Manuals+ — User Manuals Simplified.

CONSORT PVE050 Panel Convector Heaters with Electronic Controls and Open Window Detection Installation Guide

Contents

CONSORT PVE050 Panel Convector Heaters with Electronic Controls and Open Window Detection

Installation

All electrical appliances produced by the Company are guaranteed for one year against faulty materials or workmanship. This applies only if the appliance has been used for purposes in accordance with the instructions provided and has not been connected to an unsuitable electricity supply, or subject to misuse, neglect, damage or modified or repaired by any person not authorized by us. This guarantee is offered to you as an extra benefit and does not affect your legal rights. The correct electricity supply voltage is shown on the rating label attached to the appliance. Reasonable care has been taken to ensure that this guide is accurate at the time of printing. In the interest of progress the Company reserve the right to vary specifications from time to time without notice.

Overview

Please read this guide carefully and retain for future use and maintenance.
This appliance has been designed and manufactured to the highest international standards. However, care must be taken to achieve optimal results and safety. This appliance also meets the requirements of EU Directive 2004/106/EC for EMC and 2009/125/EC Directive.
Safety & Care
The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
Warning

- Do NOT site the appliance in a corner.
- Do NOT handle the appliance with wet hands.
- Do NOT use the appliance in workshops or rooms where excessive dust is generated or present.
- Ensure that nothing is pushed into any aperture of this appliance.
- Do NOT touch the outlet grille when the appliance is in use.
- Do NOT cover or restrict any aperture of the appliance when in use.
- Do NOT use the appliance if damaged.

- Do NOT leave the appliance unattended where young children are present.
- If used in a bathroom, the heater is to be installed so that the switches and other controls cannot be touched by a person in the bath or shower.
- Operating temperature range -10 to +40 ºC
- The heater MUST be fully secured in the vertical position before being switched on.

Thermally Operated Cut-Out

The appliance is fitted with a thermally operated cut-out (TOC). This is a safety device, which switches the heater off if, for any reason, the appliance overheats. This will reset automatically once the appliance cools down.

Cleaning

Always disconnect the heater from the mains before cleaning. The heater should not require any maintenance, but it is strongly advised that it is kept clean. An occasional wipe over with a soft cloth is all that should be necessary.

- Do NOT use metal or furniture polish on any part of the heater.
- Do NOT touch the heater with wet hands or in any way bring water into contact with it.

If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

If Your Heater Does Not Work

- Check that power is available to the heater.
- Check that the thermal cut-out has not operated. This will reset once the appliance has cooled down.
- Check that the fuse in the spur unit has not blown. This can be done by replacing the fuse with another suitable fuse.

Should none of the above remedies work, then telephone the helpline number shown in these instructions (UK ONLY). Do not attempt to repair the heater.
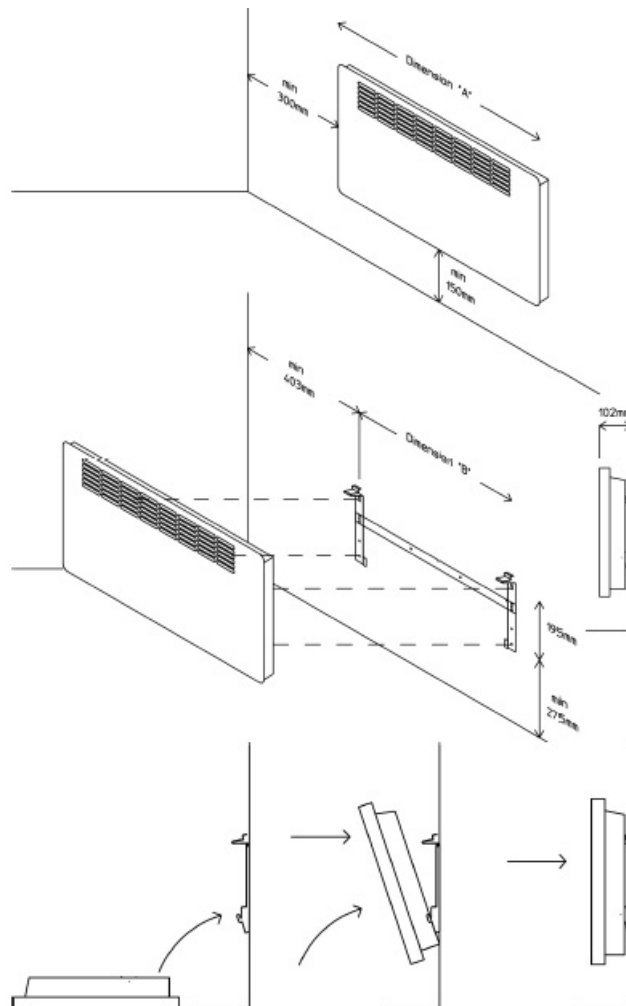
Connection to the Main Supply

