 1 1 4 4 4 1	2 2 2 2 2 2 2 2 2 2 3 3 3	6 4 4 4 3 3 3 3 1 1 1 2 2
615 675 6715 6711 6711 6711 6711 6711 witchmaster 300 witchmaster 980 W1 671 671 671 671 671 671 671 67	t .	N N N N N N N N N N N N N N N N N N N		3 3 3 4 4 4 4 4 4	1 1 1 1 1 1 4 4 1	2 2 2 2 2 2 2 2 2 3 3 3	4 4 4 3 3 3 3 1 1 1 2 2
575 5715 5711 5711 5711 5711 6711 6711 6		N N N N N N N N N N N N N N N N N N N		3 3 4 4 4 4 4 4 4	1 1 1 1 1 1 4 4 1	2 2 2 2 2 2 2 2 2 3 3 3 2	4 4 3 3 3 3 1 1 2 2
7715 P111 P711 St111 St111 St111 St111 St111 Witchmaster 300 Witchmaster 980 W1 St1 St111 St111 St711		N N N N N N N N N N N N N N N N N N N		3 4 4 4 4 4 4 4 4	1 1 1 1 1 4 4 1	2 2 2 2 2 2 2 3 3 3 2	4 3 3 3 3 1 1 3 7 2
P111 P711 S111 S711 witchmaster 300 witchmaster 980 W1 S1 S2 mmpus 1 mmpus 2 mmpus 1-Mk2 mmpus 2-Mk2 If6100A		N N N N N N N N N N N N N N N N N N N		4 4 4 4 4	1 1 1 1 4 4 1	2 2 2 2 2 2 3 3 2	3 3 3 3 1 1 3 7 2
P711 S711 Witchmaster 300 Witchmaster 980 W1 Sempus 1 Sempus 2 Sempus 1-Mk2 Sempus 2-Mk2 F6100A		N N N N,2 N N 2 N N N N N		4 4 4 4	1 1 4 4 1 1	2 2 2 3 3 2 2	3 3 3 1 1 3 7 2
Silli		N N N,2 N N 2 N N N N N		4 4 4 4	1 1 4 4 1 1	2 2 3 3 3 2	3 3 1 1 3 7 2
witchmaster 300 witchmaster 980 W1 : : : :::::::::::::::::::::::::::::		N,2 N N N 2 N N N N N N N N		4 4 4 4	4 4 1 1 1 1	2 3 3 2	3 1 1 3 7 2
witchmaster 300 witchmaster 980 W1 cmpus 1 cmpus 2 cmpus 1-Mk2 cmpus 2-Mk2 f6100A		N,2 N N N 2 N N N N N N N N		4 4 4	4 4 1 1 1 1	3 3 2	1 1 3 7 2
witchmaster 980 M1 cmpus 1 empus 2 empus 1-Mk2 empus 2-Mk2 f6100A		N 2 N N N N N N	L 1 L L	4 4 4	1 1 1 1	3 3 2	3 7 2 2
empus 1 empus 2 empus 1-Mk2 empus 2-Mk2 f6100A		2 N N N N	1 L L L	4 4 4	1 1 1	3 3 2	7 2 2
empus 1 empus 1 empus 1-Mk2 empus 2-Mk2 T6100A		N N N N	L L L	4	1	3	2
empus 2 empus 1-Mk2 empus 2-Mk2 F6100A F6100C		N N N	L L	4	1	3	2
mpus 1-Mk2 mpus 2-Mk2 [6100A [6100C		N N N	L L	4	1	2	
rmpus 2-Mk2 F6100A F6100C		N N	L				2
Γ6100A Γ6100C		N		4	1		
Γ6100C						2	3
		N	L	3	1	2	4
7000B			L	3	1	2	4
•		N	L			2	3
Г9100А		N	L	3	1	2	4
Г9100C	-	N N	L	3	1	2	4
23 Emerald 23 Pearl Auto	E E	N	L L	5,6	3		4
24 Emerald	E	N	L,1	5,6	3		4
24 Pearl Auto	E	N	L,1	5 5	3		4
entaur SC1	E	N	L	4	1	2	3
entaur SC7	E	N	L	4	1	2	3
EP1C		N	L	1	3	2	4
P4000	Е	N	L	A,B,C,D	5	2	4
P4001	Е	N	L	A,B,C,D	5	2	4
4002	E	N	L	A,B,C,D	5	2	4
5000	E	N	L	A,B,C,D	5	2	4
5002	E	N	L	A,B,C,D	5	2	4
P100		N	L			1	3
P101		N	L	2	4	1	3
6		4			3	2	1
					3	4	5
				5			5
					1		3
						3,0	4,5
						NC1	4 NO1
					3		4
E1				1			4
M1							4
		N	L		,	_	7
2001							7
2001 2001Q		IN	L		2	1	3
	E	N	L				
2001Q	E E			2		1	3
001Q 0		N	L	2		1	3
	75002 7100 7101 75 75 75 75 75 75 75 76 77 71 71 71 71 71 71 71	5002 E 5002 E 100 101 5 E 1010 5 E 1010 105 6 E 1010 105 105 105 105 105 105 105 105 10	5002   E N   N   100   N   N   101   N   N   N   N   N   N   N   N   N	Too   Fe	Soo2   E   N   L   A,B,C,D	Soo2   E N L A,B,C,D   5	Soo2   E

