MYSON

KICKSPACE® 500 DUO ECO

INSTALLATION & OPERATING MANUAL

PLEASE LEAVE THIS MANUAL WITH THE END USER

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COMPLETE HEATING SOLUTIONS

Contents

1.0 Safety Information

The KICKSPACE® 500 DUO ECO MUST NOT be installed in a bathroom or other similar high humidity area.

WARNING: KICKSPACE® 500 DUO ECO models must be earthed.

WARNING: DO NOT cover the unit or obstruct the grille as this could give risk of fire.

For MYSON KICKSPACE® 500 DUO ECO, a fused electrical spur with a switch having 3mm separation on all poles must be provided in an easily accessible position adjacent to the unit.

If the supply cord to the KICKSPACE® 500 DUO ECO is damaged, it must be replaced by the manufacturer, its service agent or similar qualified persons in order to avoid a hazard.

This appliance can be used by children aged from 8 years and above and persons with reduced physical or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children unless they are older than 8 years and supervised.

Keep the appliance and its cord out of reach of children aged less than 8 years.

Children of less than 3 years should be kept away from the unit unless continuously supervised.

Children aged from 3 years and less than 8 years shall only switch on / off the appliance provided that it has been placed or installed in its normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children aged from 3 years and less than 8 years shall not plug in, clean the appliance or perform user maintenance.

CAUTION: Some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.

2.0 Installation

● Before proceeding with the installation, the heating system design must be considered and the unit correctly sized to meet the heat loss requirements of the room.

● Before proceeding with the installation, unpack the carton contents and check against the checklist below:

  1. KICKSPACE® unit.
  2. Flexible hoses including isolating valves (1 pair).
  3. Instruction manual.
  4. Warranty card.
  5. Grille.
  6. Screw fixing kit (with grille).

● This MYSON KICKSPACE® fan convector is designed for installation in the cavity beneath kitchen cupboards on the vacant floor space, or other similar locations.

● For KICKSPACE® 500 DUO ECO a minimum of 25mm clear headroom is required above the top of the KICKSPACE® when fitted.

2.0 Installation (continued...)

- The unit should be mounted on a clean and level floor area under the cupboard base.

- KICKSPACE® 500 DUO ECO floor mounting (see Fig. 1a) - The KICKSPACE® is normally fitted directly onto the floor and the base of the unit is fitted with four mounting feet.

- KICKSPACE® 500 DUO ECO plinth mounting (see Fig. 1b) -
  • As an alternative to floor mounting the unit may be fitted into the plinth.
  • A suitable support must be securely fitted to the floor.
  • The top of the support must be level with the lower edge of the cut-out when fitted.

- Decide the position of the KICKSPACE®, mark out and cut the plinth to the dimensions using table on page 8.

- Complete connection to the central heating system according to Section 3, Water Connection.

- Position the KICKSPACE® under the cupboard in the required location, with the front edge just behind the line of the plinth.

- Replace the plinth and bring the KICKSPACE® forward into the opening so the front edge projects approximately 10mm through the plinth.

- KICKSPACE® DUO ECO is fitted with a transit cover to protect the electric element and to minimise risk of electric shock prior to the grille being fitted. The cover must only be removed with the electrical supply switched off immediately prior to fitting of the grille.

- Align the grille and secure it to the unit with two screws supplied (use the shorter screws). (See Fig. 2).

- Secure the unit/grille to the plinth with two screws supplied (use the longer screws). (See Fig. 2).

- Complete the electrical installation, switch on and test the KICKSPACE® (see Fig. 3).

- When installed in a kitchen consideration should be given to storage of perishable goods in the cupboard above.

- No rear access to the unit shall be available after installation.

3.0 Water Connection

- The KICKSPACE® should only be used on closed circulation, two pipe, pump assisted central heating systems.

- For optimum fan convector heating performance the system must be capable of providing sufficient hot water through the heat exchanger. This means that:

  1. The minimum pipe size from boiler to fan convector must be at least 15mm. Microbore pipe **MUST NOT** be used.

  2. Where the unit is fitted on to a system with other emitters a separate circuit for the fan convector should be considered to provide adequate water flow.

  3. The system water temperature on the return of the KICKSPACE® must be above 43°C for the fan to switch on.

  4. **This unit is NOT suitable for one-pipe systems.**

  5. Optimum performance will require effective balancing of the whole system.

  6. This unit must not be used to replace a radiator in an existing system unless an adequate flow of water can be guaranteed.

Pipework must be positioned correctly to ensure flexible hoses are not kinked when installed (see Figs. 5a & 5b). Only use the hose sets supplied with this unit. Do not use old or alternative hose sets.

- Connect valve ends of the flexible pipes to the KICKSPACE®.

Note: The direction of the arrows on the valves are not significant in this application (see Fig. 4).

- Open valves fully, check pipe connections for leaks and vent the heat exchanger. A vent screw is provided to vent the heat exchanger.

