



**Johnson
& Starley**

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WARMCAIR DW Series II

Condensing Air & Water Heaters

High Efficiency Downflow
Condensing Air & Water Heater

C10DW, C16DW, C20DW, C25DW

User Instructions



WarmCair C10DW Series II - G.C. No.

WarmCair C16DW Series II - G.C. No.

WarmCair C20DW Series II - G.C. No.

WarmCair C25DW Series II - G.C. No.

These instructions are to be left with the User



FM 525200



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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

The engineer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

Benchmark places responsibilities on both manufacturers and heating engineers. The purpose is to ensure that customers are provided with the correct domestic heating and hot water product(s) for their needs; that the product(s) is installed, commissioned and serviced in accordance with the manufacturer's instructions by competent persons in a way that they will be safe, perform with optimum efficiency, and meet the requirements of the appropriate Building Regulations.

The heating engineer should fully complete the Benchmark Checklist upon installation. At present, it can be found on the inside back pages of the installation instructions supplied with the product, via the Benchmark App or online platform. Homeowners should sign it to say that they have received a full and clear explanation of its operation. The engineer is 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 homeowner.

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

Completing the Benchmark Checklist is a means of meeting the commissioning requirements within Part L of the Building Regulations.

1. GENERAL INFORMATION

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 is a floor mounted, condensing heater, featuring full sequence automatic spark ignition and fan assisted combustion. Due to the high efficiency of the heater, condensate is produced from the flue gases and this is drained to a suitable disposal point through a plastic waste pipe at the base of the heater. A condensate “plume” will also be visible at the flue terminal.

2. TEMPERATURE CONTROL

2.1 THERMISTA-STAT OPERATION (if fitted)

- 2.1.1 The numbers on the Thermista-stat dial represent levels of warmth. When you select a number, the heater will automatically operate to maintain this level. You will soon find the setting with which you are most comfortable, and it is suggested that you start at mark 6, making adjustments up or down until a satisfactory level is reached.

2.2 ROOM THERMOSTAT OPERATION (optional)

- 2.2.1 The room thermostat enables you to select the room temperature that you require. When the air temperature surrounding the thermostat reaches the selected temperature, the thermostat will switch the heater off. The thermostat will then automatically allow the heater to cycle on and off to maintain the selected room temperature.

2.3 CONTROL OF YOUR HEATING SYSTEM

- 2.3.1 You can control the heat to each room by opening and closing the warm air outlets, but not more than half of these outlets should be closed at any time or the performance of the heating system may be adversely affected.
- 2.3.2 Warm air outlets in the room where the Thermista-stat or room thermostat is sited should always be left open to ensure that the heating system is properly controlled.

2.4 SUMMER AIR CIRCULATION (External optional switch sourced and fitted by the installer)

- 2.4.1 During hot weather, unheated air can be circulated around the home, by turning the heating requirement off and setting the Summer Air Circulation switch to **“ON”**. This switches the heater’s fan on, and circulates air around the home through the air outlets.

2.5 ECONOMIC OPERATION

- 2.5.1 Economic efficiency can be achieved by setting the Thermista-stat or room thermostat to the lowest setting that you find acceptable.
- 2.5.2 Overnight in prolonged severe weather, it is better to set the air heater Time Control (if fitted), to **“ON ALL TIME”**, and reduce the Thermista-stat or room thermostat setting to provide general background heating. Resetting the controls to normal settings on rising will quickly raise the room temperature.

Recommended background heating settings:

Thermista-stat: Mark 4

Room thermostat: 13°C (55°F)

3. AIR FILTER

IMPORTANT: The air filter should be cleaned monthly during the heating season, or every week for the first month in new homes in order to clear builder's dust, etc. If you are using a Cleanflow electronic air cleaner, refer Publication ZZ1667 Replacement of the 2 Piece Filter Media.

- 3.1 To clean the air filter, withdraw it from the heater and clean it using either a soft brush or vacuum cleaner before refitting it to the heater. DO NOT allow the filter to become clogged, or the heater output will be greatly reduced and fuel will be wasted. Do not use the heater without a filter

4. HEATER NOT GIVING THE SERVICE REQUIRED

- 4.1 Check that the Thermista-stat or room thermostat and Time Control are correctly set to your requirements, and that at least half of the warm air outlets are open, especially in the room where the temperature control is sited.
- 4.2 Check if the air filter is clogged, and clean as instructed in Section 3.
- 4.3 If the fan does not work properly, ensure that the Summer Air Circulation switch (if fitted) is set to **"OFF"**.
- 4.4 If there is a fault code showing on the display please refer to the fault code table on pages 7 & 8.