	MAINS					0.55		
E	N	L	SPARE	ON	СОМ	OFF		
	425 Cor	onet o	r Channel	Plus H1	1/H17			
Е	N	L	1,2,3	4	5	6		
4	5	6	2	1	3			
4	5	6	2	1	3			
4	5 5	6	2	1	3			
E	N	L	2	6	5	4		
Е	N	L	2	6	5	4		
E	N	L	2	6	5	4		
	N	L	3	4	1	2		
	N	L.	3	4	1	2		
	N N	L	3	4	1	2		
	N	L	4	3	1	2		
	N	L	4	3	1	2		
	N	L	4	3	1	2		
	N,2	L		1	4			
	N	L		1	4			
	N	L	4	3	1	2		
	2	1		7				
	N N	L	4	2	1	3		
	N	L	4	3	1	<u>3</u>		
	N	L	4	3	1	2		
	N	L	3	4	1	2		
	N	L	3	4	1	2		
	N	L		3		2		
	N	L	3	4	1	2		
	N	L	3	4	1	2		
E	N	L	5,6	4	3			
E E	N N	L/1	5,6 5	4	3			
E	N	L/1	5	4	3			
E	N	L	4	3	1	2		
Е	N	L	4	3	1	2		
	N	L	1	4	3	2		
E	N	L	A,B,C,D	4	5	2		
E	N	L	A,B,C,D	4	5	2		
E	N N	<u>L</u>	A,B,C,D	4	5	2		
E E	N N	L	A,B,C,D A,B,C,D	4	5	2		
	N	L	.1,0,0,0	3	5	1		
	N	L	2	3	4	1		
Е	4	6		1	3	2		
E	N	L	S	5	3	4		
E	N	L	S	5	3	4		
E	N	L		3	1	2		
E	1	2		4,5		3,6		
E E	2 N	1,5 L		4 NO1		NC1		
	N	-		4	3	2		
	N	-	1	4	3	2		
	N	L		4	3	2		
	N	L		7				
	N	L		7				
E	N	L		3	2	1		
Е	N	L	2	3		1		

**Timeswitches:** Terminal 1 on the CentaurPlus and the Terminals 1, 2 & 3 on the ChannelPlus and 425 Coronet models detailed within the Timeswitch table are SPARE or Linking terminals. In the event that the number of spare terminals used on the timeswitch being replaced exceeds those detailed above then any connected wires should be removed and re-connected into a separate piece of terminal block. Wires from different spare terminals should not be joined together.

