USER MANUAL

POLO "C" SERIES CONVECTION PANEL HEATERS

The POLO "C" Series range of convection panel heaters consists of eight models – four with a digital timer and four without a digital timer:

POLO Model CT (with digital timer)	POLO Model C (without digital timer)	Watts	Amps	Length (mm)	Height (mm)	Thickness (mm)	Weight (kg – approx)
CT100	C100	1000	4.2	545	452	75	6.5
CT150	C150	1500	6.3	700	452	75	8
CT200	C200	2000	8.3	890	452	75	10
CT240	C240	2400	10.0	1035	452	75	12

IMPORTANT SAFETY ADVICE

(1) The wall bracket supplied with the heater must be used to attach the heater to a wall.
(2) To locate the heater in a bathroom (ie containing a bath or shower) the heater must be located so that the controls cannot be operated by a person in the bath or shower. The heater must be located at least 600mm from a shower screen or bath surround. If in doubt, the services of a qualified electrician or licensed electrical contractor must be used to determine a suitable location in a bathroom.
(3) Do not use outdoors – indoor use only.
(4) Do not locate the heater immediately below a fixed socket outlet.
(5) The heater may be installed in front of a fixed socket outlet concealing the power lead and plug.
(6) Do not cover the heater or place material or garments on the heater.
(7) Do not obstruct the front finned air outlet of the heater or obstruct the air circulation around the heater by curtains or pushing furniture up against it.
This could cause overheating and a fire risk.
(8) The heater carries the warning "Do not cover" indicating that in order to avoid overheating, do not cover the heater.
(9) If used with the optional castors, do not use this heater in the immediate surroundings of a bath, a shower or a swimming pool.
(10) If the supply cord is damaged, it MUST be replaced by the manufacturer's service agent or similarly qualified person to avoid a hazard.
(11) When using models CT240/C240 – 2400 watts, do not share the power supply with other appliances. Do not connect to multiple power outlets on extension leads.
(12) If any abnormal noise ever comes from the heater or control panel, switch off and contact Nobo immediately for advice.
(13) WARNING – THE SURFACES OF THIS HEATER CAN BE HOT ESPECIALLY THE FRONT GRILL AND THE TOP OF THE HEATER
Momentarily contact with any part of the heater should not cause injury.
This 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 don't play with the appliance

GENERAL

The POLO range of convection panel heaters are designed for fixed mounting on the wall bracket supplied with each heater, or for portability on optional castors purchased separately. When used with the optional castors, do not use this heater in the immediate surroundings of a bath, shower or indoor swimming pool.
The POLO convection panel heaters should only be operated in the upright position as shown in Fig 1 with the outlet grill at the top and the controls on the right hand side.
All models are splash proof to IP24 and are suitable for use in bathrooms subject to the safety advice above.
The heater is fitted with a cable and plug and is designed to be connected to a standard 10 amp socket outlet located behind, or at the side or below the heater.
The heater is fitted with a cable approx 1.4metres long and a three pin plug.
For economical operation do not use the heaters 24 hours a day. We recommend you set the thermostat wheel to between 18-20 degrees Celsius and switch off the heaters when the room is not in use.

WALL MOUNTING

IMPORTANT – The wall bracket supplied with the heater must be used.

Minimum distances from objects

For objects of all types eg furniture, curtains, hangings or textiles or other flammable or non-flammable materials, the following minimum distances from the unit must be observed – see Fig 1

To the air outlet grill	-	500mm
To the sides	-	100mm
To the top	-	150mm
To the underside	-	100mm

Air must be able to enter the bottom of the heater unobstructed and be able to escape unobstructed through the front grill.
The unit can only be used as freestanding by using the optional feet with castors (purchased separately as an optional extra).
Do not stand on the unit when it is mounted on a wall.
DO NOT locate the heater immediately below a fixed power point.