5. THE HEATER CONTROL PANEL

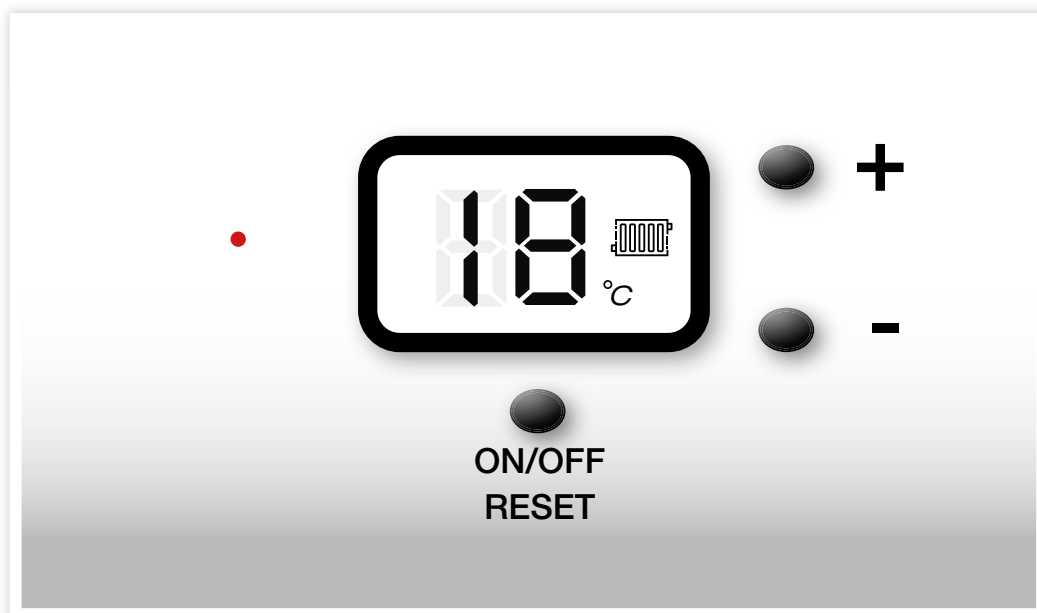


FIGURE 1. LED DISPLAY FUNCTIONS

6. TO LIGHT THE HEATER

- 6.1 Switch the mains power on and wait for the LED display to enter standby mode, showing 2 alternating dashes.
- 6.2 Press and hold the **"ON/OFF/RESET"** button to turn the appliance on. The display will change to show the current water temperature inside the heater.

7. OPERATING FUNCTIONS

7.1 CENTRAL HEATING MODE

- 7.1.2 To activate a central heating demand, set the external programmer to call for central heating and turn up the thermostat.
- 7.1.3 To activate a domestic hot water demand, set the external programmer to call for hot water and ensure the cylinder thermostat is set high enough to create a demand (higher than the current water temperature in the cylinder).
- 7.1.4 When the heater recognises a demand for either central heating or hot water, it will show a flashing radiator symbol on the display and when the burner is lit, a flame symbol will appear.
- 7.1.5 The water temperature will be factory set at 80° C to provide the rated central heating output of the heater (10, 16, 20, or 25kW). The flow temperature can be adjusted by pressing the “+” and “-” buttons to the right of the display.

The minimum allowable temperature to still operate the air circulation fan is 65° C. However, the heat output will reduce as the flow temperature is reduced. We recommend leaving the set temperature at 80°C to ensure swift and effective central heating.

7.2 TO SHUT DOWN THE BOILER

- 7.2.1 Set the heater to “**OFF**” by pressing and holding the “**ON/OFF/RESET**” button. This is indicated by 2 alternating dashes appearing on the display.
- 7.2.2 To relight the heater repeat the procedure detailed in Section 7.

7.3 FROST PROTECTION

The heater has an in built frost protection mode, which will activate if the temperature within the heater drops to 6° C. In this instance, the burner will fire and the pump will circulate water until the temperature increases to 15° C.

If no additional frost protection is provided and frost is likely during a short absence from home, leave the heating controls (if fitted) at a reduced temperature setting. For longer periods, the entire system should be drained and the heater switched off entirely, with both electrical connection switched off at the mains and gas cock closed.

If the system includes an additional frost thermostat then, during cold weather, the heater should be left **OFF** with the programmer set to **ON** for both central heating and hot water. This allows water circulation throughout the system to prevent frost damage.

