

# IR-HS Heating Panels

## IR-Mir Mirror Panels

Wall & Ceiling-mounted Infrared Heaters

# ecostrad

### INSTALLATION & OPERATING INSTRUCTIONS



**IR-HS White Panels**      **IP44**

**IR-Mir Mirror Panels**      **IP45**

CE  
RCM

**Original Version 31012017**

#### **ELECTRICAL EQUIPMENT:**



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist.

#### **IMPORTANT NOTICE TO PURCHASER:**

Before utilizing the product, user should determine the suitability of the product for its intended use. HERSCHEL INFRARED LTD expressly disclaims the implied warranties and conditions of merchantability and fitness for a particular purpose. In no case shall HERSCHEL INFRARED LTD be liable under any legal theory, including but not limited to contract or strict liability, for any direct, indirect special, incidental or consequential damages resulting from product use.



The product complies with European Safety Standards EN60335-2-30, RoHS and EMC EN 50336, EN 55014, EN 61000-3 and EN 62233. These cover the essential requirements of EEC Directives 2006/42/EC, 2011/65/EC and 2004/108/EC.

# IMPORTANT SAFETY PRECAUTIONS

## READ THESE INSTRUCTIONS CAREFULLY AND RETAIN FOR FUTURE REFERENCE.

Failure to observe these instructions will invalidate the warranty.  
Do not disassemble. No user-serviceable parts inside.



## WARNING

### TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY:

1. This appliance must be disconnected from its power source during installation or service activities and when replacing.
2. This heater is not equipped with a device to control the room temperature. Do not use this heater in small rooms when they are occupied by persons not capable of leaving the room on their own, unless constant supervision is provided.
3. In order to avoid overheating and potential fire hazard, **DO NOT** cover the heater with insulating material or similar material under any circumstances. **DO NOT** locate the heater within 0.3m of any flammable materials (eg. Furniture, curtains).
4. **DO NOT** touch the heater when in use. Ecostrad panel heaters have a surface temperature of around 95°C / 248°F and prolonged contact with the heater will cause burns and injury.
5. **DO NOT** operate the heater if the cord or plug is damaged or after the heater malfunctions, or if it has been dropped or damaged in any manner. Check each heater for damage before installation. Make sure that the heater itself, the plug and the cable are free of any visible signs of damage. If the cord is damaged the appliance must be sent for repair to an authorised dealer.
6. **MIRROR PANEL MODELS:** Handle carefully and avoid stressing the glass mechanically. Do not use the heater if the glass panels are damaged. Disconnect the heater and do not put it into operation again. Dismount the heater immediately to reduce the danger of direct impact from falling pieces and dispose of the unit in accordance with the local Waste Electrical Equipment regulations.
7. This heater must only be used for the heating of people or buildings. The heater is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience or knowledge. Children should be kept away and should not be left unsupervised around the unit.
8. All operators should only switch on/off the appliance provided that it has been placed or installed in its intended operating position in accordance with these instructions. Children must not plug in, switch on or regulate the appliance or perform user maintenance including cleaning.
9. **IMPORTANT:** Ecostrad panels are designed for use with an AC voltage between 220-240 volts, 50 Hz AC. If your supply voltage exceeds 240 Volts do not use the heater and refer to your local dealer.
10. **IMPORTANT:** The heater must be mounted on a non-flammable surface.

## SAVE THESE INSTRUCTIONS.

### WATER INGRESS PROTECTION:

Ecostrad IR-HS white panels are rated to a standard (minimum IP44) enabling them to be located within splashable zones in a bathroom (called Zones 1, 2 or 3 - sometimes also called Zone O) which means they can be placed in the splash zone above a sink or bath.

However, installation in potentially wet or humid rooms such as bathrooms must be carried out by a suitably qualified installer and comply with local electrical safety requirements. Installation must be such that:

- The heater must not be able to become detached from the fittings and fall into a bathtub, shower, swimming pool or other water container.
- Switches and other controls cannot be touched by a person in the bath or shower.

**If in doubt, do not install.** Ecostrad shall not be liable for any loss, damage or injury caused or resulting from inadequate fitting or incorrect placement of heaters close to water sources.

