

AIRMASTER

HEATING & VENTILATION

Operation Manual

Models:

PH0.75TIM/LCDN

PH1TIM/LCDN

PH1.5TIM/LCDN

PH2TIM/LCDN



EN 60335-2-30:2009+A11

1. Children of less than 3 years should be kept away 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 intended 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, regulate and clean the appliance or perform user maintenance.

2. 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.



IMPORTANT SAFEGUARDS

Before use, please read and follow these instructions carefully, even if you feel you are familiar with the product. They contain important information concerning product operation, safety and maintenance. Please retain these instructions for future use and reference.



1. Warning: In order to avoid overheating, do not cover the heater.

2. 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.

3. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning 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 without supervision.

4. The heater must not be located immediately below a socket-outlet.

5. Do not use this heater in the immediate surroundings of a bath, a shower or a swimming pool.

6. Children of less than 3 years should be kept away 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 intended 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, regulate and clean the appliance or perform user maintenance.

7. 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.

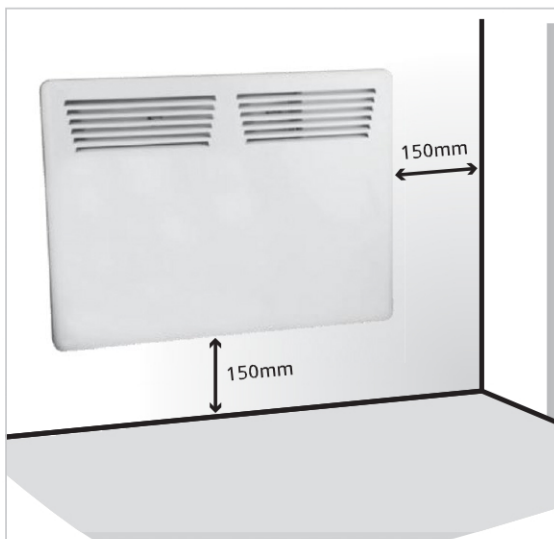
8. A means of disconnection from the power supply having a contact opening distance of all poles must be included in the fixed wiring in accordance with the installation requirements.

- For disposal this product must be taken to an authorized site for the recycling of electrical and electronic appliances. By collecting and recycling waste, you help save natural resources and ensure the product is disposed of in a safe and environmentally friendly way.



INSTALLATION GUIDE

1. When mounting the heater on to the wall ensure the heater is unplugged from the mains socket and all power switches are turned off. A suitable wall mounting area requires at least 150mm of empty clearance on ALL four sides.



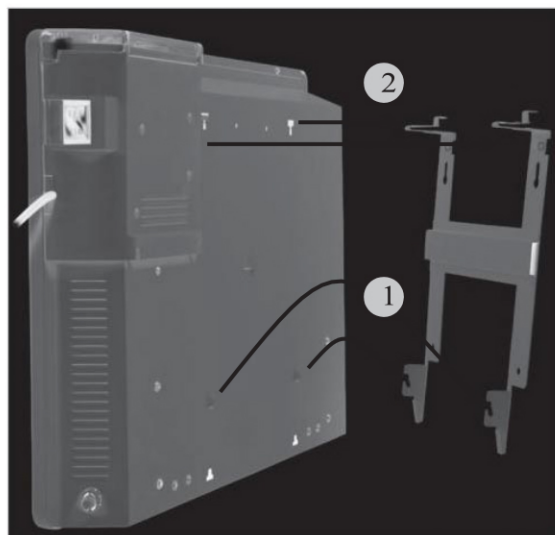
2. Detach the mounting bracket from the back of the panel heater by pushing down on the top bracket and then pulling the top brackets out. The bottom section will then slide down and out, releasing the mounting bracket.



