



Under Carpet Heater Kit Installation Manual

Scan for installation support

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Coldbuster Customer Service: 1800 85 75 65

WARNING: Failure to read this guide prior to installing your COLDBUSTER heater(s) may result in installation problems that could void your heater warranty.



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Introduction

To ensure a simple and hassle-free installation, [read this guide before commencing installation.](#)

Coldbuster does not accept responsibility for any loss or consequential damage suffered because of installations that in any way contravene the instructions detailed in this guide.

If you require further assistance, please contact Coldbuster during office hours (EST):

Contact Coldbuster

Unit 2/36 Campbell Avenue,
Cromer NSW 2099

1800 85 75 65
info@coldbuster.com.au
www.coldbuster.com.au



Installation Dos and Don'ts

Dos

- Ensure all under carpet heaters are installed as per these instructions
- Ensure the floor surface is smooth, clean and dry before installing the underlay
- Plan the installation, especially when more than one heater is being installed
- Maintain a minimum 30mm spacing between elements
- Install the carpet as soon as possible after heaters are installed
- Protect heaters with cardboard or hardboard if carpet installation is delayed
- Test heaters before installing the carpet
- Ensure heaters are connected to an RCD (safety switch) protected circuit
- Retain your invoice as proof of purchase for warranty purposes
- Complete the last page of this booklet for future reference

Don'ts

- **Do not ever cut heating elements**
- Do not allow heating elements to touch or cross one another
- Do not allow harmful traffic (e.g. spiked boots, ladders, wheelbarrows) over heaters before installing carpet
- Do not place sharp or heavy objects on uncovered heaters
- Do not install heaters under any surface not suitable for floor heating
- Do not commence installing the final floor cover before testing heaters

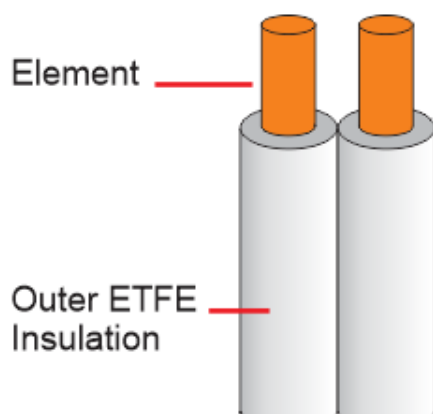
Product Information

Coldbuster Under Carpet Heaters consist of 3 components:

- Inner heating element;
- Outer aluminium foil mat cover; and
- 3.0m cold tail.

The heating element is sandwiched between 2 layers of aluminium foil, 500mm wide, at a consistent spacing. This ensures safe heat output.

Element Profile



Carpet heating



Each Coldbuster Under Carpet Heater Kit contains the following items:

- Heater
- Silver Tape
- Installation alarm monitor
- Installation manual



Electrical Preparation

The Coldbuster heater element has been classified as an electrical appliance. You must engage a licensed electrician for the heater installation if this is required by your state codes.

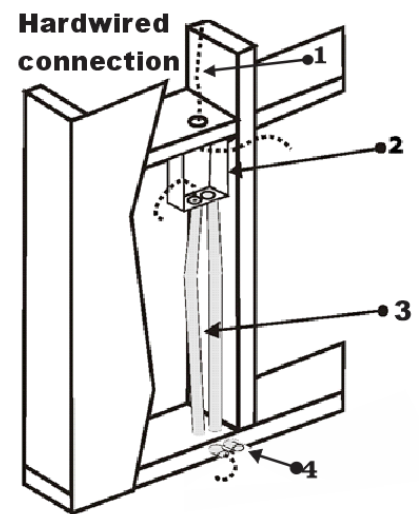
However, all electrical connections including the connection of the thermostat must be undertaken by a licensed electrician in accordance with current electrical codes of practice, AS/NZS3000: 2007 and state codes.

RCD

The heater element must be connected to a circuit with RCD protection. Please consult with your electrician to ensure any existing cabling and RCD's already installed are working and capable of handling the additional load.

