Note: If you do not wish to set the Hot Water program press the Mode button to return to the normal display and the Control will then be in normal operating mode for Heating.

If HOT WATER is selected for programming

Select programme for EACH day:

Press + or – buttons to select P1, P2 or Pd* for day 1

Press **OK** to confirm program setting for day 1

Press + or – buttons to select P1, P2 or Pd* for day 2

Press **OK** to confirm program setting for day 2
Repeat the procedure for days 3 to 7

Finally, Press **OK** to confirm program setting for day 7

*If Pd is selected - set required program:

Press – button repeatedly to set the required Night period (eg. to 06.00 – This will be shown at the bottom of display) Press + button repeatedly to set the required Day period (eg. to 09.00 – This will be shown at the bottom of display) Press – button repeatedly to set the required Night period (eg. to 17.00 – This will be shown at the bottom of display) Press + button repeatedly to set the required Day period(eg. to 22.00 – This will be shown at the bottom of display) Finally

Press – **button** repeatedly until 00.00 shows on display

Press OK to confirm setting

Repeat this procedure for each day of the week – the settings for each day can be different if required.

After Pressing **OK** to confirm the Hot Water program setting last weekday (day 7), the display will automatically return to the normal display – showing current room temperature, time and program settings.

The Control is now in the Normal operating mode for both Heating and Hot Water

OTHER CONTROL OPTIONS

Temperature override

The 'day' (ON) temperature setting can be altered when the control is in a 'day' (ON) period of the program. Press + or – to increase or decrease the temperature setting between 5°C and 30°C. Then press **Mode** button to quit.

The 'night' set-back (OFF) temperature setting can be altered when the control is in a 'night' set-back (OFF) period of the programme. Press + or – to increase or decrease the temperature setting between 5°C and 30°C. Then press Mode button to quit.

The heating control function will automatically return to the set programme at the next switching operation.

Note: The 'day' (ON) temperature setting cannot be altered when the control is in a 'night' set-back (OFF) period and, likewise, the 'night' set-back period cannot be altered when the control is in a 'day' (ON) period.

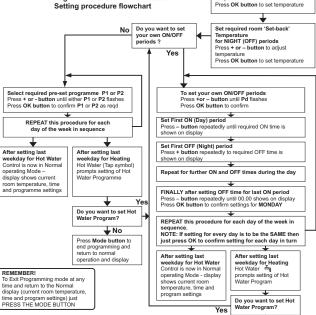
Mode options

Pressing the Mode button allows the following

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1 To enter programming mode
Press Menu button
or Press Reset button
Press Obstutton
Press Vot Dutton to adjust hours
Press Vot Dutton to adjust ninutes
Press Vot Button to set flours
Press Vot Button to set minutes
Press Vot Button to set minutes
Press Vot Button to set minutes
Press Vot Button to set weekday
Press Vot Button to set weekday

RFT Programmable Room Thermostat -Setting procedure flowchart



Press once: To view today's Hot Water program. If required use +/- buttons to manually override.

Press twice: To manually switch Heating OFF Press 3 times: To manually switch Heating ON Press 4 times: For Party function – extends current day temperature setting until 00.00 Press 5 times: For Holiday function – to set this use the following procedure:

Use + button to set the number of days holiday – then Press **OK** to confirm.

Set fixed temperature for holiday period – then press **OK** to confirm.

NOTE: Control automatically reverts to standard program after holiday period.

Press **OK** button to quit any manually selected mode and to revert to normal operating mode.

Low battery

The batteries will run the Transmitter for a period of between 18 months and 2 years – depending on amount of signal transmission (which is dependant on settings).