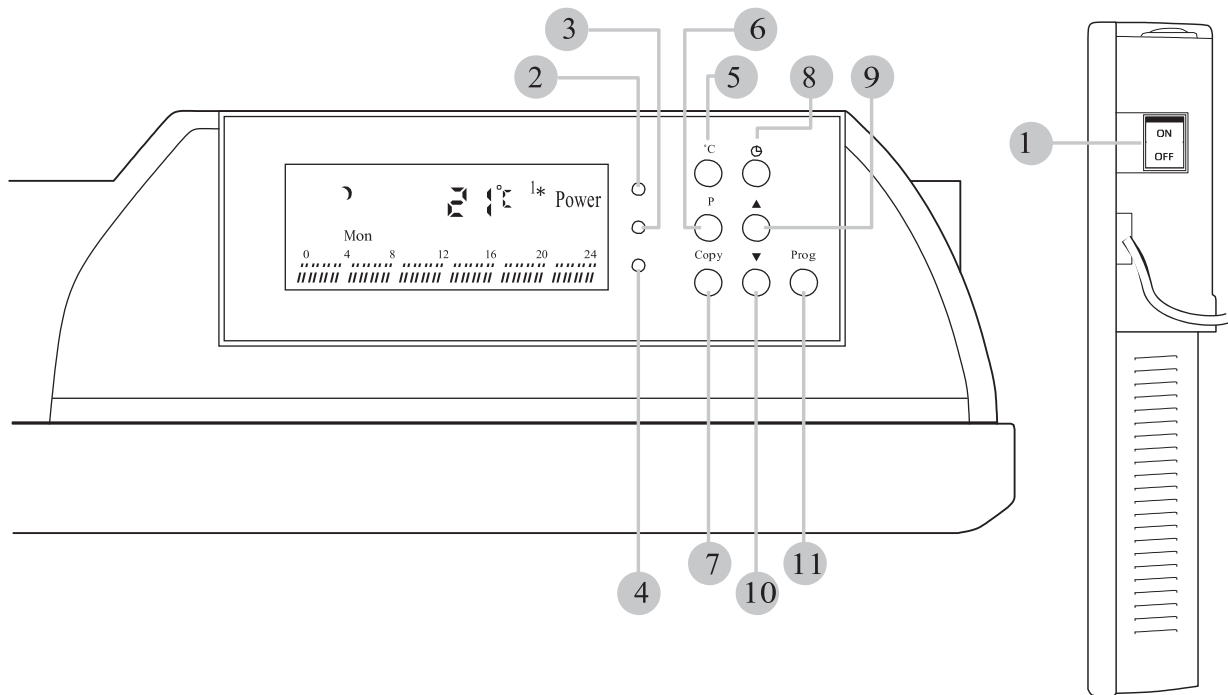
3. Position the bracket on the wall in the desired location and mark the holes on the wall for drilling, making sure the bracket is level. Drill holes to a suitable depth and secure the mounting bracket to the wall with the four mounting screws supplied. For masonry walls use the wall plugs with screws provided.



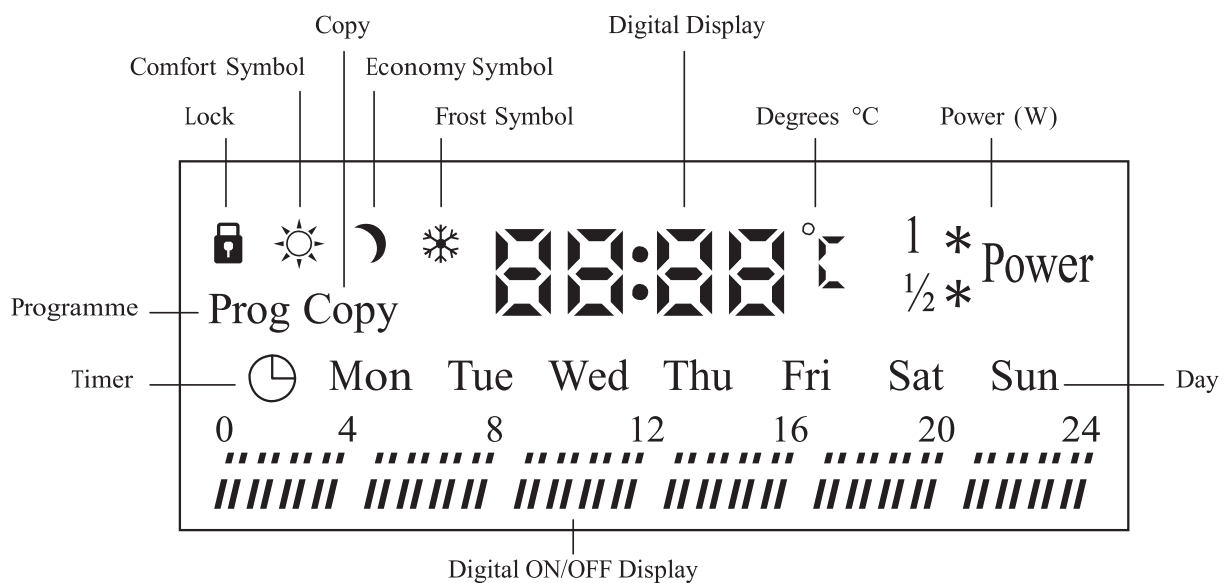
4. Hang up the heater on the brackets and secure; Firstly locate the heater onto the lower bracket and push back to locate and click the upper brackets into position. Check heater is secure.