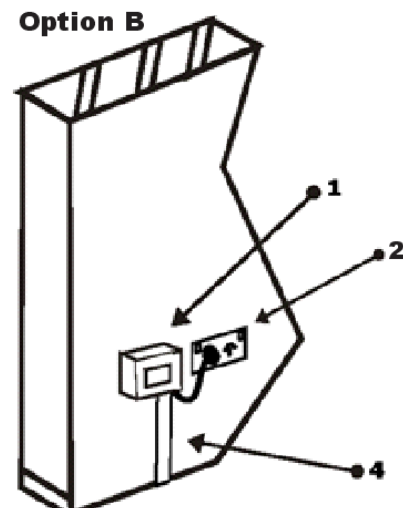
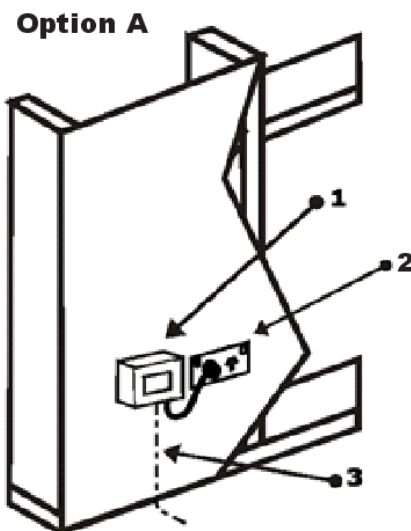
Hardwire Connection

1. Power supply must be RCD protected.
2. Standard flush box or C-bracket mounted horizontally or vertically, height between 1000mm -1500mm above the floor.
3. 20mm conduit for the heater leads – might require more than one conduit. Depends on heater size.
Cut flush to wall.
4. 20mm conduit for floor sensor extended into the heated area (optional: the thermostat also has a built-in sensor and can be set up for air sensor).
Cut flush to wall.



Plug-In Connections

1. Thermostat mounted adjacent to power point.
2. Power point must be RCD protected
3. **Option A** - for cavity walls, fit heater lead and floor temperature sensor inside the cavity
4. **Option B** - for brick walls, fit heater lead and floor temperature sensor inside PVC trunking and notch out the thermostat wall box for cable access



Underlay Preparation

The floor must be clean before fitting the underlay. After the underlay has been fitted to the floor, vacuum it and carefully remove any foreign objects like staples, grit or nails which could possibly damage the carpet heater.

The underlay must not be stapled or nailed to the floor, but can be butted together and taped at joins and edges if necessary.

Heater Choice

Ensure the heater(s) you have purchased is/are correct size(s) for the area. Installing a heater too small may not produce enough heat to warm the area sufficiently, whereas too big a heater simply won't fit!

Tools required for Heater Installation:

The following tools are required:

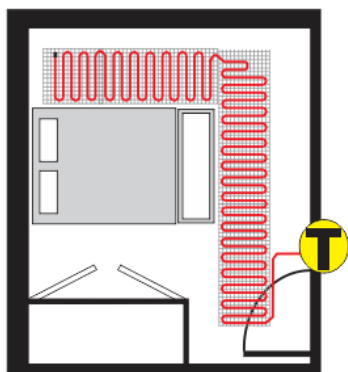
- tape measure
- marker pen
- silver tape
- scissors
- Stanley knife
- optional: glue gun

Planning Heater Layout

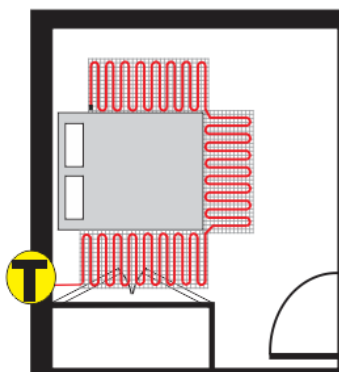
It is important to plan the position and layout shape of the heater(s) before starting the installation. The last thing you want to do is to have to pull up your installed heater(s) and restart because you ran out of room or otherwise placed the heater(s) incorrectly.

When layout planning, ensure to maintain at least 200mm from any wall or permanent fixture.

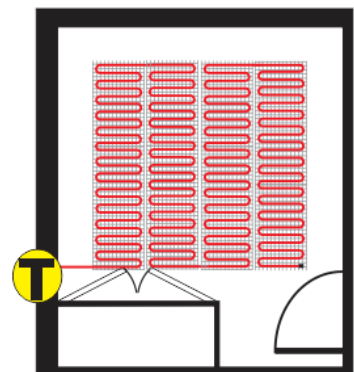
Add up the various runs' lengths to confirm that they add up to the total heater length, which can be found on the box end. If you have more than one heater, then the runs' lengths must total up to the total of the 2 heaters.