Emergency mode

Should the batteries be allowed to go completely flat (or a construction feature presents a total block to RF signals), when the

Receiver does not pick up any radio signal for a period of **one hour** it will go into an emergency mode condition

Press Mode button to end

programming and return to normal display

3 Set Heating Programme

Press + or - button to select Heating III Press OK button to confirm

DAY (ON) periods Press +or - button to adjust

Set required room Temperature for

During emergency mode, the receiver LED will flash rapidly and the heating will work in a fixed cycle of 3 minutes on and 7 minutes off. Once the batteries are replaced (or the block to the RF signal removed) and the signals are again received the Receiver will revert to the normal ON or OFF operation as required by the

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Grant Engineering (UK) Limited
Hopton House, Hopton Industrial Estate, Devizes, Wiltshire SN10 2EU
Telephone: (01380) 736991
email: info@orantuk.com website: www.grantuk.com

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Part No DOC 20 Rev 07 March 2010

RFTKIT

Fitting and User Instructions for RF 7-day 2-channel Programmable Room Thermostat

Suitable for

Vortex Pro Kitchen/Utility & External models Vortex Pro Combi & External Combi Models

IMPORTANT

These fitting Instructions supersede all previous instructions supplied for this control and also shown in the Installation instructionsl supplied with the boiler

FITTING INSTRUCTIONS

KIT CONTENTS

The Wireless (RF) Two-channel Programmable Room Thermostat KIT (RFTKIT) contains the following items:

- 1 x RFT Twin-channel wireless (RF) Programmable Thermostat unit (to be wall mounted)
- 1 x FM/2 Receiver/switching unit (to be installed in wall mounted enclosure provided) 1 x Wall mounting enclosure for FM/2 Receiver unit
- 1 x Fitting and User instructions

INSTALLATION

1. INSTALL THE FM/2 RECEIVER UNIT

Important: Ensure the electrical supply to the boiler has been isolated before fitting the FM/2 unit.

1.1 Fit the wall mounted enclosure

Refer to Fig.1 below.

Remove transparent cover.

Unscrew the two recessed screws and remove the main cover from the wiring base.

Remove the terminal cover from the wiring

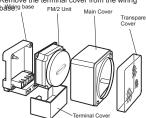


Figure 1. Wall mounted enclosure for RM/2 receiver unit

Position wiring base in required location **inside** the property. Mark and drill three holes in the wall and fix using suitable wall plugs and screws (not provided).

Connect the either **four** or **five** wires required (depending on boiler type and control system used) to the terminal on the wiring base. Refer to Fig.2 Connection diagram.

IMPORTANT

CONNECT WIRES TO THE CORRECT NUMBERED TERMINALS (AS SHOWN IN FIG.2) IRRESPECTIVE OF THE OTHER MARKINGS ON THE TERMINAL BLOCK.

1.2 Fit FM/2 receiver into enclosure

Working from the back of the FM/2 unit, carefully prise the unit out of the mounting it is supplied in using a small flat bladed screwdriver.

Once removed from mounting, fit the FM/2 unit on to the wiring base. Locate the five spade terminals of the FM/2 unit in the corresponding spring connectors. Push firmly until the terminals are fully into the spring connectors and the unit is correctly located on the wiring base.

Cut the underside of the terminal cover as required to accommodate the cable to the boiler.

Re-fit the terminal cover - locating the two inner edges into the groove on either side of the terminal block and sliding it into place.

Re-fit the Main cover to the wiring baselocating it onto the two guide pins on the base and fasten using the two screws provided.

Re-fit the transparent cover.

1.3 Connection to boiler

Important: Ensure the electrical supply to the boiler has been isolated before connecting the FM/2 unit.

Refer to Fig.2 - Connection diagram

Vortex Pro Kitchen/Utility – System & Nonsystem Models

- 1. Remove front and top boiler casing panels. Remove the four screws and lift off top cover from control panel.
- Remove Brown wire link from terminals1 & 4 on the boiler terminal block.
 Connect the four or five wires from the FM/2
- Receiver unit to terminals on control panel refer to Fig.2 Connection diagram.
- 4. Re-fit top cover to control panel and fasten with the two screws.

*When using the RFT kit with an 'S-plan' type control system (i.e. using 2 x 2 - port zone valves) there must be NO connection to Terminal 6 in the boiler control panel.

Vortex Pro External Modules

 Remove the boiler door and top casing panel. Remove the three screws (two at top and one below control panel) and remove coverfrom left hand end of control panel.
 Connect the **four*** or **five** wires from the FM/2 Receiver unit. Feed wires through upper cable clamp and connect to terminals in control panel - refer to Fig.2 Connection diagram.
 Re-fit control panel cover and secure using the three screws.