LCD CONTROLS



- | | | |
|---|-------------------------------------|-------------------------|
| 1 - Main power switch | 4 - Low heat mode indicator (green) | 8 - Timer selection |
| 2 - High heat mode indicator (red) | 5 - Temperature selection | 9 - Up button |
| 3 - Heating element ON indicator (yellow) | 6 - Program selection | 10 - Down Button |
| | 7 - Copy | 11 - Programming Button |













OPERATION

1 - The Function Module

The function module is equipped with an accurate thermal cut-out. It has a built in memory with 12 heating programs, of which 9 are factory pre-set and 3 are available for programming by the user. When making any changes to settings if a user pauses for more than 180 seconds the control module will quit the function being changed, without saving, and return to running the last selected heating program.

2 - Setting the Day and Time








When the panel heater is first installed, has been switched off or disconnected from the mains supply, the Day and Time will need to be set. To make changes to the LCD module settings the cover has to be removed by unscrewing the single locking screw.

1. Press the timer button 
2. The default "Day" setting will flash.
3. Use the Up  and Down  buttons to select the correct day.
4. Press the timer button 
5. The default "Hour" setting will flash.
6. Use the Up  and Down  buttons to select the correct hour.
7. Press the timer button 
8. The default "Minute" setting will flash.
9. Use the Up  and Down  buttons to select the correct minute.
10. Press the timer button 
11. The timer setting program will terminate and the selected day and time will be saved.

3 - Temperature Selection

The panel heater works with 2 temperature settings: A Low level setting and a high level setting. Each of these has default settings that can be changed as required. The minimum difference between the high and low heat settings is 4°C.

To alter the default settings:

1. Remove the LCD panel cover
2. Press the temperature button 
3. The current high level temperature setting will be displayed
4. Use the Up  and Down  buttons to select the required temperature. The high level temperature range is 9°C to 30°C.
5. Press the temperature button 
6. The current low level temperature setting will be displayed
7. Use the Up  and Down  buttons to select the required temperature. The low level temperature range is 5°C to 26°C.
8. Press the temperature button 
9. The temperature setting program will terminate and the selected high and low temperatures will be saved.





4 - Description of Programs

There are 12 programs which switch the heating between Low Level and High Level at various times of the day and night. 9 of these are pre-set and cannot be altered. The “UP”, “52” and “7” programs can be defined by the user. The table below shows the Low/High heat setting running times for each of the programs.

