BOSS™ Copperad®

BOSS COPPERAD CEILING TILE (CT) UNITS

Instruction, Operation and Maintenance Manual

OVER
100 YEARS
OF QUALITY

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1 GENERAL DESCRIPTION

The BOSS Copperad Ceiling Tile (CT) Units a self-contained fan convector heater designed for hidden installation into suspended “T-bar” and plasterboard ceilings. The product is in two sizes designated ‘Solo’ and ‘Duo’.

2 RECEIPT AND PREPARATION

The units are wrapped and display the BOSS Copperad works order number, model reference, site reference (where appropriate), and site details.

On receipt check that all details are correct to the customer schedules prior to opening the packaging. Damages should be reported to the carrier and to the BOSS Copperad Sales Office immediately.

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

3.1 INSTALLATION
Key sizes, dimensions and weights

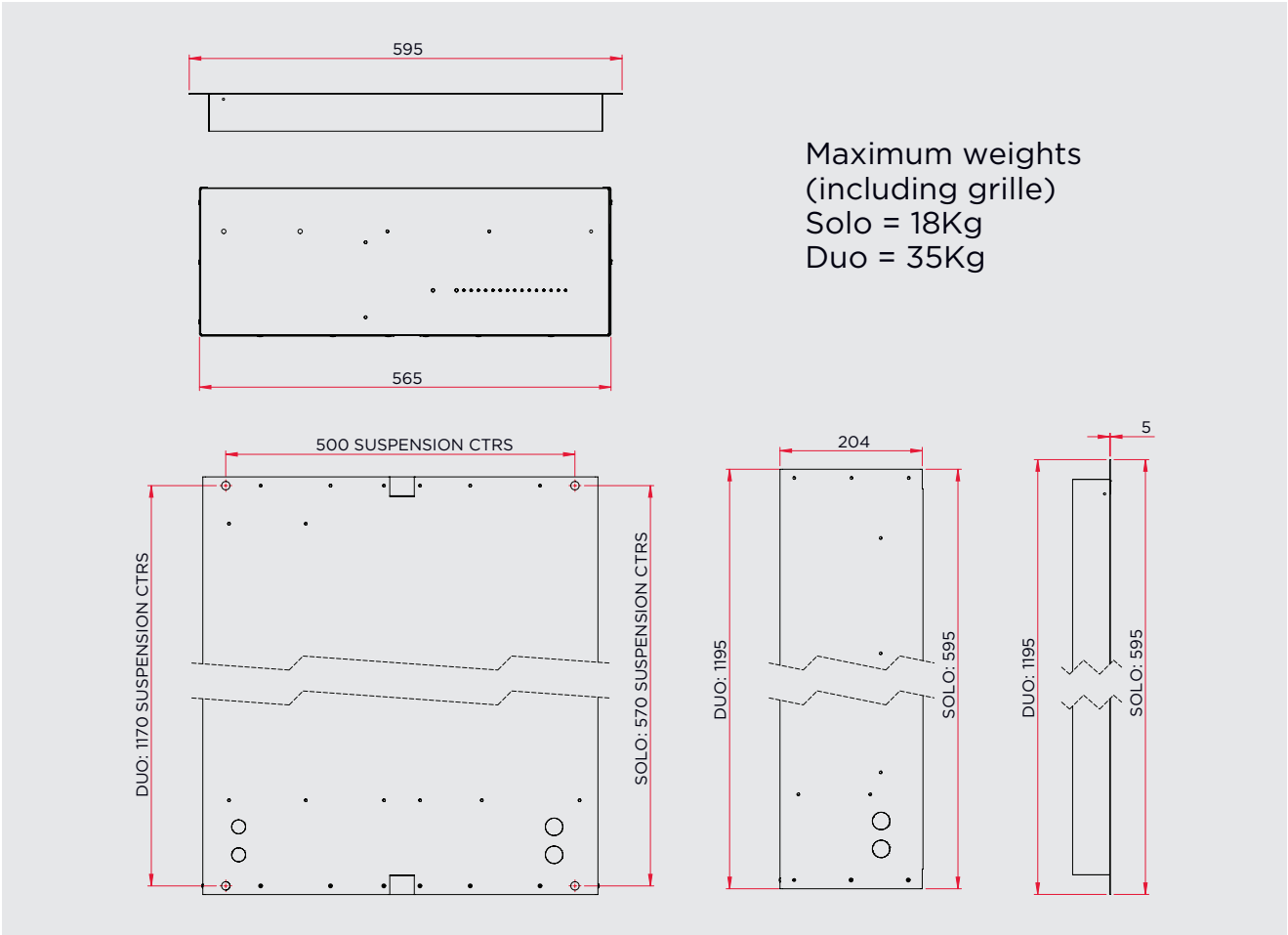


Figure (I)

3.2 INSTALLATION
Ceiling installation

Note: CT units must be installed at least 1.8m above floor level.

Note: Maximum recommended ceiling height for CT unit installation is 3.0m.

3.2.1 CEILING INSTALLATION
Installation into a “T-bar” suspended ceiling

Remove any fitted ceiling tiles around the area where the CT unit is to be located. Ensure that four suspension cables (minimum 14 swg galvanised steel wire) are tied off securely to points in the roof space to match the suspension centres Figure (i).

