

Performance heating controls



Always in control



Proper control of central heating and domestic hot water systems can provide a comfortable living environment and help to minimise fuel costs.



The mark of quality for domestic heating

Vaillant is a member of the Benchmark initiative and fully supports the aims of the programme. Benchmark has been introduced to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.

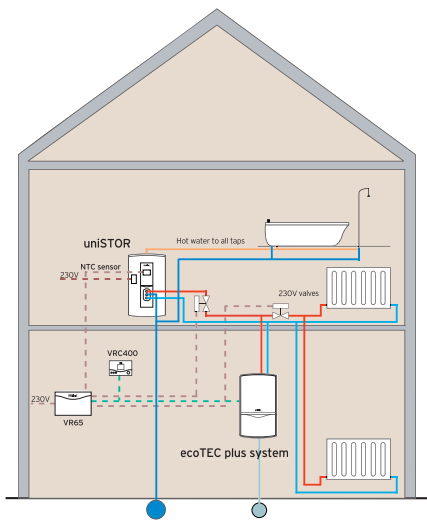
Energy efficiency in the home depends on controls that fit in with modern living patterns. Central heating and DHW controls are at the heart of the new Part L of the Building Regulations and are key to delivering greater efficiency.

Vaillant offer a comprehensive range of optional performance controls, all enabling cost effective use of domestic heating.

Vaillant has been at the forefront of heating design and technology, fulfilling the needs of our customers has always been central to the development of our products. That's why you can be sure that when you choose Vaillant, you choose an appliance or control that's been designed to make life that much easier.

Total System Solution

Vaillant's comprehensive range of controls help deliver flexible, cost-effective use of domestic heating. They can be used on their own, or used together with other controls to produce a state of the art integrated domestic heating system.



Vaillant ecoTEC system or open vent boilers and uniSTOR unvented stainless steel cylinders can now be integrated into one complete system together with the new Vaillant 'ebus' controls. This total system concept brings some unique features and benefits to the installer and the home-owner.

Benefits

- All components supplied from one manufacturer for peace of mind
- All components are compatible
- Cylinder re-charge with 'AquaCondens' system which re-charges cylinder at the most economical temperature to maintain efficiency
- Simple wiring
- Easy to upgrade existing systems
- DHW temperature can be set at the boiler or at the control*
- HW boost function on control becomes operational*
- Legionella protection function on control becomes operational*

Which components form the total system solution?

- ecoTEC plus system or ecoTEC plus open vent boilers
- uniSTOR stainless steel cylinder (supplied with 230V DHW valve)
- 'ebus' controls e.g. VRT 360, VRT360f or VRC 400
- VR 65 control centre
- uniSTOR cylinder NTC (VR 10)

Note: 230V zone valves (for CH) are widely available and must be supplied separately.

VR 65 control centre

The VR 65 control centre is the heart of the total system solution. It has been designed to allow Vaillant low voltage 'ebus' controls to be integrated within traditional 230V S-plan or Y-plan type installations to provide a total system solution.

- The VR 65 control centre provides the following connection points:-
- 1 x 3-port zone valve or 2 x 2-port zone valves
 - 230V cylinder thermostat
 - NTC for installation in uniSTOR only (instead of 230V cylinder stat)
 - 230V connection
 - 'ebus' connection



*if cylinder NTC is fitted

Controls for ecoTEC boilers



VRT 50 room thermostat

An electronic room thermostat with a digital display for use only with ecoTEC combination boilers and timeSWITCH 130 central heating programmer. It is easy to install since it only requires a two-wire connection to the boiler. The digital display shows the current room temperature. To increase or decrease the room temperature, the home owner simply turns the dial and the display then shows the set temperature. A flame symbol indicates when the boiler is operating or if there is a boiler fault. The thermostat can be set to modulate the boiler depending on the actual room temperature.

timeSWITCH 130 central heating timer

A mechanical timer for ecoTEC combination boilers which provides 24 hour analogue time control of central heating without the need for additional wiring. Simply plugs into the boiler fascia with no wiring required. Simple to operate with tappets at 15 minute intervals. Over-ride switch means heating can be kept on constantly or switched-off for longer periods. Install in conjunction with VRT 50 room thermostat for room temperature control.

timeSWITCH 140 heating and hot water programmer

Plug-in digital programmer for ecoTEC condensing boilers provides 7-day or 24-hour independent time control for central heating and hot water. When installed with ecoTEC combination boilers, the control can be used to provide time control to the 'AquaComfort' function. When installed with an ecoTEC system boiler and a VR 65 control centre, the programmer provides time control for the hot water system. The programmer has 3 independent on-off time periods per day, heating advance function and holiday function.