# Wiring comparison table - Programmers

		MAINS L		HW	СН	HW	СН		
		Е	N	L	OFF	OFF	ON	ON	SPARE
				Ce	ntaurplu	ıs C21 0	r C27		
Manufacture	er Model	Е	N	L	1	2	3	4	NONE
DANFOSS	102	Е	5	6			1	2	
RANDALL	102E	Е	5	6			1	2	
	102E5/102E7	Е	5	6			1	2	
	3020P/3060	8	1,7	6			4	2	3,5
	4033	8	7	6	5	3	4	2	
	922	E E	N N	L	1	4	3	6	
DRAYTON/	972 LS112	E	N	L	2	4	3	4	
ACL/INVENSYS		E	2	1	8	11	6	10	3
,	MP	Е	2	1			6	10	3,7,8
	Switchmaster 320	Е	N,2	L			3	1	
	Switchmaster 350	Е	N,2	L			3	1	
	Switchmaster 400	E	N	L		4	3	1	2
	Switchmaster 600	E	N	L			3	1	2,4
	Switchmaster 805	E	N	L	4	2	3	1	A.D.C
	Switchmaster 900 Switchmaster 9000	E E	N N	L	4	2	3	1	A,B,C A,B,C
	Switchmaster 9000	E	N	L	4	2	3	1	A,B,C
	Switchmaster 9001	E	N	ī	4	2	3	1	7.,0,0
	Switchmaster Sonata		N	L	3	6	1	4	
	SM <sub>2</sub>	Е	N	L	1	2	3	4	
HONEYWELL	ST699B - Fully Pumped	Е	N	L	7	4	6	3	
	ST699B - Gravity	E	N	L			8	3	
	ST7000A		N	L	2		3	4	
	ST7100	E	N	L	7	4	8	5	
	ST799A ST9400A	E	N N	L	7	2	6	3	
	ST9400C	E	N	L	1	2	3	4	
	ST9500C	E	N	L	1	2	3	4	
HORSTMANN	423 Amethyst 10	Е	2,3	1	4	6	5	7	
	423 Amethyst 7	Е	2,3	1	4	6	5	7	
	423 Diamond	E	N	L			2	4	5,6
	424 Coral	E	2,3	1			8	4	5,6
	424 Diamond	E E	N	L/1	,		2	4	5
MYSON	424 Gem Microtimer One	Е.	2,3 N	1 L	6 7	9	4 6	7	
MISON	Microtimer Seven		N	L	7	4	6	3	
	MEP2C		N	L	1	2	3	4	
POTTERTON	EP2000	Е	N	L	1	2	3	4	A,B,C,D
	EP2001	Е	N	L	1	2	3	4	A,B,C,D
	EP2002	Е	N	L	1	2	3	4	A,B,C,D
	EP3000	Е	N	L	1	2	3	4	A,B,C,D
	EP3001	E	N	L	1	2	3	4	A,B,C,D
	EP3002 EP6000	E E	N N	L	1	2	3	4	A,B,C,D
	EP6000	E	N	L	1	2	3	4	A,B,C,D
SANGAMO	M <sub>5</sub>	E	4,5	3	-		1	6	71,0,0,0
SUNVIC	MP2		N	L	HW OFF		HW ON		
	SP100	Е	N	L	1	4	2	5	S,S
	SP25	Е	N	L	1		2	5	5,5,4
	SP30	E	N	L	1		2	5	5,5,4
TIMEOUT DE '	SP50	E	N	L	1	4	2	5	S,S
TIMEGUARD/	Centroller 100	E E	N	L			3	2	1,4
SMITHS	Centroller 60 Centroller 70	E	1	2			5	4	3,6
	Centroller 90	E	1	2			5	4	3,6
	TRT036	E	N	L	NC2	NC1	NO2	NO <sub>1</sub>	٠,,٠
TOWERCHRON/			N	L	1	2	3	4	
GRASSLIN	T2002	Е	N	L			HW ON	CH ON	
	T2002Q	Е	N	L			HW ON		
	T2003	Е	N	L			HW ON		
	T2003Q	E	N	L	HW OFF	CH OFF	HW ON	CH ON	
VENNER	Venetrol 8oM	E	N,1,3,4	L			2		5
	Venetrol 80M Venetrol 80P	E E	N,3	L	1	4	2	5 Δ/S	Δ/ς
	VEHELIOLOUP	C	N,1,3	L			2	A/S	A/S,4,5
		F	N	T.			1	/-	
	Venner T20 Venner T30	E E	N N	L L	1	3	1 2	4	