Lift up the CT unit, through the T-bar aperture into the roof void, securely attaching the suspension cables to the case. Place the hinged grille into position and adjust the height so that the unit locates around the grille as in Figure (ii)

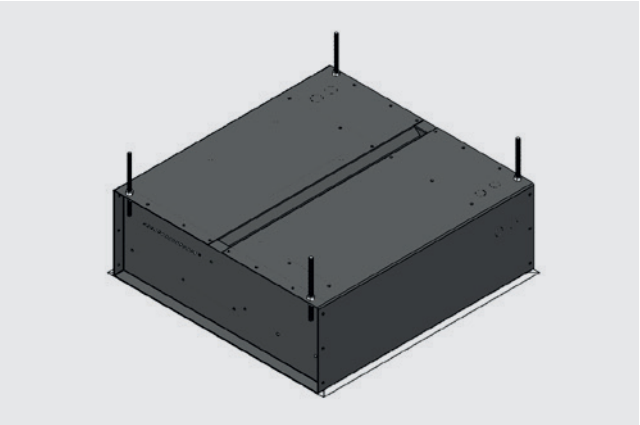


Figure (ii)

3.2.2 CEILING INSTALLATION
Installation into a plasterboard ceiling

Note: Access into the ceiling void is required for installation.

Cut a square aperture 575mm x 575mm for a single unit (Solo) and 1175mm x 575mm for a Duo into the plasterboard ensuring any obstructions in the ceiling void are a minimum of 210mm away from this surface.

Ensure that four suspension cables (minimum 14 swg galvanised steel wire) are tied off securely to points in the roof space to match the suspension centres.

Offer the CT unit up, lengthwise from below, through the cut aperture and into the roof void.

Securely attach the suspension cables and adjust the height so the unit sits over the aperture and just clear of the plasterboard.

Locate the grille into the suspended casing in the orientation shown below.

With a 3.5mm drill, make four holes through the grille wall and casing sides.

Open out the holes in the grille to 5.0mm.

Locate the grille back into the casing and secure with No 8 screws.