Note: VR 65 must be used with ecoTEC system or open vent boilers and timeSWITCH 140.



VRT 360 programmable room thermostat

This is a versatile and feature-packed digital control for ecoTEC condensing boilers. Provides 7-day or 24-hour independent time control for central heating and hot water. When installed with ecoTEC combination boilers, the hot water programmer can be used to provide time control to the 'AquaComfort' function. When installed with an ecoTEC system boiler and a VR 65 control centre, provides time control for the hot water. This wall-mounted programmable thermostat has 3 independent on-off time periods per day, heating advance function, holiday function, set-back temperature and 3 room temperature profiles. A calendar function provides automatic summer/winter changeover. The VRT 360 can be programmed to modulate the boiler flow temperature depending on the room temperature to further maximise fuel savings.

VRT 360f wireless room thermostat

A wireless thermostat with the same features as the VRT 360 programmable room thermostat. This flexible control can be installed with all ecoTEC boilers and offers the benefit of reduced wiring. The wall-mounted receiver unit is designed for improved reception and is installed in the vicinity of the boiler. A simple two-wire connection is required from the receiver to the boiler. The battery operated thermostat is designed to be fixed to a wall in the main living area. Once programmed, the home owner can simply select the room temperature by turning the dial, in a similar manner as a conventional room thermostat. The display will advise the home owner if there is a fault at the boiler.

VRC 400 weather compensator

This control offers the functionality and features of the VRT 360 with the additional benefit of weather compensation. An externally mounted temperature sensor monitors the outside temperature and adjusts the boiler flow temperature to achieve the required room temperature. The relationship between outdoor and boiler flow temperature is programmed by the installer who selects the appropriate heat curve based on the design temperature of the heating system. Ideal for properties with low heat losses, the control creates a constant indoor temperature whilst maximising fuel savings. The control offers time control of both heating and hot water or 'AquaComfort' and can be plugged into the boiler fascia or installed on an internal wall. A room thermostat is not required.

VR 65 must be used with ecoTEC system or open vent boilers when VRT 360, VRT 360f or VRC 400 controls are installed.

Standard 230V controls



VRT 30 room thermostat

This simple and compact 230V room thermostat keeps the room temperature at the desired comfort level. Proper control of heating can also reduce heating costs. For example, a 1°C reduction in room temperature can save up to 10% on heating costs. The VRT 30 is suitable for use in 230V external control systems.

VRT 230 programmable room thermostat

This 230V room thermostat offers full time and temperature control of central heating and operates in either 24 hour or 7 day mode. Features include 3 independent on-off time periods per day, heating advance function, holiday function, set-back temperature and 3 room temperature profiles. Once programmed, the home owner can simply easily change the room temperature by turning the dial, in a similar manner as a conventional room thermostat. A calendar function can be activated to provide automatic summer/winter changeover. The VRT 230 is suitable for use in 230V external control systems. A separate hot water programmer is still required for system boilers.

Plug-in controls for turbo



timeSWITCH 110 central heating timer

This 24-hour mechanical timer simply plugs directly into the boiler fascia of Vaillant combination boilers (turboMAX plus, turboMAX pro, aquaPLUS and ecoMAX) without the need for any wiring. Simple to operate with tappets at 15 minute intervals. Over-ride switch means heating can be kept on constantly or switched-off for longer periods. Install in conjunction with VRT 30 room thermostat for central heating system control.

oMAX and ecoMAX boilers



timeSWITCH 120 central heating programmer

This 7-day digital central heating programmer simply plugs directly into the boiler fascia of Vaillant combination boilers (turboMAX plus, turboMAX pro, aquaPLUS and ecoMAX) without the need for any wiring. A second channel can be used to provide time control of the 'AquaComfort' function of Vaillant combination boilers, ensuring there is always instantaneous availability of hot water for the end user. Install in conjunction with VRT 30 room thermostat for central heating system control.