2 RUNS



3 RUNS



4 RUNS



Heater Installation

Ensure the edge of the aluminium foil mat is far enough away from any wall or permanent fixture (at least 200mm) so the teeth of the carpet kicker (used to stretch the carpet to the wall) do not damage the heater(s) when fitting the carpet.

The heating mat is to be laid with the visible loops on the top side.



Step 1

Pull the cold tail of each heater & floor sensor up the conduit(s).

Connect a monitor to each cold tail as explained in “Monitor Installation” section later in this manual.

Place the factory join (junction between the heating element and cold tail) at the mouth of your conduit. Cut a section of the underlay out to recess this section of cable. Preferably do not position the join in a high traffic area.

Step 2

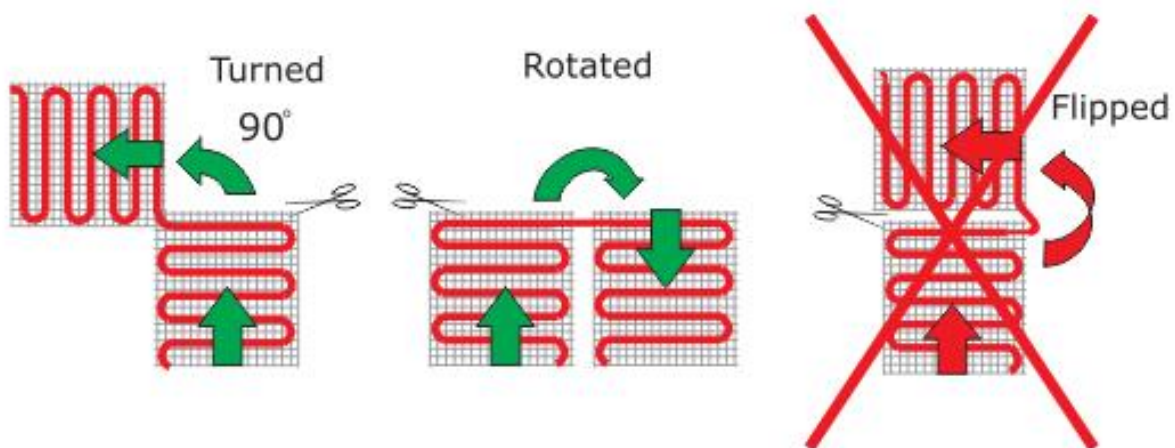
Cut the foil mat between the elements (**never cut the elements**) to enable the element to reach the start of your 1st row. Stick these loose strips down with the silver tape. Ensure each cut strip is stuck together with the next & onto the underlay with the silver tape so that no element is left exposed and to ensure earth continuity.

Step 3

Roll out the 1st run of the heater on the floor, cutting the foil mat (**not the element**) where necessary to allow the element to be in the best position as per your planning of the layout.

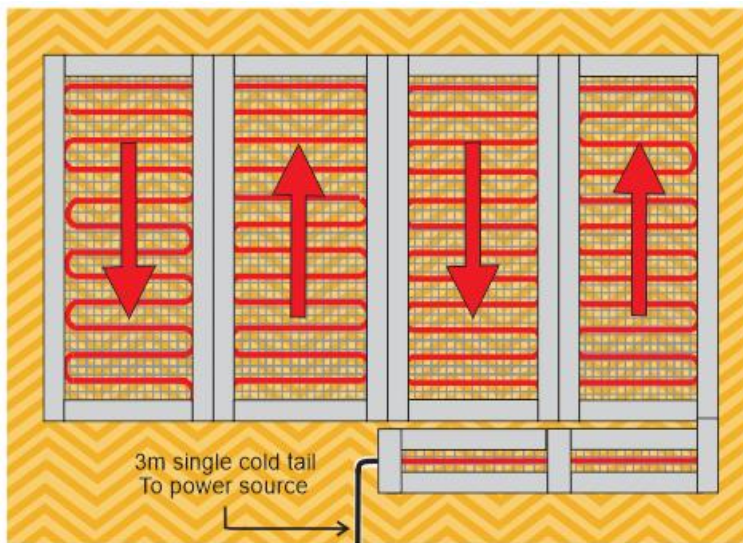
The strips may be cut & turned/rotated (not flipped over or twisted) up to 180° to suit the room size.