Figure (iii)

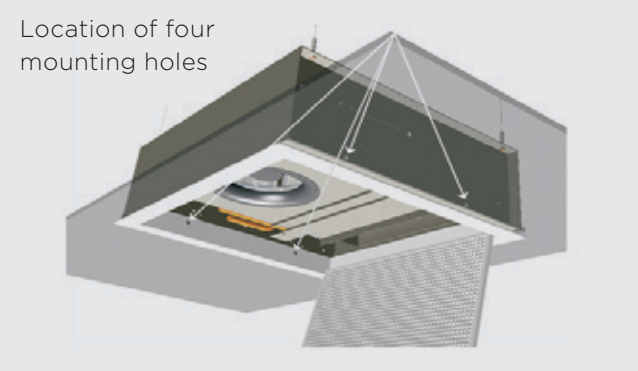


Figure (iv)

3.2.3 CEILING INSTALLATION
Free-hanging

While the units are intended for recessed installation they can be free-hanging if required. The units should be suspended from the ceiling as above and the grille attached to the unit as in the instructions for plasterboard installation given above.

3.3 INSTALLATION
Pipework connection

There are 3 pairs of “knock-out” holes in the casing to allow simple entry of the feed and return pipework into the CT unit. Connections to be made with standard 15mm compression joints. The supply water should be connected to the inner coil pipe and the return to the outer.

3.4.1 ELECTRICAL INFORMATION
Electrical connection

Units are supplied with high efficiency EC motors and, require a single phase 230V supply.

All electrical work should be carried out in accordance with IET regulations. The terminal block is accessible in the void area after hinging open the eggcrate grille. The supply must be made via a suitable means of isolation and the earth connection must be included.

Model	Voltage (V)	Full Load Current (A)	Absorbed Power (W)
Solo (LPHW)	230	0.1	14
Duo (LPHW)	230	0.2	28

Based on medium speed

3.4.2 ELECTRICAL INFORMATION
Control wiring

A wiring diagram showing customer connections is included with each unit. For wiring other than with the standard, available options the BOSS Copperad Technical Department should be contacted.

3.4.3 ELECTRICAL INFORMATION
Standard control options

Factory-fitted options		
LPHW OPTIONS		
Energy-saving thermostatic controls	2-ST	Two-stage thermostat (remote)
	RT1	On/off thermostat (remote)
	RT2	Speed-change thermostat (remote)
	ALTC	Adjustable low water-temperature cut-out (remote)
Switches	RS1	On/off rocker switch (remote)
	RS2	Summer/winter rocker switch (remote)
	RS3	3-speed rocker switch (remote)
Electrical Connections	FSB	Fused spur box for direct mains connection
	CCB	Customer connection box for external controls
Coil connections	ISV	Isolation valves for flow and return pipes

Table (ii)

4.1 OPERATION AND MAINTENANCE
General

Warning! Electrically isolate the unit prior to commencing work.

4.1.1 OPERATION AND MAINTENANCE
Opening the centre section of the grille

The hinged centre section is retained by “press-to-release” clips. Press the edge of the grille up where the catches are visible through the grille, the centre section will then hinge down. To close the grille, push the centre section back up until the clips are engaged. See Figure (v).