## **POSITIONING:**

This is an infrared panel heater. It heats objects by transferring energy directly from the heater into the object. Therefore, consider placing the heater where it will not be immediately obstructed by objects like furniture or where it cannot effectively radiate out, such as at the edge or in the corners of a room. Objects placed in front of the heater will heat up and can prevent effective heat dispersion into the room. Avoid placing it opposite windows or open doorways.

Only specific models are designed for ceiling mounting, please check with your local dealer before mounting to the ceiling.

Ecostrad IR-Mirror panels consist of ESG (security glass). This is a special mechanically stabilized glass, which will break in small, edgeless pieces. The mounting location should be chosen in such a way that the glass cannot be accidentally broken and people will not be in danger from a possible break in the glass.

The rear of the panel needs airflow to avoid the risk of overheating. The supplied mounting plate is specially designed to allow the required air gap. Only mount onto the wall or ceiling using the supplied mounting plate.

If mounting in a ceiling grid do not place insulation material directly onto the rear of the panel.

Objects in front of the panel must be at least 400mm away and 200 mm away from the sides. The distance from the sides of the heater must also be respected if it is intended to recess the heater into the wall or ceiling. Failure to do so will cause excess heat to build up behind the heater and will void the warranty.

The distance between the sides of the heater and the sides of any adjacent heater must be a minimum of 800mm. Failure to do so could cause excess heat to build up behind the heaters and will void the warranty.

## **⚠️ INSTALLATION:**

### **WARNING:**

Installation should only be carried out by trained and approved engineers or competent persons. If the heating panel is being hard wired (so the plug is removed), the electrical installation should only be carried out by suitably qualified personnel.

Wiring to this appliance must be connected in accordance with the relevant national electrical safety standards. It is a Class 1 appliance and must be earthed.

When placed in public areas, installation must comply with relevant local electrical standards. For certain public buildings like schools and care homes the heaters must be installed according to the specific legislation for these types of buildings.

The electrical supply to the unit should be provided by connecting to a circuit protected by a fuse or residual current device (RCD) or Ground Fault circuit interrupter (GFCI) suitable for the electrical rating of the appliance. Temperature control must be effected by a Thermostat.

Colour coding used in the supplied mains cable: BROWN wire is to be connected to LIVE ('L'), the BLUE wire to NEUTRAL ('N') and the GREEN/YELLOW wire to EARTH ('E').

## CAUTION:

- Ensure mains power is OFF before commencing an installation involving fixed wiring.
- Any fixed wiring outside the heater coming into contact or close proximity to the heater must be protected by sleeving with a temperature rating of at least 90°C.
- All cabling behind the appliance must take the shortest route to the edge of the heater.
- Ensure that the power cable is not coiled. Shorten the power cable if possible and do not place excess cable on the rear of the heater.
- Electrical connections must not be made behind the heater regardless of wall or ceiling-mounting position.
- The heater is not to be located immediately below a socket outlet in either wall or ceiling-mounted positions.
- DO NOT drill through the heater as this will cause irreparable damage and is also dangerous.
- DO NOT connect a heater that is damaged in any manner to the power network.

For mounting Ecostrad panels, use the supplied mounting hardware only and install in accordance with the installation guide. Ecostrad cannot accept responsibility for damage, loss or injury caused by, or resulting from incorrectly installed heaters. Ecostrad will not assume liability for consequential loss however caused.

## MAINTENANCE AND REPAIR:

Ecostrad panels must be installed, uninstalled, cleaned or transported only when cold.

## CLEANING:

Before attempting to clean the panel, unplug the heater, isolate the unit from the electrical supply and allow it to completely cool down.

DO NOT immerse the panel heater in water or splash water onto it.

Clean the heater with a damp cloth. For glass models glass cleaner can be used. Never use a wet cloth. When clean, dry the surfaces with a dry cloth.

DO NOT apply abrasive materials, solvents or solvent wipes to the surface as this can cause irreparable damage. Wait until the unit is completely dry before use.

## REPAIR:

DO NOT attempt to repair or adjust any electrical or mechanical functions on this unit, doing so will void your warranty.

Repairs must only be carried out by an authorised service partner.

