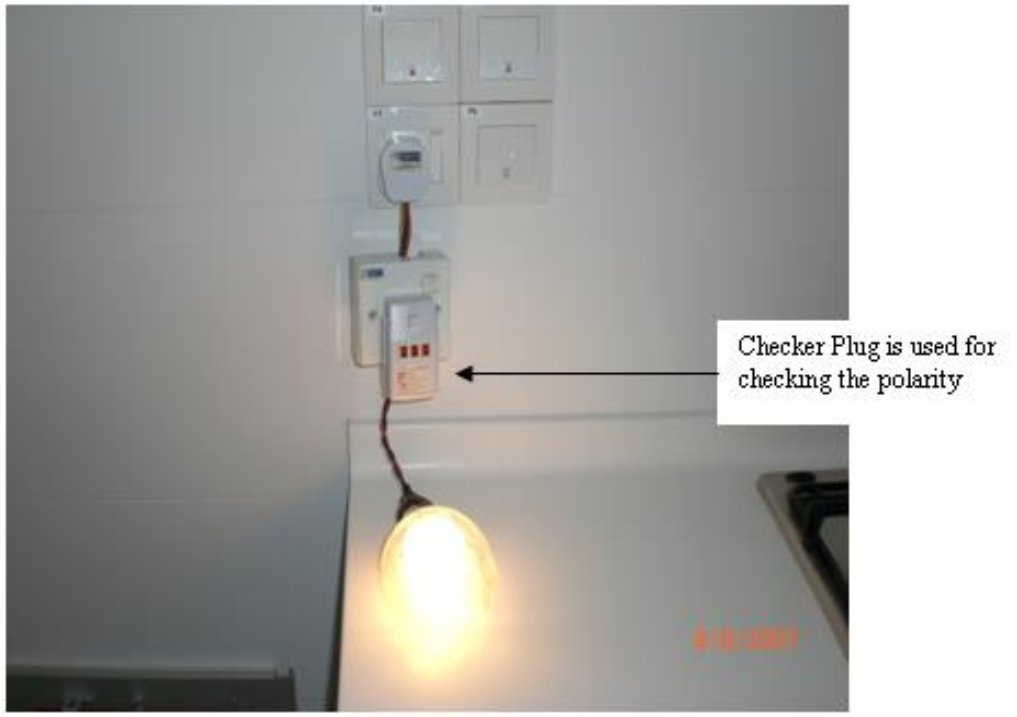
4. Wrong Polarity

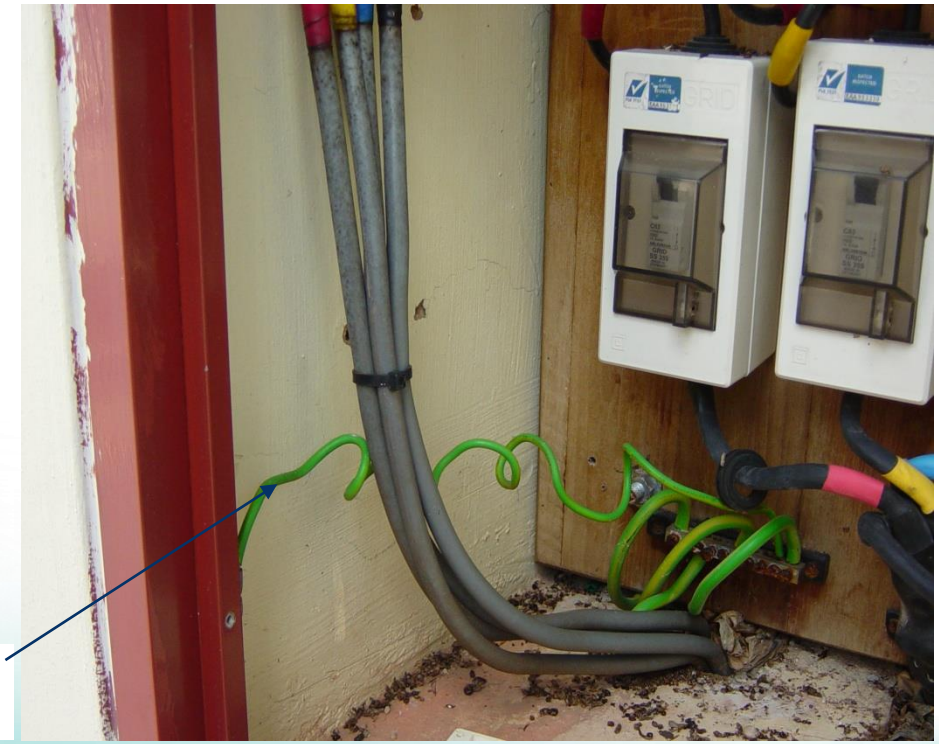
- E.g. Wrong polarity at the **junction box** which is used for the final connection to storage water-heater or instantaneous water-heater. The phase conductor is connected to the earth-terminal of the junction box.