4.0 Electrical Connection

WARNING: KICKSPACE® 500 DUO ECO models must be earthed.

- The electrical installation must comply with local or national wiring regulations.

- This unit is supplied fitted with a 2.0 metre 1.00mm² cord.

- For KICKSPACE® 500 DUO ECO a fused (5A) electrical spur with a switch having 3mm separation on all poles must be provided in an easily accessible position adjacent to the unit.

- If the supply cord to KICKSPACE® 500 DUO ECO is damaged, it must be replaced by the manufacturer, its service agent or similar qualified persons in order to avoid a hazard.

Do not energise the electrical supply until the remaining stages of the installation have been completed.

1.0

2.0

3.0

4.0

5.0 Waste Disposal According to the WEEE Directive (2012/19/EU)

Waste disposal according to the WEEE Directive (2012/19/EU). The symbol on the product label indicates that the product may not be handled as domestic waste, but must be sorted separately. When it reaches the end of its useful life, it shall be returned to a collection facility for electrical and electronic products. By returning the product, you will help to prevent possible negative effects on the environment and health to which the product can contribute if it is disposed of as ordinary domestic waste. For information about recycling and collection facilities, you should contact your local authority/municipality or refuse collection service or the business from which you purchased the product. Applicable to countries where this Directive has been adopted.

6.0 Controls

This unit is controlled by the switches on the front of the unit (see Fig. 3) and a wireless programmable thermostat.

The wireless programmable thermostat includes many features and also ensures the electric KICKSPACE® products comply with the **Commision Regulation (EU) 2015/1188**. These features can be identified on the display of the wireless programmable thermostat (see Fig. 6).

Locating the Wireless Programmable Thermostat

The wireless programmable thermostat includes a flip out stand and can be freestanding in a suitable location. Alternatively it can be wall mounted, fitting instructions can be seen in Fig. 7. Wherever the wireless programmable thermostat is mounted/used it should be out of direct sunlight, away from draughty areas and clear of any potential heat sources. For optimum use the thermostat should be fitted at a height of 1.5m from the floor (see Fig. 8).

First use of the Wireless Programmable Thermostat

Remove the plastic insulator from the battery compartment in the remote control. Hold OK for 10 seconds until 'rF ini' appears. Press OK again and 'ini' flashes until the unit has paired with the KICKSPACE®. The remote control reverts back to its normal screen when paired.

Setting the date and time

Use ◀ and ▶ keys to choose from the following parameters. A function is selected when the icon is surrounded by ⬜.

1. Select 🕑 and press OK.

2. Press **(OK)** the hours will begin to blink.

3. Use ◀ or ▶ to change the hour and press **(OK)** to confirm, the minutes will then begin to blink.

4. Use ◀ or ▶ to change the minutes and press **(OK)** to confirm, the day number will then display.

5. Use ◀ or ▶ to change the day number, with Monday being 1 and press **(OK)** to confirm, the date and month will then display and the day will begin to blink.

6. Use ◀ or ▶ to change the day and press **(OK)** to confirm, the month will then begin to blink.

7. Use ◀ or ▶ to change the month and press **(OK)** to confirm, the year will then display and begin to blink.

8. Use ◀ or ▶ to change the year and press **(OK)** to confirm, and then scrolll ◀ or ▶ to go back to the main menu.

Operating Modes

Use ◀ and ▶ keys to choose from the following parameters. A function is selected when the icon is surrounded by ⬜.

| Function	Description	Adjustment
⚙	**Comfort Mode** Provides room temperature control for when the room is occupied (see Fig. 3). There are two heating modes available - Central Heating and Electric. Heating Mode – Central Heating To enter this mode: • Set the fan only/off/heating switch to heating (red dot) • Set the system selector switch to position I • Select the fan speed switch to position I The unit will now run on low speed. The system water temperature must be above 43°C for the fan to switch on*. The fan can be set to boost by switching the fan speed to II. For Electric Heating Mode, please see following page...	The display will show the ambient temperature. Press OK, set temperature will begin to blink. Use ◀ or ▶ to adjust the required room temperature. Press OK to confirm. The ambient room temperature will then display. Default setting +21°C Max temp setting +30°C Min temp setting +5.5°C Note: The thermostat has a LED indicator that will change colour depending on the following: ≤21.0°C = Green 21.5°C - 24.0°C = Orange ≥24.5°C = Red Note: To see the set temperature simply press ↰.

6.0 Controls (continued...)

Operating Modes (continued...)

