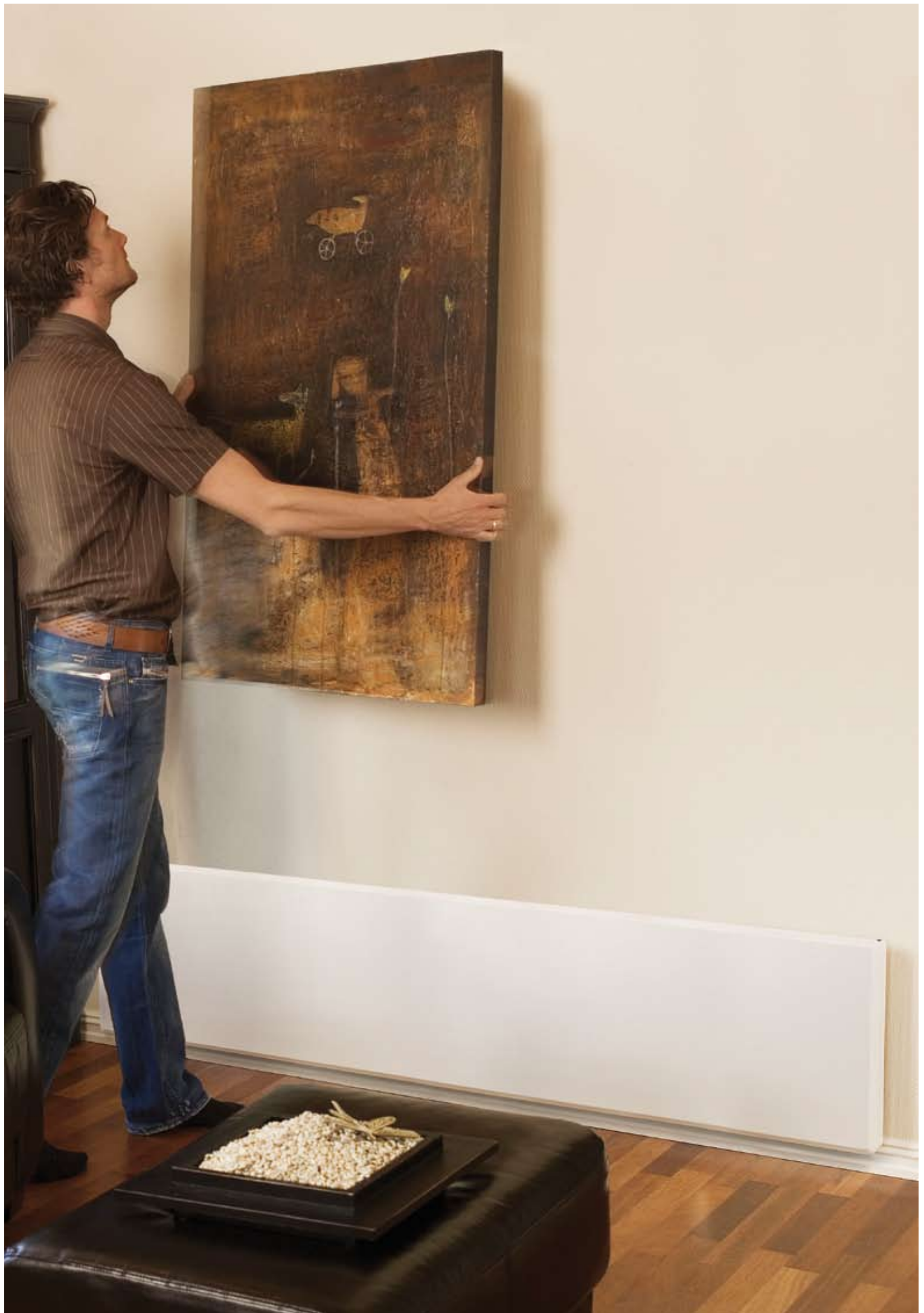




COMFORT YOU DESERVE

NOBO 'E' SERIES SLIMLINE RADIANT PANEL HEATERS





CHOOSE NOBO HEATING

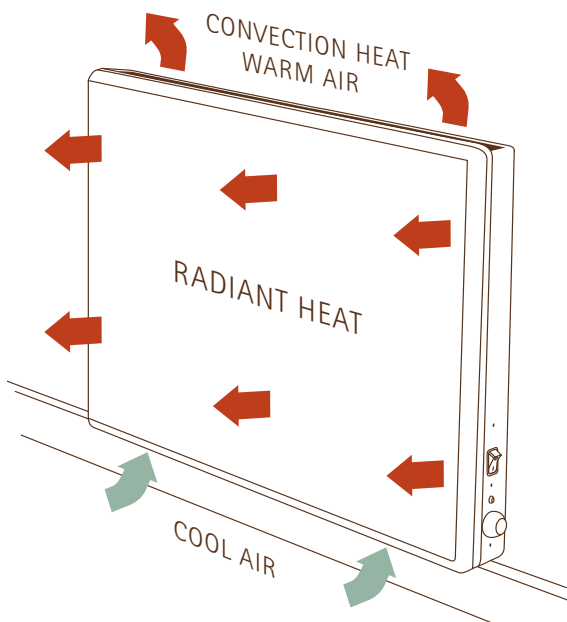
The Norwegian company NOBO commenced making panel heaters in 1949 and is one of Europe's largest manufacturers of panel heaters. The company is well known for its innovative products, high quality and modern design. NOBO's clever design, incorporating a top mounted heat outlet, sets it apart from other panel heaters and enables them to be used in circumstances (for example behind furniture) where other panel heaters are not as effective or practical.

Nobo Slimline Radiant Panel Heaters have the following advantages over other brands of panel heaters:

- Attractive, modern clean face with no front grill
- Cheap to run – independent running costs documented and available
- Safer, low surface temperature on the front panel
- Power point and cable out of site behind the heater
- Slimline – only 50mm thick
- Large panel surface area equals greater radiant heat, and more comfort
- Can be located close to or behind furniture

DUAL HEAT

NOBO Radiant Slimline Panel Heaters warm your room with a combination of both radiant and convection heat.



Just like the sun, radiant heat is multi-directional, and works on the principle of warming surfaces and objects within a room. Radiant heat is universally regarded as a very efficient, healthy and comfortable method of heating.

- **Efficiency:** In a typical room, there are more objects down low at people level. When these objects are heated, they have the ability to maintain the heat in the room for longer periods of time.
- **Health:** Radiant heat does not create air movement, therefore dust and air borne particles are not distributed around the room.
