

## Copperad Natural Convectors

Installation, Operation and  
Maintenance Instructions

To be retained by the user

**QA/IOM/59 Issue 1**

**Copperad®**

# 1 GENERAL

## 1.1 GENERAL DESCRIPTION

This manual covers the Copperad Natural Convector range. These are cabinet type units intended for vertical mounting.

## 1.2 RECEIPT AND PREPARATION

The units are wrapped and display the serial number, model reference, site reference (where appropriate). Installation, operation and maintenance instructions, together with wiring and any special instructions are all supplied with the unit.

On receipt, check that all details are correct to the Customer Schedules prior to opening packaging. Damage should be reported to the the supplying B S S branch immediately.

It is recommended that packaging is kept in place and the units stored in a safe area until the necessary services are completed, in order to avoid the possibility of damage on site.

# 2 INSTALLATION

## 2.1

The natural convector can be supplied in “kit” form—the case and backplate packed together, the coil (heat exchanger) packed separately. The damper kit, if required, will be supplied separately. **The backplate and heat exchanger maybe fixed to the casing for transit purposes. They must be removed by unscrewing the self tapping screws.**

**2.2** It is recommended that an air vent or any required valves are fitted before fixing the heat exchanger to the wall. Any 1/8” BSP male treaded air vent can be used. To avoid damage when fitting any of the above, it is essential to firmly hold the heat exchanger by it’s header and NOT by the finned pack. Note that 2 row LTHW have vents fitted as standard.

Note that it is essential for the casing to have a minimum clearance above and below it, to ensure the correct assembly and working of the convector. The backplate should be fastened to the wall using suitable wall plugs and screws. See figure 1 for dimensions. To help set these out the heat exchanger backplate can be used as templates to mark through the keyhole slots. Drill and plug the wall for No.10 roundhead woodscrews. (Not Copperad supply).

Fix the heat exchanger to the baseplate, with two M6 bolts, grading up to the air vent position on hot water systems. With steam systems, a maximum grade should also be used for condensate drainage and a separate steam trap and strainer for each convector. If thermostatic steam traps are used, an adequate dead leg for condensate cooling should be fitted between the heat exchanger outlet and trap if full output from the convector is to be obtained. Complete all pipework.

The case is then hung over the backplate/coil assembly , and fastened back to the wall with bottom mounted keyhole lugs. Where a damper is required, slide the damper and bracket assembly into the case and fasten with M5 bolts, then push home the operating knob from the outside of the case. If a dampered casing is supplied ensure that the damper is set to the correct position before fitting the case on to the backplate.

## 2.3 CHANGE OF HANDING

Unless otherwise specified 2 row LPHW heat exchangers have 15mm plain tails. Steam and 1 row LPHW have 3/4” male BSP connections one at either end. If it is necessary to reverse this handing on site this is easily achieved by following these instructions:

Unscrew the two M6.0 hex head screws securing the heat exchanger and lift clear, taking care that no damage occurs to the fins of the heat exchanger fin block. Turn around and refit.

# Maintenance:

To remove the casing, remove the damper assembly knob where fitted. Undo the bottom mounted key-hole lugs and lift the casing clear.

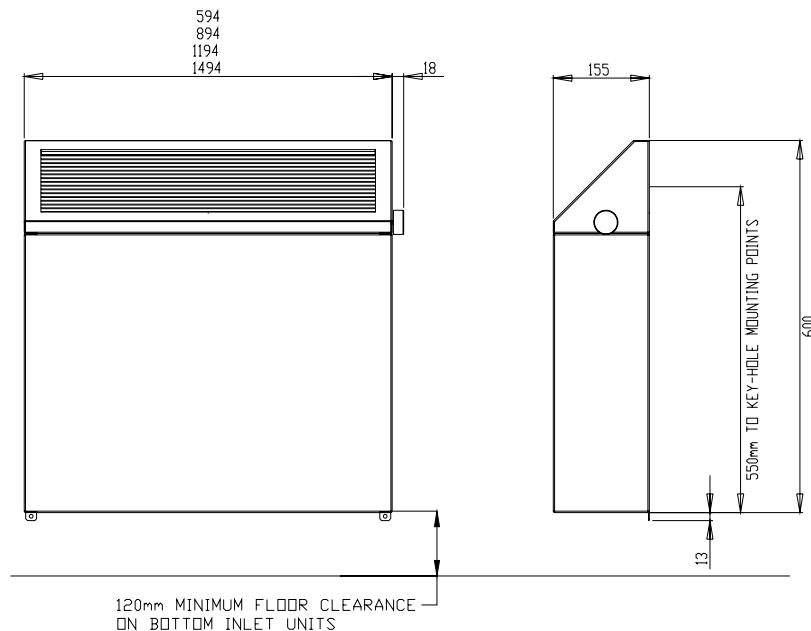
It is recommended that when decorating the casing be removed to enable the paper or paint to continue behind the casing. The heat exchanger should be protected at this stage, and then carefully cleaned before replacing the casing.

This product is supplied exclusively in the UK by BSS. For after sales service and product information, please contact your local BSS branch, or the Technical Sales team in Leicester. (Tel: 0116 256 7052)

## PERFORMANCE

Unit size mm	No of rows	Water out-put kW 80-70* LPHW	Water out-put kW 65-55* LPHW	2 bar steam appx kW values	0.5 bar 111 deg C appx kW values
600	1	0.63	0.4	1.37	1.05
900	1	1.06	0.68	2.90	2.23
1200	1	1.48	0.95	4.48	3.45
1500	1	1.90	1.22	5.4	4.15
600	2	0.79	0.51	N/A	N/A
900	2	1.31	0.84	N/A	N/A
1200	2	1.83	1.17	N/A	N/A
1500	2	2.36	1.51	N/A	N/A

\* 20 deg C entering air



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