Function	Description	Adjustment
☼	**Comfort Mode continued...** Heating mode – Electric** To enter this mode: • Set the fan only/off/heating switch to heating (red dot) • Set the system selector switch to position II • Select the fan speed switch to position I The unit will now run on low speed. The element will not activate if the system water temperature is above 40°C.	See previous page.
Auto	**Automatic Setting** The unit will run according to one of the 9 preset timed programmes, or one of the 4 user defined programmes.	See following page for 'Programme Mode' setup. Note: When in AUTO mode it is possible to override by selecting a new temperature. To do this while in AUTO mode, press (OK), the temperature will begin to blink, change the temperature using ◀ or ▶ and press (OK) to confirm. The ✋ symbol will display showing the override and this will last for 2 hours. To remove the override you can press ↰. Note: To see the set temperature simply press ↰ again.
☾	**Night Set-back Setting** Provides room temperature controls for when the room is not occupied.	The display will show the ambient temperature. Press (OK), set temperature will begin to blink. Use ◀ or ▶ to adjust the required room temperature. Press (OK) to confirm. The ambient room temperature will then display. Default setting +19°C Max temp setting +19°C - night set back temperature can not be higher than comfort mode set point. Min temp setting +5.5°C Note: To see the set temperature simply press ↰.
❄	**Holiday Function** Provides frost protection or overheat protection during periods of absence (holiday).	• For permanent frost protection select ❄ and press (OK). 💼 is shown in permanent frost protection. • For holiday frost protection press (OK) again, 'no' will blink. Press ▶ button to increase number of hours (1-24)/days (1-99), and press (OK) to confirm. Thermostat is now in holiday mode. The 💼 will blink and will continue to blink until the timer ends. It is possible to exit the holiday function by pressing and holding ↰ for 2 seconds.
⧗	**Boost Function** Brings the unit on irrespective of the programme or temperature setting for a predefined period. Default is 30 minutes. Can be used in Comfort, Auto, Night Set-Back mode.	Select ⧗ using ◀ or ▶ or directly using button 20. The time period in minutes will blink. Use ◀ or ▶ to adjust time by increments of 10 minutes. Press (OK) to confirm, the hourglass will begin to blink and countdown. It is possible to exit boost function by pressing ↰.
P	**Programme Menu** Provides choice from 9 pre-programmed and 4 user defined timed programmes.	Refer to following page.

*When the mean water temperature is greater than 43°C the fan will switch on, then when the water temperature drops below 43°C the fan will switch off. Performance will depend on the water temperature and the flow though the coil.

**The product incorporates a 1kW electric heating element to provide heating when the central heating is not in operation. The electric element is controlled independently but cannot be used simultaneously with the central heating.

6.0 Controls (continued...)

Programme Mode

A quantity of 9 built-in (P1-P9) and 4 user defined (U1-U4) timed programme options are available to choose from. Each day is divided into 48 half hour periods operating in comfort mode.

Built-in Programme Selection

1. Select **P** by pressing ▶ until **'ProG'** is displayed.
2. Press **(OK)** twice and the programme number will begin to blink.
3. Use ◀ or ▶ to select required programme (P1-P9).
4. Press **(OK)** to confirm the chosen programme.

| Comfort Periods			
P1	Morning, Evening & Weekend	Weekday	07:00 - 09:00 & 17:00 - 23:00
		Weekend	08:00 - 23:00
P2	Morning, Afternoon, Evening & Weekend	Weekday	07:00 - 09:00, 12:00 - 14:00 & 17:00 - 23:00
		Weekend	08:00 - 23:00
P3	Day & weekend	Weekday	06:00 - 23:00
		Weekend	08:00 - 24:00
P4	Evening & Weekend	Weekday	15:00 - 23:00
		Weekend	08:00 - 24:00
P5	Morning & Evening	Weekday	06:00 - 08:00 & 21:00 - 23:00
		Weekend	06:00 - 08:00 & 18:00 - 24:00
P6	Morning, Afternoon & Weekend	Weekday	06:00 - 08:00 & 14:00 - 21:00
		Weekend	07:00 - 21:00
P7	7h - 19h (Office)	Weekday	07:00 - 19:00
		Weekend	n/a
P8	8h - 19h Saturday	Weekday	08:00 - 19:00
		Weekend	09:00 - 18:00 (Saturday only)
P9	Weekend only	Weekday	n/a
		Weekend	00:00 - 24:00

User Programme Menu

1. Select **P** by pressing ▶ until **'ProG'** is displayed.
2. Press **(OK)** twice and the programme number will begin to blink.
3. Use ◀ or ▶ to select a user defined programme (U1-U4).
4. Press and hold **(OK)** for 3 seconds to edit the programme.
5. The hour will now display, also note the segments on the bottom of the display will begin to blink
   - Press ◀ to set this half hour as night set back
   - Press ▶ to set at comfort mode
   - Note when pressing ◀ or ▶ you will automatically move to the next half hour.

6. When the final segment is reached (23:30) press **(OK)** to move to day 2. Here you have the option to copy the same programme that you have just created or create an alternative programme.
   a. To copy the programme press **(OK)** while YES is displayed this can be copied to each day individually and it is also possible to copy a number of days but then change other days to an alternative programme by selecting **NO** then pressing **(OK)**
   b. To create an alternative programme for individual days use ◀ or ▶ to change **YES** to **NO** then press **(OK)** and repeat from step 6.
7. After completing the last day the word **SAVE** will appear, press **(OK)** to save changes.

