

Safe-t-SLAB Installation Guide



1. ADPSV Coax Screened Twin Conductor Cables are suitable for attaching to the reinforcing steel in concrete from a depth of, 35-75mm below the surface. Only one cold tail at one end exists, simplifying the installation.

The Heating Cable must not be cut or shortened and must be RCD protected.

A licensed electrical contractor must provide connections in accordance with Australian standards paragraph 4.22 of AS 3000.

2. Cables are calibrated to provide 160w/m² density rating at a spacing of 200 mm. (This coincides with 200 x 200mm reinforcing steel mesh). Plastic cable ties can be used by clipping every 500-600mm along the mesh. **Cables must not cross or touch each other or contact thermal insulation.**

3. Cables are selected by measuring the area to be heated in m². This is multiplied by 1000 and then divided by 200. This calculates the cable length required at 200mm spacing. Select the cable with the closest length that matches the calculated size. Large areas may need 2 or 3 similar cables.

4. Position cables to avoid water pipes, baths and permanent fixtures that will be installed on the finished floor with nails or similar fixings. Perimeter cables should be run with 100mm minimum distance from walls and fixtures.

5. Sketch the location of: cables, remote sensor conduit, cold tail joint to heating cable and the junction box with neutral and active connections. Provide an installation copy for any future modifications/ renovations etc.

6. The single cold tail screen goes to household "Earth". Being a Twin Conductor Cable, the cold tail also has twin cores for the neutral and active connections. ELCB or Residual Current Device protection is required.

7. Where contactors are used, the cold tail terminations are made in a wall box 300mm above the floor level. If the 16a AE-Y310 Acmelec Control supplied is capable of the switch load (3.5 k/w or less), then the cold tail can be connected direct to the control.

8. Follow the recommendations of the contractor supplier when sizing.
9. Remote probe: A 10-20mm ID conduit sealed at both ends, should run down the wall from the controller and a sweep bend applied to run 1-2 meters out below the floor surface from the wall, midway between two cable runs. This enables replacement of the probe if required, in the future.
10. Provide a conduit for each cold tail to be taken to the wall location of the controller.
11. Allow 8 weeks minimum from concrete pour before applying heat to the slab. This should be done gradually over 2 weeks.

