

INSTALLATION, OPERATION &
MAINTENANCE INSTRUCTIONS



Pipeline & Heating Solutions

With EC motors
as standard

Copperad

CT2007
Ceiling Tile
Fan Convector

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1. GENERAL DESCRIPTION

The Copperad CT2007 is 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 BSS works order number & model reference.

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 BSS 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. INSTALLATION

3.1 KEY SIZES, DIMENSIONS AND WEIGHTS

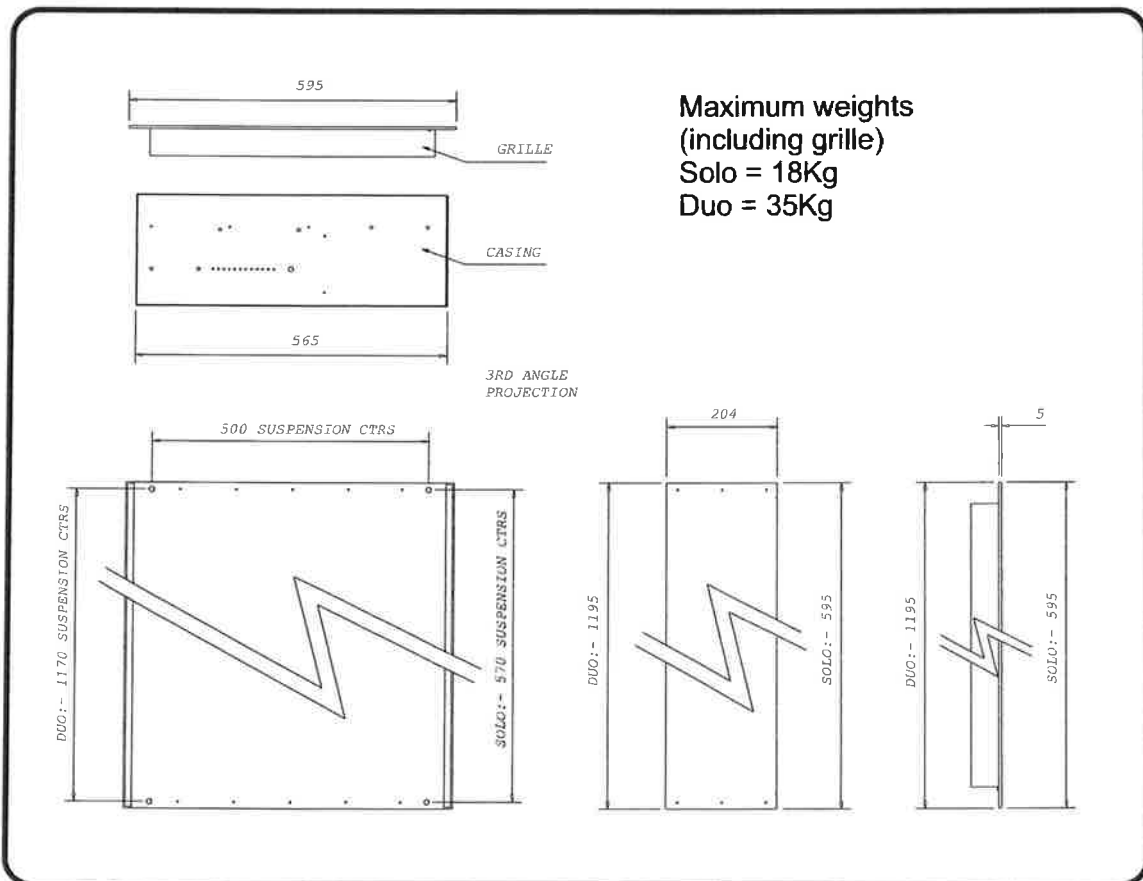


Figure (I)

3.2 CEILING INSTALLATION

Note: CT2007 units must be installed at least 1.8m above floor level.

Note: Maximum recommended ceiling height for CT2007 installation is 3.0m.

3.2.1 INSTALLATION INTO A T-BAR SUSPENDED CEILING

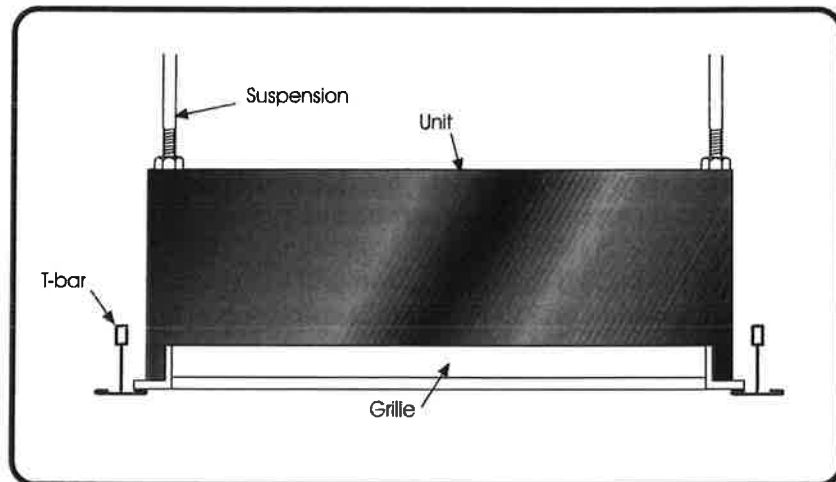


Figure (ii)

Remove any fitted ceiling tiles around the area where the CT2007 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 CT2007 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).