The thermostat will then automatically enter **AUTO** mode to follow the selected programme.

6.0 Controls (continued...)

Installer's Set-up Parameters

To access the installation parameters menu, press and hold **(OK)** for 10 seconds. Use ◀ or ▶ to highlight the parameter to be adjusted then press **(OK)** to toggle the parameter setting, when the value starts to blink, use ◀ or ▶ to adjust the value. Then press **(OK)** to confirm. Once parameters are set, go to **<End>** parameter and press **(OK)** to go back to the main menu.

Parameter Name	Description	Default Setting	Alternative Setting
rF ini	Manually pair the thermostat to the receiver	Press (OK) to begin pairing	
At	Myson Smart Start (Adaptive Start) Thermostat will learn to achieve temperature by time requested	Yes	No
oP	Window open detection, product will switch off if a large temperature drop is detected (usually caused by an open window / door)	Yes	No
Lt	Room temperature limiter (limits the maximum room temperature set point)	30°C	20°C< TR MAX <30°C
Ch	Automatic daylight saving time adjustment	Yes - automatic	No - manual
CL	Reverts the control back to factory settings	Press and hold OK for 10 seconds to reset	
UE	Version number	n/a	n/a
End	Exit the installation menu	Press OK	

Fan Only Mode

If required, the unit can be used in summer for air circulation without heat.

• Set the fan only/off/heating switch to fan only (blue dot)

• Adjust fan speed to required setting

7.0 Troubleshooting

Once installed this fan convector becomes an integral part of a complete heating system that includes boiler, pump, other emitters such as radiators and fan convectors, and a number of heating controls, dependent on system complexity. An apparent problem with this unit may be the result of system controls being incorrectly set and can be solved easily without calling out your installer. Before calling your installer, please carry out the checks listed below.

Problem	Possible Causes	Remedy
Fan not working in heating mode	Unit switched off	Turn on
	Room thermostat not calling for heat	Turn up room thermostat
	Unit not switched on at fused spur	Switch on at spur
	Fuse blown at fused spur	Replace fuse
	Unit isolating valves shut	Open valves
	Water temperature of KICKSPACE® below 43°C	Ensure boiler, pump and other central heating equipment is working correctly, if not contact your installer **Note:** Operation of fan can be checked by switching to fan only setting

If the fan convector is still faulty after checking the above, call your installer.

KICKSPACE® may have poor performance/cycle if a low water temperature/flow rate is supplied, please refer to your installer as this could be from the following:

• Unit incorrectly sized for heat loss of room
• Lack of flow to KICKSPACE® from heating system
• Pipe sizes/pump sized incorrectly
• System incorrectly balanced

6.0

7.0

8.0 Appendix

Heating Performance Data

Model	Fan Speed	Temperature Difference (°C)									
		Heat Output (Watts)					Heat Output (Btu/h)				
		ΔT20	ΔT30	ΔT40	ΔT50	ΔT60	ΔT20	ΔT30	ΔT40	ΔT50	ΔT60
500 DUO ECO	Normal	393	566	733	896	1056	1340	1930	2501	3057	3603
	Boost	447	683	923	1166	1412	1524	2331	3150	3980	4817

A low setting is recommended for normal operation with the higher speeds for boost heating when required.

Heat outputs tested in accordance with BS 4856 Part 1.

Flow Rate: 340 ltr/h (75 gal/h).
Flow Rate Correction Factors:
455 ltr/h (100 gal/h) multiply output by 1.03.
227 ltr/h (50 gal/h) multiply output by 0.96.
113 ltr/h (25 gal/h) multiply output by 0.85.

Test Pressure 20 bar
Maximum Working Pressure 10 bar
Rated Power in Electric Mode 1025W

Sound Levels

Model	Sound Pressures at 2.5m (dBA)	
	Normal	Boost
500 DUO ECO	25.7	38.1

Sound levels tested in accordance with EN 23741.

Approximate Hydraulic Resistance

Litres/h	500 DUO ECO	
	mm wg	kPa
455	788	7.7
340	488	4.8
227	231	2.3
113	82	0.8

Weight, Water Content and Motor Power

Model	Motor Power (W)	Water Content (l)	Unit Weight (kg)
500 DUO ECO	25	0.26	4.3

KICKSPACE® 500 DUO ECO

Dimensions (mm)

N.B: Add 4.5mm to the chassis height to allow for rubber mountings and screws.

