Dimplex

# Operating Instructions

IMPORTANT
These instructions should be read carefully and retained by the user. Note also the information given on the appliance.

# CXLN Ultra-Slim Storage and Convector Heaters

(96517 Iss. 6)

## IMPORTANT SAFETY INFORMATION

WARNING - THE SURFACE OF THIS HEATER CAN BE HOT. The surface temperatures of this heater are within the requirements of EN60335-2-61, the European Standard covering the safety requirements for Electric Storage Heaters, and momentary contact with any part of the heater should not cause injury. However, in order to be effective, heaters of any type do get hot, especially around the air outlet grille.
Therefore, if aged or infirm persons, or young children, are likely to be left unsupervised in the vicinity of a heater precautions should be taken to ensure that prolonged contact with the heater cannot occur. We recommend that a guard is fitted around the heater, as is normal with some types of heating appliances in similar circumstances. A range of guards specially designed for Dimplex storage heaters is available. If you require further information on these guards, please contact the Dimplex Help Desk on 0870 7270 101

CAUTION: DO NOT COVER SURFACES OF THE HEATER AND DO NOT OBSTRUCT AIR OUTLET GRILLES. Surfaces of the heater should not be covered or obstructed as this can cause excessive temperatures that can be hazardous and may cause safety cut-outs to operate. For example, do not put clothes, fabrics or any combustible materials on the heater or allow curtains to come within 75mm (3") of the top and ends of the heater and do not allow furniture to be pushed up against the heater.

PLEASE NOTE: YOUR STORAGE HEATER IS VERY HEAVY.
For safety in use it must be securely fixed to a sound wall. No attempt should be made to move the heater without first seeking specialist advice. If you are not happy that the heater has been securely fixed, please inform your installer.
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.

DO NOT SIT OR STAND ON THE HEATER.
DO NOT PLACE OBJECTS IN CONTACT WITH THE HEATER.

## Models CXL12N, CXL18N and CXL24N

Your CXLN combined storage heater and convector heater enables you to take advantage of cheap off peak electricity to provide the bulk of your heating requirements, with the added flexibility of a built-in, thermostatically controlled convector heater. This allows you to provide top-up heat, for example, in very cold weather when the storage heater may not have sufficient stored heat in reserve later in the day for providing full comfort conditions.
These operating instructions assume that the correct size of storage heaters have been selected to cater for the heating requirements of the room.

## STORAGE HEATER OPERATION

Your CXLN combined storage heater and convector heater enables you to take advantage of cheap off peak electricity to provide the bulk of your heating requirements, with the added flexibility of a built-in, thermostatically controlled convector heater.

### Setting the Controls

The control knobs have been positioned so that they *are clearly visible to an adult*, but out of sight of young children. In this way it is hoped that they will not provide temptation to a child to alter the settings.

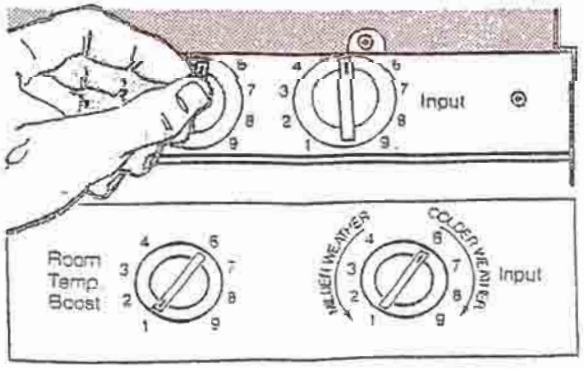
### Domestic Use

In cold weather set the right hand (INPUT) knob to 9 (maximum). In milder weather set the control to a lower position.

Normally the left hand (Room Temperature Boost) knob may be left on setting 1. This control may be moved to position 9 *in the evening* if additional heat is required at that time. Return to setting 1 before retiring.

### Commercial Use

For normal commercial applications setting 9 on the room temperature boost control will ensure maximum output during working hours. The input control should be set as described above for Domestic Use.




Should these settings not provide the comfort levels required, the more detailed instructions overleaf should be consulted.