## DISPOSAL:

The heater is an electrical product and at the end of its working life it should be disposed of in accordance with local regulations.

## OPERATION:

Unless the heater is only used as a temporary or portable heater, it must be controlled by a thermostatic controller. European regulations from January 2018 require all fixed electric space heaters to use a controller incorporating a minimum of a 7 day programme and temperature control plus at least one of the following:

- Window open detection
- Remote controller or remote application
- A learning function to optimise use over time

Please note it is possible the heater may discolour with use - this is caused by air born pollution and is not a fault.

The heater is designed to last many years and incorporates several safety functions, but if the heater has not been used or installed in adherence to these instructions, emits any noise, smells or reaches high temperatures in excess of 100c, discontinue using the heater and refer to your local dealer.

## WARRANTY:



Within five years from date of purchase HERSCHEL INFRARED LTD will repair or replace the heater where the fault is due to defects in materials or workmanship. In the event of a warranty claim please consult your local dealer and return the heater together with proof of purchase.

A prerequisite for validity of the warranty is use at the specified supply voltage of the heater and use in accordance with the conditions specified in this manual. Any further warranty or claims are excluded.

The warranty covers the repair or replacement of the defective product only and Ecostrad shall have no liability for installation costs or consequential losses however incurred.

Removing the serial number will void the warranty. The warranty will also be void if the heater has been tampered with or opened in any way.

The product power label must be left on the panels where they can be accessed after installation if necessary. HERSCHEL INFRARED LTD will assume no responsibility for scratches on surface or frames after first use.

HERSCHEL INFRARED LTD cannot accept responsibility for damage, loss or injury caused by ingress of water or moisture, accidental damage, mishandling, external impact, adjustment by unauthorised personnel or failure to follow the correct maintenance and safety precautions as stated in the manual.

## PANELS COVERED BY THESE INSTRUCTIONS:

### IR-HS White Panels:

IR-HS350  
IR-HS540  
IR-HS700

### IR-Mirror Panels:

IR-Mir500  
IR-Mir700

# Installation Guide for Ecostrad IR-HS White & IR-Mirror panels

## Assembly Kit

Please check the enclosed assembly kit consists of: 1 x mounting bracket, 4x screws, 4x rawlplugs

## Ecostrad mounting system

### Preparation

The centre of the mounting bracket will be the centre point of the panel when mounted (note, the mounting fixings on the rear of the panel are offset, so measure from the centre of the panel to the edge of the panel to determine the mounting position). For vertical (portrait) mounting position "A" will be the top of the mounting bracket. For horizontal (landscape) mounting position "B" will be the top of the mounting bracket.

#### Step 1

Use a spirit level to ensure the bracket is level and mark the position for drilling in each of the small holes in the four corners of the mounting bracket (fig 1 & 2).



Fig 1.



Fig 2.

#### Step 2

Drill holes using a 8mm drill. Insert the supplied rawlplugs (see fig 3). If mounting on to a cavity wall or ceiling you will need appropriate fixings (not supplied).



Fig 3.



Fig 4.

#### Step 3

Screw the mounting bracket to the wall using supplied screws (fig 4).



Fig 5.



Fig 6.

#### Step 4

Fit the panel to the wall by locating all four mounting fixings on the rear of the panel into the wide openings on the mounting bracket. Once in position the panel should be moved to the right and then down and to the right again to its secure position (portrait mounting) or down, then left and then down again (landscape mounting) (fig 5 & 6).

#### Step 5

The panel will be properly in place when there is no further left or right movement.

Note: If mounting to a ceiling it is extremely important that the panel is locked in the secure position. Plug in the panel ensuring that the lead is free from any obstruction from the panel.

#### Removal

To demount the panel, move the panel to the left, then up and over to the left again (portrait mounting) or up, then to the right and then up again (landscape mounting).

NOTE: If mounting larger panels (600w upwards) to a ceiling, use suitably rated fixing screws/mechanism for the weight of the panel. Use the additional 2 fixing holes on the Easy-Fix mounting plate and fix to a joist wherever possible. 2 people may be needed to mount the larger panels.

