In-Concrete Slab Installation Instructions for Elektra VCD 35

Regardless of the installation method, take the time to either draw out a plan, or at the very least, check spacings within the heated area beforehand. This will allow you to space runs as evenly as possible.

Before starting the layout, give consideration to the location of the cold tail. These should preferably be positioned at a suitable thermostat location.

- 1. All installations must be carried out by a qualified electrician to comply with Australian Standards and local wiring regulations.
- 2. Layout of cables should take fixtures into account.
- 3. Cables should not be run directly through expansion/construction joints. Use separate cables either side of the joint.
- 4. When unrolling cable always take care to avoid kinking. Use a cable roller.
- 5. Temporarily fix the ends, allowing for any errors to be easily corrected if apparent later in the layout.
- 6. Cable to be kept a minimum of 100mm away from walls, cupboards, toilets and fixtures.
- 7. Cables to be spaced at spacings of 200mm give optimum results.
- 8. It is recommended that the cable be clipped to the mesh at 400-450 mm intervals.
- 9. All of the heating cable and cold tail connection must be covered by concrete of 50-35mm depth.
- Cold tail should be fixed with cable ties to mesh, at no less than 300mm from edge of slab.



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CABLE INSTALLATION Installation Instructions

FIRST STEP:

The first action to be taken on site is to mark out the floor plan, eg walls, cupboards, vanity or any other fixtures. A simple method is to use a can of spray paint.

When marking out the walls and reaching the last room along one wall, do not assume that the room is correct. Check it. There may have been a mistake in the formwork, a small plan change that you should know about, or you could have measured incorrectly.

Before attaching the cable, measure the length of the room and count the number of runs available on the reinforcing. This will show the length of cable easily installed in the room. Compare this length with the length of the cable and if necessary adjust the cable positioning to suit the purpose of the room. The minimum radius of a bend is five times the diameter of the cable.

Cables should not be directly through expansion / construction joints. One method to avoid this is to use separate cables on either side of the joint. Where the reinforcement is of heavy rods tied together, rather than mesh, it is generally necessary to have a separate layer of light gauge mesh for the attachment and protection of the cables.

After layout, support cable cold tails and then test for continuity and insulation resistance at 500 volts.

If labels are damaged, correct cable ratings can be checked by dividing the number 57.6 by the cable resistance, to arrive at the rating in KW for 240V.

Before the concrete pour, ask the concreters to take care not to dig their shovels into the cables while spreading concrete. As a general rule, trouble is rarely encountered if the concrete is chuted or pumped in. Wheelbarrowing can easily damage the cable either through the concentrated pressure on cables crossing reinforcement under planks, or through wheelbarrows being tipped on cables. Timber blocks must be used to support barrowing planks clear of the mesh and wheelbarrows must be tipped on the plank and not on the cables.

During the concrete pour monitor continuity and the insulation resistance of each cable at 500 volt continuously, as it is being covered.





