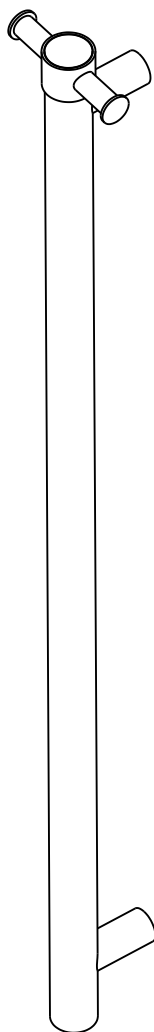


LIANO II HEATED TOWEL RAIL VERTICAL

INSTALLATION INSTRUCTIONS



SAFETY INFORMATION

Please read and understand this installation guide in full before commencing installation.

Caroma Heated Towel Rails must be installed and tested by a qualified electrician and in accordance with AS/NZS 3000.

We recommend that the rail is installed onto a flat uniform wall at least 600mm from the floor and with a 300mm clearance from permanent fixtures. Where possible the Caroma Heated Towel Rail should be screwed into studs or if fixing to hollow walls, suitable anchors should be used to ensure rail is secure.

- Observe and adhere to electrical guidelines and IP ratings when placing your Caroma Heated Towel Rail in wet areas.
- Ensure timers or switches (not supplied) used are installed in correct zones according to the IP rating of the timer/switch.
- Ensure that your Caroma Heated Towel Rail is protected by a suitably rated RCD circuit.
- Do not use your Caroma Heated Towel Rail to hold towels or other articles that have been in contact with oil, petroleum-based products or dry cleaning fluids.
- This rail is intended to warm and dry towels and therefore is hot to touch. Close supervision is necessary when children or infirm persons are near the rail.
- Do not immerse your Caroma Heated Towel Rail in any liquid.
- This rail is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- If the supply cord is damaged, it must be replaced by Caroma, its service agent or similarly qualified persons in order to avoid a hazard.
- Children should be supervised to ensure they do not play with the rail.
- Switch off the electrical supply at the mains before installation and maintenance.
- A means of disconnection must be incorporated in the fixed wiring in accordance with the AS/NZS 3000 wiring rules. For complete control a wall mounted timer (with "off" position) is recommended (not supplied).
- This rail is suitable for bathroom and non-bathroom/dry areas.
- This rail is not suitable for installation in saunas, steam rooms or shower cubicles.
- This rail is rated IP55 and suitable for indoor use only. Do not fix to damp or conductive surfaces. Site well away from curtains and fabrics.
- If not being used for an extended period of time switch rail off.

FOR SAFETY, PLEASE DO NOT USE FOR ANY PURPOSE OTHER THAN AS A TOWEL RAIL AND A TOWEL WARMER. TO AVOID DAMAGE DO NOT SIT, STAND, LEAN OR HANG ON PRODUCT.

ELECTRICAL INSTALLATION

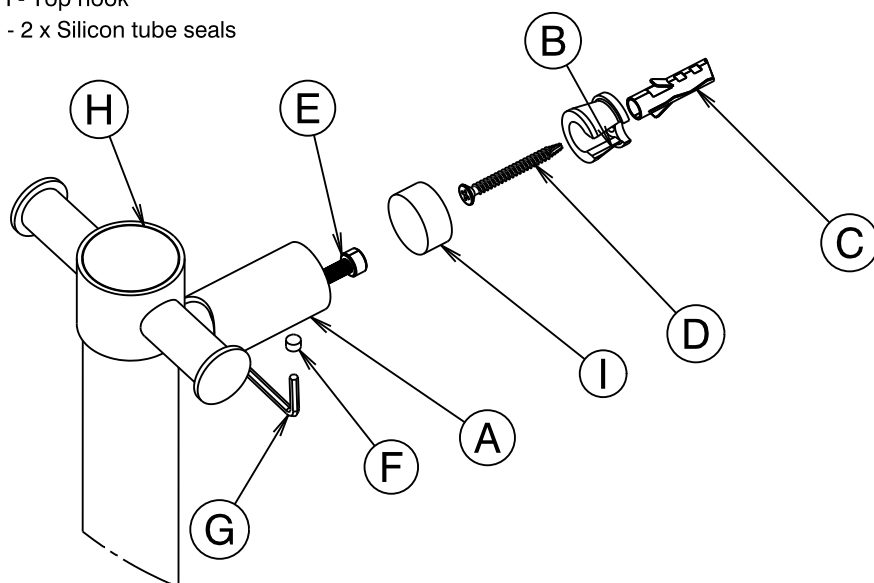
- The 12V safety isolation transformer (supplied separately) must be located in a dry, well ventilated accessible location (do not cover with insulation).
- If an alternative transformer is to be used, it must be the same specification as the Caroma transformer and meet all relevant Australian standards.
- It is recommended to the limit the number of 12V rails connected to one transformer to three rails.
 - Distance from transformer to the first connecting towel rail must be less than 2 metres.
 - Minimum 50mm clearance to surrounding surfaces.
 - Do not pull on the wire in the leg.
 - Electrical connections on the rail can be made at either leg by rotating the rail 180 degrees