NOTE. THIS DOES NOT PROTECT YOUR COLD MAINS FEED, NOR THE CYLINDER FROM FREEZING.

The mains supply should be left switched **ON**, with the heater thermostat left at a reduced setting (for example as indicated in Section 2.5).

7.4 CONDENSATE DRAIN

The condensate drain must not be modified or blocked.

Blockage of the condensate drain, caused by debris or freezing, can cause automatic shutdown of the heater.

If freezing is suspected and the pipe is accessible an attempt may be made to free the obstruction by pouring hot water over the exposed pipe and clearing any blockage from the end of the pipe. If this fails to remedy the problem, the assistance of a Gas Safe Registered Engineer (United Kingdom) or a Registered Gas Installer (RGII, Ireland) should be sought

8. SERVICING & MAINTENANCE

- 8.1 A full maintenance check must be carried out annually on the appliance to ensure safe operation and maintain your manufacturer's guarantee. Your installer will give you details of arrangements for this service.

If your installer has difficulty in providing this information please contact Johnson & Starley Ltd on 01604 762881, or email: info@johnsonandstarley.co.uk to assist in providing details of gas safe engineers.

- 8.2 The heater **MUST** be serviced at least once a year by a Gas Safe Registered Engineer (DAH1) or a Registered Gas Installer (RGI, Ireland*). On completion of the service the installer should fill in the service section at the rear of the **BENCHMARK** logbook. All installers registered with **GAS SAFE** carry an identification card. This card will have an ID number which can be recorded in your logbook.

If you have any queries regarding your installer you can contact **GAS SAFE** by telephone on **0800 408 5500**



9. CLEANING (OUTER UNIT ONLY)

- 9.1 For normal cleaning simply dust with a dry cloth. To remove stubborn marks and stains, wipe with a damp cloth and finish off with a dry cloth. **DO NOT** use abrasive cleaning materials.

10. SERVICE ARRANGEMENTS

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, please contact Johnson & Starley Ltd on 01604 762881 or email: info@johnsonandstarley.co.uk to assist in providing details of gas safe engineers.

11. ADDITIONAL INFORMATION










- 11.1 For your heater to work efficiently and for heating system to perform satisfactorily, it is absolutely essential to observe the following:
- a) 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.
 - b) DO CLEAN AND REFIT the air filter at least once per month.
 - c) DO NOT PLACE ANYTHING (clothing, linen, etc) in contact with the air heater or its flue pipe.
 - d) DO NOT USE the heater compartment for storage or airing
 - e) DO NOT turn off the mains electricity supply to the air heater until the gas supply has been turned off.






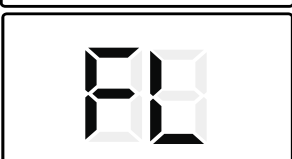
NOTE: IF YOU ARE AWARE OR, OR SUSPECT, A FAULT OF ANY KIND, THE HEATER MUST NOT BE USED. TURN OFF THE GAS AND ELECTRICAL SUPPLIES TO THE HEATER AND CONTACT YOUR SERVICE ENGINEER.

* Guarantees applicable to mainland UK only

12. TROUBLESHOOTING

- 12.1 Check that the temperature control 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 temperature control and time control are located.
- 12.2 Check that the air filter is not clogged, if so clean as details in Section 3.
- 12.3 If there is a Lockout Error or Blocking Code wait for 1 minute and take action as outlined in the below Fault Code Guide

FAULT CODE	DESCRIPTION	ACTION TO TAKE
	Failure to Ignite	Press RESET to attempt another ignition. If same fault recurs, contact your Gas Safe Engineer
	Overheat (high limit stat open circuit)	Contact your Gas Safe Engineer
	Generic lockout	Contact your Gas Safe Engineer
	No water circulation (low water pressure)	With the boiler off and the system cold, fill the system to between 1.0 and 1.5 bar. If the problem reoccurs contact your Gas Safe Engineer
	Combustion fan tachometer fault	Contact your Gas Safe Engineer
	Flow temperature sensor out of range (resistance out of range/sensor disconnected)	Contact your Gas Safe Engineer
	Flue temperature sensor out of range (open circuit)	Contact your Gas Safe Engineer
	Flue temperature sensor out of range (overheat or short circuit)	Turn off any heating or hot water demand, wait for 10-20 minutes, press RESET. If fault code returns, contact your Gas Safe Engineer
	False flame lockout	Contact your Gas Safe Engineer