## Manual Operation of Room Temperature Boost Control

With the ROOM TEMPERATURE BOOST control on setting 1 the damper remains closed, and heat is released from the heater only by normal radiation and convection around the outer surfaces of the heater. This alone may provide sufficient heat on many occasions and therefore no alteration of the ROOM TEMPERATURE BOOST control is necessary. However, if a boost of heat is required in the evening period, then moving the ROOM TEMPERATURE BOOST control to setting 9 in the evening will immediately open the damper to allow more rapid release of any available stored heat. When the next charging period commences the damper will automatically close to prevent this release of extra heat during the charge period, but the ROOM TEMPERATURE BOOST control must be returned to setting 1 manually to obtain a similar operation the following day.

## Automatic Operation of Room Temperature Boost Control

The damper may be pre-set to open automatically each day if required. Setting the ROOM TEMPERATURE BOOST control at settings other than position 1 results in an automatic earlier or later boost of heat. A higher setting of the boost control knob causes the damper to open earlier. A lower setting causes it to open later.

Because the automatic opening of the damper is primarily dependent on core temperature then the setting of the INPUT control determines indirectly the time at which the damper opens. For a given setting of the ROOM TEMPERATURE BOOST control, the higher setting of the INPUT control the later the damper will open. Lower settings on the INPUT control will mean an earlier damper opening.

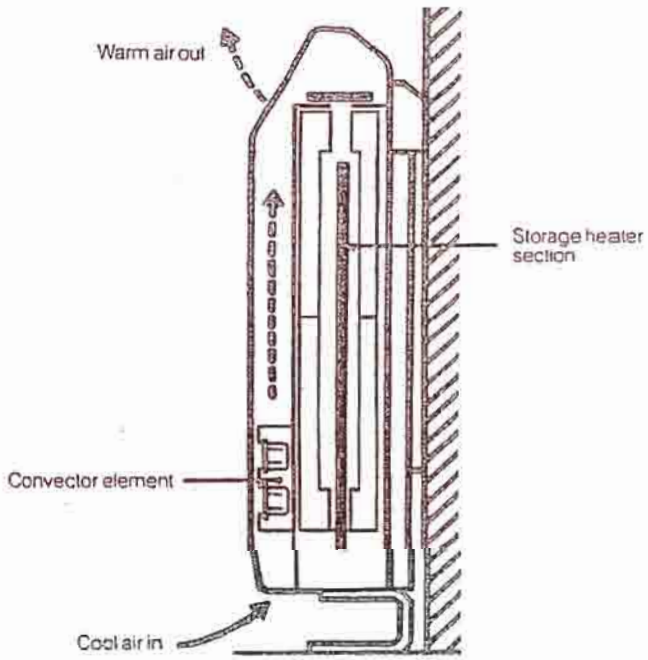
The most suitable settings of the ROOM TEMPERATURE BOOST control for different input settings will be found by experience.

Remember – a high setting of the ROOM TEMPERATURE BOOST control early in the day may leave too little heat stored in the heater for the evening, especially on low settings of the INPUT control.

# CONVECTOR HEATER OPERATION

## Convector Heater – Principle of Operation

In addition to the storage heater section the CXLN incorporates a convector element in the front of the heater which may be used independently of the storage heater, for example to "top up" on very cold days, or, for use in late spring and early autumn when only infrequent cold spells do not justify continuous use of the storage heater. Cool air is drawn in at the base of the heater, heated by the convector element, and subsequently emitted from the grille at the top front of the heater.




The convector heater section is intended for use when the output of the storage heater is not sufficient to maintain the desired comfort level. For the most economical operation of the CXLN, the heating system should normally be designed so that the storage heater section provides the bulk of the heating requirements, and the convector heater section provides only top-up heat, for example, later in the day in cold weather.

