

WarmCair Condensing Air Heater

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WARMCAIR Condensing Air Heater

High Efficiency
Downflow & Upflow
Condensing Air Heaters



USERS INSTRUCTIONS

C10D - G.C. No. 42-416-99

C16D - G.C. No. 42-415-19

C26D - G.C. No. 42-417-98

C36D - G.C. No. 42-451-17

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C26U - G.C. No. 42-415-25

C36U - G.C. No. 42-415-27

C46U - G.C. No. 42-415-29

These instructions are to be left with the User or adjacent to the Gas Meter

**UK
CA**



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& Starley

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NOTE

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 do not play with the appliance.



THESE INSTRUCTIONS SHOULD BE LEFT WITH THE USER AFTER INSTALLATION

The Benchmark Scheme

Johnson & Starley Ltd is a licensed member of the Benchmark Scheme, which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance.

Benchmark is managed and promoted by the Heating and Hotwater Industry Council. For more information visit www.centralheating.co.uk

Please ensure that the installer has fully completed the Benchmark Checklist on the inside back pages of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.

This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service.

The Benchmark Checklist will be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Improvements.

In the interest of continuous development Johnson and Starley reserves the right to change specification without prior notice. Johnson and Starley prides itself on its ability to supply spare parts quickly and efficiently.

1. BRIEF DESCRIPTION

WARNING: THIS APPLIANCE MUST BE EARTHED

IMPORTANT: IT IS A STATUTORY REQUIREMENT THAT ALL GAS APPLIANCES BE INSTALLED BY COMPETENT PERSONS, (i.e. GAS SAFE REGISTERED INSTALLERS. GAS SAFE MEMBERSHIP ENQUIRIES - TEL: 0800 408 5500) IN ACCORDANCE WITH THE GAS SAFETY (INSTALLATION AND USE) REGULATIONS (CURRENT EDITION). FAILURE TO COMPLY WITH THESE REGULATIONS MAY RESULT IN PROSECUTION.



- 1.1 The WarmCair unit is a highly efficient condensing gas-fired (forced either downflow or upflow) air heater. Significant reductions in Carbon and NO_x emissions are achieved.
- 1.2 It has been designed to provide the user with on demand Warm Air Central Heating, using sophisticated controls and enabling it to provide the precise amount of heat output to match demand. It is room sealed, with a corrosion free stainless steel heat exchanger, using a vertical or horizontal Concentric Flue System.
- 1.3 The WarmCair air heater is ideally suited for new built dwellings and the replacement of existing non-condensing air heaters.

2. MODULATING CONTROL - HOW IT WORKS

- 2.1 Modulating Control automatically operates your heating system to maintain winter comfort efficiently and unobtrusively.
- 2.2 You select the comfort level by setting the temperature controller (OpenTherm controller).
- 2.3 The amount of heat needed depends upon the difference between the temperature outside the dwelling and your chosen set temperature. The system automatically adjusts its warm air output to achieve this level.
- 2.4 Examples:

When full heat is needed (during very cold weather, or on initial warm-up), the gas burner operates at full output and the fan runs at maximum speed until the room temperature, determined by the OpenTherm controller setting is reached.

The gas burner will then modulate down with the fan running at a reduced speed.

3. TO LIGHT YOUR HEATER

- 3.1 Ensure that the gas supply to the heater is turned on.
- 3.2 Set clock to "OFF" position
- 3.3 Turn the OpenTherm controller (room temperature control) to position "30" (see Figure 1).
- 3.4 Switch on the electrical supply to the heater.
- 3.5 Set the "AIR HEATER" switch on the time control to "CONT" After a period of 15-20 seconds, the burner will ignite automatically, indicated by the light on the indicator panel (see Figure 2). Shortly afterwards the air circulation fan will start.
- 3.6 Adjust the Room Control to the desired setting (see Section 5).
- 3.7 The heater will now operate automatically under thermostatic control.
- 3.8 If the burner does not ignite the first time, the unit will make 4 further attempts. If it does not light, it will lock out on E1. To reset the heater press the bottom marked "RESET".
- 3.9 If, after carrying out the above instructions several times, flame is not detected, contact your local service engineer.