FAULT CODE	DESCRIPTION	ACTION TO TAKE
	CH flow temp sensor overheat (>105°C)	Turn off any heating or hot water demand, wait for 10-20 minutes, press RESET. If fault code returns, contact your Gas Safe Engineer
	CH flow temp sensor overheat (>2°C/s)	Turn off any heating or hot water demand, wait for 10-20 minutes, press RESET. If fault code returns, contact your Gas Safe Engineer
	Flame lost 5 times in 4 minutes	Press RESET to attempt another ignition. If same fault recurs, contact your Gas Safe Engineer
	Water pressure sensor not connected	Contact your Gas Safe Engineer
	PCB not configured	Contact your Gas Safe Engineer
	Low water pressure	With the boiler off and the system cold, fill the system to between 1.0 and 1.5 bar. If the problem reoccurs contact your Gas Safe Engineer

12.4 If the heater will still not operate correctly, contact your local Gas Safe Engineer.

13. ESCAPE OF GAS

13.1 SHOULD A GAS LEAK OR FAULT BE SUSPECTED, CONTACT THE NATIONAL GAS EMERGENCY SERVICE WITHOUT DELAY

TEL 0800 111 999

DO NOT SEARCH FOR GAS LEAKS WITH A NAKED FLAME

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

14. GUARANTEE TERMS AND CONDITIONS

Guarantee Terms and Conditions

The guarantees (The 'Products')

WarmCair Warm Air Heaters

12 months only, 5* years if registered. *Years 1-2 Parts and Labour, Years 3-5 Parts only

Aquair HIU

12 months only 5* years if registered. *Years 1-2 Parts and Labour, Years 3-5 Parts only

Installs from 01/09/2021 only

These guarantees apply to the original retail purchaser only and are not transferable.

Guarantees are:

Manufacturer's Guarantee Terms and Conditions

To receive the full benefits of the guarantee the following terms and conditions must be adhered to, or the guarantee may be declared void at any time and/or any claim under the guarantee rejected.

Products manufactured and supplied by Johnson & Starley Ltd (The 'Company') are guaranteed against material or manufacturing faults for the duration of the guarantee periods specified, subject to the following terms and conditions being met.

1. The product must be purchased and installed in Mainland Great Britain.
2. The product must be installed and commissioned by a Gas Safe Registered Installer (WarmCair requires additional DAH1) and in accordance with the installation instructions supplied with the product and must meet with the requirements of the Benchmark initiative if applicable.
 - BS 5864:2010 Installation and maintenance of gas-fired ducted air heaters of rated heat input not exceeding 70kW net (2nd and 3rd family gases)
 - Approved document L building regulations
 - The Water Supply (Water Fittings) Regulations.
 - BS 7593 Code of Practice for the preparation, commissioning and maintenance of domestic central heating and cooling water systems.
3. The product must be registered within 30 days of installation by post or via the internet, unless the installation is made more than six months from the date on which the product was dispatched by us, in which case the guarantee period will commence six months from the date of manufacture.
4. The 3 part Benchmark commissioning Checklist must be completed in full and meeting the criteria required within the Installation, Commissioning and Servicing Instructions. The white copy returned to Johnson & Starley within 30 days of installation. (Not applicable to Aquair Range)
5. Failure to correctly/fully complete the Benchmark commissioning Checklist will result in Johnson & Starley Ltd reserving the right to refuse any guarantee claim that relates to the incorrect/incomplete or missing information. The Installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England & Wales)
6. Failure to comply with points 1-3 & 8 will result in the guarantee becoming void
7. Failure to comply with points 3-4 & 9 -10 will result in the guarantee reverting to the standard 12 months or being reduced to a limited cover.
8. The fitting of any Non-Open Therm Controller to any of the WarmCair C range of warm air heaters will invalidate the guarantee immediately. The fitting of this type of controller can cause severe damage to the heat exchanger and under no circumstances should be used.
9. The product must be protected by the installation of a filter. A Magnetic & Non-Magnetic filtration system MUST be fitted on all returns to the appliance.
10. Appropriate inhibitors must be used as described in the Johnson & Starley installation instructions. A water sample may be required in the event of a system/product failure.
11. This product must only be used in a domestic or light commercial environment (light commercial is defined as a semi-domestic/commercial environment, including hair salons, small shops, pubs etc.)
12. Under no circumstances should the product be removed/moved once installed unless prior authorisation has been supplied by Johnson & Starley Ltd