Electrical installation should be carried out by a competent installer, preferably registered with NICEIC (National Inspection Council for Electrical Installation Contracting) in accordance with the latest edition of the IEE Wiring Regulations,
(BS.7671), and any relevant Local Authority Bye-Laws. This heater is fitted with a 3-core mains supply cable and must be permanently connected to the electricity supply via a double pole switch having 3mm gap on each pole. There are no exceptions. A switched Fused Connection unit to BS.1363. Part 4 is a recommended mains supply connection accessory to ensure compliance with safety requirements applicable to the fixed-wiring installation.
Note: When switched on for the first time the appliance may emit a slight smell. This is purely the evaporation of a fluid used in the manufacturing process.
WARNING: This appliance must be earthed.
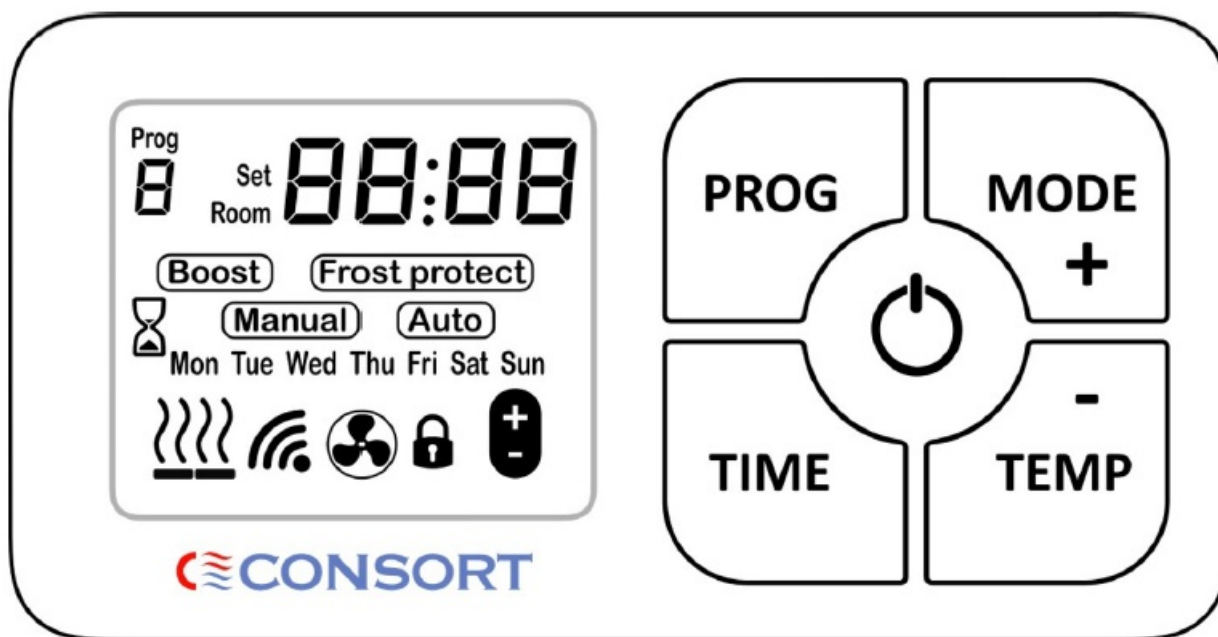
Installation