4. TO STOP YOUR HEATER

- 4.1 **For short periods, e.g. weekends:**

Turn the time control switch to the "OFF" position, or turn the room control anti-clockwise to its minimum setting. This will cause the burner to extinguish and the heater fan to stop once the heat exchanger has cooled. When you require the heating on again, turn to room control switch to the "ON" position, or reset the room control to the desired setting.
- 4.2 **For longer periods, e.g. a week or summer shutdown:**

Turn the room control switch to the "OFF" position, set the room control to its minimum setting, then turn off the electricity supply to the heater.

WARNING: Do not turn off the electrical supply when the main burner is lit, as this may cause damage to the heater.
- 4.3 **IMPORTANT:** If Summer Air Circulation is required, the electrical supply to the heater must remain on.

5. TEMPERATURE CONTROL

- 5.1 The figure on the room control are degrees centigrade.
- 5.2 It is worth noting that best economy is achieved at the lowest setting that you find acceptable.
- 5.3 Unlike normal room thermostats, the OpenTherm controller varies the heat output of the condensing heater to which it is connected. This adds significantly to the heater efficiency by ensuring that the heater keeps in economical condensing mode whenever possible.
- 5.4 Daily use is as easy as setting the control dial to the required setting. The advanced electronics and software within the control establish two-way communication with the OpenTherm heater to ensure optimal operation.



FIGURE 1. ROOM CONTROL

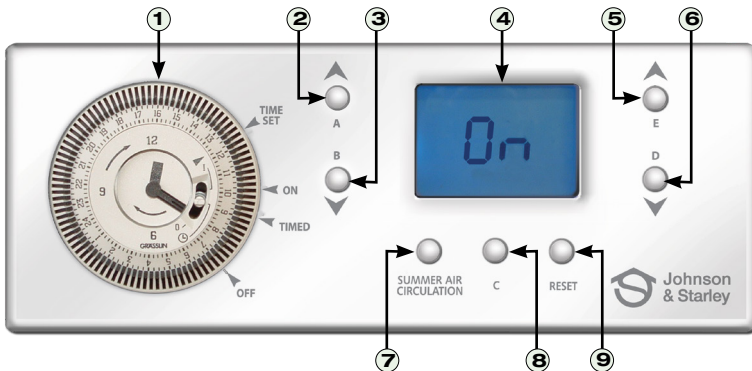
IMPORTANT: The OpenTherm controller supplied is a fixed wired option. For wireless and “smart” upgrades, consult your installer. It is a condition of the warranty that the unit is controlled using a Johnson and Starley approved OpenTherm controller.

CONTROL SETTINGS

1	ROOM TEMPERATURE SETTINGS	30 °C. Set dial to required room temperature
2	HOLIDAY SETTING	Controls room temperature at 8 °C (frost setting)
3	START UP	When heater is firstly turned on, the led will flash for 20 seconds
4	NORMAL OPERATION	LED will be lit whenever the heater is firing
5	HOLIDAY MODE	When thermostat is put into, or taken out of holiday setting, the LED will flash for 20 seconds
6	ALARM MODE	Should a fault occur with the heater, the LED will flash continuously to warn of failure

6. CONTROL OF YOUR HEATING SYSTEM

FIGURE 2. CONTROL PANEL



CONTROL PANEL

1	Time control
2	A +
3	B -
4	LED Display
5	E +
6	D -
7	Summer Air Circulation
8	C
9	Reset

FIGURE 3. LED READ OUT

Call for heat



OpenTherm



Information Display



Flame



Summer Circulation



Reset



Error Code



Degrees Centigrade



Temperature Limit



- 6.1 It should be noted that under certain conditions, Le is displayed. This is part of the control sequence and the appliance should reset automatically. Ensure that the filter and the ducts are clear.
- 6.2 You can control the heat to each room by opening and closing the warm air outlets, but never close more than half of the outlets at any one time or the performance of the heating system will be affected. Warm air outlets in the room where the OpenTherm controller is sited should always be open to ensure that the heating system is controlled properly.
- 6.3 During the average winter weather, warm air outlets in rooms not having an OpenTherm controller should be opened only as much as is necessary to bring the room to a comfortable level.