Dimensions

Dimensions (mm)	
A	B
466	93

A = Width of cutout
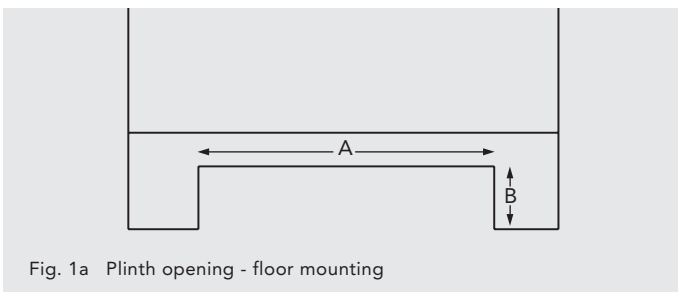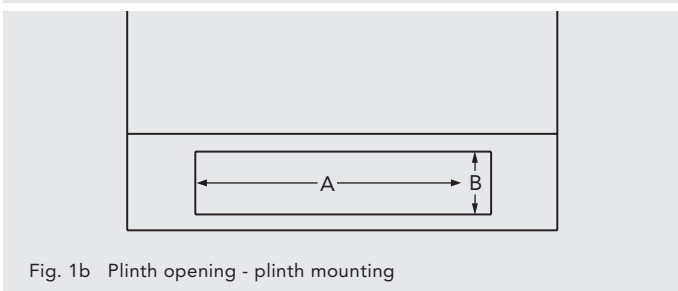B = Height of cutout

Fig. 1a   Plinth opening - floor mounting
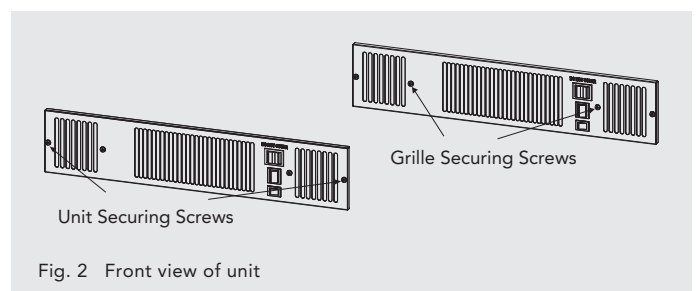

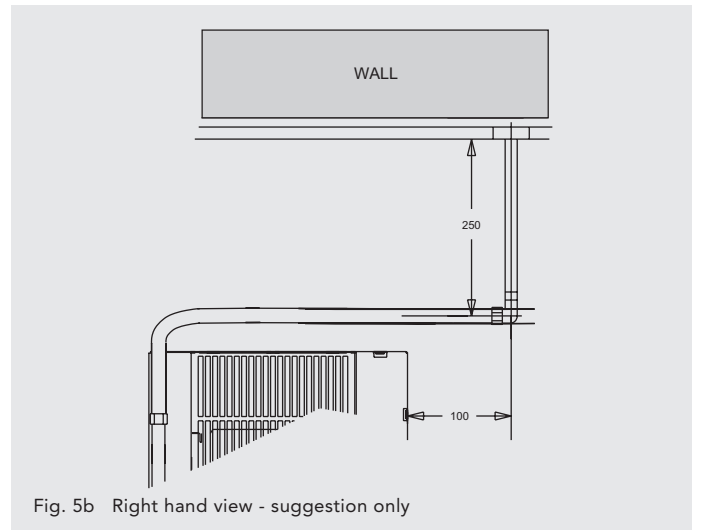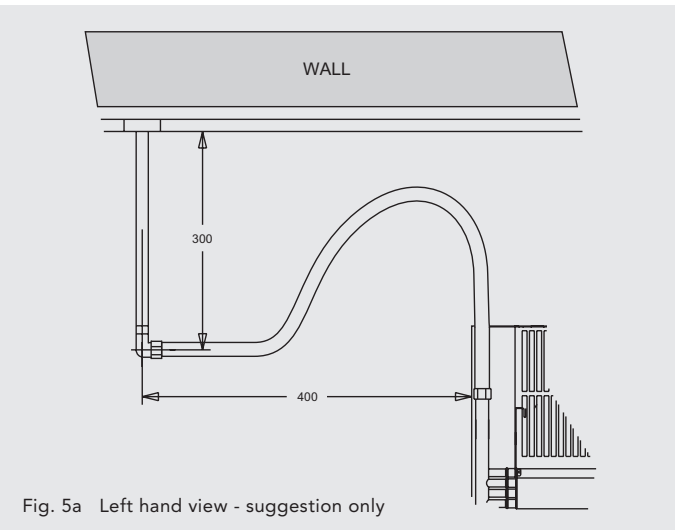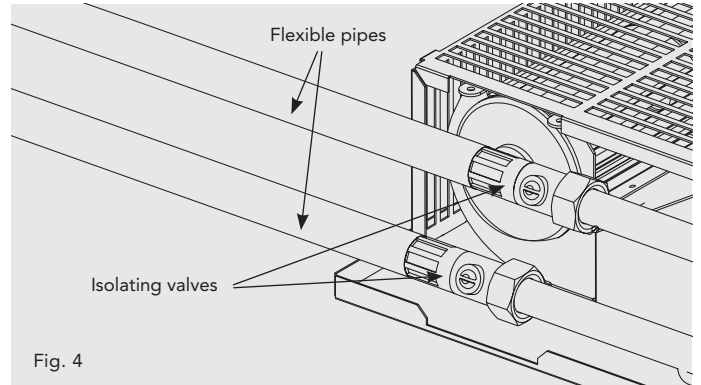Fig. 1b   Plinth opening - plinth mounting