- **Comfort:** The absence of air movement helps to maintain your own body temperature.

Convection heat is gently distributed throughout the room through the top of the panel heater. NOBO's unique design draws in cold air across the entire width of the panel, heating it as it passes over the element, producing natural convection (without a fan).

With NOBO both types of heat happen simultaneously – resulting in the dual process of heating the room from the floor up (with radiant heat), and from the ceiling down (with convection heat), ensuring a quick start up, effective performance, and economical operation.

ENERGY EFFICIENCY

NOBO Slimline Radiant Panel Heaters are rated as 100% efficient because all energy used is converted to heating your room. There are no fans, or mechanical moving parts to waste energy or break down.

Accurate electronic thermostats also ensure efficiency. Further economies and convenience can be achieved by installing timer models for automatic on/off operation. Due to their rapid start up, it is recommended to operate your NOBO panel heaters only for the hours heating is required. Or with the convenience of the timer models, preheat your room by programming it to switch on 15 - 30 minutes before use.

ROOM ZONING

The most efficient, economical and comfortable way to heat your home is on a room by room basis. NOBO Slimline Radiant Panel Heaters can provide independent zoning for every room or living area.

NOBO Slimline Radiant Panel Heaters are often used in conjunction with other heating systems. This typically applies when a large or open living area has its own heat source, for example a reverse cycle heating and air conditioning system or gas fireplace, complemented with NOBO panels in the bathrooms and smaller rooms such as studies. This results in an integrated, flexible and fully zoned system.