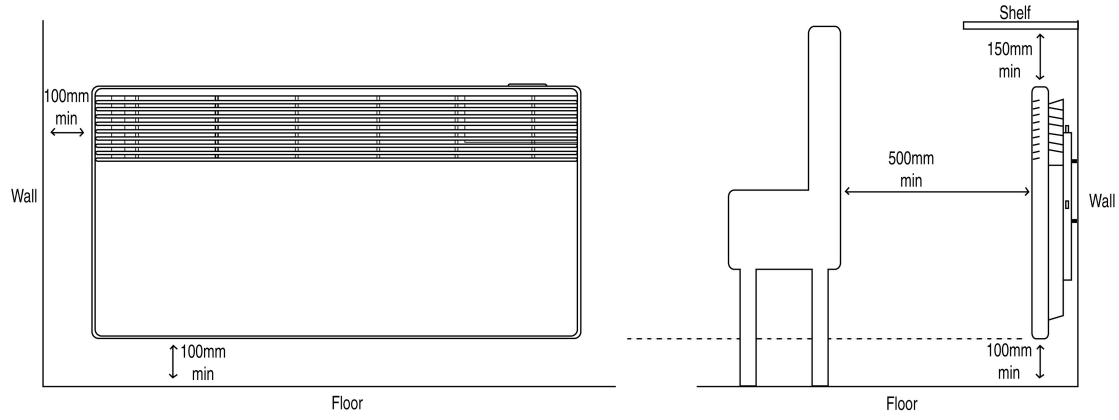


Fig 1 – Minimum distances from objects

INSTRUCTIONS FOR WALL MOUNTING

1. This heater may be mounted in front of a standard 10 amp socket outlet with the plug inserted. See Fig 2. Ensure the heater fully covers the socket outlet and plug which results in a very clean looking installation.

2. Remove the wall bracket from the back of the heater by pressing down on the two metal tabs on the top of each end of the bracket and pulling it away from the heater. A long screw driver may be required to press the tab situated at the bottom of the plastic control housing. Lift the two bottom tabs of the wall bracket away from the heater through slots in the back of the heater.

3. Using the wall bracket as a template, and, keeping a minimum 215mm off floor level to the bottom holes in the wall bracket, carefully mark the position of the four plasterboard anchors or wallmates (locating a stud is not necessary), using the holes in the wall bracket as a guide. These anchors(not supplied) should be able to support a load of 5kg each. If a stud is accidentally located secure the bracket there using wood screws. See Fig 2. Keep the wall bracket level by placing a spirit level on the horizontal rail of the wall bracket.

4. Install the four self drilling plasterboard anchors. Insert 8 gauge zinc coated (corrosion protected) self tappers through the holes in the wall bracket and into the wall anchors. Tighten the self tappers securely. Check that the wall bracket is level by placing a spirit level on the horizontal rail of the wall bracket.

5. Re-attach the heater to the wall bracket by locating the slots in the bottom of the heater onto the wall bracket. Then locate top slots and push heater firmly into the metal tabs until it clicks securely into position. Use a long screw driver to press the two metal tabs down to remove the heater from the wall bracket in the future.

