

MILLI

RUSH 432, 632, 832

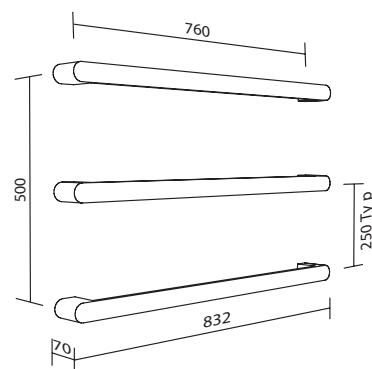
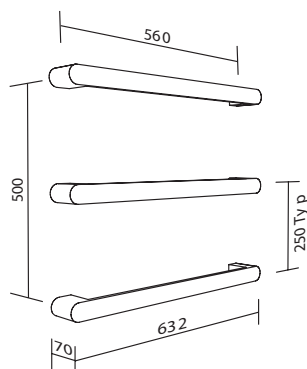
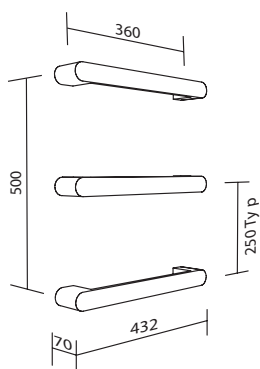


Table 1.0

FEATURES

Low Voltage	Safe installation in ANY zone
Easy install	ALL wall types, pre-wiring IS required
Any leg cable	Cable can enter left or right
Ecotimer	Ecotimer included (*with transformer kit-not incl)

SPECIFICATIONS

Recommended use	Residential and Commercial
Materials	Stainless steel 304 grade
Finish	Mirror polish, Matte Black
Technology	Dry element (no leaks)
Element	Replaceable
Options	Heated or Non heated
Power entry	ANY leg, left or right
Voltage	12V AC safety isolating transformer
Wattage	432 - 17W, 632 - 17W, 832 - 19W
Standards	AS/NZS:60335.2.43
Safety rating	IPX7 (immersion at 1 metre for 30mins)

Please note: Each individual rail is sold separately.



To see the complete Kado range go to www.reece.com.au/bathrooms

CLEANING RECOMMENDATIONS

This bathroom product should not be cleaned with abrasive materials eg. steel wool/scourers. Do not use any corrosive or abrasive cleaning agents containing acids or scouring agents. Do not use organic solvents (terps, meths, thinners) to clean matte black and white coated towel rails. Bleaches can also discolour products and therefore should not be used.

Use a soft cloth moistened with warm soapy water or a silicone based household wax/polish such as SC Johnson 'Pledge' for general polishing and cleaning of the appliance. Fine scratching can be removed using the correct metal polish. Recommended brands are 'Autosol' and 'Brasso Paste', both available in tubes from supermarkets and car care outlets.

Damage caused by any improper treatment is not covered by the product warranty- refer to Warranty Conditions on the last page.

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INSTALLATION INSTRUCTIONS

SAFETY

This appliance 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. Children should be supervised to ensure that they do not play with the appliance.

WARNING: In order to avoid a hazard for very young children, this appliance should be installed so that the lowest heated rail is at least 600 mm above the floor.

ELECTRICAL

- Must be installed by a registered electrician.
- The 12V 'safety isolating' transformer supplied must be located in a dry accessible location (do not cover with insulation).
- Distance from transformer to towel rail must be less than 2 metres. see *FAQ's
- Typical locations include:
 - ceiling cavity
 - wall cavity (behind switch plate)
 - cupboard
- Means for disconnection must be incorporated in the fixed wiring in accordance with wiring guidelines AS/NZS 3000:2000.
- The waterproof wirenut connectors provide an IPX7 rating
- The towel rail may be installed in wet area electrical zones 1, 2 & 3 as specified in AS/NZS 3000:2000.
- Manufactured and tested to AS/NZS 60335.2.43
- Minimum 50 mm clearance to surrounding surfaces.

1. WALL PREPARATION

- 'Rush' heated towel rails may be fixed to ANY type of wall, timber stud, steel stud or masonry (solid or cavity).
- Stud walls (timber or steel) require timber nogs at the correct position for all legs. See table 1.0 for fixing dimensions.
- If the precise position can't be determined early in the job, consider nogging with 18mm construction ply, covering a larger area.
- Be aware that attempting to fix into plasterboard or cement sheeting alone is NOT recommended. Plasterboard (in particular) will not hold long term.

2. PRE WIRING

- First determine which side (left or right) you would like the cable to enter the heated towel rail.
- In general, the leg that is closest to the transformer and farthest from wet areas. eg. top left leg if the transformer is in the ceiling and shower is to the right.
- For stud walls drill a 10mm hole in the noggin for the low voltage wiring supplied at the leg position chosen. Typical layout see Fig 1.0 Table 1.0 for fixing dimensions.