6.4 SUMMER AIR CIRCULATION

During hot weather, unheated air can be circulated around the dwelling, (using the air circulation fan), pressing the button on the unit marked Summer Air Circulator.

IMPORTANT: If at any time the heater fails to turn off when there is no demand for heat, switch off the gas and electrical supply to the heater and contact your local service engineer.

7. TIME CONTROL OPERATION

In addition to continuous operation, the Time Control will provide 24 hour timed operation of the air heater in 15 minutes increments (1 tappet).

7.1 SETTING THE TIME

Rotate the dial clockwise, by hand, until the indicator arrow is pointing to the current time.

NOTE: The time is set in 24 hour format.

7.2 SETTING THE CENTRAL HEATING ON AND OFF TIMES

Select the on times by pushing the black tappets to the outside.

Select the off times by pushing the black tappets to the inside

7.3 OVERRIDING THE CLOCK

The clock has a manual on off switch which operates as follows

- | Heating on continuously
- Heating on timed
- 0 Heating off

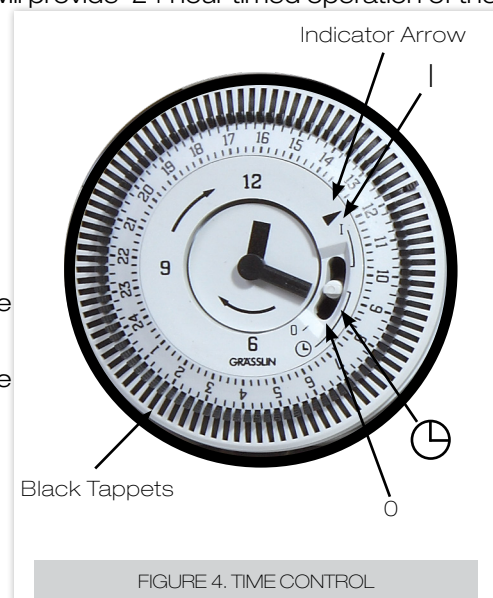


FIGURE 4. TIME CONTROL

8. AIR FILTER

- 8.1 The air filter is located where the return air ducting connects to the air heater.
- 8.2 **IMPORTANT:** during periods where the heater is being used constantly, the air filter should be checked at regular intervals.
- 8.3 **TO CLEAN THE FILTER** - cleaning the filter will depend on the filter type. It will be either:
 - a) Passive Filter: withdraw the filter from the heater, clean with a soft brush or vacuum cleaner and refit.
 - b) Electronic Filter: withdraw the filter as above and remove surface dust with a soft brush. If the filter medium is soiled, replace as directed in the filter kit instructions.

DO NOT ATTEMPT TO CLEAN OR WASH THE FILTER MEDIUM!

NOTE: if you allow the filter to become clogged, the heater efficiency will be greatly reduced.

- 8.4 IN NEW DWELLINGS: clean the filter once a week for the first month or two to clear builder's dust.

9. CONDENSATE DRAIN

- 9.1 The condensate drain must not be modified or blocked.
- 9.2 Blockage of the condensate drain caused by debris or freezing, can cause the boiler to lockout.
- 9.3 If freezing is suspected and the pipe run is accessible, then an attempt to free the obstruction by pouring hot water on to the pipe may be made. If this fails to remedy the problem, the assistance of a GAS SAFE registered installer should be sought.