VRT 340f wireless programmable digital room thermostat

The VRT 340f has been updated and improved. It is the perfect solution for installations where running cable between boiler and room thermostat is not practical. Designed for use only with Vaillant combination boilers (turboMAX plus, turboMAX pro, aquaPLUS and ecoMAX), the VRT 340f thermostat is supplied with a small plug-in receiver unit, which fits neatly into the boiler fascia of the boilers. The wireless thermostat remotely controls the boiler according to the desired end user programme. Provides 7-day or 24-hour independent time control for central heating and 'AquaComfort'. The programmable thermostat has 3 independent on-off time periods per day, heating advance function, holiday function, set-back temperature and 3 room temperature profiles. A calendar function can be activated to provide automatic summer/winter changeover.

VRC 410s weather compensator

The VRC 410s is designed for use with ecoMAX combination boilers. An externally mounted temperature sensor monitors the outside temperature and adjusts the boiler flow temperature to achieve the required room temperature. The relationship between outdoor and boiler flow temperature is programmed by the installer who selects the appropriate heat curve based on the design temperature of the heating system. Ideal for properties with low heat losses, the control creates a constant indoor temperature whilst maximising fuel savings. The control offers timed control of both central heating and 'AquaComfort' hot water system. The control can be plugged into the boiler fascia or installed on an internal wall. A room thermostat is not required.

vrDIALOG diagnostic software



vrDIALOG / vrDIALOG 810 diagnostic software

This PC-based software enables fast and accurate boiler status assessment during routine appliance service or call-out. Operational parameter settings and faults can be easily diagnosed using simple easy to follow Windows-based interactive screens. The two versions of the software are delivered together on one CD-ROM. Cables are included to connect to a computer USB port and two cables allow connection to the appropriate appliance.

vrDIALOG diagnostic software

Can be used with the following boilers






Combination boilers
ecoMAX turboMAX plus turboMAX pro aquaPLUS TURBOmax
System boilers
thermoCOMPACT

vrDIALOG 810 diagnostic software

Can be used only with eBus compatible boilers. Can also be used to programm connected eBus controls, e.g. VRT 360 or VRC 400.

Combination boilers
ecoTEC plus ecoTEC pro
System boilers
ecoTEC plus

Programmable room thermostats

	VRT 230	VRT 340f	VRT 360	VRT 360f	VRC 400
					
Article No.	0020010841	0020018257	0020010842	0020018258	0020010843
Room thermostat	●	●	●	●	
Weather compensator					●
room offset calculation					●
outside temperature sensor					●
Heating periods per day	3	3	3	3	3
heating	●	●	●	●	●
hot water programmer		warmstart (combi)	●	●	●
dhw circulation pump			●	●	●
Wall mounted	●	●	●	●	●
Plug-in		● (Receiver)			●
7-day/24h	●	●	●	●	●
Analogue / modulating		●	●	●	●
Temperature profile for each heating period			●	●	●
Set-back room temperature	●	●	●	●	●
DHW temperature setting*			●	●	●
Heating curve adjustment					●
Operating mode					
timed	●	●	●	●	●
constant on	●	●	●	●	●
constant set-back	●	●	●	●	●
eco					●
off	●	●	●	●	●
Frost protection	●	●	●	●	●
Automatic summer/winter changeover	●	●	●	●	●
Heating advance (party mode)	●	●	●	●	●
Holiday function	●	●	●	●	●
Cylinder boost*			●	●	●
Temporary room temperature override			●	●	●
Time controlled set-back			●	●	●
Legionella protection*			●	●	●
Information button to view all settings	●	●	●	●	●
Diagnostics	●	●	●	●	●
Factory reset	●	●	●	●	●
Remote access vnetDIALOG			●	●	●
Operating voltage	230 VAC	2 x 1,5 V (AAA) Receiver: 24VDC	24 VDC eBUS	2 x 1,5 V (AAA) Receiver: 24VDC	24 VDC eBUS
Connect to terminals	3-4-5	Receiver	eBUS +/-	Receiver eBus +/-	Plug-in / eBUS +/-
Dimensions Control	97 x 146 x 34	97 x 146 x 27	97 x 146 x 27	97 x 146 x 27	97 x 146 x 40
Dimensions Receiver		85 x 148 x 30		97 x 146 x 38	
			Must be installed with VR 65 when used with ecoTEC system or open vent boilers.		

