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Creda

Credanet TSR Combi

Combined Storage and Fan Heater

Assembly Instruction

Model Nos:	79349S	79359S	79369S
Cat. Nos:	CNT12CW	CNT18CW	CNT24CW

For details of spares, service and guarantee, see separate leaflet.

CE

This appliance conforms to the following EEC Directives:

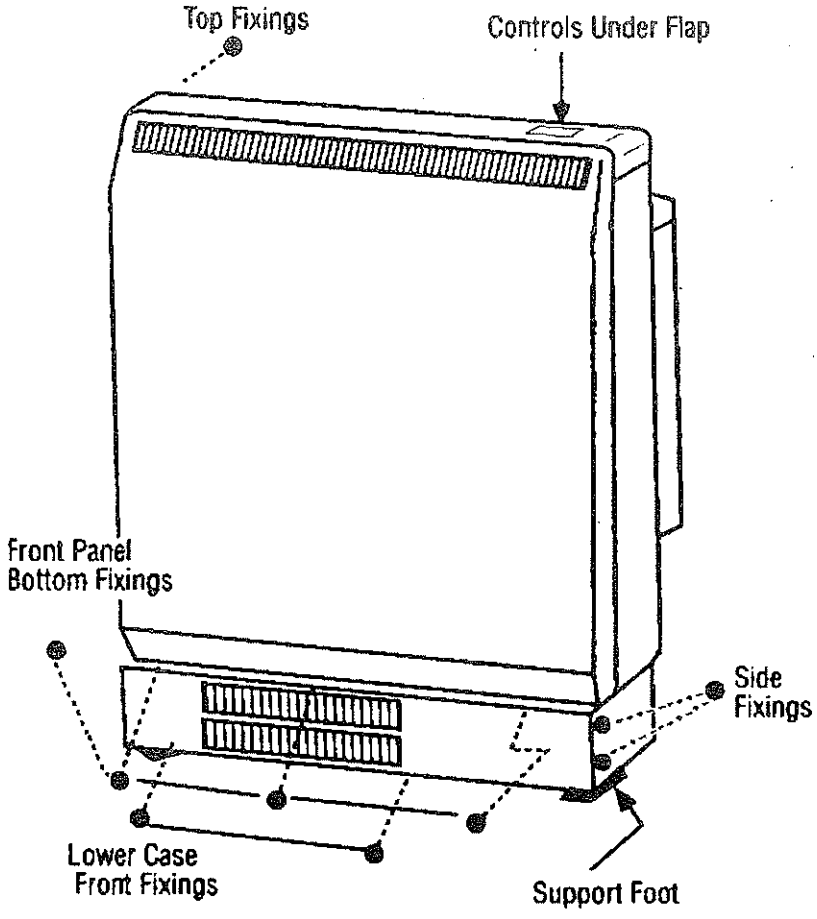
Low Voltage Equipment	Electromagnetic Compatibility
73/23/EEC	89/336/EEC
93/68/EEC	92/31/EEC
	93/68/EEC

IMPORTANT NOTES: It is important to read these instructions carefully and also note the information given on the heater itself. As these particular instructions refer to the assembly and installation of a new heater, they should be retained by the installer; not left behind for the user as this would invite the dismantling and servicing by unqualified persons. FOR THE USER, there is a separate instruction leaflet explaining how the heater should best be operated. Please see that this leaflet is left with the heater for the user's purposes. THE HEATER MUST BE CONNECTED TO THE FIXED WIRING VIA A DOUBLE POLE ISOLATING SWITCH HAVING A CONTACT SEPARATION OF 3MM IN ALL POLES AND IN ACCORDANCE WITH THE I.E.E. REGULATIONS CURRENTLY IN FORCE, AND IN ACCORDANCE WITH ANY LOCAL CODE OF PRACTICE. THE INSTALLATION SHOULD BE CARRIED OUT BY A COMPETENT ELECTRICIAN. CABLE HAVING A MINIMUM 'T' RATING OF 85°C MUST BE USED. Heaters forming part of a comprehensive space heating system should be wired with their own separate circuit, if however, 1 or 2 heaters are installed as a starter system these may be connected to a 30 amp ring main provided that the instructions below are observed, any further heaters installed must be connected by its own circuit. If connected to a 30 amp ring circuit the total rating of heaters connected must not exceed 3kW, where the circuit supplies a kitchen, or 4kW, where the circuit does not include a kitchen. The storage radiator is designed to run on cheap overnight electricity, therefore the means of connecting the heater to the ring main should include a timer. These should be connected to the supply with 3 core heat resistant cable, the size of which is dependant on heater loading i.e. loading up to 10 amps use 1mm^2, up to 13 amps use 1.5mm^2 and for the larger heaters 2.5mm^2 cable.

WARNINGS - THIS APPLIANCE MUST BE EARTHED - SPECIAL ATTENTION MUST BE PAID TO THE SECURITY OF THE HEATER'S WALL FIXINGS. THE HEATER MUST BE PLACED ON A LEVEL SURFACE AVOIDING ANY IRREGULARITIES. Two supplies are taken into this heater, both fan heater and storage heater circuits must be connected to the same phase of the electricity supply. In addition to setting the transceiver PCB inside the heater, the Credanet Central Controller must also be set up as described in Point 12 of this instruction. IF, DURING ANY REASSEMBLY OF THE HEATER, A PART OF THE THERMAL INSULATION SHOWS DAMAGE OR DETERIORATION WHICH MAY IMPAIR SAFETY, IT SHOULD BE REPLACED BY AN IDENTICAL PART.