13. At the end of each 12-month period the product must be maintained in accordance with the Johnson & Starley manufacturer's user instructions and serviced annually by a DAH1 Gas Safe Registered Installer. Should this condition not be met the appliance guarantee will become void.
14. Should a repair under guarantee be requested and the unit is found to no longer be covered under that guarantee then the works will become chargeable.
15. Years 1-2 of the guarantee period, and subject to the product meeting the guarantee criteria, any product or component that is proved to be faulty or defective due to the manufacturing process, will be repaired or replaced free of parts and labour charge, providing that we Johnson & Starley Ltd have authorised it in writing or have carried out the replacement/repair.
16. Years 3-5 of the guarantee period and subject to the product meeting the guarantee criteria, parts only will be replaced FOC to the customer, subject to the claim being authorised by Johnson & Starley Ltd prior to the repair being undertaken. The work(s) must be carried out by a warm air qualified Gas Safe Registered engineer. (Labour costs are not covered under this section of the guarantee and must be met by the customer).
17. It is the customer's responsibility to arrange their own Gas Safe Engineer under the parts-only section of the guarantee and liaise accordingly with them. Johnson & Starley accept no responsibility for the work of any Gas Safe Engineers.
18. Parts must be supplied directly from Johnson & Starley Ltd unless prior arrangements have been made at the time of Authorisation.
19. Should any parts be fitted by anyone other than a DAH1 qualified Gas Safe Engineer then the remaining guarantee is void.
20. Parts supplied under the 'Parts only Guarantee' are chargeable to the Installer and a credit to the installer will be raised upon receipt of the faulty part to Johnson & Starley Ltd.
21. No credits will not be raised unless prior authorisation for the repair was given by Johnson & Starley Ltd
22. Parts supplied by Johnson & Starley come with a 12 month guarantee.
23. Heat Exchangers qualify for the 2 years Parts and Labour and 3 years parts guarantee only with no exceptions.
24. Invoices for attendance, repair or parts for costs incurred by the use of any third party who undertakes any work on, or the fitting of parts to any Johnson & Starley Ltd product, unless we (Johnson & Starley Ltd) have authorised this ourselves in writing for such work to be carried out will not be paid.
25. Under no circumstances will the guarantee period be extended on any product or part even if we (Johnson & Starley Ltd) have carried out the work. Replacement products and parts are guaranteed for the period of the original deliverable guarantee.
26. Any product or part replaced or removed under guarantee will become the property of Johnson & Starley Ltd.
27. No claims outside of the guarantee period will be accepted, any claim must be made within the specified guarantee period.
28. The product must be fully accessible for an engineer to work on. It is not the responsibility of the engineer to remove cupboards, furniture, white goods or other obstructions in order to service or repair the product.
29. You must comply with our service engineer appointment terms and conditions if any engineer needs to attend.
30. Notwithstanding company law the decision of Johnson & Starley Ltd is final.

Manufacturer's Guarantee does not apply to (and therefore could be chargeable work)

- Condensate pumps and any damage caused by faulty pumps, blocking or freezing of condensate pipes. Internally or externally
- Heater failure caused as a result of frozen condensate pipes/wastes.
- Damage caused by the non fitting of filters/strainers.
- Consumables as specified by us including but not limited to: hoses, gaskets, Ignitors, electrodes and batteries.
- Gas lines to the product, plugs or cables.
- Damage caused by the fitting of non-compatible controllers.
- Any labour costs incurred after the initial 2-year guarantee
- Flue including terminals and flashings or other weather sealants.
- Radiators and other space heating equipment, external water, gas lines/services, external electric wiring, external pumps, flue-ways, fire valves, filters, water and oil storage tanks.
- Damage caused by faulty installation, theft, tampering, neglect, misuse, accident, fire, flood, explosion, lightning, storms, frost or other bad weather conditions, or any other external factors.
- Failing to comply with Johnson & Starley manufacturer's user instructions.
- Damage caused as a result of scale or debris in the system.
- Damage as a result of sludge or blockages.
- Any unauthorised adjustments made to the product by a third party.
- Any upgrading/improvement work required as a result of legislation, (Health & Safety or otherwise) or to meet current standards.
- Servicing and its associated costs.
- De-scaling and chemical cleansing/flushing.
- Theft or vandalism.
- Self-maintenance tasks such as bleeding and re-pressurising the system.
- Products installed on boats, caravans, houseboats.
- Mini expansion vessels.
- Any claims against noise resulting from anything other than a faulty component.

This guarantee is non-transferable and shall be void if the ownership of the property in which the heater was installed is transferred to another party prior to the expiration of the guarantee period.

Johnson & Starley reserve the right to amend or change the guarantee periods and their terms and conditions at any time without notice.



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Service

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Marketing

email: marketing@johnsonandstarley.co.uk

Reception/Customer Service

01604 762881



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