Take care not to cut the heating element.



Stick each side of the rows & the start and end of the mat with silver tape provided. Other than sticking the mat down it also ensures earth continuity which is a safety feature of this mat. Refer to diagram below.

Ensure earth continuity by ensuring silver tape completely covers spaces between rows and no elements are left exposed.



Silver tape used to attach foil mat to the underlay as well as join two runs together, completely covering element. Only a short section of tape has been used for the photo so one can see the gap between the 2 runs.



Do not substitute silver tape from other sources as not all such tape is compatible. Silver tape must be conductive.

Although Coldbuster provides more than enough conductive silver tape with every purchase at no additional charge, additional rolls can be purchased separately.

Using alternative sources of silver tape will void all warranties/guarantees.

Step 4

With the runs turned through 180°, they should naturally be about 5-10mm apart. See photo above. Once you have stuck down a row you can then roll out the next row, cut it to the correct length & then stick it down. Repeat this process as many times as required to cover the area as per your layout plan.

The element must never cross over or touch.

Step 5

A floor sensor (provided with each Coldbuster thermostat) is essential where the thermostat is mounted inside a cupboard or outside the area being heated. If another form of heating such as air conditioning or a fireplace will also be used in the area, then it is also essential to have a floor sensor in place.

Otherwise, the use of the floor sensor is optional, but recommended. If no floor sensor is in place, the thermostat can only be used in room sensor mode.

First, insert the floor sensor at the top of the conduit until it comes out the bottom. Pull it from the bottom to ensure appropriate length for ideal placement.

It is advised that the floor probe sensor should be placed mid-way between 2 elements, so it gets a good representation of the floor temperature. We suggest lifting a corner of your already laid mat & mark where the heating element will lay. Cut a groove in the underlay, where marked (ideally in between 2 heating elements). Continue the cut to recess the sensor back to the conduits. Cover it with the silver tape to keep it in position.



Multiple Heater Installation

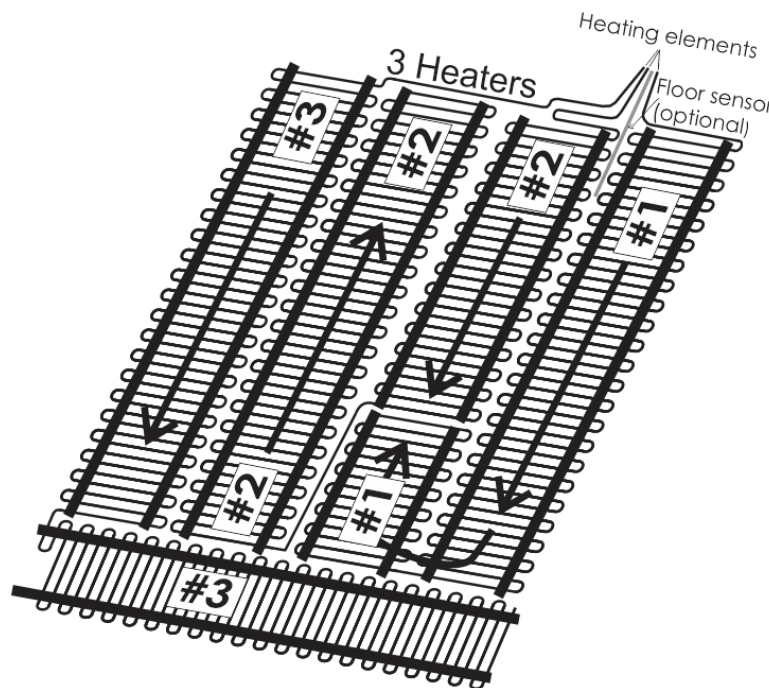
If you are installing multiple heaters into 1 heat zone (and thus using just one thermostat), each heater will need to start at the thermostat location.