WALL FIXING: The heater must ALWAYS be mounted against, and fixed to a wall as it will not stand up by itself. A detachable bracket is provided for screwing to the wall, the heater is then placed in position and fixed to the bracket by a screw at each end. The heater must never be unscrewed or moved from the wall bracket whilst it is loaded with bricks. THE HEATER IS VERY HEAVY AND WILL BE DANGEROUS IF ITS WALL FIXING BECOMES INSECURE.

Solid Brick and Concrete Walls	**Panelled Wall, Paramount Board, Chipboard, Plasterboard, etc.**
No. 10 Rawlplug fibre inserts as supplied in the Fixing Kit. Drill hole of 5.5mm dia to a depth in the brick of 38mm	Check that the panel itself is adequately fixed to battens etc. Use Rawlplug M5 intersets; drill accurate 10mm dia holes in single skin plasterboard. One fixing should be in studwork.
Timber Frame	**Hollow concrete, Breeze Block and Thermolite Block Walls**
Seek specialist advice, some authorities suggest RAWLNUT	RAWLPLUG 'RAWLOK R6054R'. Some authorities suggest UNIFIX LB 70/10mm. Use Drill for accurate hole, not hammer or chisel.



PLEASE DON'T TAKE CHANCES

Site conditions may vary considerably and Creda cannot recommend the correct wall fixings to be used. It is the responsibility of the installer to ensure that adequate permanent fixing has been achieved. Purely for guidance the suggested fixings are made for certain wall materials but this list is not comprehensive or authoritative. Different wall constructions will need different inserts. Note that inserts incorporating plastic may be subject to shrinkage behind a warm storage heater and are therefore not recommended.

Wall fixings can be obtained from local stockists

CARPETS: For safety, the heater must be positioned in the room so that there is at least 75mm (3") free air space all around it; under windows, ensure that curtains, when drawn, cannot touch or cover the heater casing. In order to maintain stability, it is essential that the heater be placed on a level surface and care should be taken to avoid irregular surfaces, such as may result from carpets or tiled surrounds partially protruding under the heater. The heater feet are designed to go underneath a carpet rather than standing on it; this permits the weight to be taken on a firm base. Carpet gripper should be removed from behind the heater feet.

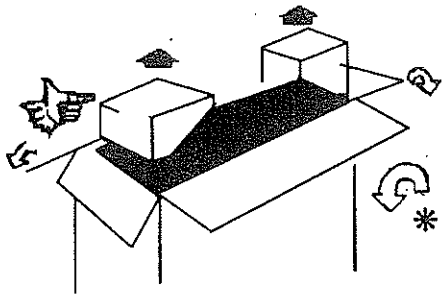
BRICKS: The heater casing and the heater storage bricks with which it must be fitted, are delivered in separate packages. The brick is common to all heaters, packed in pairs.

The brick catalogue number is 791402015. 7934 models have 8 bricks. 7935 models have 12 bricks. 7936 have 16 bricks.

1

First, turn carton upside down

Open bottom flaps on carton



Turn the carton upside down and open the bottom flaps. The corner fitments contain the fixing kit.

Stand the heater against the wall in its intended position.

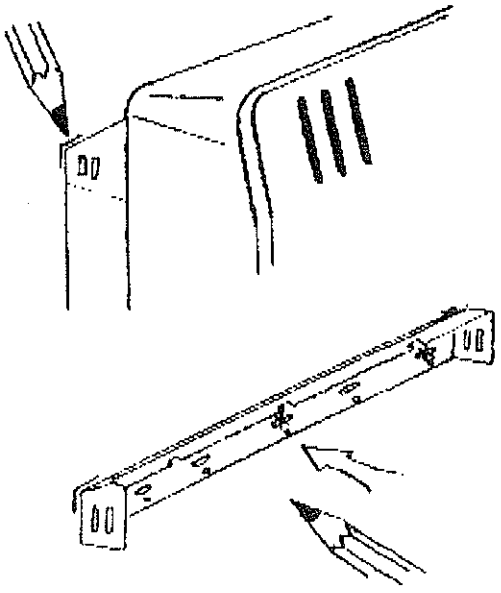
Mark the position of the two outside corners of the wall bracket.

Carefully place the heater aside, and remove the wall bracket from the heater by removing the screw at each end.

Reposition the bracket against the wall using the corner marks for alignment.

Mark through slots in bracket, two at the extreme ends and the others spaced evenly between them.

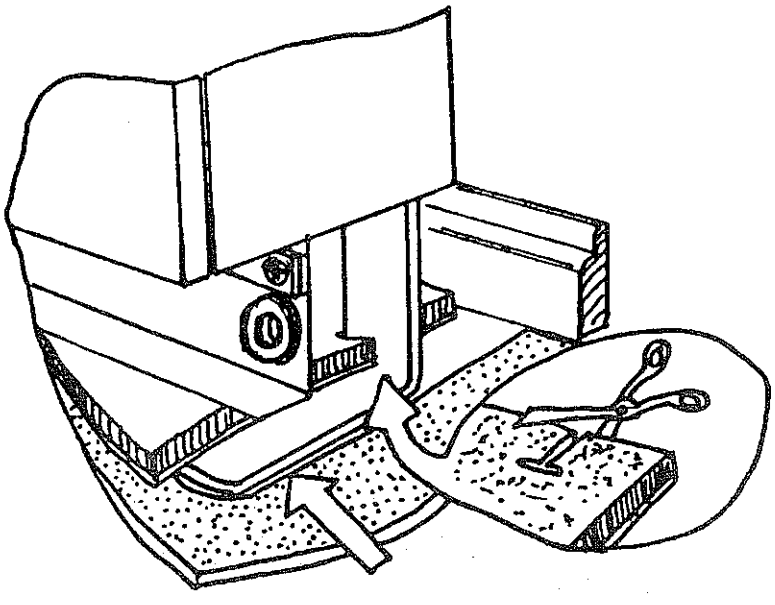
The slots are in groups, allowing mortar courses between bricks to be avoided, or battens, etc. to be found for the fixing holes.