SELECT YOUR 'E' SERIES SLIMLINE



E4E07 - without timer E4EU07 - with timer

Dimensions (W×H×D) 625mm × 400mm × 50mm

Approx. area heated* 7.5m² - Ensuite

Watts 750

Amps 3.1

Running Cost** 4.5 cents/hr as tested



E4E10 - without timer E4EU10 - with timer

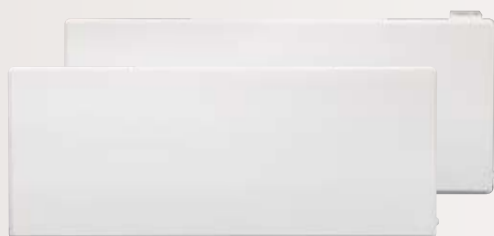
Dimensions (W×H×D) 775mm × 400mm × 50mm

Approx. area heated* 10m² - Small Bedroom/Bathroom

Watts 1000

Amps 4.2

Running Cost** 6 cents/hr as tested



E4E12 - without timer E4EU12 - with timer

Dimensions (W×H×D) 975mm × 400mm × 50mm

Approx. area heated* 12m² - Study/Medium Bedroom

Watts 1250

Amps 5.2

Running Cost** 7.5 cents/hr as tested

***Refer to Sizing Chart and Panel Heater Selection over the page.**

****Running costs:** NOBO panel heaters are available in various wattages (sizes) which correspond to the power used when the heater is operating. To achieve economical running costs they must be sized correctly for the room to be heated, and the thermostat set at 18-20 degrees Celsius. On initial start-up when the room is cold, the panel heater will heat continuously until the desired comfort temperature is reached. To maintain this temperature the electronic thermostat will switch the heater on and off and only draw power for 50% (1/2) of the operating time. This is referred to as "cycling at 50%" and has been proven by independent testing.

Electricity is charged by your electricity provider in cents per kW per hour. To calculate the hourly running cost after initial warm up, check your latest power bill for the tariff in cents per kW per hour, determine the size of your panel heater in kW (1,000 watts = 1 kW or kilowatt) and substitute these values in the following formula.

Cents per hour running cost after warm up = Cycle rate (50%) x tariff (cents per kW hour) x kW (size of heater).

The running cost of an E4EU20 model (2,000 watts, or 2 kW) assuming a tariff rate of 12.5 cents per kW per hour = 50% x 12.5 x 2 = 12.5 cents per hour.

Undersizing (using a lower wattage than recommended by NOBO to heat the area concerned) will result in cycling at a lesser %. In the worst case this could result in a doubling of hourly running costs.

Cycling percentage, tariff rate and running costs used in this brochure are those applicable when tests were last undertaken for NOBO by independent electricity companies. Your tariff rate and hourly running costs may be higher than the ones stated.



E4E15 - without timer E4EU15 - with timer

Dimensions (WxHxD)	1125mm x 400mm x 50mm
Approx. area heated*	15m ² - Dining Room/Large Bedroom
Watts	1500
Amps	6.2
Running Cost**	9 cents/hr as tested



E4E20 - without timer E4EU20 - with timer

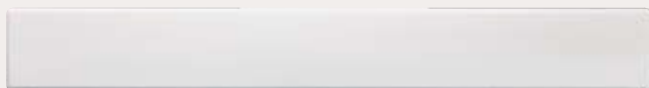
Dimensions (WxHxD)	1525mm x 400mm x 50mm
Approx. area heated*	20m ² - Living Area
Watts	2000
Amps	8.3
Running Cost**	12.5 cents/hr as tested



E4E20C Compact - without timer E4EU20C Compact - with timer

Dimensions (WxHxD)	1125mm x 400mm x 50mm
Approx. area heated*	20m ² - Living Area
Watts	2000
Amps	8.3
Running Cost**	12.5 cents/hr as tested

Note: Compact models available from July 2010.



