

D.R. Distribution Pty. Ltd.

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INSTALLATION GUIDLINES OF IN-SCREED ELECTRIC HEATING CABLE.

ADHERE TO ALL WORK HEALTH AND SAFETY OPERATING PROCEDURES

ALL ELECTRICAL WORK MUST COMPLY WITH AUSTRALIAN ELECTRICAL REGULATIONS.

A QUALIFIED ELECTRICIAN IS REQUIRED TO TERMINATE AND PROVIDE A CERTIFICATE OF COMPLIANCE UPON COMPLETION.

IMPORTANT INSTALLATION INSTRUCTIONS BEFORE COMMENCING

Heating cable cannot touch, cross or overlap itself at any point.

The heating cable length cannot be altered in any circumstances (joined or shortened or lengthened).

The minimum bending radius is 75mm.

Take precautions to avoid damage to cable. No other trades permitted in area, this will prevent hazards such as ladder foot, dropping of tools or sharp objects, excessive foot traffic.

Thermal insulation boards of adequate thickness should be installed below heating system.

Floor sensing probes should be centered between two adjacent runs of heating cable and not touch or cross over heating cable.

Maximum limit of the temperature setting on thermostat should not exceed 30degC.

A qualified electrician is required to connect and test the heating system to an earth leakage protected power source (30mA R.C.D. protected).

Allow sufficient drying time or curing period of the finished floor before operating heating system (Eden Comfort recommend a minimum of 6 weeks).

1. Compare drawings / plan provided with relevant area to ensure they correspond.
2. Check set down to ensure minimum requirement of approximately 30mm is available, if not attainable determine with owner / builder if you should proceed, if in doubt contact Eden Comfort.
3. Proceed to mark out area using pencil / crayon / line paint to identify usable and non usable areas.
4. Usable is where cable will be installed.
5. Unusable is where bath / vanity / W.C. are located, and heating is unnecessary.
6. Eden does not recommend installation under baths / floor mounted vanities / walls / fixtures / hazardous locations.
7. If discrepancies are evident discuss with Builder / Tiler / or refer to Site Supervisor.
8. If dimensional drawings are correct proceed with cable installation.
9. Determine start location which will be determined by prewire of site electrician. There should be a conduit (25mm diameter) at the install floor level so flexible cable, earth wire and possibly probe cable can be fed easily to thermostat location. (SEE QUOTATION DETAILS FOR SITE ELECTRICIAN REQUIREMENTS).
10. If using, measure and cut wire mesh to lie on floor area deemed usable, tie together at each corner with tie or clip (optional).
11. Start installing from start location normally below where thermostat is located or where the site electrician has provided conduit. **Ensure cold tail join will be completely covered by screed.**
12. **THE COLD TAIL JOIN SECTION MUST REMAIN STRAIGHT AND FIXED AT EITHER END OF SHRINK SLEEVE WITH SUITABLE CABLE TIES. DO NOT BEND OR FOLD THIS AREA OF SHRINK SLEEVE.**
13. The cable should be laid out in 100mm spacing's, by the installer. The heater cable **cannot be cut or joined or touch itself** (the cable will eventually burn out). If spacing's are unequal this could create either hot or cold spots on the floor.
14. The cable should be configured as a lay out initially and fastened at turns and intermittently on long runs first. When layout is satisfactory the cable should be fixed at approximately every 100mm to 150mm. This will keep cable in place during screeding.
15. The end of the heating cable is a joint and should be treated similarly as the cold tail shrink sleeve, fixed with suitable cable ties at either end of shrink sleeve and must be straight.
16. Terminate a separate earth wire to wire mesh and wired run back to the power source (thermostat position).
17. If floor probe sensor is supplied please install it now. The probe cable cannot touch any heating cable and the sensor should be evenly spaced between 2 heating cables for measurement of average temperature.
18. When cable installation is complete test each cable individually to ensure there has been no damage during the install process. Using a Megger ensure there is no earth fault from the earth to the heater conductor, then test the resistance also of each heater circuit to ensure there is no open circuits.
19. We recommend that each area be photographed from different angles for future reference.
20. Ensure that you dispose of any of your rubbish in the correct manner upon leaving site.
21. Check Site for any abnormal conditions / Safety issues.
22. Cover the cable with screed as soon as possible; this will help prevent damage from other trades.