2

CARPET FITTING

Cut the underlay and remove carpet gripper to clear feet, allowing heater weight to be taken on floor proper; lay carpet over feet, slitting it as shown below. It is unnecessary to cut carpet away.



3 When bracket is securely fixed, replace the heater under the bracket angle and align screw holes on heaters ends. There are two fixing slots at each end of heater, allowing different stand-offs for different thicknesses of skirting board. Do not fully tighten these screws until the bricks are loaded into the heater as some settling of the heater may occur.

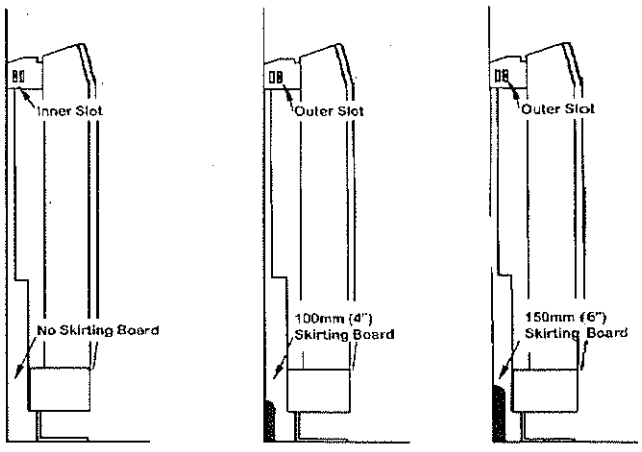
NOTE: NEVER REMOVE THESE SCREWS WITHOUT FIRST UNLOADING THE HEATER.

See also figure 2 regarding carpets where appropriate.

Note: Max. skirting size is 15 x 150mm.

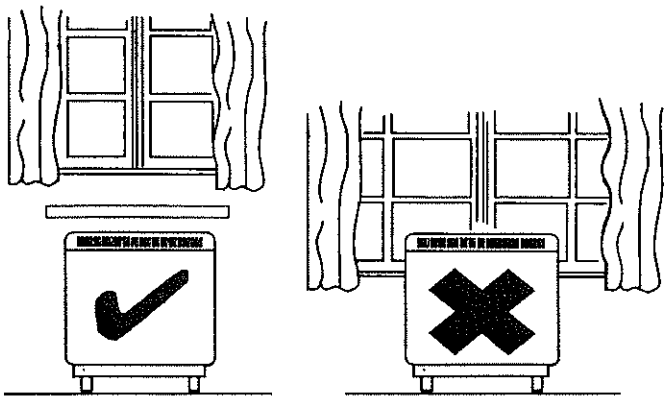


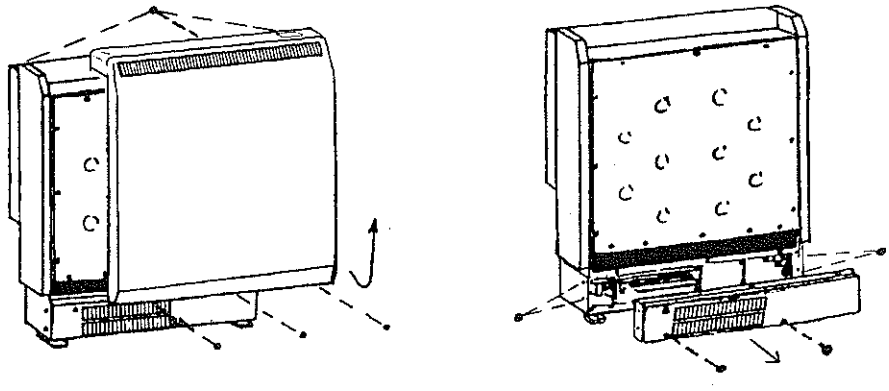
You must fit a retaining screw at each end of the heater.



Note that the smallest wall spacing should be used only when the skirting board is of the modern slim type, or there is no skirting board at all. THE HEATER MUST STAND VERTICAL

4 A clear space of at least 3" (75mm) must be left at either side of the heater, and any projections or shelves must be at least 10" (250mm) above the heater casing. Curtains must not be draped around or in contact with the casing. A shelf unit is separately available for fitting above heaters.