*When using the RFT kit with an 'S-plan' type control system (i.e. using 2 x 2 - port zone valves) there must be NO connection to Terminal 14 in the boiler control panel.

Vortex Pro Combi - Internal Models

- Remove front and top boiler casing panels. Loosen (do not remove) the four screws securing control panel to the side panels. Hinge the panel forward to access top and rear of control panel.
- 2. Remove the two screws and lift off the terminal block cover from top of control
- 3. Remove both the Red and Black wire links from terminals 17 & 18 and 19 & 20 on control panel
- 4. Connect the **four** wires from the FM/2 Receiver unit to terminals on control panel refer to Fig.2 Connection diagram.

Note: there must be NO connection made from terminal 4 on the FM/2 unit.

5. Re-fit terminal block cover on control box and fasten with the two screws.

Vortex Pro Combi - External Models

- 1. Remove the boiler door, top casing panel and insulation from boiler.
- Remove the two screws at top of control panel (in cross member). Hinge down control panel front.
- Connect the four wires from the FM/2 Receiver unit. Feed wires through lower cable clamp and connect to terminals on control panel – refer to Fig.2 Connection diagram.
 Note: there must be NO connection made from terminal 4 on the FM/2 unit.

Re-fit control panel front and secure using the two screws.

IMPORTANT

When the RFT kit is used with the Vortex Pro External Combi boiler, there must be NO electrical connections to terminals L1 and L2 on the Boiler isolation plug – e.g. no programmer, timer or room thermostat should be connected to the plug to control either the heating or hot water functions of the boiler. These are NOT necessary as the RFT programmable room thermostat will control both the heating and hot water operation of the boiler.

4

commissioning process (detailed below) has

and receiver is established. The transmitter and

(radio frequency) link between the transmitter

Having fitted the receiver and transmitter the

set must be commissioned so that the RF

3. СОММІЅВІОИІИС (ВЕ ГІИКІИС)

Mounting transmitter unit

eceiver will not communicate until the

transmitter unit onto backplate. are inserted with the correct polarity. Clip good quality alkaline batteries. Ensure batteries 1.5V LR6/AA) into the transmitter. Use only mounting on backplate, insert the batteries (2 x Ensure screwdriver lugs are at the top. Before packpiate to secure it to the wall surface. Select at least two of the mounting holes in the

packplate lugs and gently levering as shown. by inserting a flat-bladed screwdriver into the Kemove the backplate from the transmitter unit 2.3 Fitting the Transmitter

spould be maintained. not required, but a minimum temperature remperature for those periods when healing is

and a background (or night set-back) (comfort) temperature when heating is required, programmed to deliver temperature for a day ambient room temperature and it can be within the property, where it will sense the The transmitter should be centrally located

10 - 30% Class

given in Fig.5 to ensure that any obstacles to

of radio frequency signals. Refer to guidelines

Constructional materials within domestic

2.2 Constructional RF obstructions

atructures have a varying impact on the strength

Figure 3

the RF signal are minimised.

RF Obstruction guidelines

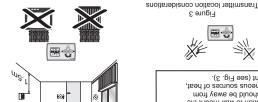
Figure 4

seen carried out.

Figure 5

systems on the same frequency do not conflict Approximate reduction in RF signal strength after passing through different materials Brick & mortar Re-inforce wall Metallic material 10 -40% 40 -100%

1 UUUU 9000 4 Builleo I. snid sliew 7 to munixem nou; riwit operacies to a ™ The



Pro Kitchen/Utility

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(egou ees) 9

including direct sunlight (see Fig. 3). draughts or any extraneous sources of heat, transmitter unit. This should be away from Identify a suitable location to wall-mount the 2.1 Transmitter location