	MAINS		HW	СОМ	HW	СН	сом	СН	SPARE
Е	N	L	ON	COM	OFF	ON	COM	OFF	SPARE
		/ O.S. D	iadam/T	iara ar	Channal	IDluc Ha	4 /Uo=		
			iadem/T						
E	N	L	1	2	3	4	5	6	NONE
E	5	6	1	3		2			
E	5	6	1	3		2			
E	5	6	1	3		2			
8	1,7	6	4			2			3,5
8	7	6	4		5	2	1	3	3.3
Е	N	L	3	2	1	6	5	4	
Е	N	L	3	2	1	6	5	4	
Е	N	L	3		2	4			
E	2	1	6		8	10		11	3
E	2	1	6			10			3,7,8
E	N,2	L	3	4		1			
E	N,2	L	3	4		1			
E	N	L	3			1		4	2
E	N	L	3			1			2,4
E	N	L	3		4	1		2	
E	N	L	3		4	1		2	A,B,C
E	N	L	3		4	1		2	A,B,C
E	N	L	3		4	1		2	A,B,C
E	N	L	3		4	1		2	
	N	L	1		3	4		6	
E	N	L	3	0	1 -	4		2	
E	N	L	6	8	7	3	5	4	
E	N N	L	8	6		3	5		
E	N	L	3 8	6	2	4			
	N	L	6	8	7	5 3	<u>3</u> 5	4	
E	N	L	3	0	7	4	)	2	
E	N	L	3		1	4		2	
E	N	L	3		1	4		2	
E	2,3	1	5		4	7		6	
E	2,3	1	5		4	7		6	
Е	N	L	2	1		4	3		5,6
Е	2,3	1	8			4	7		5,6
Е	N	L/1	2			4	3		5
Е	2,3	1	4	5	6	7	8	9	
	N	L	6	8	7	3	5	4	
	N	L	6	8	7	3	5	4	
	N	L	3		1	4		2	
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	N	L	3		1	4	5	2	A,B,C,D
E	4,5 N	3 L	1 HW ON		HW OFF	6 CH ON			
E	N	L	1W UN		1		2	1	S,S
E	N	L	2		1	5	3	4	5,5,4
E	N	L	2		1	5	3		S,S,4
E	N	L	2		1	5	3	4	5,5,4 S,S
E	N	L	3			2	,	4	1,4
E	1	2	5			4			3,6
E	1	2	5			4			3,6
E	1	2	5			4			3,6
E	N	L	NO <sub>2</sub>		NC2	NO <sub>1</sub>		NC1	
	N	L	3		1	3		2	
Е	N	L	HW ON			CH ON			
E	N	L	HW ON			CH ON			
Е	N	L	HW ON	СОМ	HW OFF	CH ON	COM	CH OFF	
E	N	L	HW ON	COM	HW OFF	CH ON	COM	CH OFF	
E	N,1,3,4	L	2			A/S			A,S,5
Е	N,3	L	2		1	A,S		4	A/S,4,5
E	N,1,3	L	2			A/S			A/S,4,5
E	N	L	1			4			
Е	N	L	2		1	4		3	

**Programmers:** The CentaurPlus and 425 Series models detailed within this programmer table do not have any SPARE or LINKING terminals.

If spare terminals have been used on the programmer being replaced then any connected wires should be removed and re-connected into a separate piece of terminal block.