As explained earlier, you may need to cut the foil between the elements (don't cut the elements) to enable the heater to be laid to the start of the next run length.

Remember to maintain a spacing of 30-60mm when laying them freehand. Laying them further apart than suggested may result in cooler areas.

**Do not allow different elements or factory connections
(from cold tail to heating element) to touch or cross each other.**

MULTIPLE heaters must be connected in PARALLEL



Laying Carpet over Coldbuster Floor Heating

- Additional care should always be taken when working over floor heaters.
- Do not cut or join the carpet on top of the heaters. If joining the carpet with heat bond tape, a strip of cardboard must be moved under the heat bond tape below the join, along with the iron.
- Do not allow any heavy or sharp objects to fall, stand upon, run over or be dragged across heating elements.
- Ensure that the fitting of the carpet does not change the position of the heaters.
- When stretching carpet, avoid putting the carpet stretcher or knee kicker on top of the heaters.
- If the monitor sounds an alarm: stop work immediately and check that monitor connections are as indicated earlier. Test the heater element resistance and the insulation resistance if you have a multi meter; otherwise contact Coldbuster or your electrician.



Monitor Installation

1. Open the battery cover to ensure that the battery is connected. Replace the battery cover and switch the unit to 'ON'.
2. The alarm should sound, and the red light should be on when there are no connections to a heater. If these things do not occur, inspect the battery connection, or replace the battery. During normal use, the white light indicates that the monitor is continually checking the heater(s) for damage. Should the white light go out, replace the battery before continuing work.
3. Ensure the heaters to be monitored are not connected to a power source.



- Connect the leads to the monitor prior to commencing any heater installation work to ensure any faults are detected before and during installation.**
4. Strip the insulation around the tips of the brown, blue and green earth wires. Insert the blue wire into the black alligator clip, the brown wire into the red clip and the green earth wire into the green clip. Pull the rubber boots over the metal clips. Option: each clip can be taped up with insulation tape to prevent the clips touching & setting off the alarm.
 5. Set the switch to the "ON" position. A white light indicates the monitor is operating.
 6. Hang or place the monitor where it can be seen and heard during the heater installation.
 7. A red light and alarm sounding indicates that:
 - a) a lead wire has come loose from the terminals; or
 - b) either the red or black alligator clip is touching the green alligator clip; or
 - c) damage has occurred to the heater.
 8. In any such event, stop work straight away and locate the damaged spot. In event of damage, call Coldbuster 1800 85 75 65 for assistance.

Important: Leave the monitor connected to the heater until the carpet laying has been completed and your electrician connects the thermostat. If the white light goes out, change the battery by opening up the rear access panel.

Thermostat connection to floor heater coldtail & floor sensor: TO BE DONE BY A LICENSED ELECTRICIAN!

Ask your electrician to measure (when connecting the thermostats) the resistance of A-N, A-E & N-E & note it on the last page of this guide.

Important: Check your thermostat instructions for wiring details.

All heaters must be connected to an RCD protected supply circuit.
Disconnect the monitor from the heater before connecting heater to thermostat & mains.
Don't forget to also connect the floor sensor!

Remember:

- These are double insulated devices - there is no earth connection to the thermostat.
- The earths of the heater(s) connect directly to the earth of the supply in a screw connector.



Warranty

Every heater is thoroughly tested before shipping and is guaranteed to be in good working order on dispatch. Coldbuster guarantees its products subject to the following conditions:

1. The product is free of defects at the time it was supplied. The product will be deemed to be defect-free if no defect has been detected and reported to Coldbuster:
 - a) within 25 years (300 months) from date of purchase (for heaters); or
 - b) 3 years (36 months) from date of purchase (for thermostats).
2. The following are conditions of this guarantee:
 - a) a competent person installed the product;
 - b) the installation was carried out according to the directions as supplied by Coldbuster;
 - c) the installation was carried out in accordance with all applicable electrical regulations; and
 - d) the heater has been connected to a RCD protected supply circuit.
3. Damage during installation by others is not covered by warranty.
4. Damage or repair to a product by another party voids this guarantee. Repairs done by Coldbuster to rectify such damage cannot be guaranteed and the client will be charged regardless of the result.
5. Claims under this guarantee must be lodged with Coldbuster, in writing, within the period prescribed. Full particulars must be given and a copy of the invoice as proof of purchase must be enclosed.
6. In settlement of its obligations under the guarantee set out above, Coldbuster shall, at its option, either:
 - a) repair or replace the defective part without charge; or
 - b) pay the purchaser a sum equal to the price paid for the defective part at the time of purchase.
7. Coldbuster's liability to the purchaser is limited to amounts referred to herein. The purchaser agrees that Coldbuster shall not be liable for any other or additional damages suffered by the purchaser caused by any defects in the product, the installation itself or any constituent part of it. Coldbuster shall not be liable to compensate the purchaser for any floor coverings or any other item damaged or destroyed as a result of any such defects.
8. This guarantee is subject to the purchaser adhering to all safety and operating instructions.
9. This warranty is non-transferable.