2. INSTALL THE TRANSMITTER

Figure 2. Connection diagram

the Vortex Pro External Module control panel Kitchen/Utility boiler control panel or Terminal 14 in DE IAU CONNECTION TO TERMINAL 6 IN THE VOITEX PTO system(i.e using 2 x 2-port zone valves) there must When using the RFT kit with an 'S-plan' type control

nade from lerminal 4 on the FM/2 unit External models) there must be NO connection For Vortex Pro Combi e boilers (Internal and (sjapow

Vortex Pro Boilers - Wiring terminals

(system & non-system səinboM (internal & external Pro External Pro Combi e 91 6l ŀ⊕₁ CH ou (see note) ₽ъ tto WE 12 டுப no WH 21 **-**@− 22

not water and timed thermostatic control of programmable device giving timed control of Important. The Transmitter is a 7-day

.eamig.

restored without the need to re-commission the Receiver will still function when mains power is the Receiver. It there is a power cut, the The code is stored in 'non-volatile' memory in code from the Transmitter into the Receiver. The commissioning process transfers a unique

where the boiler may be undersized. insulated (e.g. older un-renovated houses) or 03 can be used where the property is less well to the building heat loss. Settings ED02 and ED renovated houses) where the boiler is matched insulated properties (e.g. new or recently The default setting ED 01 is best suited for well

nonnial operation. then press Mode button to quit and Press OK to confirm your selection, ED 03 = 25.5 minutes

ED 02 = 17 minutes ED 01 = 8.5 minutes :6ujwojjoj to select a new ED value from the While ED 01 is displayed, press + or system. The default setting is ED 01. time, to the reaction time of the heating cusuded to match the nesting cycle If required, the ED setting can be

To set up Energy duty (ED)

mode and to return to normal operation. Press OK to quit permanent transmit I ransmitter.

according to the settings of the set up and the Receiver will switch Secure RF communications have been intermittent flash. This indicates that Receiver the LED will go to an Once a signal is received by the

transmit mode for up to 3 minutes. Transmitter goes into permanent Press OK. Display shows Fu on.

Press OK. Display shows Fu on (with to tollowing section headed To set up

(see Fig.6) Display shows ED 01. Refer buttons together for about 2 seconds On transmitter, press Mode and Menu

Release Black button. LED remains on. then again 2-3 seconds later. down, the LED flashes immediately and (see Fig.6). Whilst holding the button and hold small Black button on Receiver Using the tip of a ballpoint pen, press

To set up RF link

tollow rue brocedure below: To commission the Transmitter/receiver set

Figure 7 - FM/2 Receiver Figure 6 - Transmitter

ruis represents the set-back temperature. emperature, and where no blocks are visible, where blocks are visible this represents day graphic representation of today's program. Along the lower edge of the display is shown a

selected. See Fig.8 mode, day or night set-back temperature the weekday, ambient temperature, operating In normal operating mode the display will show Transmitter Display

program (Pd) for Hot water - or vice versa. programmes for Heating but set your own AITEMBRIVELY, you could use one of the pre-set

separately in the programming process. bre-set program for both, as they are selected In this case they do not have to be the same programmes for Heating and also for Hot water. You can opt to use either of the two pre-set

JOHNO. set your own ON/OFF times for the Heating A third option Pd is available. This allows you to

00.52 of 00.71 morf NO niege bns 05.80 of 00.80 mort NO si S9 P1 is ON continuously from 07.00 to 23.00

These are referred to as P1 and and Hot Water ON/OFF times. for both the Heating ON/OFF times The Transmitter has two pre-set programmes

See Fig.7 Receiver/switching unit (FM/2) -A remote boiler mounted Transmitter unit - See Fig.6

inermostat A battery powered timer /

The control set is made up of

section.