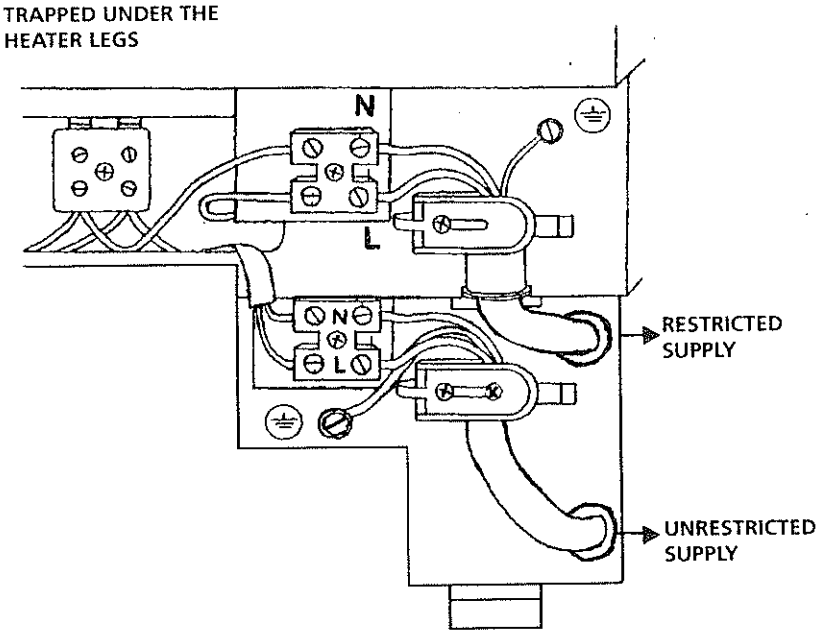


5 The top panel and front panel are joined and should be removed as one assembly. To do this, remove the screws fixing the rear flange of the top panel, and remove the screws along the bottom edge of the front panel. Carefully swing out bottom of front panel and lift assembly clear of casing.

Put assembly in a safe place to avoid damage to paint etc.

NOTE: Removal of the lower front panel is only possible after the top and main front panel assembly has been removed. First, remove the two black screws situated on the lower front face, then remove the four side screws. The lower front panel will then pull forward, clear of the heater.

ENSURE THAT THE CABLES ARE NOT TRAPPED UNDER THE HEATER LEGS



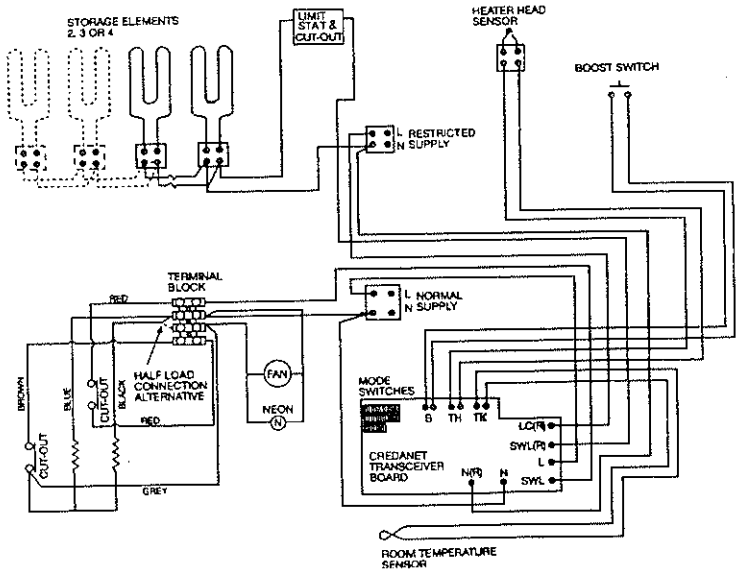
MAINS TERMINALS

IMPORTANT: For earthing, loosen the earth screws sufficiently to wrap the mains' earth wire around it between flat washer and cup washer, and retighten the earthing screw. Both restricted and unrestricted supply wires must be connected to their respective earthing points.

Feed the mains cable through the appropriate cable clamp and make connections as marked on the heater. Pull back any slack through the clamp and tighten clamping screw. If mains connection is to be made from the left hand side, at this point the mains lead must be secured to the base of the fan box by fixing the ties provided in the fixing kit through the holes along the rear of the fan box base.

CONNECTING THE SUPPLIES

WARNING
RESTRICTED AND NORMAL SUPPLIES MUST BOTH BE CONNECTED TO THE SAME PHASE OF ELECTRICITY SUPPLY.

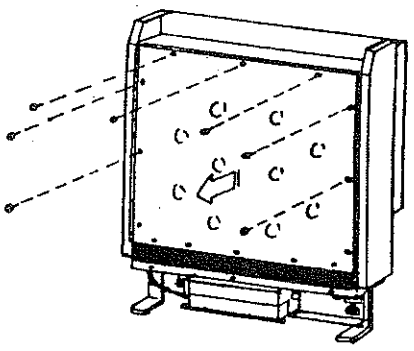


	Charge Period	Rated Charge
79349S	7 hours	12 kWh
79359S	7 hours	18 kWh
79369S	7 hours	24 kWh

NOTE: The fan heater element is factory set at full rating. If $^1/_2$ load rating only is required the installer should move the black wire as indicated in the circuit diagram.

7

WARNING



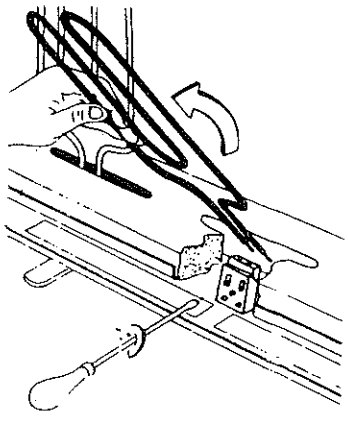
Remove the inner front panel; this carries on it's inner face the front insulation slab. Handle this with care, the insulation must not be damaged.

REMOVE ALL THE PACKING CARDBOARD FROM INSIDE THE STORAGE BRICK COMPARTMENT, IF LEFT INSIDE IT WILL BE SET ON FIRE WHEN THE HEATER IS SWITCHED ON. ENSURE THAT ALL PACKAGING MATERIAL IS REMOVED FROM THE BRICKS BEFORE FITTING THEM.

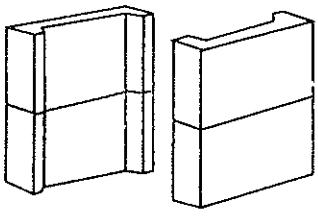
8

Temporarily remove one central element to provide access for the rear rank of bricks.