	MILLIMETRES		
	WATTS	A	B
PVE050	500	428	233
PVE075	750	428	233
PVE100	1000	568	303
PVE150	1500	703	497
PVE200	2000	768	582

Note: The heater MUST be fully secured in the vertical position before being switched on. It must be 'clicked' into the locking tabs. See section 12 for more mounting information.

Basic Operation

Before you can use the PVE, it has to be activated by pressing any of the TIME, PROG, TEMP, or MODE buttons once. The LCD backlight will turn on. To operate any control button, press it within 2 seconds of activation.
The PVE has a standby mode. Standby mode can be accessed by pressing the standby button. In this mode, the timer is locked and none of the control buttons will work. The heating is disabled. To exit standby mode, press the standby button.
This mode can be used to provide frost protection. A minimum temperature can be set in the settings menu. Standby mode will always maintain this minimum temperature. 'FROST PROTECTION' will appear on the screen in standby mode when a minimum temperature is set.
Information on setting the minimum temperature can be found in section 9.

Time and day setting

- **-Press and hold the TIME button for 5 seconds.**
- Minutes are flashing – use + and – buttons to set minutes.
- **-Press TIME button**
- Hours are flashing – use + and – buttons to set hours.
- **-Press the TIME button**
- The day is flashing – use + and – buttons to set Day.
- Once set, press TIME to return to main screen. The PVE has a battery backup, so the time and day settings are saved in the event of power being lost.

Selecting operating mode

PVE has 3 operating modes:
BOOST, MANUAL, and AUTO
Pressing the MODE button whilst in the main menu will toggle between BOOST, MANUAL and Auto mode.

Boost mode

The boost feature increases the room temperature for 15 minutes. To amend the set temperature when in BOOST

mode, activate the display and then press TEMP. Next, use the + and – buttons to change the temperature. Once the temperature is set, you can leave the display to return to the main screen and the settings will be saved. After 15 minutes, the PVE will return to previous operating mode. Whilst in boost mode, activate the display and press the PROG button to increase the boost period. The boost period can be increased up to 4 hours. This will reset back to 15 minutes once you exit boost mode.
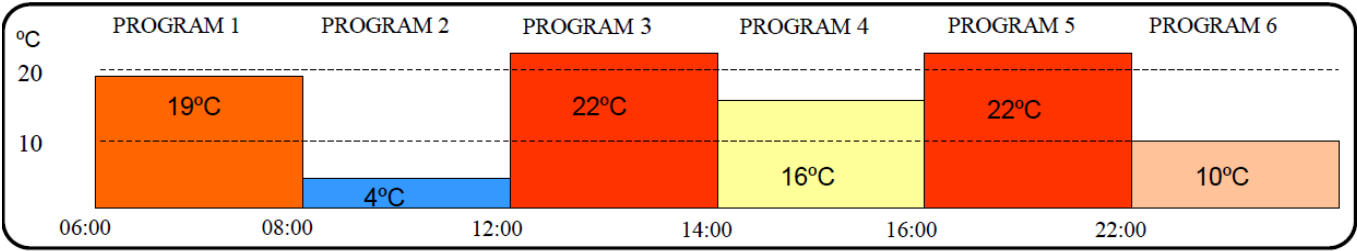
Manual Mode