E2E12 Skirting Model - without timer

Dimensions (WxHxD)	1525mm x 200mm x 50mm
Approx. area heated*	12m ² - Medium Bedroom
Watts	1200
Amps	5.2
Running Cost**	7.5 cents/hr as tested



Legs - with castors

Available as an option for portable use.
The heater can be easily moved from room to room.

SIZING CHART AND PANEL HEATER SELECTION

For effective and efficient performance of your heating system, it is essential to size the heating system's output to the area, or room size being heated. Factors which impact the heating effectiveness, such as insulation, building construction etc. must also be allowed for by applying the "Correction Factors" below.

Step 1 – Determine the correct wattage needed for a room built to current construction standards

- Ceiling insulation rated at minimum R2.5
- Ceiling height up to 3.0 metres
- Window coverings with insulating properties
- External wall insulation rated at minimum R1.5
- Window area up to 35% of external wall area

Measure the width (W) and length (L) of the room in metres and use the Sizing Chart below to determine the wattage needed to heat the room. Rooms with an irregular shape, or with an adjoining open space such as an entry/hallway, can be sized by "squaring" them off to make several rectangles, and totalling the wattage required. Wattage required is typically 100 watts per square metre of floor area of the room.

W × L	2.0 M	2.5 M	3.0 M	3.5 M	4.0 M	4.5 M	5.0 M	5.5 M	6.0 M	6.5 M	7.0 M	7.5 M	8.0 M
1.0 M	200	250	300	350	400	450	500	550	600	650	700	750	800
1.5 M	300	375	450	525	600	675	750	825	900	975	1050	1125	1200
2.0 M	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
2.5 M	500	625	750	875	1000	1125	1250	1375	1500	1625	1750	1875	2000
3.0 M	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
3.5 M	700	875	1050	1225	1400	1575	1750	1925	2100	2275	2450	2625	2800
4.0 M	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
4.5 M	900	1125	1350	1575	1800	2025	2250	2475	2700	2925	3150	3375	3600
5.0 M	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	4000

Step 2 – Apply Correction Factors if applicable

Add 40% to wattage for one or more of these factors	Add 20% to wattage for one or more of these factors	Deduct 20% from wattage for one or more of these factors
<ul style="list-style-type: none"> - Bathrooms or ensuites - Solid brick - Living area with void or stairway to upper level 	<ul style="list-style-type: none"> - Ceiling height above 3.0 metres - Window area more than 35% of external wall area - No ceiling insulation or insulation rated less than R2.5 - No wall insulation 	<ul style="list-style-type: none"> - Ceiling insulation rated at R3 and above - Double glazed windows

Note: In some instances, several "Correction Factors" are required.

Eg: A solid brick room with 3.3M ceilings, requires a "Correction Factor" of an Extra 60%.

Step 3 – Panel Heater Selection

Once the required wattage has been determined, simply refer to the available NOBO sizes, and select the most suitable size heater.

Note that it is always safer to "upsized" the wattage output. If the required wattage exceeds 2000 watts (the largest panel size), more than one NOBO must be installed. A combination of any size NOBO can be selected, providing the total installed wattage matches or exceeds the determined wattage.

INSTALLATION

Permanent Installation: Each NOBO panel heater comes complete with a wall mounting bracket, and is easily installed on a plaster, timber or masonry wall by following the instructions provided. Four fixing points are required. Wall mates or toggles straight into plaster is sufficient – locating a stud is not essential.

The recommended height off the floor is a minimum of 70mm. The sides of the panel heater can be installed within 10mm of a corner or furniture located against a wall. Directly under windows is an ideal location. They can also be installed behind low furniture with a minimum 50mm clearance.

For a clean appearance, NOBO panel heaters can be installed in front of flush fitting power points. The bracket design allows the panel heater to be unclipped and tilted forward for cleaning and access to the power point.

Portable Use: Legs with castors can be purchased separately. These enable the heater to be easily moved from room to room.

Electrical Requirements: A standard 10 amp power outlet is all that is required – even for the largest panel size. When installing multiple panel heaters, it is recommended you consult with an electrician to ensure that the total load on any circuit is within guidelines.



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