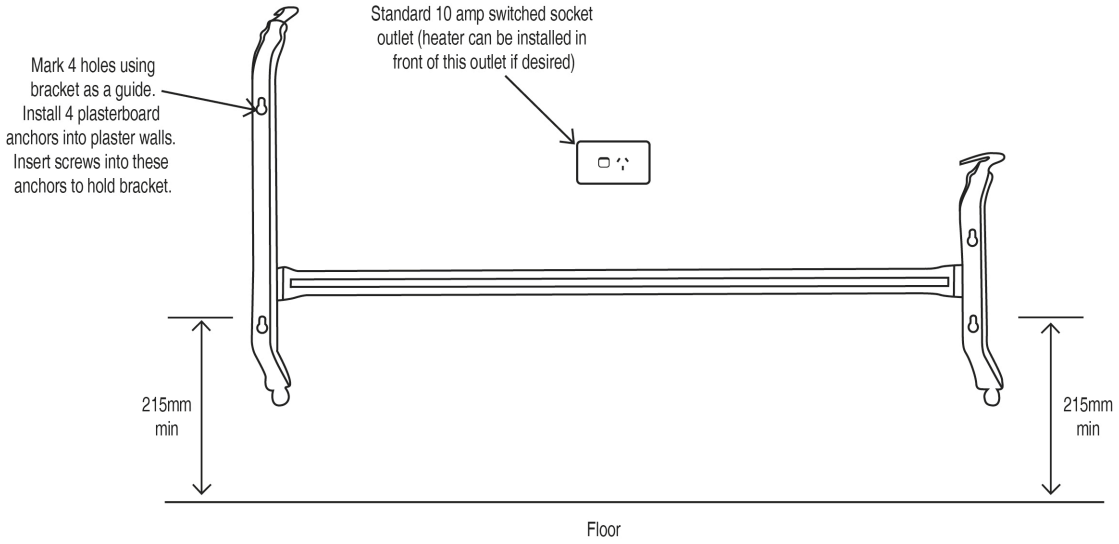


Fig 2 – Wall bracket showing how to attach to a wall

OPERATING THE HEATER

1) Controls and settings

a) Before Starting

i) Non timer Models
Plug the heater into a 240 volt power outlet, lift up the clear plastic control cover and turn the heater on using the O/I switch in the top control panel (I is ON, O is OFF).

The red indicator light next to the round thermostat wheel indicates the element is heating. Be sure the thermostat temperature is set higher than the room temperature or this light will not be illuminated. It is recommended the thermostat wheel is set between 18-20 degrees Celsius for economical operation of the heater.

ii) Timer models
Plug the heater into a 240 volt power outlet, lift up the clear plastic control cover and turn the heater ON using the O/I switch in the top control panel (I is ON, O is OFF).
Press the large "OVER" (for override) button in the timer display until "ON" appears in the display. The heater can now be used manually and the red timer light on the bottom left hand side of the timer will be illuminated showing the timer is operating (this light must be illuminated for the heater to operate). The time display in the timer window and the flashing two dots in the middle of the time display also indicates the timer is operating.
The red indicator light next to the round thermostat wheel indicates the element is heating. Be sure the thermostat temperature is set higher than the room temperature or this light will not be illuminated – see section b) Setting of the Thermostat below for further information. It is recommended the thermostat wheel is set between 18-20 degrees Celsius for economical operation of the heater.

iii) Further information for Timer models
The timer can be used to turn heaters ON and OFF on a weekly cycle. It has ON/OFF times with optional switching variations or it can be used as a countdown timer. See later section "SETTING AND PROGRAMMING THE TIMER" for detailed information on how to use all functions of the timer.

When the heater is switched off, either at the heater ON/OFF switch and/or the mains power socket, a non rechargeable lithium battery ensures that the time and program settings are retained. The battery is designed to last for at least 10 years.

If the battery fails the heater can still be operated because when the heater is switched on the timer bypasses the battery and uses mains power. In this situation the heater can be operated manually as described in part ii) above. Alternatively if you wish to retain the timer memory, set the thermostat to 5 degrees Celsius without switching off the heater. When the heater is required the thermostat can be simply increased to the desired comfort level.

b) Setting of the thermostat

All Polo model "C Series" convection panel heaters are fitted with an accurate and silent electronic thermostat which can be adjusted between 5 and 30 degrees Celsius. Gradings of 5 degrees Celsius are marked on the thermostat wheel. See Fig 3.
The red indicator light indicates the element is actually heating.
Switch on the heater to the I position and turn the thermostat wheel to between 18 and 20 degrees Celsius. These temperatures are recommended for economical operation of the heater.
Should the red light on top of the control panel near the thermostat wheel fail to come on when the thermostat is set between 18-20 degrees Celsius could mean that the room temperature is higher than this setting. Turn the thermostat wheel to maximum temperature of 30 degrees Celsius to check - if the red light illuminates then this situation has been verified.