Grille Securing Screws

Unit Securing Screws

Fig. 2   Front view of unit

8.0 Appendix (continued...)

Heating System Switch

● ○ ●
(B) (OFF) (R)

Fan only / Off / Heating Blue dot (B) / 0 / Red dot (R)

System Selector Switch

‖ │

Electric / Hydronic

‖ / │

Fan Speed Switch

‖ ✱ │

Boost / Normal

‖ / │

Fig. 3

Flexible pipes

Isolating valves

Fig. 4

WALL

300

400

Fig. 5a   Left hand view - suggestion only

WALL

250

100

Fig. 5b   Right hand view - suggestion only
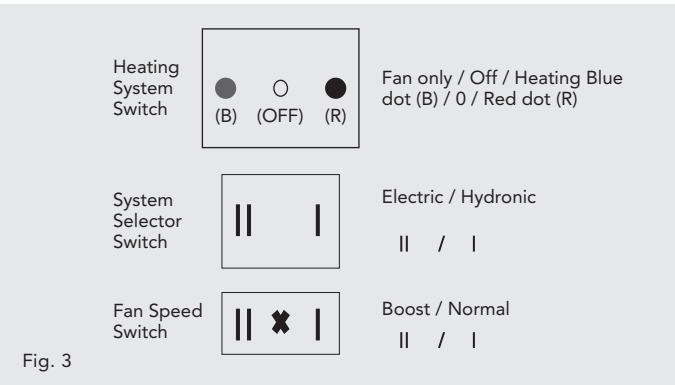
1. Weekly programme and OFF symbol
2. Radio transmission indicator
3. Keypad lock activated
4. Exemption programme
5. Programme schedule and time indicator
6. Programme number
7. Current day
8. Low battery indicator
9. If ON => Room temp, displayed
10. Set temperature or room temp / Hour and date during adjustment/time of boost period
11. Behaviour indicator (3 led colours - green, orange and red), visible through the plastic
12. Open window detection
13. Appears when in user setting menu
14. Comfort mode
15. Auto mode
16. Reduced mode
17. Holiday mode
18. Boost mode
19. Return button
20. Boost button
21. Minus button
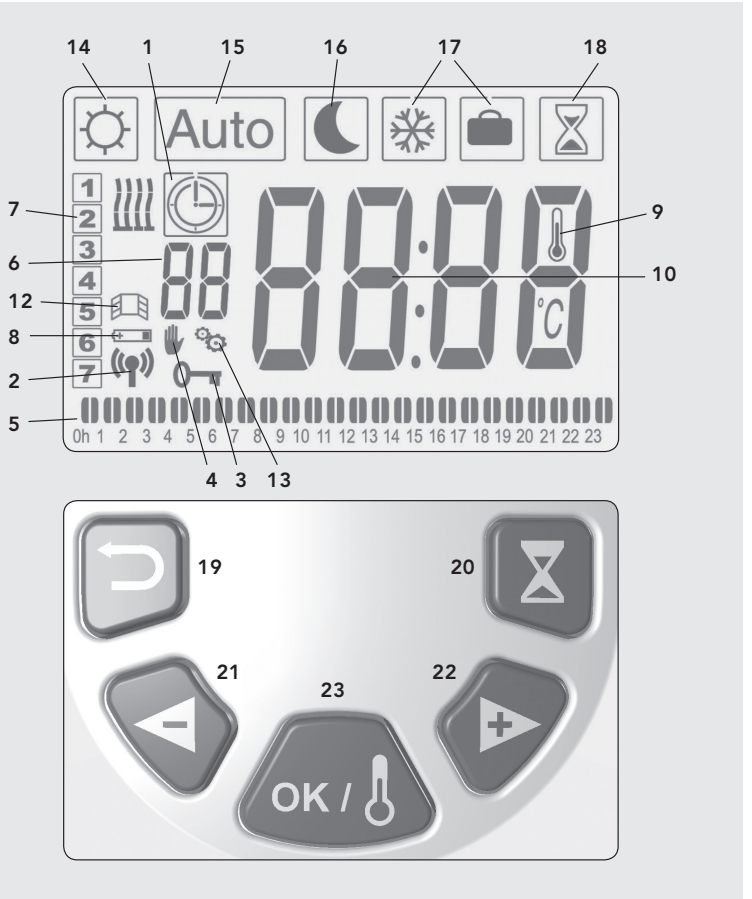22. Plus button
23. Validation button