Loosen terminals on one of the elements and remove this to allow installation of rear rank of storage bricks. On heaters with 3 or 4 elements remove one of the central ones.

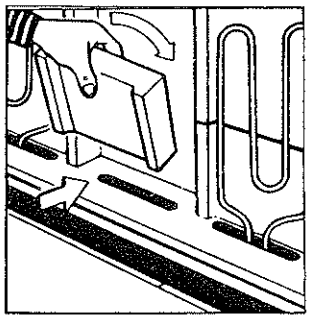


9



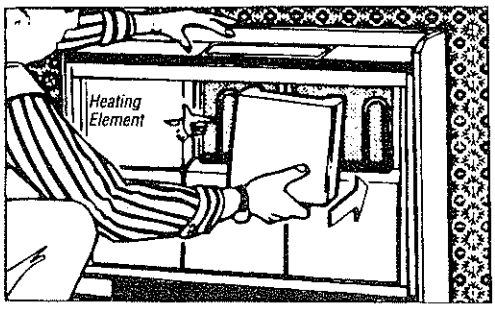
Note the way the bricks are positioned in the heater. Otherwise they will not fit.

10



Put in place the rear rank of bricks, pushing them well back against the rear insulation. Replace the element, making sure that the connection is tight.

11

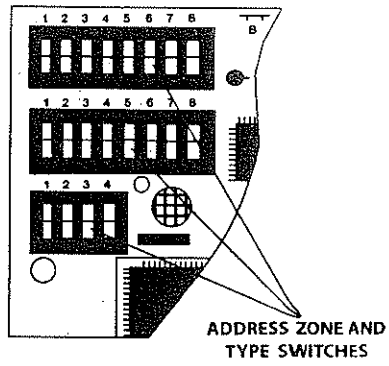


Now, place in position the front rank of bricks, again pushing them back to make room for the front insulation slab which is attached to the front panel. Check that the front insulation slab is properly attached to the inner front panel and refit panel (insulation innermost) to the heater by locating its bottom edge behind the front lip of the chassis, and inserting retaining screws along the top and both sides. With the bricks pushed well back, as mentioned earlier, and the insulation properly aligned, there should be no bulging of this panel and no undue force necessary to fix it.

12

IMPORTANT: Before refitting the outer panels to the heater, the Credanet transceiver board which is adjacent to the normal mains supply terminal must have the address zone and type switches set to the correct positions. Detail on setting the switches is shown below.

ENSURE BOTH SUPPLIES TO THE HEATER ARE ISOLATED.

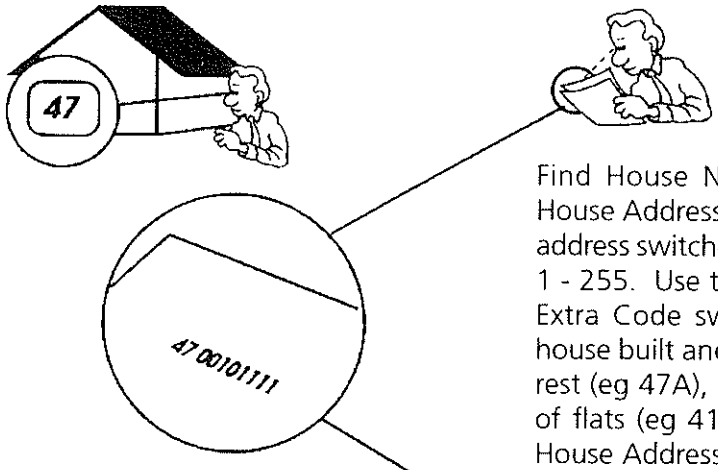


Credanet Set Up Instructions - House Address

The house address identifies the Credanet Controller and heaters belonging to that property. It must be correctly set to ensure that the messages from the controller are received by the heaters. The house address is set using switches located on the back of the controller and on the heater board, as shown below. **ENSURE CONTROLLER SUPPLY IS ISOLATED.**

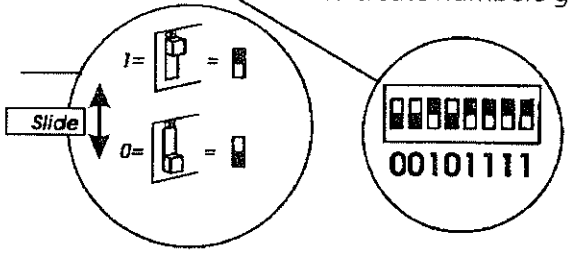
Setting Procedure

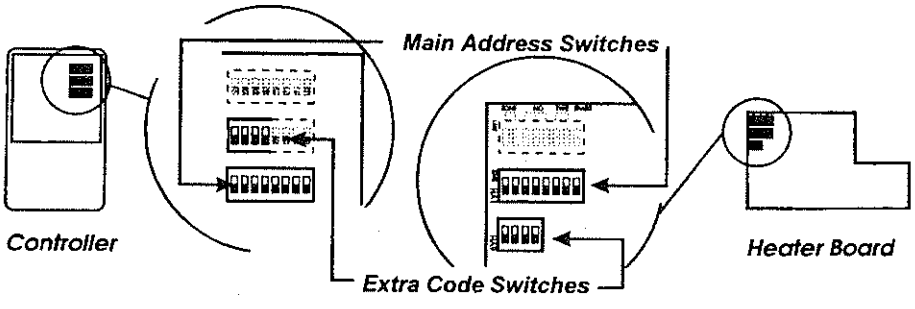
Check House Number



Find House Number in Credanet House Address Table. Use the main address switches for house numbers 1 - 255. Use the 'Extra Codes' and Extra Code switches to identify a house built and numbered after the rest (eg 47A), a dwelling in a block of flats (eg 413 - Flat 13 Floor 4 - House Address 13 Extra Code 4) or to create numbers greater than 255.