c) Locking of the top control panel
This heater has a hinged clear perspex control panel cover which may be locked in position to prevent use of the controls by unauthorised people, children or infirmed people.
The cover can be locked by opening and removing the screw on the right hand side with a small Philips head screw driver. Close the cover and reinsert this screw and tighten to lock the cover in position. The heater can now only be turned ON or OFF using the switch on the power outlet. See Fig 3.

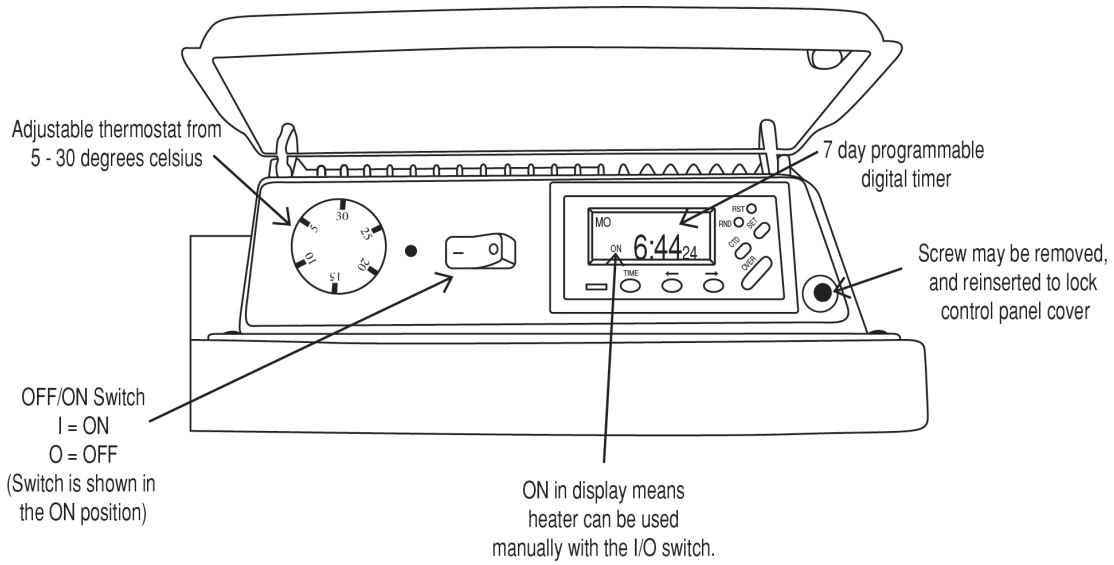


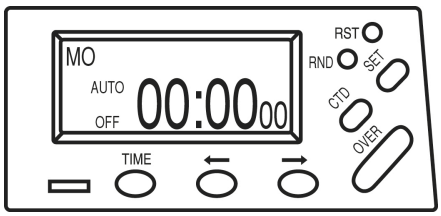
Fig 3 – Controls and settings

SETTING AND PROGRAMMING THE TIMER

1) Setting the current time and day

a) If this is the first time setting the timer, reset the timer by pressing RST with a pointed object, (ball point pen, etc) otherwise skip this step. Pressing this RST button will clear all programs and the current time.

The timer display will appear like this:



b) Select between a 12 hour display (with AM and PM) or a 24 hour display. To switch the display : press and hold TIME for three seconds “12:00AM” denotes the 12 hour clock.