Program	Level	Temperature	Monday - Friday	Saturday/Sunday
P1	Low	5°C	00:00 to 06:30 08:30 to 17:00 22:30 to 00:00	00:00 to 07:30 10:00 to 12:00 14:00 to 17:00 22:30 to 00:00
	High	18°C	06:30 to 08:30 17:00 to 22:30	07:30 to 10:00 12:00 to 14:00 17:00 to 22:30
P2	Low	5°C	00:00 to 06:30 08:30 to 17:00 22:30 to 00:00	00:00 to 07:30 10:00 to 12:00 14:00 to 17:00 22:30 to 00:00
	High	20°C	06:30 to 08:30 17:00 to 22:30	07:30 to 10:00 12:00 to 14:00 17:00 to 22:30
P3	Low	5°C	00:00 to 06:30 08:30 to 17:00 22:30 to 00:00	00:00 to 07:30 10:00 to 12:00 14:00 to 17:00 22:30 to 00:00
	High	22°C	06:30 to 08:30 17:00 to 22:30	07:30 to 10:00 12:00 to 14:00 17:00 to 22:30
P4	Low	5°C	00:00 to 06:30 08:30 to 17:00 22:30 to 00:00	00:00 to 07:30 10:00 to 12:00 14:00 to 17:00 22:30 to 00:00
	High	24°C	06:30 to 08:30 17:00 to 22:30	07:30 to 10:00 12:00 to 14:00 17:00 to 22:30
P5	Low	5°C	00:00 to 06:30 08:30 to 17:00 22:30 to 00:00	00:00 to 07:30 10:00 to 12:00 14:00 to 17:00 22:30 to 00:00
	High	26°C	06:30 to 08:30 17:00 to 22:30	07:30 to 10:00 12:00 to 14:00 17:00 to 22:30
P6	Low	5°C	00:00 to 06:30 08:30 to 17:00 22:30 to 00:00	00:00 to 07:30 10:00 to 12:00 14:00 to 17:00 22:30 to 00:00
	High	28°C	06:30 to 08:30 17:00 to 22:30	07:30 to 10:00 12:00 to 14:00 17:00 to 22:30
CF	Frost protection program – Runs at +5°C All Day			
CE	Economy program – Runs at the low level heat setting all day			
CC	Constant heating program – Runs at the high level heat setting all day			
UP	User program – Runs at times defined by the user			
52	User program – Runs at times defined by the user			
7	User program – Runs at times defined by the user			

4.2 - Selecting a Program







To select a program to run:

1. Remove the LCD panel cover
2. Press the program select button 
3. The current selected program will be displayed
4. Use the Up  and Down  buttons to select the required program
5. Press the program select button 
6. The program select option will terminate and the selected program will be saved and used to control the panel heater


4.3 - Changing the Settings for the User Program “UP”

The “UP” program allows the heater to be programmed to switch from low to high heat output settings at required times and each day of the week can have different settings.

To program the heating settings for the “UP” program:

1. Remove the LCD panel cover.
2. Press the program select button 
3. The current selected program will be displayed
4. Use the Up  and Down  buttons to select the “UP” program.
5. Press the **Prog** button.
6. Monday’s 24 hour programming screen will be displayed.
7. The 24 hour program is divided into half hour time slots. Each time slot has to have a setting selected for all 7 days of the week. There are 2 options for each half hour slot. These can be set to either high heat level using the Up button  or low heat level using the Down button 
8. When all the 24 hour time slots have been set the timer display will show “00:00”.
9. Press timer button  and the next 24 hour period will be displayed.
10. Repeat steps 7 to 9 until all seven days have been programmed with the required heating settings.
11. Press the **Prog** button and the settings you have made will be saved. The “UP” program will be run with the new settings displayed.

When programming the settings for the “UP” program a 24 hour period’s settings can be copied from one day to the next, to save having to program each day individually.

1. Repeat the steps 1 to 8 as detailed above to program a 24 hour period. If the next 24 hour period is to have the same settings:
2. Press the **Copy** button.
3. Press timer button 
4. Press the **Copy** button.
5. The first days settings are now copied into the next day.
6. Repeat steps 2 to 4 for all subsequent days that are to have the same settings.

4.3 - Changing the Settings for the 5/2 Day Program “52”

The “52” program allows the heater to be programmed to switch from low to high heat output settings at the required times on Monday to Friday and then at different times on Saturday and Sunday.




1. Remove the LCD panel cover.
2. Press the program select button (P)
3. The current selected program will be displayed
4. Use the Up (▲) and Down (▼) buttons to select the “52” program.
5. Press the **Prog** button.
6. The 24 hour programming screen will be displayed. This allows the heat settings required for Monday to Friday to be set.
7. The 24 hour program is divided into half hour time slots and each has to be programmed. There are 2 options for each half hour slot. These can be set to either high heat level using the Up button (▲) or low heat level using the Down button (▼)
8. When all the 24 hour time slots have been programmed the timer display will show “00:00”.
9. Press timer button (⌚) and the 24 hour programming screen will be displayed. This allows the heat settings required for Saturday and Sunday to be set.
10. Set each half hour time slot to either high heat level using the Up button (▲) or low heat level using the Down button (▼)
11. When all the 24 hour time slots have been programmed the timer display will show “00:00”.
12. Press the **Prog** button and the settings you have made will be saved. The “52” program will be run with the new settings displayed.