10. SERVICE & MAINTENANCE

- 10.1 It is recommended that a full maintenance check be carried out annually on the appliance. It is also recommended to take out a further service agreement on the expiry of the guarantee period. You can obtain further information on this from your gas supplier.
- 10.2 If your appliance requires a service, please contact your local Gas Safe registered installer or gas supplier.
- 10.3 On completion of the service the installer should fill in the service section at the rear of the BENCHMARK Checklist. All installers registered with GAS SAFE carry an identification card. This card will have an ID number which should be recorded in your Checklist.
- 10.4 If you have any queries regarding your installer, you can contact GAS SAFE by telephone on 0800 408 5500.



11. POWER CUTS

- 11.1 If you experience an electrical power cut, your air heater will cease to operate. When the electrical supply is restored, the heater will work normally but the Time Control WILL require resetting.

12. TROUBLESHOOTING

- 12.1 Check that the OpenTherm controller and Time Control are set correctly to your requirements and that at least half of the warm air outlets are open, especially in the room where the OpenTherm controller is located.
- 12.2 Check that the air filter is not clogged, if so clean as detailed in Section 8.
- 12.3 If there is a LOCKOUT error, wait for approximately 10 seconds and then press the RESET button.
- 12.4 If the heater will still not operate correctly, contact your local service engineer.
Service arrangements:
 - a. for new dwellings, servicing is usually supplied for a specific period under arrangements made by the building contractor.
 - b. local Authorities often have their own special arrangements.
 - c. if the above do not apply, contact your local service engineer, or the Service Department at Johnson & Starley Ltd.

GAS LEAKS

**DO NOT OPERATE ANY ELECTRICAL SWITCHES, OR USE A NAKED FLAME
TURN OFF GAS SUPPLY
VENTILATE THE AREA BY OPENING THE DOORS AND WINDOWS
CALL THE NATIONAL GAS EMERGENCY SERVICES ON
TEL: 0800 111999**

13. ERROR CODES

13.1 FLAME LOCKOUT

Should the heater fail to light after 5 attempts, it will lock out Error 1. Check the gas meter is turned on and any pre-payment meters have credit. Pressing the reset button will enable the heater to relight.



13.2 FLAME LOSE

Should the flame signal be lost 5 times in any 4 minute period then the heater will lockout and an error code 26 will be displayed in the centre of the display. Pressing the reset will enable the heater to relight.

If the fault recurs, turn off the heater and consult a GAS SAFE registered installer.



- 13.3 For any error codes that you may encounter on your heater, please refer to your Installation & Maintenance Instructions or contact your local Gas Safe registered installer.

14. CLEANING

- 14.1 If necessary, the heater cabinet may be cleaned using a mild soap solution. DO NOT use abrasive pads or scourers.

15. IMPORTANT INFORMATION

FOR YOUR HEATER TO WORK EFFICIENTLY AND FOR YOUR HEATING SYSTEM TO PERFORM SATISFACTORILY, IT IS ABSOLUTELY ESSENTIAL TO OBSERVE THE FOLLOWING:

1. DO KEEP CLEAN, and make sure you DO NOT OBSTRUCT any grilles on the heater, in the heater compartment, or in any walls, windows or doors of the building.
2. DO CLEAN AND REFIT the air filter at least once per month.
3. DO NOT PLACE ANYTHING (clothing, linen etc.) in contact with the air heater or its flue pipe.
4. DO NOT USE the heater compartment for storage or airing.
5. DO NOT turn off the mains electricity supply to the air heater until the gas supply has been turned off.

NOTE: IF YOU ARE AWARE OF, OR SUSPECT, A FAULT OF ANY KIND THE HEATER MUST NOT BE USED. TURN OFF THE GAS AND ELECTRICAL SUPPLIES TO THE HEATER AND CONTACT YOUR SERVICE ENGINEER.





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