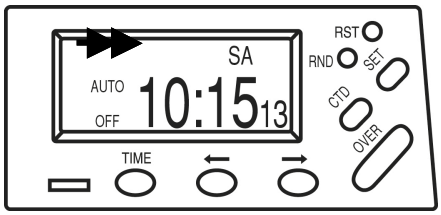
c) Begin to set the current time by pressing and holding SET (select) until “MO” (Monday) flashes. Use ← or → to select the current day.

d) Momentarily press SET. The hour digits will begin flashing. Use ← or → to select current hour. Ensure that current hour is AM or PM.

e) Momentarily press SET. The minute digits will begin flashing. Use ← or → to select current minute

f) Momentarily press SET again and the current time is now set.

The timer display will appear like this:



2) **Programs and Features**

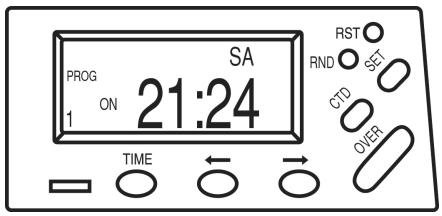
This section will demonstrate how to set a programmed "ON" time and an "OFF" time. In this case, program (PROG1) will be used however this timer can store up to 20 ON/OFF programs which are active over a week of time. These are numbered PROG1 to PROG20.

a) How to set an "ON" time

i) Press → to select PROG 1 ON. "1 ON" will be flashing.
ii) Press SET and the day grouping will begin to flash. Use ← or → to select either a single day or day-group. The possible selections are as follows:
MO or TU or WE or TH or FR or SA or SU (each day separate)
MO through FR (program runs each day Monday through Friday)
SA and SU (program runs only on Saturday and Sunday)
MO through SA (program same each day Monday through Saturday)
MO, WE, FR (program runs on Monday and Wednesday and Friday
MO through WE (program runs Monday, Tuesday and Wednesday)
TH through SA (program runs Thursday, Friday and Saturday)
MO through SU (program runs every day of the week)

iii) Press SET and the hour digits will begin to flash. Use ← or → to select the desired hour for the timer to "turn on". Note AM or PM.
iv) Press SET and the minute digits will begin to flash. Use ← or → to select the desired minute.

The timer display will appear like this:

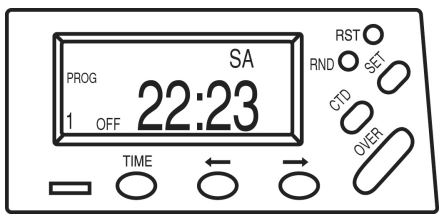


v) To finish programming the "ON" time press TIME.

b) How to set an "OFF" time

i) From the regular screen (depicting the current day and time) repeatedly press → until PROG1 OFF is selected. "1OFF" will be flashing.
ii) Press SET and the day grouping will begin to flash. Use ← or → to match the same day or day groupings previously selected for the "ON" times.
iii) Press SET and the hour digits will begin to flash. Use ← or → to select the desired hour for the timer to "turn off". Note AM or PM.
iv) Press SET and the minute digits will begin to flash. Use ← or → to select the desired minute.

The timer display will appear like this:



v) To finish programming the "OFF" time press TIME.

c) How to set additional ON/OFF times

i) To set other ON/OFF times scroll through the programs (PROG1 – PROG20) by pressing ⟶ repeatedly.
ii) Select an available program and follow steps in the above sections to set additional ON/OFF times. Don't forget that in the instructions PROG1 would change to whichever program being worked with. For example, if working with program 2 "PROG1 ON" would change to "PROG2 ON" and "PROG1 OFF" would change to "PROG2 OFF".

d) To review each ON/OFF program
To scroll through the programs repeatedly press ⟶ noting the day/day – group and time for the timer to turn "ON" or "OFF". This feature is especially helpful if many ON/OFF times have been programmed on different days/day groups. It is recommended that you write down when each program turns the heater "ON" and "OFF" along with the program day/day-group to prevent confusion. AUTO ON or AUTO OFF must be set to activate the set programs or to manually override the programs (see section below).

e) To manually override the programs
To manually override the programs:
During normal use there may be times when one needs to override the programmed ON/OFF times. This allows the user to bypass the programmed ON/OFF times without changing the programs. The manual override button is the large button on the right labelled "OVER". Repeated pressing this button causes the display to scroll from ON to AUTO ON and OFF to AUTO OFF.