In Manual mode, the heater maintains the set temperature. To amend the set temperature when in MANUAL mode, activate the display and then press TEMP. Next, use the + and – buttons to change the temperature. Once the temperature is set, you can leave the display to return to the main screen and the settings will be saved.
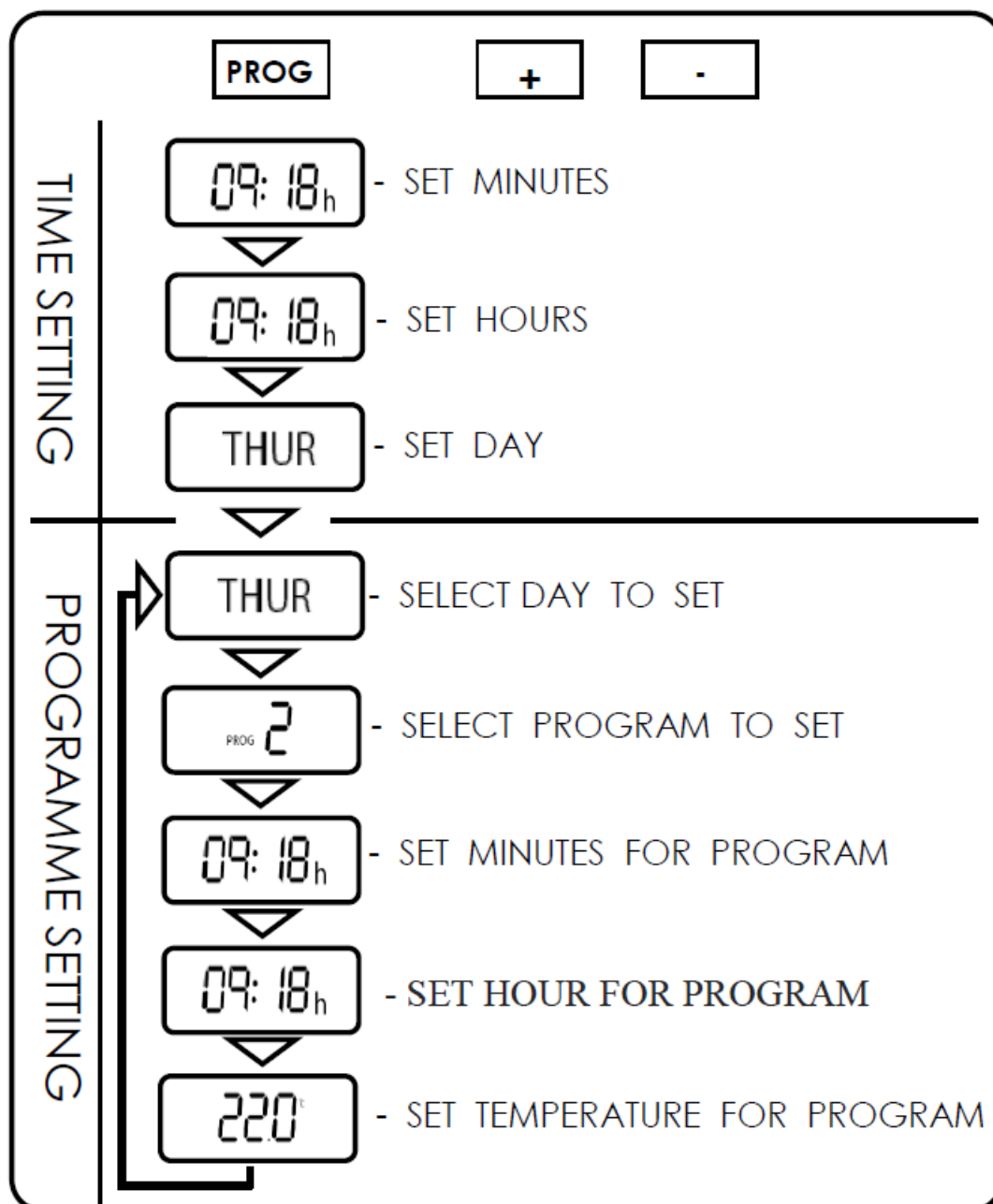
Auto mode

In this mode, the PVE will follow the week's time/temperature program. The temperature can be temporarily overridden in AUTO mode by simply activating the display and using the + and – buttons to set the new temperature. The new set temperature will be then maintained until the next program step. The advanced mode can be used to advance to the next program. To do this, press PROG whilst in Auto mode. To clear advance mode, press PROG.