# **Thermostat Compatibility Guide**



							ital Only)	(y)								(9)			onal	
Manufacturer	r Model	Room Stat	Cylinder Stat	Frost Stat	Electro-Mechanical	Electronic (Dial Only)	Electronic (Dial & Digital Only)	Electronic (Digital Only)	Mains Operation	24 Volt Operation	Battery Operation	Wireless & Receiver	Neutral Required	Volt Free Contacts	Changeover Contacts	Contact Rating (Amps)	Back-Lit Display	Tamperproof	TPI - Chrono Proportional	Recommended Replacement
DANFOSS	RET 230	•				•			•				•		•	3				HRT4-B
RANDALL	RET 230 F			•		•			•				•			3				HFT4
_	RET 230 P	•				•			•				•	•	•	3				HRT4-B
_	RET B	•					•				•			•	•	3			•	HRT4-B
_	RET B-RF	•				•	•			•	•	•		•	•	3			•	HRT4-ZW
_	RET 24 RET 24 VF	•				•				•			•	•	•	3				HRT4-B HRT4-B
_	RMT 230	•			•				•				•		•	10				HRT4-B (or HRT4-A without changeover switch)
_	RMT 230 VF	•			•				•				•	•	•	10				HRT4-B
_	RMT 24	•			•					•			•		•	10				HRT4-B
	ATC		•		•				•				•		•	6				HCT2
DRAYTON/	DIGISTAT+	•					•				•			•	•	2				HRT4-B
ACL/INVENSYS	DIGISTAT+ RF	•					•				•	•		•	•	2				HRT4-ZW
_	RTS1	•				•			•				•			2				HRT4-A
_	RTS2	•				•			•				•			2				HRT4-A
_	RTS3			•		•			•				•			2				HFT4
_	RTS4	•				•			•				•	•	•	2				HRT4-B
_	RTS5 RTS8 (Combi Stat)	•			•				•				•		•	3				HRT4-B HRT4-A
_	HTS3		•		•				•							3				HCT2
HONEYWELL	DT90E	•						•			•			•	•	8			•	HRT4-B
_	DT92E	•						•			•	•		•	•	5			•	HRT4-ZW
	DT200	•						•			•			•	•	8			•	HRT4-B
_	T4360A			•	•				•				•			10		•		HFT4
_	T4360B	•			•				•				•			16				HRT4-A
_	T6360B	•			•				•				•		•	10				HRT4-B (or HRT4-A without changeover switch)
_	Y6630D	•				•						•		•	•	10				HRT4-B
MYCON	L641A	_	•		•				•				•	_		4				HCT2
MYSON	MRT E MRT 1	•			•			•	•		•		•	•	•	8 15				HRT4-B
_	MCT 1		•		·				·				_		•	15				HRT4-A HCT2
SALUS	FT 100		Ť	•		•			•				•			8		•		HFT4
CONTROLS	RT 100	•			•				•				•	•	•	3				HRT4-B
_	RT 200	•				•			•				•			3				HRT4-A
_	RT 300	•						•			•			•		3	•			HRT4-B
	ST 320	•						•			•			•		10	•			HRT4-B
	CT 100		•		•				•				•		•	16				HCT2
SIEMENS/	RAA 10	•			•				•	•			•		•	6		•		HRT4-B (without Tamperproof cover)
LANDIS &	RAA 20	•			•				•	•			•		•	10				HRT4-B
STAEFA and	RAA 20-GB	•			•				•	•			•		•	6				HRT4-B
LANDIS & GYR	RAA 20 LD-GB RAD1-F	•		_	•				•	•			•		•	6		•		HRT4-B HFT4 (no changeover switch)
_	RDD10	•		•	•			_	•				•		•	10 5		•		HRT4-B
_	RDD10.1	•						•	•		•				•	5				HRT4-B
_	RDH10-GB	•					•				•			•	•	5				HRT4-B
_	RDH10-RF	•					•					•		•	•	8				HRT4-ZW
_					•				•				•		•	15				HCT2
_	RAM1		•		•								•			1				HRT4-B
SUNVIC	RAM1 TLX 2251	•	•		•					•										
SUNVIC	TLX 2251 TLX 2259	•							•	•			•			6				HRT4-A
SUNVIC	TLX 2251 TLX 2259 TLX 2356	•			•				•	•			•		•	6				HRT4-B (or HRT4-A without changeover switch
SUNVIC	TLX 2251 TLX 2259 TLX 2356 TLX 2358	•			•				•	•			•		•	6		•		HRT4-B (or HRT4-A without changeover switch HTT4 (no changeover switch)
SUNVIC	TLX 2251 TLX 2259 TLX 2356 TLX 2358 TLX 2360	•		•	•				•	•			•			6 6		•		HRT4-B (or HRT4-A without changeover switch HTT4 (no changeover switch) HFT4
SUNVIC	TLX 2251 TLX 2259 TLX 2356 TLX 2358 TLX 2360 TLX 5101	•		•	•	•			•	•			•		•	6 6 6 10		_		HRT4-B (or HRT4-A without changeover switch HTT4 (no changeover switch) HFT4 HRT4-A
SUNVIC	TLX 2251 TLX 2259 TLX 2356 TLX 2358 TLX 2360 TLX 5101 TLX 7501	•		•	•	•		•	•	•	•		•	•	•	6 6 6 10 2		_		HRT4-B (or HRT4-A without changeover switch HTT4 (no changeover switch) HFT4 HRT4-A HRT4-B
SUNVIC	TLX 2251 TLX 2259 TLX 2356 TLX 2358 TLX 2360 TLX 5101	•		•	•	•		•	•	•	•	•	•	•	•	6 6 6 10		_		HRT4-B (or HRT4-A without changeover switch HTT4 (no changeover switch) HFT4 HRT4-A