When **ON** is selected, the red light on the timer will turn "ON" and remain "ON" despite any programs set.

When **AUTO ON** is selected, the red light will turn "ON" immediately but the programs will remain running to turn the heater ON/OFF as programmed.

When **OFF** is selected, the red light will turn "OFF" and remain "OFF" despite any programs previously set – ie the heater will not operate until this setting is changed.

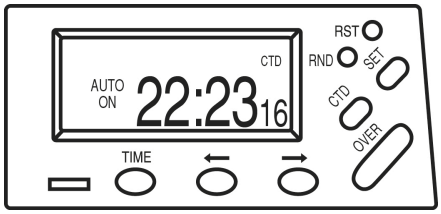
When **AUTO OFF** is selected, the red light will turn "OFF" immediately but the programs will remain running to turn the heater ON/OFF as programmed.

3) **Random Switching**
This setting (RND) has no applicable use to this heater.

4) **24 Hour Countdown Timing**
This is a separate feature from setting programs as described above and will temporarily override the programmed ON/OFF settings. It allows the heater to remain "ON" for a set period of time up to 24 hours and then cut off. This is a useful feature as when set, the heater cannot be accidentally left on thus saving electricity.

a) Press ⟵ and the display will clear and "ON" will begin to flash and "CTD" will illuminate.
b) Press SET and the hour digits will begin to flash. Select the hours for the countdown using ⟵ or ⟶
c) Press SET and the minutes digits will begin to flash. Select the minutes for the countdown using ⟵ or ⟶
d) Press SET and the second digits will begin to flash. Select seconds for the countdown using ⟵ or ⟶
e) Press SET and the "ON" will begin to flash in the display. Next press CTD to begin the countdown. "AUTO ON" will be displayed as the countdown proceeds.

The timer display will appear like this:



Note: To stop the countdown press CTD and then press TIME to exit the countdown mode.

5) **To reset the timer**
Pressing the RST button with a pointed object like a pen or pencil will clear all programs and current time. This is useful when you are about to reprogram the timer or when operating the heater for the first time.

SAFETY – OVERHEAT PROTECTION

For your safety, all models are fitted with a thermal cut out. In the event that the product overheats for some reason, the cut-out prevents excessive temperatures on the product by cutting power to the heater. This is generally something covering the front grill. Once the heater has cooled down, it will reset automatically. It is important that this grill is not covered. Also do not operate the heater whilst it is sitting upright on the ground (ie not on castors) – this blocks the air intake on the bottom of the heater – it must only be operated when installed on the wall bracket or on the optional castors.

SAFETY – TILT SWITCH

All heaters are equipped with a safety tilt switch. If the heater is tilted 45 degrees or greater in either direction or placed upside down, the safety tilt switch will cause it to switch off. The red indicator light next to the thermostat wheel which indicates the element is heating will switch off. When the heater is placed in the proper upright position it will turn on again. The switch consists of a metallic ball making an electrical connection across two contacts. When the heater is tilted this ball moves and breaks the connection. Moving the heater can break this connection – therefore the red indicator light can flash on and off- do not move the heater whilst it is operating.

CLEANING

Before commencing cleaning, switch off the heater to the “O” position using the ON/OFF switch on the top of the control panel. Switch off the power outlet, unplug the heater cord and allow the heater to cool. Release the heater from the wall bracket if desired.

The outside can be cleaned by wiping over with a soft, damp cloth and then dried using a soft dry cloth.
Do not use abrasive cleaning powders as this can damage the powder coated surface finish.

POLO panel heaters are designed, manufactured and distributed throughout Australasia by:

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