Set 7-day program

An example of one day program on PVE

Logic diagram for setting program on PVE

TIME SETTING

PROG | **+** | **-**

`09:18h` - SET MINUTES

`09:18h` - SET HOURS

`THUR` - SET DAY

PROGRAMME SETTING

`THUR` - SELECT DAY TO SET

`PROG 2` - SELECT PROGRAM TO SET

`09:18h` - SET MINUTES FOR PROGRAM

`09:18h` - SET HOUR FOR PROGRAM

`22.0` - SET TEMPERATURE FOR PROGRAM

The PVE has a 7-day timer with up to 6 programming steps available for each day. In the programming, you can set a start time and a temperature for each program. This can be changed to a 5-day + 2-day timer, or a 24-hour timer in the settings menu. Instructions on doing this can be found in section 9.

Set the program inactive.

If you do not require the use of all 6 programs they can be set as inactive. When in programming mode select the program you want to make inactive and press the TIME button. If the program is inactive the display will show "- -:--". To activate the program again, press the TIME button.

1. Press and hold PROG for 5 seconds to enter the time setting.

2. The day will be flashing.

3. Use + and – to navigate day, press PROG to select day.

4. PROG 1 will be flashing. Use + and – to navigate programme, use PROG to select programme.

5. The minutes will be flashing.

6. To set minutes, use + and – to change minutes, press PROG to set the minutes.

7. The hour will be flashing

8. To set hour, use + and – to change hour, press PROG to set the hour.

9. The temperature will be flashing.

10. To set temperature, use + and – to change temperature, press PROG to set temperature.

To add another program repeat steps 2-10.
Copy day function.
If you require the same set of programs throughout the week, an hour timer is available. This will use the same program every day. A 5-day + 2-day timer is also available. This will use the same programs Monday-Friday, and the same programs Saturday and Sunday. These modes are enabled in the setup menu, as explained in section 9. Alternatively, it is possible to copy a program from one day to another. To do this, when programming the 7-day timer, press and hold the TIME button. This will bring you to the copy day mode. To select which day you wish to copy from, use the PROG button to cycle through numbers 1-7 on the screen, this relates to which day you would like to copy. 1=MON, 2=TUE, 3=WED etc. To select which day you would like to copy the programs to, use the + & – to navigate to the day. Once both are selected, press the time button to copy the day. The TO should flash to confirm it has been successful.

Open Window Detection

Ensuring you don't waste energy on heating the outside world, the heater is equipped with optional open / closed window detection. The heater recognises sudden drops in temperature when a window or a door is opened and turns the heating off to save energy. When the window is closed, the heater will automatically detect a temperature rise, and switch itself back on. Once enabled in the setup menu, the open window detection is fully automatic and does not require any human intervention to be activated.
Setting-up Open Window Detection
The system has been factory set to default time and temperature values. If necessary, all values can be adjusted. When the heating is on, open window detection sensor will automatically switch the heater off when it detects a fall in temperature of 2°C in less than 10 minutes (this temperature can be changed in menu 7 and time in menu 6). If a temperature rise of 2°C in less than 30 seconds is detected, the heater will switch itself back on (this temperature can be changed in menu 9 and time in menu 8).