## COMPLIANCE WITH ECODESIGN DIRECTIVE 2009/125/EC:

All Ecostrad infrared panel heaters when used with a thermostatic controller demonstrate best-in-class performance according to EcoDesign criteria for fixed electric room heaters.

If used as a portable heater, this product is only suitable for well insulated spaces or occasional use.

Ecostrad is not responsible for any breach of the legislation where the the IR-Mirror or IR-HS are used without an appropriate controller.

### When installed as fixed Electric Space Heaters

Seasonal space heating energy efficiency pre Lot 20 = 30%

Efficiency target post Lot 20 = 38%

All Ecostrad infrared panels are found to be compliant if used with a thermostatic controller.

Applies to ALL models covered by these instructions:

Model Identifier: Ecostrad IR Mirror & IR-HS Models						
Item	Symbol	Value	Unit		Item	Unit
<b>Heat Output</b>					Type of heat input for electric storage local space heaters only (select one)	
Nominal Heat output	$P_{nom}$	ALL	kW		Manual heat charge control with integrated thermostat	Not applicable
Minimum heat output	$P_{min}$	ALL	kW		Manual heat charge control with room and/or outdoor temperature feedback	Not applicable
Maximum continuous heat output	$P_{max,c}$	ALL	kW		Electronic heat charge control with room and/or outdoor temperature feedback	Not applicable
<b>Auxiliary Electricity consumption</b>					Fan assisted heat output	Not applicable
At nominal heat output	$e_{l,max}$	0	kW		<b>Type of heat output/room temperature control (select one)</b>	
At minimum heat output	$e_{l,min}$	0	kW		Single stage heat output and no room temperature control	No
In standby mode	$e_{l,SB}$	0	kW		Two or more manual stages, no room temperature control	No
					With mechanical thermostat room temperature control	No
					With electronic room temperature control	No
					Electronic room temperature control plus day timer	No
					Electronic room temperature control plus week timer	7%
					<b>Other Control options (multiple selections possible)</b>	
					Room temperature control with presence detection	No
					Room temperature control with open window detection	1%
					With distance control option	No
					With adaptive start control	No
					With Working Time Limitation	No
					With Black Bulb sensor	No
<b>Contact Details</b>	Herschel Infrared Ltd, Bristol BS93AA. www.herschel-infrared.co.uk					

## When installed as a portable heater

Seasonal space heating energy efficiency pre Lot 20 = 30%

Efficiency target post Lot 20 = 36%

All Ecostrad infrared panels are found to be compliant if used with a plug in electronic room temperature control such as Celect T33.

Applies to ALL models covered by these instructions:

Model Identifier: Ecostrad IR Mirror & IR-HS Models					
Item	Symbol	Value	Unit	Item	Unit
<b>Heat Output</b>				Type of heat input for electric storage local space heaters only (select one)	
Nominal Heat output	$P_{nom}$	ALL	kW	Manual heat charge control with integrated thermostat	Not applicable
Minimum heat output	$P_{min}$	ALL	kW	Manual heat charge control with room and/or outdoor temperature feedback	Not applicable
Maximum continuous heat output	$P_{max,c}$	ALL	kW	Electronic heat charge control with room and/or outdoor temperature feedback	Not applicable
<b>Auxiliary Electricity consumption</b>				Fan assisted heat output	Not applicable
At nominal heat output	$el_{max}$	0	kW	<b>Type of heat output/room temperature control (select one)</b>	
At minimum heat output	$el_{min}$	0	kW	Single stage heat output and no room temperature control	No
In standby mode	$el_{SB}$	0	kW	Two or more manual stages, no room temperature control	No
				With mechanical thermostat room temperature control	No
				With electronic room temperature control	No
				Electronic room temperature control plus day timer	No
				Electronic room temperature control plus week timer	No
				<b>Other Control options (multiple selections possible)</b>	
				Room temperature control with presence detection	No
				Room temperature control with open window detection	No
				With distance control option	No
				With adaptive start control	No
				With Working Time Limitation	No
				With Black Bulb sensor	No
<b>Contact Details</b>	Herschel Infrared Ltd, Bristol BS93AA. <a href="http://www.herschel-infrared.co.uk">www.herschel-infrared.co.uk</a>				

In this portable configuration this product is only suitable for well insulated spaces or occasional use.