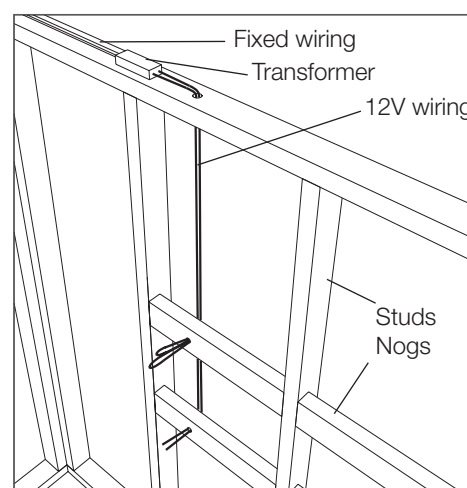


Fig 1.0

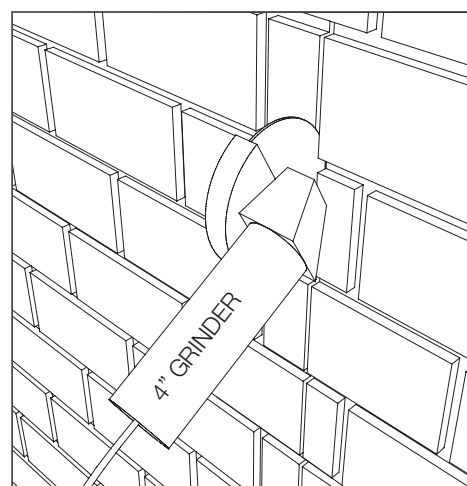


Fig 2.0

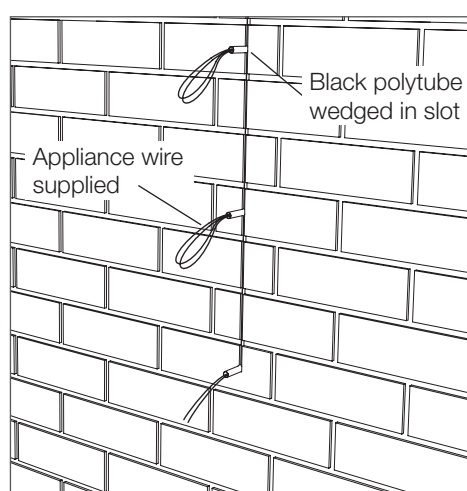


Fig 3.0

Electricians, please ensure a copy of the installation instructions is left with the end user for future reference

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2. PRE WIRING - CONTINUED.

- For masonry walls using an angle grinder and masonry cutting disc, cut a 25mm deep slot from the cable leg to the eventual location of the transformer, see Fig 2.0
- Place the supplied low voltage wiring in the slot created and render over directly.
- Black poly tube is supplied to locate the wire in the correct position, typically 250mm centres.
- Conduit may also be used but is not essential.
- Low voltage wiring tails should protrude from the finished lined wall approx 150mm to allow for trimming.

3. TOWEL RAIL CONNECTION

- Disconnect either the left or right hand wirenut. This will depend on which side you want the wiring connection to be made in, decided in step 1.
- If a wirenut is accidentally removed, it may be reconnected with the spare waterproof wirenut connector provided. Waterproof wirenuts **MUST NOT BE REUSED**.
- Fix the polycarbonate bushes to the wall using the screws provided. **DO NOT** substitute other screws. In particular, **DO NOT** use countersunk head screws less than 50mm long.
- Use the towel rail as a guide to determine the correct position for the bushes or use the fixing dimensions Table 1.0. **MAKE SURE IT IS LEVEL.**
- Make the electrical connection to the towel rail using the waterproof wirenut connectors provided. See Fig 7.0
- The connectors and excess wiring should be pushed back into the leg of the towel rail.
- If there is a concern that water may enter into the wall cavity, neutral cure silicone sealant may be applied around the cable where it exits the wall lining.
- Finally, fix the towel rail in position using the small stainless steel screws provided. See Fig 5.0
- Note: Drilling a 2mm pilot hole makes it much easier to screw in the self tapping screws. The bushes are moulded from glass reinforced polycarbonate and are very hard.

4. TIMER AND SWITCH

- The towel rail must have a switch in the bathroom that can be identified as the towel rail switch. This is typically a separate switch mechanism on the light switch plate for the bathroom. eg. 3 gang switch plate - lights - extractor - towel rail
- The supplied 'ECOTIMER' is a 230 - 240V device that should be installed behind the switchplate between the switch and the transformer. See fig 6.0