**The convector heater circuit incorporates an inhibiting resistor which switches off the convector heater after the start of the off peak period. This prevents the convector heater operating for a long overnight period if it has been inadvertently left switched on at the end of the evening. Under special circumstances the heater may be set, on installation, to give 24-hour availability of the convector. See "24-hour convector operation".**

## CXLN Storage Heater Section – Principle of Operation

The storage heater section of the CXLN heater consists of a core of high density heat storage bricks surrounded by a carefully designed insulating case. During the night time off-peak period elements within the brick core heat up the bricks to a temperature level determined by the setting you select using the input control knob.

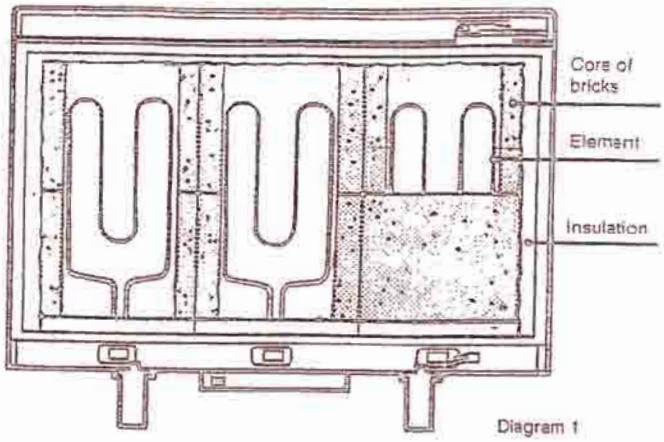
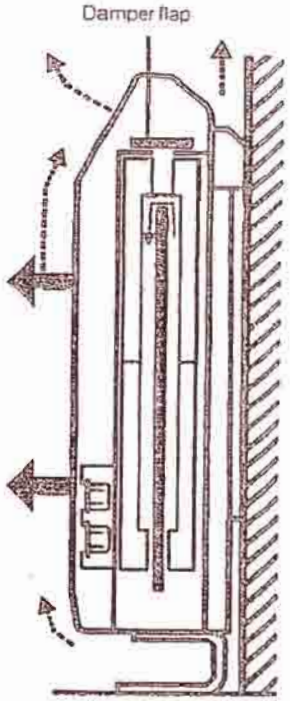


Diagram 1

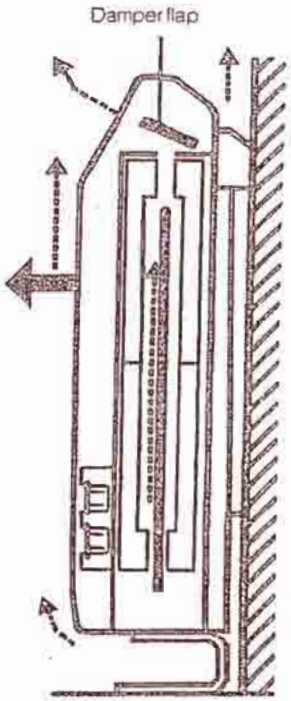
In the morning, when the core is at its hottest, the amount of heat being transmitted through the insulation and emitted as radiant heat is at its greatest, and the heater feels hot over most of its upper outer surfaces. *Diagram 2.*

As the day progresses, heat is transmitted from the heater to the room and the outer surface of the heater becomes less hot, and the amount of heat released in this way becomes less.

If the amount of emitted heat becomes insufficient the output of the heater, and thus the room temperature may be increased by means of the Room Temperature Boost Control. This control operates a damper flap within the heater which, when the room temperature boost control knob is at setting 1, covers vertical airways which pass directly through the centre of the core of the heater. Even when the outer surfaces of the heater are noticeably less hot, the core of bricks can still be at a relatively high temperature. Opening the room temperature boost damper flap by moving the control away from setting 1 allows the room air to circulate through this hot core and release more heat to the room by convection. *Diagram 3.*

Damper closed
Diagram 2



Damper open
Diagram 3

## Input Control

The setting of this control determines the amount of charge taken in by the heater, which in turn determines the temperature of the heater's storage core. The higher the charge taken the higher the core temperature.

In cold weather the heater should be set to take a high charge. the control being set to number 9 gives a maximum charge

In the Autumn and Spring a lower setting of the input control should be sufficient, the actual setting required being influenced by the prevailing weather conditions, the room size and insulation levels. The most suitable settings will be found by experience.