Refer to Programming the transmitter' or Heating and Hot Water are set separately. MPORTANT: The ON and OFF time periods Water OFF time periods. Water ON time periods and off during the Hot

simply switches the hot water on during the Hot independent of the heating control function. It The Hot Water control function is completely

the day when your house is unoccupied. to use the lower 'set-back' temperature during any time of the day or night, e.g. you may want Note: A 'set-back' temperature period can be at falls below the set temperature. a reached and on again when the temperature

(Day setting) or OFF (Night 'set-back' period) off when the set temperature - in either an ON The Heating control function switches the boiler

the Heating OFF time periods. a lower 'set-back' (Night) temperature during setting during the Heating ON time periods and maintain either the normal (Day) temperature The Heating control function operates to

> Timed control of hot water central heating

I imed/thermostatic control of courtol providing both frequency (RF) programmable room thermostat The Grant RFT kit is a 7-day two-channel radio **USER INSTRUCTIONS**

Transmitter by following the procedure shown Transmitter, as described above, program the

After installation of the Receiver and

Press + or - buttons to adjust minutes Press OK to confirm hours setting Press + or - buttons to adjust hours Step 2: Set Time & Day:

> Remove/insert batteries Press Reset or Press Menu or

Step 1:To enter programming mode:

toom temperature, time and program settings. you back to the display showing the current Pressing the Mode button at any time will take

brocess again. simply press reset and start the programming become confused or enter an incorrect setting, follow the procedure below. If at any point you To set the required temperatures and times PROGRAMMING THE TRANSMITTER

Mode button instructions for further details on use of Refer to 'Mode Options' section of these

Holiday mode

🛔 Бяцу тоде To manually switch heating to ON (normal Day) setting

■ Leafing to OFF (set-back) setting

To manually switch heating to OFF (set-back) setting

To manually switch heating

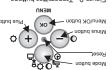
To manually switch heati

Hot water setting for the current day.

Display of current information – time, room temperature Mode button symbols

Party function and Holiday function. to switch Heating OFF, to switch Heating ON, selections: To view today's Hot Water settings, Mode button: Used to make Manual

Figure 9 - Transmitter buttons



+ & - Buttons: Used to make settings

mode or to confirm a setting (OK) Menu/OK button: Used to enter programming

.(6.gi7 Transmitter. These are as follows (refer to required time and temperature settings on the There are four main buttons used to make the Transmitter Buttons

automatically changes to show the Hot Water seconds in every minute the display in operation and Heating program. For 5 the Air temperature, Time, Day or Night setting In normal operating mode, the display shows

Transmitter Display

Figure 8 - Transmitter display spoued NO Bulmous rogram indicator P. 5. 4 . 6 . 8 10 18 10 18 20 22 24 hss ± ч⊥ м ⊥.

point, then follow the programming procedure If you wish to set the Hot Water program at this

Water program for each day. display will prompt you to set the Hot program setting last weekday (day /), the After Pressing OK to confirm the Heating

be different if required. the week - the settings for each day can Repeat this procedure for each day of

Press OK to confirm setting until 00.00 shows on the display (e.g. at 23.00) Press - button repeatedly ON (Day) period of the day After setting the OFF time for the last Finaliy

at the bottom of the display. shown on the Program Indicator The Program periods set will be ON and OFF times during the day. Repeat the above steps to set further shown on the display as above. on the display (eg. 09.00). This is also required first OFF (Night) time is shown Less + pricon repeatedly unit the Indicator at the bottom of the display. and also on the 24 hour Program This is shown digitally on the display on the display (eg. 06.00). required first ON (Day) time is shown Press - button repeatedly until the

*If Pd is selected - set required program: setting for day / Finally, Press OK to confirm programme Repeat the procedure for days 3 to 7

z (sp. ioi Press OK to confirm programme setting Pd* for day 2 Press + or - buttons to select P1, P2 or bress OK to confirm programme setting

Pd* for day 1 Press + or - buttons to select P1, P2 or Select programme for EACH day:

mumixem 3°81 of muminim Night (set-back) temperature range 5°C .mumixem 0°08

Note: Day temperature range 15°C minimum to Press OK to confirm night temperature

prigous to adjust night temperature - ress + or -6ume Press OK to confirm day temperature

emperature Press + or - buttons to adjust day Set Day and Night temperature levels:

following procedure: Set HEATING program first by using the

Press OK to confirm setting

Tel Water → ☐ = Heating

Heating/Hot Water Press + or - buttons to select Step 3: Select Heating or Hot Water:

Press OK to confirm weekday setting Press + or - buttons to adjust weekday Press OK to confirm minutes setting