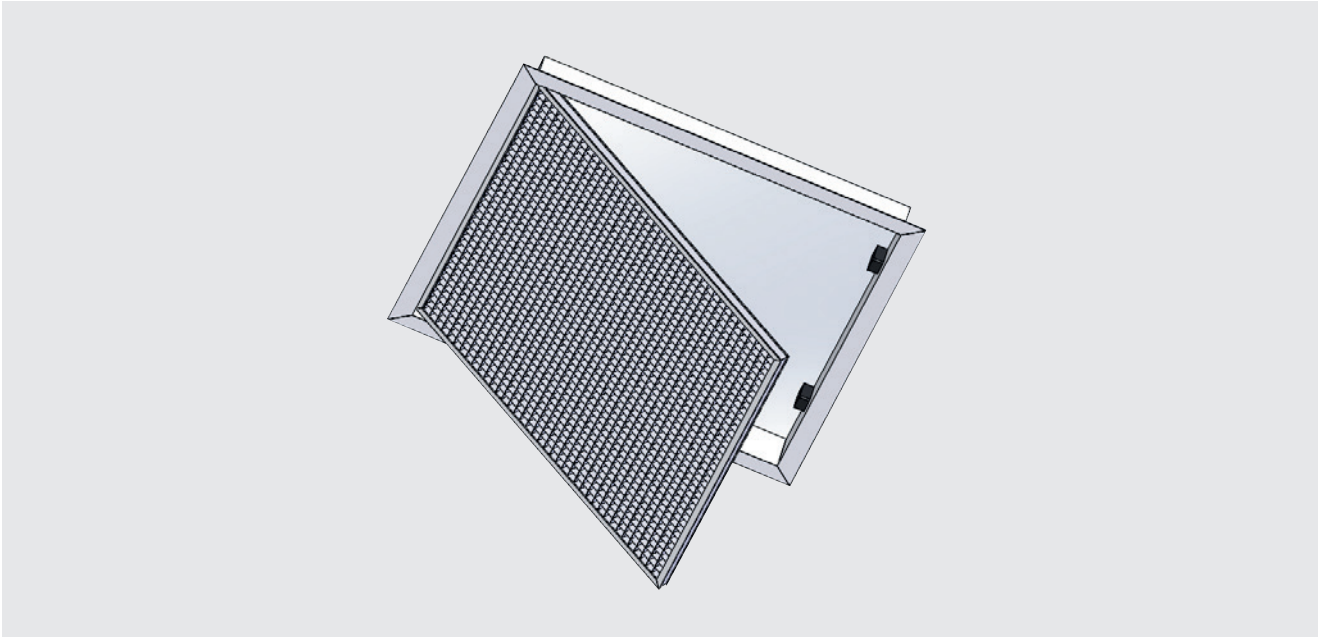


Figure (v)

4.1.2 OPERATION AND MAINTENANCE
Filter

Filters should be cleaned regularly in order to maintain unit performance. The filter is located behind the shallow U-section metal strip held in place with wing-nuts. To remove, loosen the wing nuts and slide metal cover aside to expose filter. Extract the filter using the fitted loop. To refit locate filter within internal runners and push home. Cover with metal section and tighten wing-nuts.

4.1.3 OPERATION AND MAINTENANCE
Coil

To periodically clean the coil it is necessary to remove the filter cover section and fan cover plate. The coil can then be carefully cleaned with a brush or vacuum cleaner. Care should be taken to avoid damaging the coil surface.

4.1.4 OPERATION AND MAINTENANCE
Fan set

The fan/motor set has sealed for life bearings which should not require any user maintenance.

4.1.5 OPERATION AND MAINTENANCE
Fusing

Fan motor fuses anti-surge 20mm x 5mm 2A to BS 4265/IEC127.

4.1.6 OPERATION AND MAINTENANCE
Spares list

2A Fuse	33 / 114
Filter (Solo)	SK 3974
Filter (Duo)	SK 4226
LTC	33 / 134
Fan / motor set	35 / 001
Coil (Solo)	CM 2020
Coil (Duo)	CM 2058

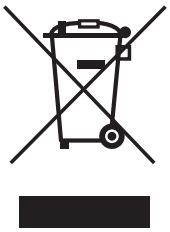
4.2 OPERATION AND MAINTENANCE
Fault finding

All electrical investigations must be performed by a qualified electrician

Fault	Remedy
No fan operation	Check fuse on fan box
	Check power supply to unit
	Check for loose wiring or damage to wiring
	Check switches
	Check impeller runs freely
No Heating - LPHW	Check hot water to unit
	Check LTC contact on pipework
	Check coil vented
	Check integrity of wiring
	Check thermostat operation (if fitted)

5 DISPOSAL

Units have a heat exchanger from copper tubes and aluminium fins. The units include fan assemblies from mixed materials and printed circuit boards which should be disposed of separately and in line with WEEE directives. It is not recommended that the units are disposed of with domestic waste but that the components are recycled as far as possible.



BOSS™ Copperad®

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