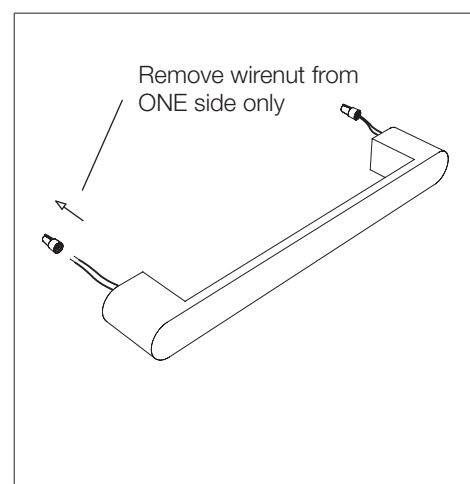


Fig 4.0

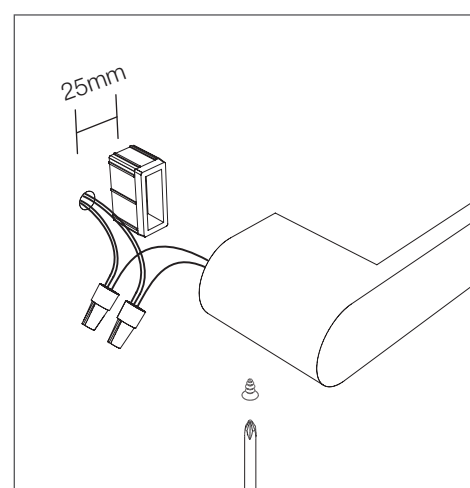


Fig 5.0

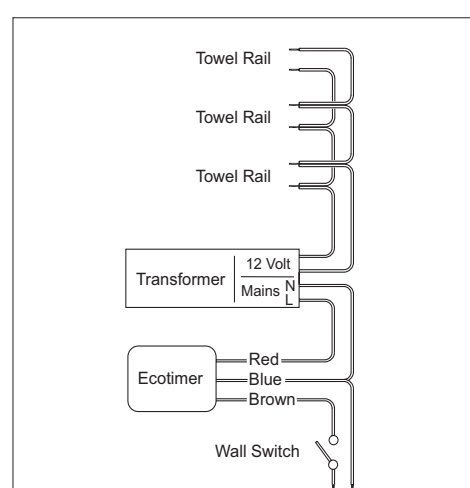


Fig 6.0

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COMPONENT LIST

- 1 x Black polytube 40mm
- 4 x Black polytube 5mm, to hold wire in masonry slot
- 3 x Waterproof wirenuts
- 2 x Large zinc plated self tapping screws, pan head 10g x 50mm
- 2 x Stainless steel grub screws, 4g x 1/4" countersunk head
- 2 x Plastic rawl plugs, for installation on masonry walls
- 2 x Black rectangular polycarbonate bushes

TRANSFORMER KIT (*TO BE ORDERED SEPARATELY)

- 1 x Ecotimer
- 1 x Electronic transformer
- 2 x 3m lengths 1mm² appliance wire 90 deg C

CORRECT USE OF WATERPROOF WIRENUTS

- Strip wires 12.7mm (1/2").
- Align any frayed strands or conductors.
- Pre-twisting unnecessary. Place stripped wires together with ends of insulation even.
- Twist connector onto wires pushing firmly until hand tight. Do not over torque.
- Wipe sealant in and around conductors and connector opening while tightening. DO NOT REUSE

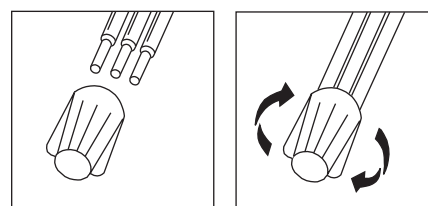


Fig 7.0

FAQ's

Q. Can I place the towel rail more than 2 metres from the transformer?

A. The main reason for the limit is NOT voltage drop, as this may be overcome with larger wire. Modern electronic transformers operate at very high frequencies and extending the length of low voltage wiring will cause unacceptable levels of radio frequency interference (buzzing on AM radios). This may not just affect your own home, but potentially neighbours as well, and should be taken seriously. Old technology 'iron core' transformers do not have this problem and may be used to extend longer than 2 metres, provided that larger cable is used to counteract voltage drop. Electricians may contact DC Short Ltd for further technical advice if needed.

Q. Is my towel rail operating at the correct temperature?

A. Towel rails will not feel as hot on cold winter days as they do on hot summer days as they are not thermostatically controlled. The towel rail contains no moving parts or electrical contacts, this ensures a long life.

A quick test to determine if the rail is functioning correctly follows:

1. Turn the towel rail on and leave for one hour with no towels.
2. After one hour each bar of the towel rail should be a similar temperature, but no more than warm.
3. Cover each bar of the towel rail with a DRY FOLDED towel, three towels (a double layer of towelling on each bar). Leave the towel rail on for another hour.
4. After one hour check that the temperature underneath the towelling on each bar is HOT to the touch. The exposed surfaces should remain warm only.

Q. I have tested the transformer with a multimeter prior to installation and detect no voltage?

A. Electronic transformers operate at high frequencies, above the sampling frequency of a standard multimeter. It is unlikely that a multimeter will detect any voltage. It should also be noted that electronic transformers will not start without a load connected. If you need to test that the transformer is functioning correctly, EITHER connect the transformer to the towel rail to see if it gets warm, OR temporarily connect a 50W halogen lamp to the transformer to see if it lights up.