Safety & Operating Instructions

Safety Guidelines

This is an electrical heating system and must be used strictly in accordance with the manufacturer's instructions.

- DO NOT drill holes or drive sharp objects i.e. nails or screws into your floor without knowing with absolute certainty that you will not touch the heating elements.
- DO NOT cover heated carpets with thick rugs, mattresses or other insulating materials (e.g. thick duvets, bean bags etc.) and DO NOT allow children to sleep in sleeping bags or swags on the heated carpets. Any of these actions will trap the heat and raise the temperature under the carpet, with the possibility of discolouring or burning the carpet.
- DO NOT allow small children or people who are immobile or insensitive to heat to lie on the heated carpet for prolonged periods.
- DO NOT subject heaters to abnormal conditions such as under home exercise equipment or castor chairs without a carpet protector. or in an industrial environment.
- Turn off the power when steam cleaning carpets. Never use floor heating to dry out carpets.
- Heaters **must** be connected through an RCD (safety switch) circuit breaker. In case of damage or the unlikely event of heater failure, the RCD switch will trip and cut off power to the heating. In this case, turn off the thermostat and contact Coldbuster. Do not attempt to repair the heater.
- Inform any person who takes occupation of the property about the position of the heaters.
- Pass these safety and operating instructions on to new owners or tenants.

Economy Tips

The ideal temperature of the floor depends on the heat required to maintain the desired room temperature. If it is very cold outside, the floor will have to be warmer to maintain the same room temperature than when it is moderately cold outside.

Ideal temperature also depends on activities in the area, size of area, ventilation, insulation, ceiling height, etc. Another important factor is whether you are intending to use the floor heating to heat just the floor or to be the primary heat source for the room area.

The lower the temperature you set on the thermostat, the less electricity the heating uses. We advise you to experiment to find the most comfortable setting. Start at a low temperature first, so if you find this desirable you know you're not using more electricity to maintain higher temperatures than needed.

Many people find 20°C a comfortable room temperature, meaning 18-20°C is often found to be a warm enough temperature because floor heating is efficient in creating room comfort.

A cold area will not heat up any faster by setting the thermostat to its maximum setting. Simply set the thermostat to your desired temperature and the heater will draw maximum power until the selected temperature is reached.

Reducing heat losses will make your heating system run more efficiently and economically. Heat is lost through windows, doors, ceiling and walls. Having insulation in the ceiling and walls and keeping doors, windows and curtains closed can reduce heat losses. Other common sources of heat loss: open chimneys, fireplaces, stairwells and A/C ceiling grilles.



Heater position/layout sketch
KEEP FOR FUTURE REFERENCE

This image shows a full page of blank graph paper. The grid consists of small, equal-sized squares formed by thin black lines. There are no margins, text, or other markings on the page.

Sketch out the position of your heater(s), the walls and other fixed fittings. Keep this manual and diagram for your reference and pass on to future occupants. Record the details below, as this can be used to validate the heater and thermostat warranties.

Date of Purchase..... Heater model number(s).....

Invoice number..... Installed by.....

Date Installed:	Element Resistance Test			"Megger" Insulation test @ 500V	Sensor Resistance Test
/ /	A - N	A - E	N - E		
Date Connected:	Ohm	Ohm	Ohm	M Ohm	K Ohm
/ /	Ω	Ω	Ω	MΩ	KΩ

Record heating layout and test readings on this page to comply with the 25-year warranty.



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