3.2.2 INSTALLATION INTO A PLASTERBOARD CEILING

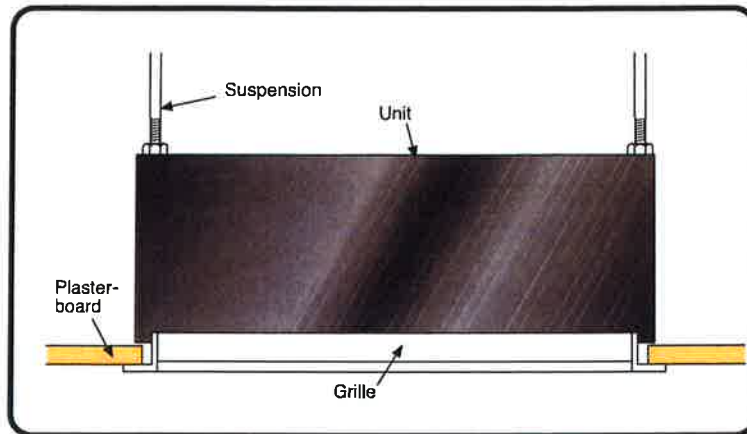


Figure (iii)

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 CT2007 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.

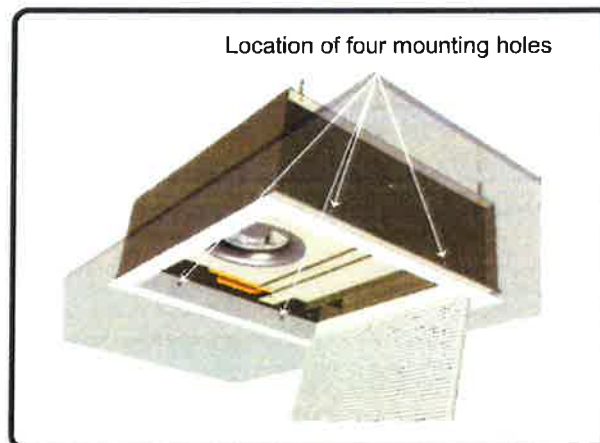


Figure (iv)

3.3 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 CT2007. 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 ELECTRICAL INFORMATION

3.4.1 ELECTRICAL CONNECTION

All electrical work should be carried out in accordance with current I.E.E. Regulations. Unit motors operate on single phase 230/50Hz supply and are rated IP44. Electrical connection is made to the mains terminal block in the void area within the TileVector casing accessed through the hinged grille aperture. The supply should be wired through a suitable means of isolation such as a fused spur box close to the unit. Recommended fuse for Solo and Duo LPHW unit is 3A. Recommended fuse for electric solo is 16A and for electric Duo 32A.

A 3 core cable must be used to supply mains electricity, with the earth line connected as per supplied wiring diagram.

MODEL	Voltage (V)	Full Load Current (A)	Starting Current (A)	Absorbed Power (W)
SOLO (LPHW)	230	0.1	0.2	14
SOLO (ELECTRIC)	230	13.1	13.2	3014
DUO (LPHW)	230	0.2	0.4	28
DUO (ELECTRIC)	230	26.3	26.5	6028

Table (i)

Based on medium speed

3.4.2 CONTROL WIRING

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

3.4.3 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
ELECTRIC OPTIONS		
Energy-saving thermostatic controls	RT1	On/off thermostat (remote)
Switches	RS1	On/off rocker switch (remote)
	RS2	Summer/winter rocker switch (remote)

Table (ii)

4. OPERATION AND MAINTENANCE

4.1 GENERAL

Warning! Electrically isolate the unit prior to commencing work.

4.1.1 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).

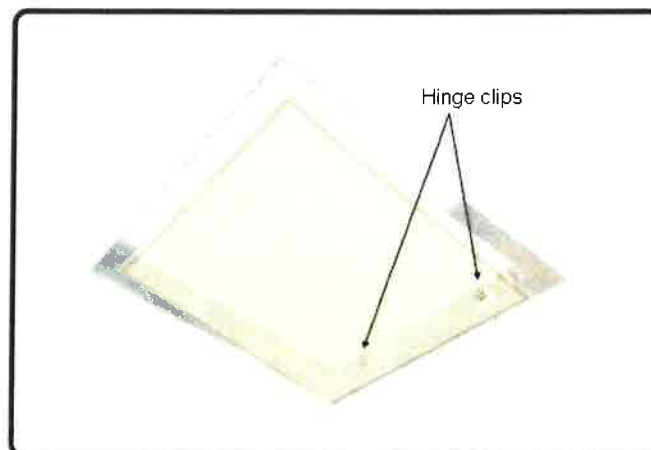


Figure (V)

4.1.2 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 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 FAN SET

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

4.1.5 FUSING

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

4.1.6 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
Electric Element (Solo)	TILELEC 3.0
Electric Element (Duo)	TILELEC 6.0

Table (iii)

4.2 FAULT FINDING

All electrical investigations must be performed by a qualified electrician.

4.2.1 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

4.2.2 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)

Electric

- ! Check thermal cut-out switch (red button on internal connection panel), press home to reset and re-check unit operation.
- ! Check electric element vented
- ! Check integrity of wiring
- ! Check power supply to electric element.
- ! Check thermostat operation (if fitted)



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**For any further information or assistance
please contact the BSS branch which supplied the unit.**

**BSS Technical Sales Office Leicester
Tel: 0116 2567049**