COMPONENTS SUPPLIED

- Heated Towel Rail with connection wires
- Fitting Kit including:
 - A - 2 x Mounting tubes supplied on rail
 - B - 2 x Mounting lugs (Supplied inside the leg)
 - C - 2 x Wall Plugs
 - D - 2 x Countersunk Screws
 - E - 2 x Machine Screws
 - F - 2 x Grub Screws (Supplied inside the leg)
 - G - 1 x Allen Key
 - H - Top hook
 - I - 2 x Silicon tube seals

TOOLS REQUIRED

Tape measure, spirit level, drill, Phillips head screwdriver, hammer, 7mm and 5mm tile drill bits, 7mm and 5mm normal drill bits, 3mm normal drill bit (if fixing to a noggin/stud), pencil, masking tape



SPECIFICATIONS

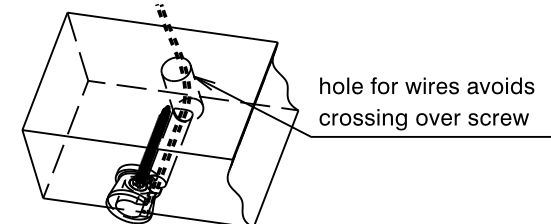
Overall width	104mm (including top hook)
Overall height	900mm
Overall depth	77mm
Voltage	12V DC
Power	16.5W (PSS finish only) or 20W
IP rating	IP55
Wiring positions	Top or bottom

INSTALLATION

STEP 1 - Wall preparation

Wall plug (C) is only suitable for use in cavity walls with a tiled surface or masonry walls. If installing into a plasterboard cavity wall (untiled) it is recommended that the rail be attached to the wall in line with a stud or noggin using suitable screws. Fixing into plasterboard or cement sheeting alone is NOT recommended.

Provisions must be made for a supply wire to feed through the wall to the preferred mounting location for the heated towel rail. If fastening to noggin, wires routed through noggins must avoid contact with mounting screw (see diag 1).



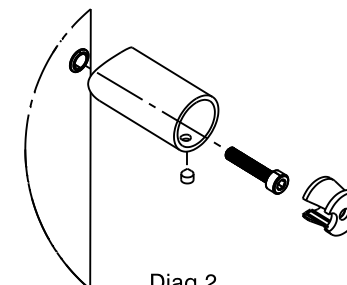
Diag 1

STEP 2 - Check mounting tube position

First, decide which end you want to connect the electrical supply to. The rail as supplied is set up with the wires at the top. Remove the mounting lugs (B) from inside the tubes by releasing the grub screws (F) with the allen key (G) provided.

Rotate the rail 180 degrees to change the wiring position to the bottom. To ensure the grub screws (F) are underneath when changing the wiring position to the bottom, the mounting tubes (A) will need to be removed and swapped over by unscrewing the machine screw (E) inside (see diag 2).

Install the top hook (H) at the top of the rail and tighten the grub screw using the allen key (G).



Diag 2

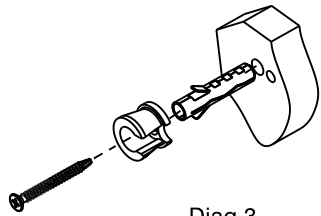
STEP 3 - Plan and measure

Measure and mark out the two wall mounting lug (B) positions making sure they are level. For tiled walls avoid positioning mounting lugs on grout lines. The easiest way to mark this is to put some masking tape at the location of the two mounting positions and then hold the rail against the wall and once it is vertical and level mark the two leg footprints on the tape. The tape will also help prevent the drill bit from wandering. Warning: The rail should be installed so that the lowest point is at least 600mm above the floor.