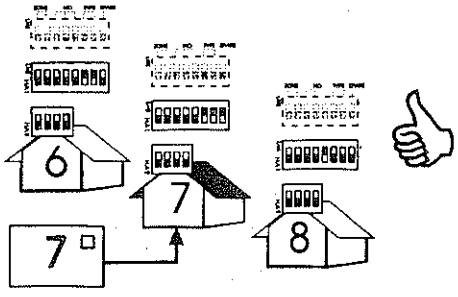
Set the house address by sliding the switches as shown to the pattern of '1' or '0' found from the house address table.





For correct operation of the Credanet heating system the Main Address switch settings and Extra Code switch settings must be the same for the controller and all heaters in the installation.

The house address must be different for neighbouring installations. Usually the best choice is to set House Address = House Number.



Credanet House Address Table

1	00000001
2	00000010
3	00000011
4	00000100
5	00000101
6	00000110
7	00000111
8	00001000
9	00001001
10	00001010
11	00001011
12	00001100
13	00001101
14	00001110
15	00001111
16	00010000
17	00010001
18	00010010
19	00010011
20	00010100
21	00010101
22	00010110
23	00010111
24	00011000
25	00011001
26	00011010
27	00011011
28	00011100
29	00011101
30	00011110
31	00011111
32	00100000
33	00100001
34	00100010
35	00100011

36	00100100
37	00100101
38	00100110
39	00100111
40	00101000
41	00101001
42	00101010
43	00101011
44	00101100
45	00101101
46	00101110
47	00101111
48	00110000
49	00110001
50	00110010
51	00110011
52	00110100
53	00110101
54	00110110
55	00110111
56	00111000
57	00111001
58	00111010
59	00111011
60	00111100
61	00111101
62	00111110
63	00111111
64	01000000
65	01000001
66	01000010
67	01000011
68	01000100
69	01000101
70	01000110

71	01000111
72	01001000
73	01001001
74	01001010
75	01001011
76	01001100
77	01001101
78	01001110
79	01001111
80	01010000
81	01010001
82	01010010
83	01010011
84	01010100
85	01010101
86	01010110
87	01010111
88	01011000
89	01011001
90	01011010
91	01011011
92	01011100
93	01011101
94	01011110
95	01011111
96	01100000
97	01100001
98	01100010
99	01100011
100	01100100
101	01100101
102	01100110
103	01100111
104	01101000
105	01101001

106	01101010
107	01101011
108	01101100
109	01101101
110	01101110
111	01101111
112	01110000
113	01110001
114	01110010
115	01110011
116	01110100
117	01110101
118	01110110
119	01110111
120	01111000
121	01111001
122	01111010
123	01111011
124	01111100
125	01111101
126	01111110
127	01111111
128	10000000
129	10000001
130	10000010
131	10000011
132	10000100
133	10000101
134	10000110
135	10000111
136	10001000
137	10001001
138	10001010
139	10001011
140	10001100

141	10001101
142	10001110
143	10001111
144	10010000
145	10010001
146	10010010
147	10010011
148	10010100
149	10010101
150	10010110
151	10010111
152	10011000
153	10011001
154	10011010
155	10011011
156	10011100
157	10011101
158	10011110
159	10011111
160	10100000
161	10100001
162	10100010
163	10100011
164	10100100
165	10100101
166	10100110
167	10100111
168	10101000
169	10101001
170	10101010
171	10101011
172	10101100
173	10101101
174	10101110
175	10101111

176	10110000
177	10110001
178	10110010
179	10110011
180	10110100
181	10110101
182	10110110
183	10110111
184	10111000
185	10111001
186	10111010
187	10111011
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195	11000011
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198	11000110
199	11000111
200	11001000
201	11001001
202	11001010
203	11001011
204	11001100
205	11001101
206	11001110
207	11001111
208	11010000
209	11010001
210	11010010

211	11010011
212	11010100
213	11010101
214	11010110
215	11010111
216	11011000
217	11011001
218	11011010
219	11011011
220	11011100
221	11011101
222	11011110
223	11011111
224	11100000
225	11100001
226	11100010
227	11100011
228	11100100
229	11100101
230	11100110
231	11100111
232	11101000
233	11101001
234	11101010
235	11101011
236	11101100
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241	11110001
242	11110010
243	11110011
244	11110100
245	11110101

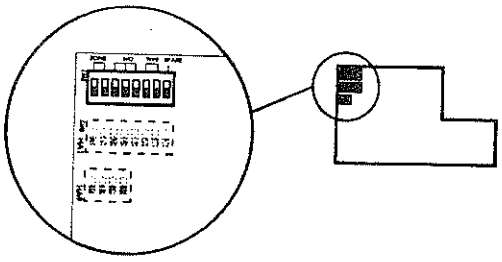
246	11110110
247	11110111
248	11111000
249	11111001
250	11111010
251	11111011
252	11111100
253	11111101
254	11111110
255	11111111

Extra Codes

	Setting	Value
1	0001	256
2	0010	512
3	0011	768
4	0100	1024
5	0101	1280
6	0110	1536
7	0111	1792
8	1000	2048
9	1001	2304
10	1010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F

Heater Board Settings

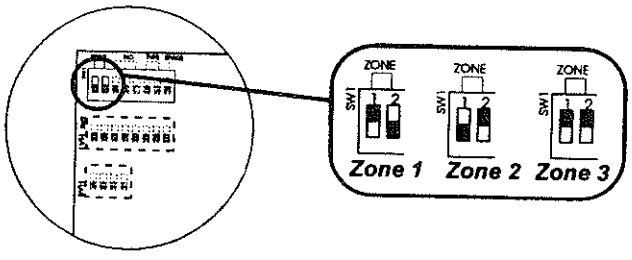
For every Credanet heater in the property - the zone the heater is in, the number of the heaters in the zone and the heater type must be set.