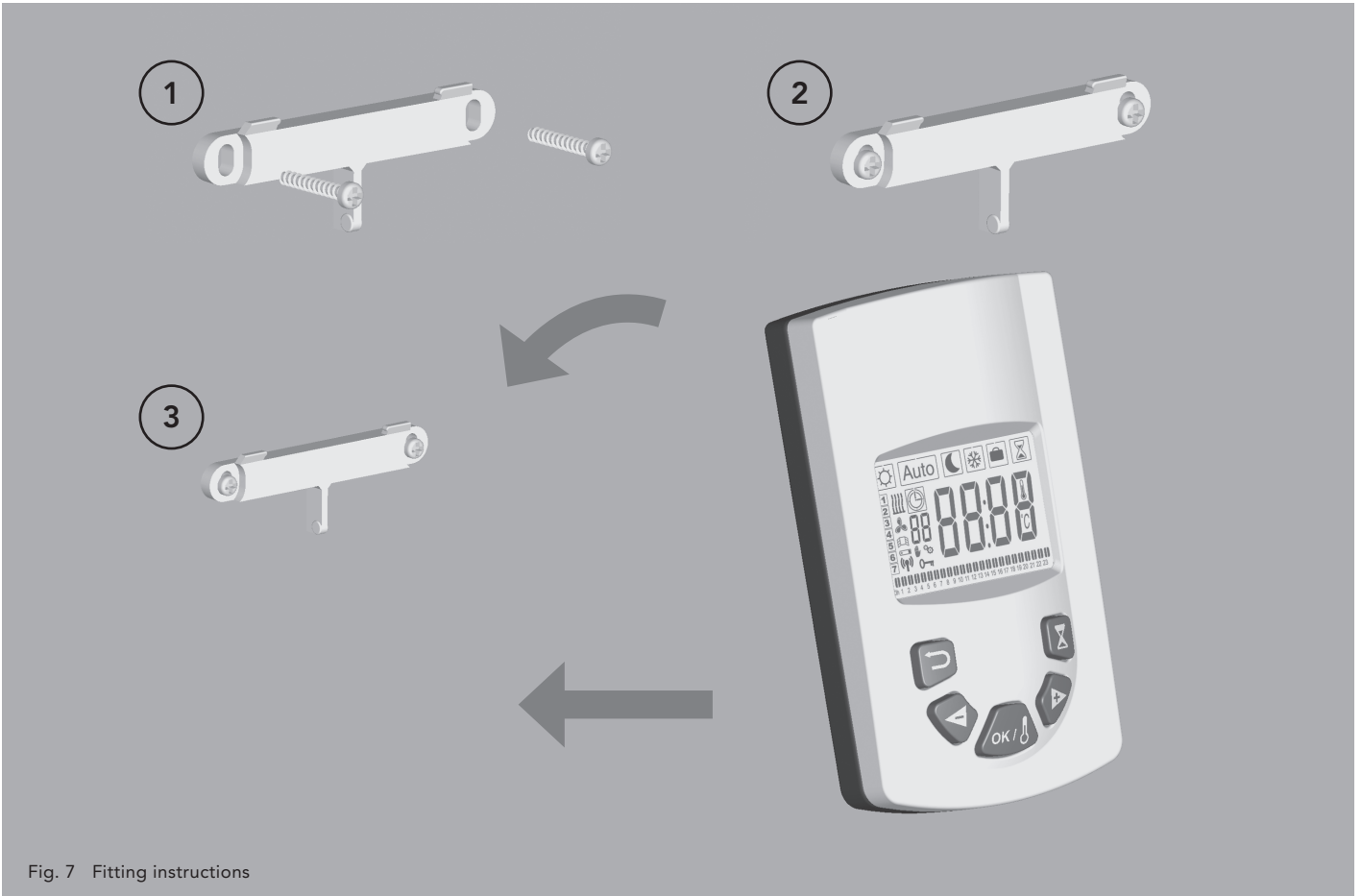Fig. 6   KICKSPACE® thermostat controls

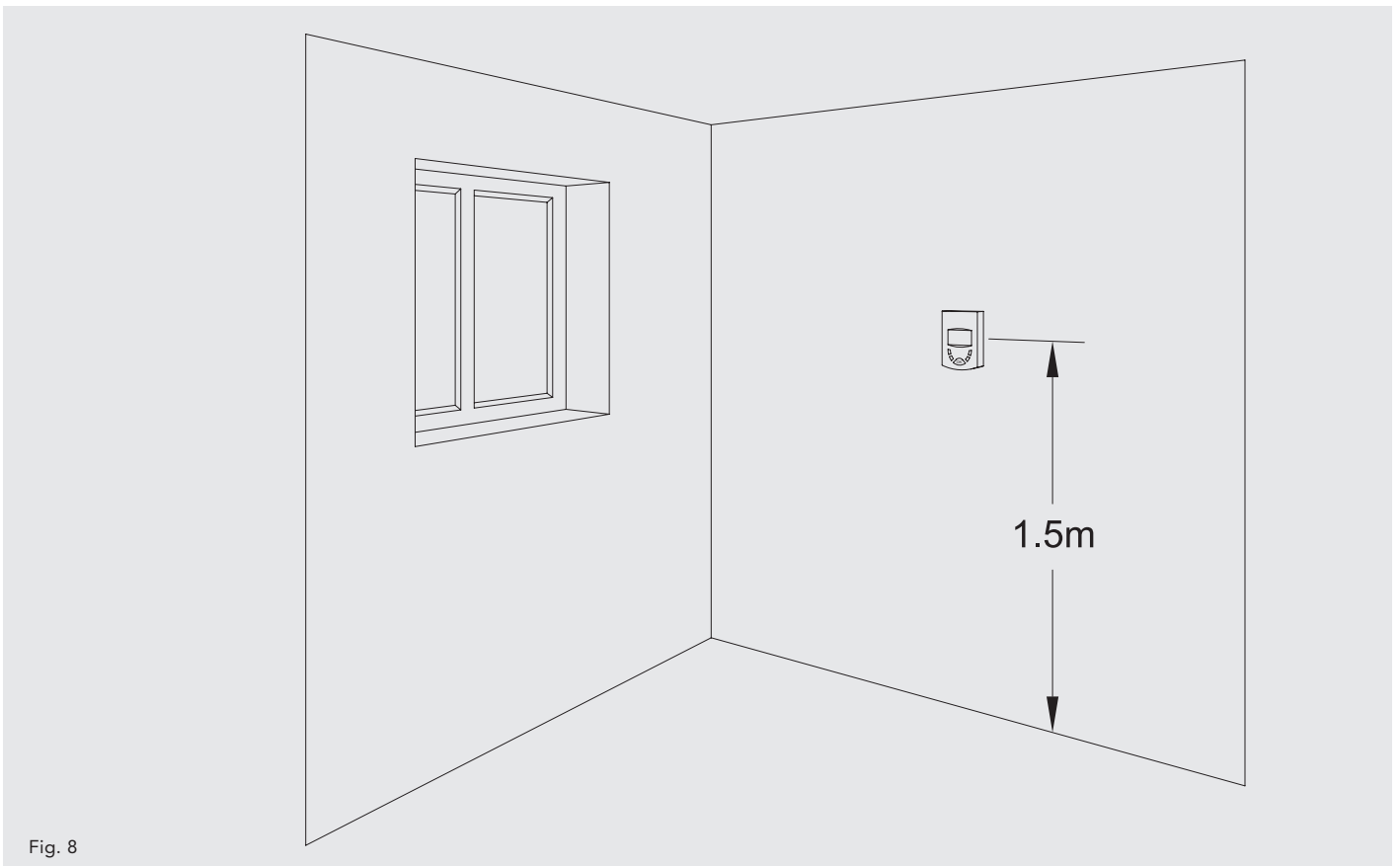## 8.0 Appendix (continued...)

Fig. 7   Fitting instructions

Fig. 8

9.0 Eco Directive Characteristics

Model identifier(s): KICKSPACE® 500 DUO ECO

Item	Symbol	Value	Unit		Item	Unit
Heat Output					**Type of heat input, for electric storage local space heaters only**	
Nominal heat output KICKSPACE® 500 DUO ECO	P_{nom}	1.03	kW		manual heat charge control, with integrated thermostat	N.A.
Minimum heat output (indicative) KICKSPACE® 500 DUO ECO	P_{min}	N.A.	kW		manual heat charge control with room and/or outdoor temperature feedback	N.A.
Maximum continuous heat output KICKSPACE® 500 DUO ECO	$P_{max,c}$	1.03	kW		electronic heat charge control with room and/or outdoor temperature feedback	N.A.
					fan assisted heat output	N.A.
Auxiliary electricity consumption					**Type of heat output/room temperature control**	
At nominal heat output	el_{max}	0.00	kW		single stage heat output and no room temperature control	no
At minimum heat output	el_{min}	N.A.	kW		two or more manual stages, no room temperature control	no
In standby mode	el_{SB}	N.A.	kW		with mechanic thermostat room temperature control	no
					with electronic room temperature control	no
					electronic room temperature control plus day timer	no
					electronic room temperature control plus week timer	yes
					Other control options	
					room temperature control, with presence detection	no
					room temperature control, with open window detection	yes
					with distance control option	no
					with adaptive start control	yes
					with working time limitation	no
					with black bulb sensor	no

Contact details	Rettig UK Ltd, Eastern Avenue, Team Valley, Gateshead, Tyne & Wear, NE11 0PG, United Kingdom

Product code and
serial number location

Product Serial Number:

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