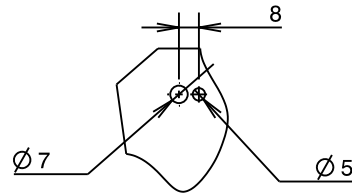
STEP 4 – Installation of wall lugs

Drill a $\varnothing 7$ mm hole in the centre of each of the two marked mounting positions. For hollow tiled walls drill hole through the tile only with tile drill bit then drill the plasterboard slowly with same size normal drill bit to avoid damage to the plasterboard. Insert the wall plugs (C) provided. Tap the plugs in lightly until flush with the tiles. If fixing direct to noggin the wall plug is not required and a $\varnothing 3$ mm hole should be drilled into the noggin instead.

Now fix the two wall mounting lugs (B) in place using the countersunk screws (D) and a Phillips head screwdriver (see diag 3). For the end of the rail with the wires, drill an additional $\varnothing 5$ cable hole through the slot in the mounting lug where the wires enter the wall cavity (see diag 4)



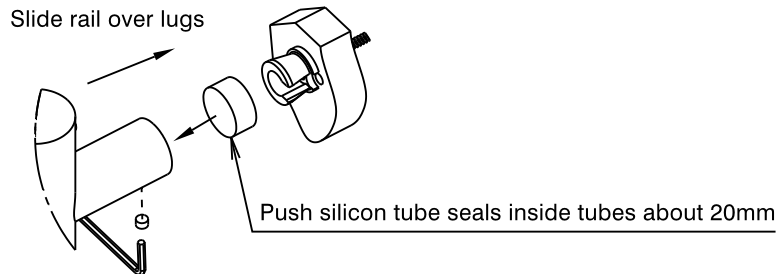
Diag 3



Diag 4

STEP 5 – Fix to wall

Fit the silicon tube seals (I) inside the mounting tubes (A) each end. Push out the centre hole with a screwdriver on the wiring side seal and push the red and black wires through. Insert the red and black wires through the wiring hole drilled in STEP 4. Attach the towel rail to the top and bottom mounting lugs (B) installed on the wall. You may need assistance to hold the rail in place. Push the rail firmly up against the wall. Firmly tighten using the grub screws (F) with the allen key (G) provided (see diag 5).



Diag 5

STEP 6 – Connect power lead

The towel rail must be installed with an electrical wall isolation switch (not supplied) and must be clearly labelled to identify and control the towel rails. 12V red (+)/black (-) wires must be connected securely to an approved transformer (supplied separately).

OPERATION AND MAINTENANCE

- After installation, connect the electric power and turn on the wall switch. The Caroma Heated Towel Rail will start to work. Turn off the power wall switch when Caroma heated Towel Rail is not in use.
- The finish of your Caroma Heated Towel Rail is hard wearing and easy to maintain however any harsh scrubbing, scratching or acid based cleaning products will damage the surface. Cleaning with a soft cloth and a non-abrasive cleaning agent will give the best results
- Periodically check the Caroma Heated Towel Rail is fastened securely to the wall, tighten grub screws if necessary
- This heated towel rail has been designed to run continuously if required.

Note: The surface temperature is high when the heated towel rail operates. PLEASE BE CAREFUL!

PLEASE NOTE:

- The heated towel rail in this installation guide is a dry element electric heated towel rail. Electric heated towel rails are designed to run on a low wattage and will heat up quickly, with warmth being felt within 5-10mins.
- The towel rail will reach optimum operating temperature in approx. 30mins. Running temperature of the Electric Heated Towel Rail is approx. 40 degrees without a towel on the rail.
- Once a towel has been placed on the towel rail this will insulate it and beneath the towel it will get to 50-55 degrees. Although the towel rail will reach optimum operating temperature in approx. 30mins the time taken to dry the towel will vary depending on a number of factors including the ambient room temperature, size of the towel rail, number of towels and the dampness level of the towels.
- Electric heated towel rails are designed to dry and gently warm a towel and are not designed as a towel heater or room heater.

DIMENSIONS