Important Notes:
The largest heater number for a zone must be equal to the number of heaters in that zone set at the controller.

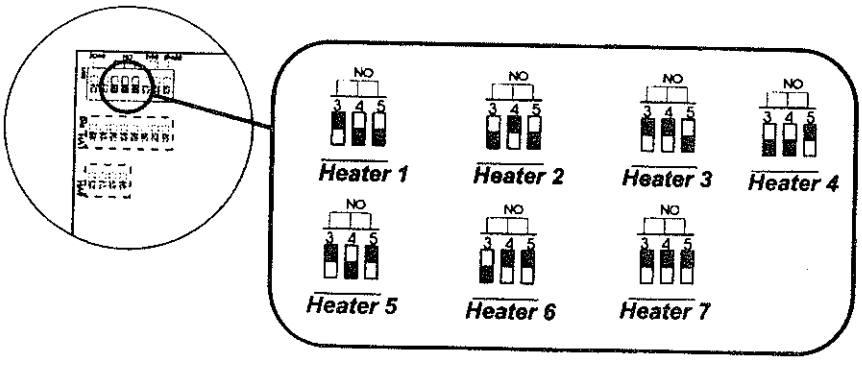
Setting an incorrect heater type will result in poor system performance and may result in the use of excessive amounts of high cost electricity.

Set Zone



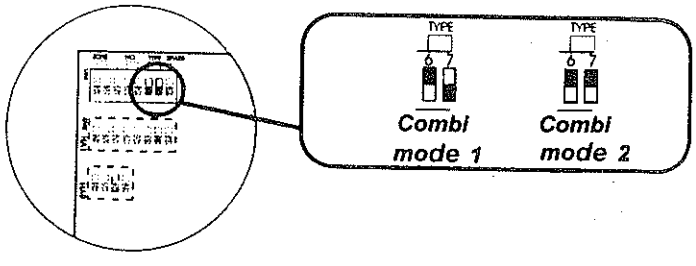
These two switches (1,2) are used to set the zone the heater is in.

Set Heater Number



These three switches (3, 4, 5) are used to set the number of the heater. Ensure that the largest heater number is the same as the number of heaters in the zone set at the controller.

Set Heater Type



The two switches (6,7) are used to set the heater type. The heater type must be correct.

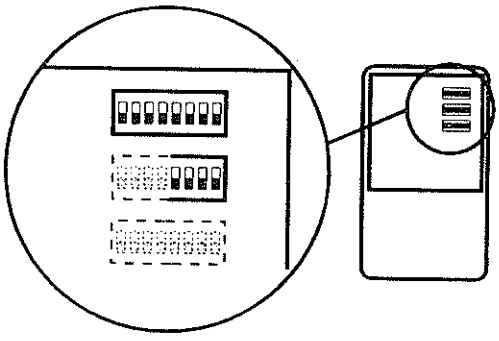
NOTE: If the heater is installed in a hallway or similar location it is recommended that the heater type be set to combi mode 2 to prevent excessive use of day energy.

Combi Mode 1 - Automatic use of direct energy to follow temperature profile.

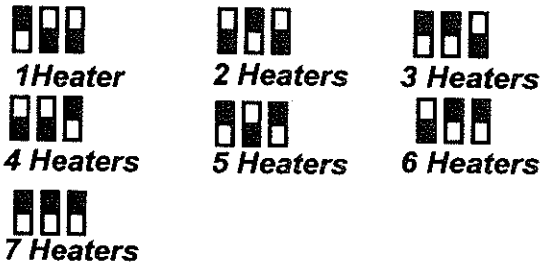
Combi Mode 2 - Direct energy used for one hour only when Boost Button has been pressed.

Controller Zone Settings

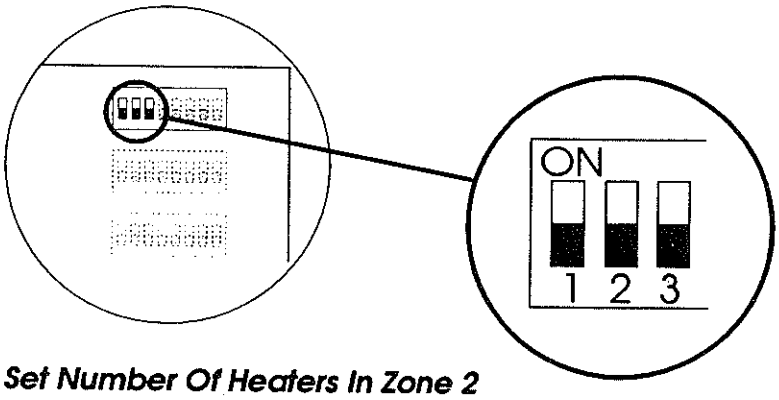
Number of Heaters In Each Zone



At the controller set the number of heaters in each zone using the pattern of switch settings shown.