## Room Temperature Boost Control

Dependent upon the amount of charge taken in by the heater the ROOM TEMPERATURE BOOST control allows the release of additional heat by means of a damper which can be opened to allow a greater air flow through the heater core. and therefore additional circulation of heat. By altering the setting of the room temperature boost control knob the damper may be opened and closed manually, or it may be made to open automatically.

## Switching On

To put the convector switch F in the ON position, depress the right-hand side of the switch. The switch neon will glow when the switch is in the ON position. If the room temperature is below the thermostat setting neon C will glow, showing the convector is providing heat.

## Setting the Thermostat

The thermostat knob A should be set to the comfort level required. Turning the knob clockwise will increase the room temperature selected, but the actual setting to provide the required conditions will be found by experience. If, when the convector heater is switched ON and available for use, the room temperature is below that set on the control knob, neon C will be illuminated, showing the heater elements are energised.

### Convector Control Panel

**A** Thermostat. Scale representing an approx. range of temperatures from 5°C to 35°C.

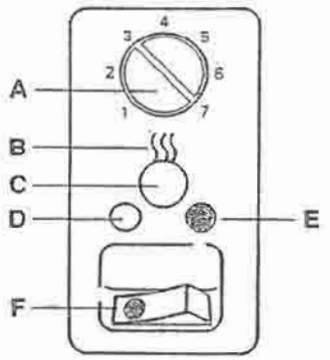
**B** Symbol representing heat convection.

**C** Neon lit when convector using current.

**D** Symbol representing OFF position of convector switch.

**E** Symbol representing ON position of convector switch.

**F** Convector ON/OFF switch with neon to show when switch is in ON position.




## 24-hour Convector Operation

In certain circumstances it may be desirable for the convector to be available during the off-peak period. If this is so the installer can select this option during installation. However, the user should be aware of the following:

1. If the convector heater is not required during the off-peak period the user must remember to switch it off.
2. If the convector heater is used at a high level for a significant period during the off peak period it will have the effect of reducing the level of charge taken by the storage heater for a given input setting. A higher setting of the input control may be required to compensate for this.

**Please Note.** Due to the newness of the materials used in manufacture, slight odours may be emitted from the heater when it is first switched on. It is therefore advisable to keep the room well ventilated, and persons suffering from respiratory conditions would be advised not to sleep in the same room until any odours have dispersed.

## Cleaning

To maintain the external appearance of the radiator it need only be wiped over occasionally with a dry duster. During the summer months, however, or at other times when the appliance is not in use and completely cold, opportunity should be taken to wipe over with a damp cloth. Do not use abrasive cleaning powders or furniture polish.