4.3 - Changing the Settings for the 7 Day Program “7”

The “7” program allows the heater to be programmed to switch from low to high heat output settings at the required times on each day of the week.




1. Remove the LCD panel cover.
2. Press the program select button (P)
3. The current selected program will be displayed
4. Use the Up (▲) and Down (▼) buttons to select the “7” program.
5. Press the **Prog** button.
6. The 24 hour programming screen will be displayed. This allows the heat settings required for Monday to Sunday to be set.
7. The 24 hour program is divided into half hour time slots and each has to be programmed. There are 2 options for each half hour slot. These can be set to either high heat level using the Up button (▲) or low heat level using the Down button (▼)
8. When all the 24 hour time slots have been programmed the timer display will show “00:00”.
9. Press the **Prog** button 11 and the settings you have made will be saved. The “7” program will be run with the new settings displayed.

4.4 - Open Window Function

Press Copy and  button at the same time for 3 seconds, open window function will be active,  will flash on the display. Heater will transfer to work under Frost Protection program at +5°C if temperature decreases 4°C within 30minutes. And it will recoverworking under previous working program automatically if temperature recovers 2°C, or by pressing Copy and  button at the same time for 3 seconds.

5 - Locking the Control Panel

5.1 - Electronic Locking

Press and hold the Up  and Down  buttons at the same time until the padlock  symbol appears on the display. All the control functions will now be locked and buttons will no longer operate. Pressing the Up and Down buttons at the same time again will restore all control panel functions.

5.2 - Mechanical Locking

The plastic LCD display cover can be removed or secured in place using the screw at the top right corner of the cover. Take care not to over-tighten this screw

6 - Error code

If the LCD screen displays the following error codes “E1” or “E2” and the heater has stopped working, it may be caused by a short circuit or loose connection of the temperature sensor wire on the PCB board. Any inspection requiring the opening of the control panel must be made by a qualified electrician.

LOT20 Compliant

Item	Symbol	Value	Unit
HEAT OUTPUT - PH0.75TIM/LCDN			
Nominal Heat Output	P _{nom}	0.75	kW
Minimum Heat Output (Indicative)	P _{min}	0.35	kW
Maximum Continuous Heat Output	P _{max,c}	0.74	kW
HEAT OUTPUT - PH1TIM/LCDN			
Nominal Heat Output	P _{nom}	1.00	kW
Minimum Heat Output (Indicative)	P _{min}	0.50	kW
Maximum Continuous Heat Output	P _{max,c}	0.90	kW
HEAT OUTPUT - PH1.5TIM/LCDN			
Nominal Heat Output	P _{nom}	1.5	kW
Minimum Heat Output (Indicative)	P _{min}	0.75	kW
Maximum Continuous Heat Output	P _{max,c}	1.40	kW
HEAT OUTPUT - PH2TIM/LCDN			
Nominal Heat Output	P _{nom}	2.00	kW
Minimum Heat Output (Indicative)	P _{min}	1.00	kW
Maximum Continuous Heat Output	P _{max,c}	1.90	kW
AUXILIARY ELECTRICITY CONSUMPTION			
At Nominal Heat Output	e _{lmax}	N/A	kW
At Minimum Heat Output	e _{lmin}	N/A	kW
In Standby Mode	e _{lSB}	0.00	kW

Item	Unit
Type of heat input, for electric storage local space heaters only (Select one)	
Manual Heat Charge Control, with Integrated Thermostat	[N/A]
Manual Heat Charge Control with Room and/or Outdoor Temperature Feedback	[N/A]
Electronic Heat Charge Control with Room and/or Outdoor Temperature Feedback	[N/A]
Fan Assisted Heat Output	[N/A]
Type of heat output/room temperature control (Select one)	
Single Stage Heat Output and No Room Temperature Control	[No]
Two or More Manual Stages, No Room Temperature Control	[No]
With Mechanical 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 option (Multiple selections possible)	
Room Temperature Control, with Presence Detection	[No]
Room Temperature Control, with Open Window Detection	[Yes]
With Distance Control Option	[No]
With Adaptive Start Control	[No]
With Working Time Limitation	[No]
With Black Bulb Sensor	[No]