Please Note: All Horstmann Thermostats listed as the Recommended Replacement are only rated at 3 Amps. In the event that the installation requires a greater switch rating then they cannot be offered as a replacement.

# **Programmable Thermostat Compatibility Guide**



Manufacturer	Model	Battery	Mains	Wireless	24 Hour	5-2 Day	7 Day	Changeover Contacts	Recommended Replacement
DANFOSS RANDALL	TP4000	•			•			•	C-Stat 11-B
	TP4000 RF			•	•			•	C-Stat 11-ZW
	TP5000 RF			•		•			C-Stat 17-ZW
	TP7000	•					•	•	C-Stat 17-B
	TP7000 M		•				•	•	C-Stat 17-M
	TP7000 RF			•			•		C-Stat 17-ZW
HONEYWELL	CM701	•			•			•	C-Stat 11-B
	CM707	•					•	•	C-Stat 17-B
	CM901	•			•			•	C-Stat 11-B
	CM907	•					•	•	C-Stat 17-B
	CM921 +Receiver			•	•			•	C-Stat 11-ZW
	CM927 +Receiver			•			•	•	C-Stat 17-ZW
	CM 721+ Receiver			•	•			•	C-Stat 11-ZW
	CM 727 +Receiver			•			•	•	C-Stat 17-ZW
	Digistat +2	•			•			•	C-Stat 11-B
DRAYTON / ACL / INVENSYS	Digistat +3	•					•	•	C-Stat 17-B
	Digistat +2 Mains		•		•			•	C-Stat 11-M
	Digistat +3 Mains		•				•	•	C-Stat 17-M
	Digistat +2 RF			•	•				C-Stat 11-ZW
	Digistat +3 RF			•			•		C-Stat 17-ZW
SIEMENS	REV 13	•			•			•	C-Stat 11-B
	REV 12	•			•			•	C-Stat 11-B
	REV 11	•			•				C-Stat 11-B
	REV 10	•			•				C-Stat 11-B
	REV 100	•			•				C-Stat 11-B
	REV 17	•				•			C-Stat 17-B
	REV 21	•				•		•	C-Stat 17-B
	REV 22	•			•			•	C-Stat 17-B
	REV 23	•					•	•	C-Stat 17-B
	REV 23 RF			•			•	•	C-Stat 17-ZW
	REV 200	•					•	•	C-Stat 17-B
	REV 24	•					•	•	C-Stat 17-B
MYSON	MPRT	•					•		C-Stat 11-B / C-Stat 17-B
•	MPRTRF			•			•		C-Stat 11-ZW / C-Stat 17-ZW
SUNVIC	TLX 6501	•				•		•	C-Stat 11-B
	TLX RFPv			•		•	•	•	C-Stat 11-ZW / C-Stat 17-ZW
		•					•		
SALUS	RT500	•					•		C-Stat 17-B

# **Notes**