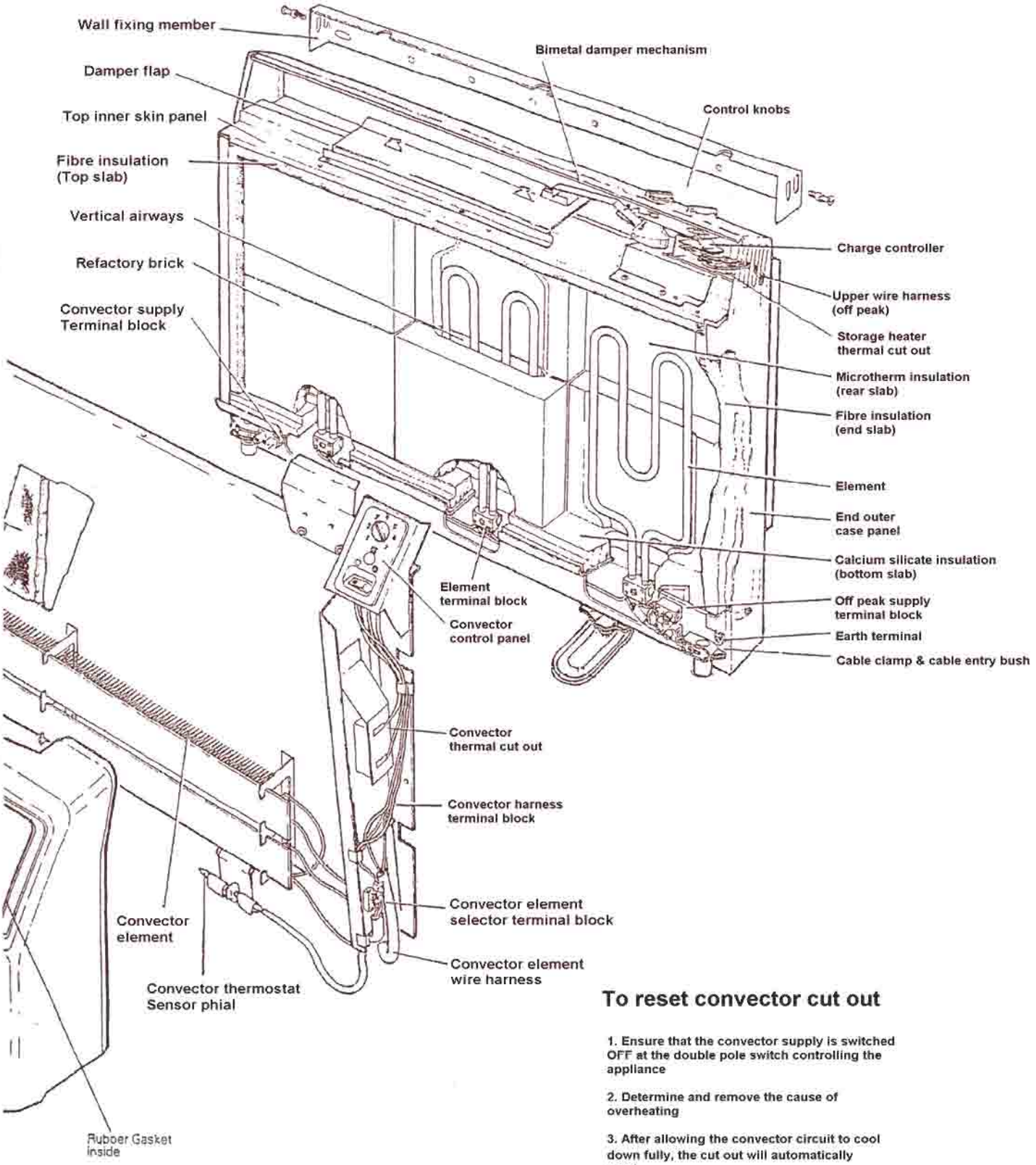
Discolouration of wall finishes can sometimes occur immediately above a storage heater due to the properties of some paints and decorating materials or the presence of environmental impurities in the air (such as soot or incense generated from the burning of candles, etc). A suitable shelf (available from Dimplex) may be fitted to limit the extent of any wall discolouration.

## After Sales Service

Your Dimplex Storage and Convector Heater is guaranteed for **two years** from date of purchase. We undertake exchange or repair within this period, any part found to be defective due to a manufacturing fault (applies in the UK only). This guarantee in no way prejudices your rights under common law.

Should you require after sales service, please get in touch with the supplier through whom you purchased the appliance, or your nearest Dimplex Service Agent. A list of Service Agents is supplied with this heater.

Please do not initially return a faulty appliance or part of an appliance to us as this may result in transit damage and/or delay in providing service. Let us know your difficulty quoting the model number and series letter of the appliance to be found at the rightend of the rear panel. We will then take the appropriate action.




## To reset convector cut out

1. Ensure that the convector supply is switched OFF at the double pole switch controlling the appliance

2. Determine and remove the cause of overheating

3. After allowing the convector circuit to cool down fully, the cut out will automatically reset

4. Switch ON the double pole switch

A full range of additional matching portable heaters is available from Dimplex - Details on request.
This appliance complies with the European Standards EN 60 335-1, EN 60 335-2-61, EN 61000-3-2, EN61000-3-3, EN55014 and EN55104 for Safety and Electromagnetic Comparability.
These standards cover the requirements of the EMC Directives 89/336 and 73/23.

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