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INSTALLATION GUIDELINES OF IN-SLAB ELECTRIC HEATING CABLE.

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ALL ELECTRICAL WORK MUST COMPLY WITH AUSTRALIAN ELECTRICAL REGULATIONS.
A QUALIFIED ELECTRICIAN IS REQUIRED TO TERMINATE AND PROVIDE A CERTIFICATE OF COMPLIANCE
UPON COMPLETION.**

IMPORTANT INSTALLATION INSTRUCTIONS BEFORE COMMENCING

Heating cable cannot touch, cross or overlap itself at any point.

The heating cable length cannot be altered in any circumstances (joined or shortened or lengthened).

The minimum bending radius is 100mm.

Take precautions to avoid damage to cable. No other trades permitted in area, this will prevent hazards such as ladder foot, dropping of tools or sharp objects, excessive foot traffic.

If slab is suspended, check that thermal insulation boards of adequate thickness have been installed or notify builder.

Floor sensing probes should be centered between two adjacent runs of heating cable and not touch or cross heating cable.

Maximum limit of the temperature setting on thermostat should not exceed 30degC.

A qualified electrician is required to connect and test the heating system to an earth leakage protected power source (30mA R.C.D. protected).

Allow sufficient drying time or curing period of the finished floor before operating heating system (Eden Comfort recommend a minimum of 6 weeks).

1. Locate required string lines to determine datum points for correct mark out of slab area.
2. If no string lines, install as necessary and check overall dimensions of footings are correct with drawings supplied.
3. If discrepancies are evident discuss with Builder / Concreter / or refer to Site Supervisor.
4. If dimensional drawings are correct proceed with cable installation.
5. Determine cold tail position of heating cable ideally located as near as possible to meter box and accessible in what will be the cavity when framing / brick work is completed.
6. Proceed to mark out usable areas nominated on worksheet and associated highlighted areas on drawings.
7. We do not recommend installation under cupboards / walls / fixtures / pantry / hazardous locations.
8. Usable is where cable will be installed.
9. Unusable is where cupboards / walls / fixtures are located, and heating is unnecessary.
10. Calculate the cable centers from your plan which will provide the installer with a guideline as how to best fit the cable in the usable area (the mesh lay out will effect this accordingly). Centers at 200mm to 215mm will be a tight fit 215mm to 225mm normal and over 225mm will be loose. Experience will negotiate the layout on the re-enforcing mesh.
11. Determine if there is an escape route. This is an area where if there is any excess cable surplus after usable area has been covered. This will be the last cable installed and where installation will finish.
12. Start installation of the 1st cable at the nominated cold tail positions, the cold tail must be positioned in concrete and the power cable (cable from heat shrink being flexible 3 core) protected by corrugated plastic conduit, the conduit must be visible at F.F.L. (final floor level). Anchor the cold tail join in a straight line against mesh using cable tie at the both ends of cold tail join but not in the middle. **DO NOT BEND OR FOLD THIS AREA.**
13. Proceed to install the largest cable first if there are multiple cables.
14. The cable should be configured on the reinforcing mesh as a lay out initially, and fastened at turns and intermittently on long runs first. When lay out is satisfactory the cable should be spaced at approximately every 200mm.
15. The cable should be clipped to the re-enforcing mesh at 200mm spacing's, using either Jambro staples / Simes Grapa Staples or plastic cable ties which ever is suitable, by the installer. This will keep cable in place during concreting and prevent it from floating.
16. **The heater cable cannot be cut or joined or touch itself.** If spacing's are unequal this could create either hot or cold spots.
17. The end of the heating cable is a joint and should treated similarly as the cold tail shrink sleeve, fixed with suitable cable ties at either end of shrink sleeve and must be straight.
18. When cable installation is complete, test each cable individually to ensure there has been no damage during the install process. Using a Megger ensure there is no earth fault from the earth to the heater conductor, then test the resistance also of each heater circuit to ensure there is no open circuits.
19. **WARNING LABELS** which ideally should be taped to plumbing pipes (visible during the complete building process). This will indicate to other trades not to penetrate usable areas of the slab without consultation from yourself or building supervisor.
20. We recommend that each area be photographed from different angles for future reference.
21. Ensure that you dispose of any of your rubbish in the correct manner upon leaving site. Check Site for any abnormal conditions / Safety issues.