Setup menu

1. Press and hold TEMP and MODE together for 5 seconds.
2. The display will enter the setup menu.
3. Use + and – to change a value.
4. Use TIME to scroll between the settings.
5. Use PROG to exit the setup menu
6. temperature calibration

   The temperature reading has been factory calibrated but if for any reason it needs adjusting (better accuracy required, to suit different position in the room etc.), the reading can be recalibrated in 0.5-degree steps.
7. change between degrees Celsius or Fahrenheit
8. set minimum temperature (3.5 deg = frost protection)

   When this is set, the heater will operate in any mode should the room temperature fall below the set temperature.
9. set maximum temperature

   When this is set, the maximum temperature in any mode cannot exceed the limit.
10. open window detection 0 = off, 1 = on
11. 600 – open window detection time 600 seconds
12. 2 – temperature drop of 2°C in the detection time
13. 30 – closed window detection time of 30 seconds
14. 2 – temperature rise of 2°C in the detection time

A – Program mode select
Choose between a 7-day, 5-day 2-day, or 24-hour timer.

Heat symbol on the display

Every time there is a demand for heat, the display will show the heat icon.

- full heat output

Keys locking

Press and hold TIME and TEMP together for 5 seconds. The display will show symbols 🔒 Repeat the step to unlock.

Mounting

To wall mount, the wall bracket supplied must be used. Please refer to the illustrations in Fig.1. Remove wall bracket from the heater. Fix wall bracket to wall using screw holes provided. Present heater to bracket. Locate heater onto bottom lugs via 2 sets of relevant slots in rear panel. Hinge heater upwards and locate the top tabs into the slots in the back of the heater and 'click' into position. The heater MUST not be powered until it is in this position. To remove the heater from the wall first disconnect the power then press down on the two top tabs to release the heater. Hinge the heater forward on the bottom lugs. The heater can be now lifted off the bottom lugs to remove it from the wall. The heater must not be located immediately below a fixed socket outlet.

Declaration Of Conformity

In accordance with UK Government Guidance.
WE HEREBY CERTIFY THAT THE APPLIANCES DETAILED HEREON HAVE BEEN INSPECTED AND TESTED, AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING UK STATUTORY INSTRUMENTS WHERE APPLICABLE:

- Electrical Equipment (Safety) Regulations 2016 SI. 2016 1101
- Electromagnetic Compatibility Regulations 2016 SI. 2016 No. 1091
- Radio Equipment Regulations 2017 SI. 2017 No. 1206
- The Ecodesign for Energy Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019. SI. 2010 2617
- The Restriction of use of Certain Hazardous Substances. SI. 2012 No. 3032
- The Waste Electrical and Electronic Equipment Regulations 2013. SI. 2013 No. 3113

Transposed standards used:

- **BSEN55014 (2006)**
- **BSEN301 489.1 & .3**
- **BSEN300 220.1 & .2**
- **BSEN60 730.2.9**
- **BSEN 60335.1 (2012)**
- **BS EN 60335.2.30 (2009)**

PART NUMBER AND DESCRIPTION OF APPLIANCE: PVE050, PVE075, PVE100, PVE150 and PVE200 Panel heaters

- **NAME OF RESPONSIBLE**
- **PERSON:**
- **POSITION:**
  DATE:
- **A C REYNOLDS QUALITY ENGINEERING 01/09/22**
- **CONSORT EQUIPMENT PRODUCTS LTD.**
- **THORNTON INDUSTRIAL ESTATE, MILFORD HAVEN, PEMBROKESHIRE, SA73 2RT. UK**
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- **WWW.CONSORTEPL.COM**

Documents / Resources

	CONSORT PVE050 Panel Convector Heaters with Electronic Controls and Open Window Detection [pdf] Installation Guide PVE050, PVE075, PVE100, PVE150, PVE200, PVE050 Panel Convector Heaters with Electronic Controls and Open Window Detection, Panel Convector Heaters with Electronic Controls and Open Window Detection, PVE050 Panel Convector Heaters, Panel Convector Heaters, Convector Heaters, Heaters

References

- ⚙ **Consort Claudgen - Electric Heating Solutions**