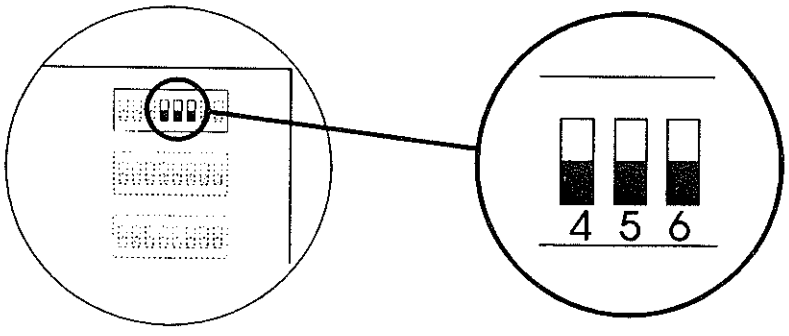


Set Number Of Heaters In Zone 1



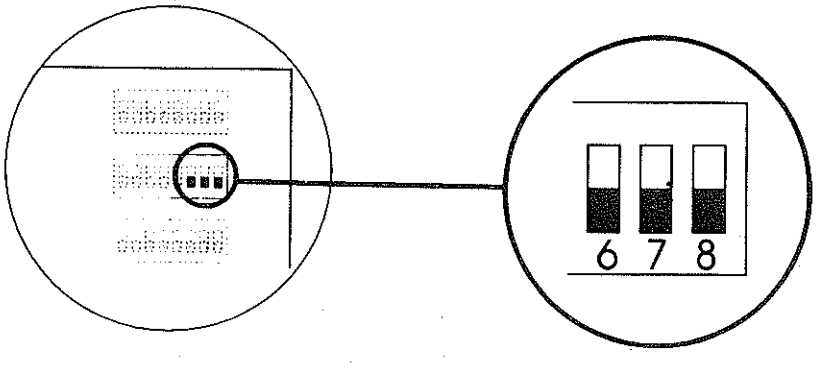
These three switches (1,2,3) are used to set the number of heaters in zone one

Set Number Of Heaters In Zone 2



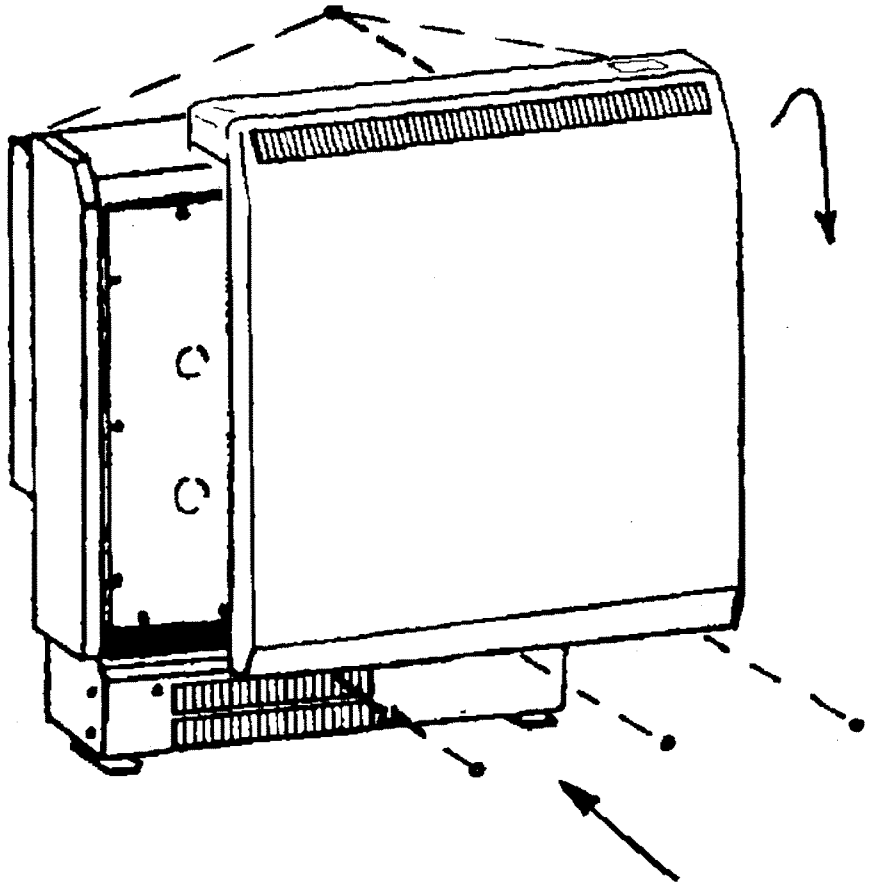
These three switches (4,5,6) are used to set the number of heaters in zone two

Set Number Of Heaters In Zone 3



These three switches (6,7,8) are used to set the number of heaters in zone three

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Refit the lower front panel by aligning the four side screws before refitting the front face screws. With the lower front panel in place, the outer panel assembly can be hooked over the rear panel top flange, take care to align the boost switch aperture (under the lift-up flap) over the boost button. Ensure no wires are trapped between the panel flanges before replacing and tightening all fixing screws.

PLEASE ENSURE THAT ALL POLYSTYRENE AND CARDBOARD PACKING PIECES HAVE BEEN REMOVED.

ENSURE WALL BRACKET SCREWS ARE TIGHTENED FULLY.

WARNING - When a new heater is run up to temperature, the materials will produce a slight smell for the first few days, these are normally harmless in a well ventilated room. These smells will disperse more quickly if the heater takes maximum charge. To make the heater take maximum charge : Turn off the direct supply. Press and hold down the boost button and turn on the direct supply. After 5 seconds release the boost button. Caged birds, young children and people with chest ailments are best kept out of the room for this first period.