* with ecoTEC system and ecoTEC open vent boilers, the DHW temperature setting and legionella protection function will only operate with cylinder NTC installed.

Controls

compatibility

Controls for high efficiency boilers

	Article number	ecoTEC			ecoMAX
		combi	system	open vent	combi
Room temperature controls					
VRT 30 Room Thermostat	230V 300 637	●	●	●	●
VRT 50 Room Thermostat	ebus 0020018265	With TS 130			
Timers/programmers					
TimeSWITCH 110 Mechanical CH timeswitch	306 741				●
TimeSWITCH 120 7-day programmer (CH & aquacomfort)	306 742				●
TimeSWITCH 130 Mechanical CH timeswitch	ebus 306 759	●			
TimeSWITCH 140 programmer (CH & HW)	ebus 306 760	●	With VR 65*	With VR 65*	
Digital room temperature controls					
VRT 230 programmable room thermostat	230V 0020010841	●	●	●	●
VRT 340f RF wireless prog room thermostat	0020018257				●
VRT 360 programmable room thermostat	ebus 0020010842	●	With VR 65*	With VR 65*	
VRT 360f RF wireless prog room thermostat	ebus 0020018258	●	With VR 65*	With VR 65*	
Weather compensating controls					
VRC 410s weather compensator	300 647				●
VRC 400 weather compensator	ebus 0020010843	●	With VR 65*	With VR 65*	
Accessories					
VR 65 Control Centre	ebus 307 215		●	●	
Communication					
vrDIALOG/2	0020023370	●	●	●	●

* These control/boiler combinations must always include VR 65

Controls for standard efficiency boilers

	Article number	turboMAX	thermoCOMPACT	aquaPLUS
		plus/pro	System	
Room temperature controls				
VRT 30 Room Thermostat	230V 300 637	●	●	●
Timers/programmers				
timeSWITCH 110 Mechanical CH timeswitch	306 741	●		
TimeSWITCH 120 7-day programmer (CH & aquacomfort)	306 742	●		
Digital room temperature controls				
VRT 230 programmable room thermostat	230V 0020010841	●	●	●
VRT 340f RF wireless prog room thermostat	0020018257	●		●
Communication				
vrDIALOG/2	0020023370	●	●	●

Overview of controls

Overview of ecoTEC controls							
	VRT 50 Room thermostat*	timeSWTICH 130 CH timer	timeSWITCH 140 CH programmer HW programmer	VRT 360 Programmable room thermostat	VRT 360f Programmable room thermostat (wireless)	VRC 400 Weather compensator	VR 65 Control Centre
Article number	0020018265	306759	306760	0020010842	0020018258	0020010843	307215
Boiler compatibility	ecoTEC combi	ecoTEC combi	ecoTEC	ecoTEC	ecoTEC	ecoTEC	ecoTEC system and open vent
Operating voltage (V)	24	24	24	24	2 x 1.5 (AAA)	24	230
Height (mm)	97	97	97	97	97	97	174
Width (mm)	97	146	146	146	146	146	272
Depth (mm)	27	40	40	32	32	40	52
Plug-in		•	•			•	
Wall mounted	•			•	•	•	•
CH time control		•	•	•	•	•	
Room temp control	•			•	•	•	
DHW time control			•	•	•	•	
Warm start time control (combis)	•		•	•	•	•	

*only for use with timeSWITCH 130

Overview of other controls						
	timeSWTICH 110 CH timer	timSWITCH 120 CH timer	VRT 340f Wireless programmable room thermostat	VRC 410S Weather compensator	VRT 30 Room thermostat	VRT 230 Programmable room thermostat
Article number	306714	306742	0020010857	300647	300637	0020010841
Boiler compatibility	ecoMAX combi, turboMAX & aquaPLUS			ecoMAX combi	All	All
Operating voltage (V) 24	24	2 x 1.5 (AAA)	24	24	230	230
Height (mm)	85	85		85	74	97
Width (mm)	148	148		148	74	146
Depth (mm)	29	29		48	25	34
Plug-in	•	•		•		
Wall mounted			•	•	•	•
CH time control	•	•	•	•		•
Room temp control			•	•	•	•
Warm start time control (combis)		•	•	•		