- E.g. Wrong polarity at the **socket-outlet** such as transposition of the phase and neutral conductors or the phase conductor is connected to the earth-terminal.



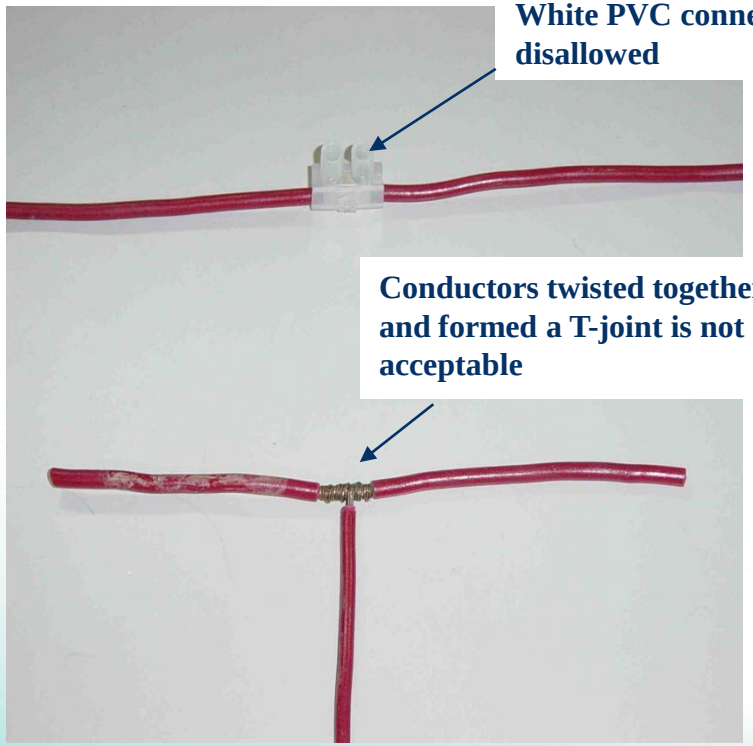
5. Exposed Conductive Parts Not Connected to Earth Effectively

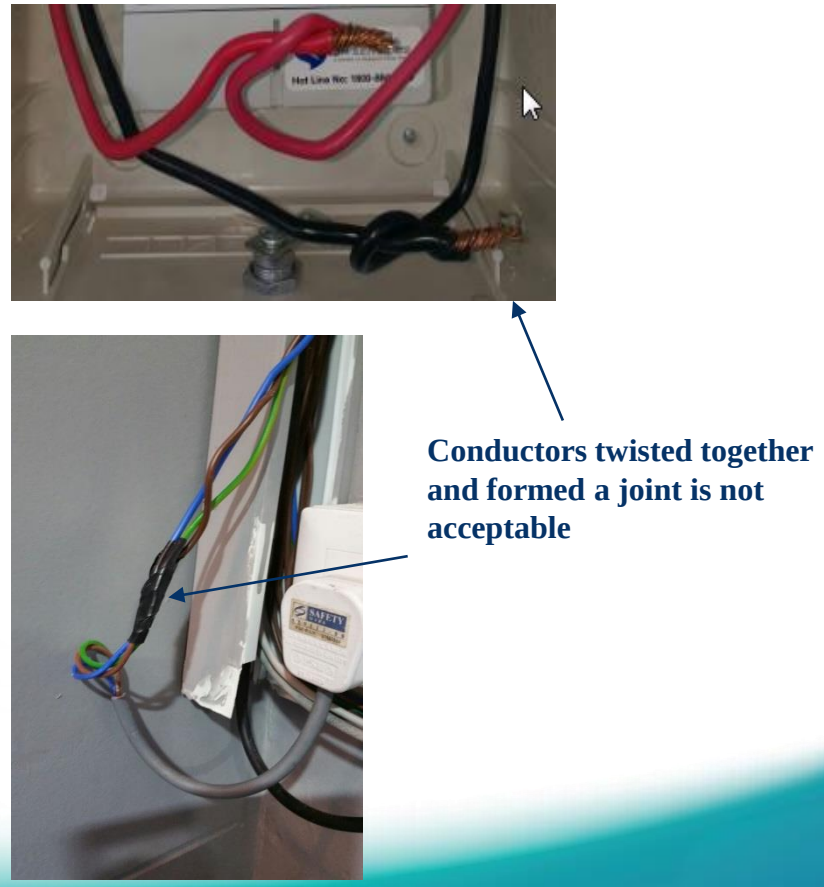
These include the metallic enclosures of Class 1 current-using equipment, metallic cable sheaths, cable trays, trunkings and metallic conduits etc.



6. Electrical Connection / Joint Not Properly Made

E.g. PVC-cable is jointed to another PVC-cable by twisting the conductor together and covering the joint with PVC-tape.





7. Non-Weatherproof Electrical Device Exposed to Weather or Water Splashing

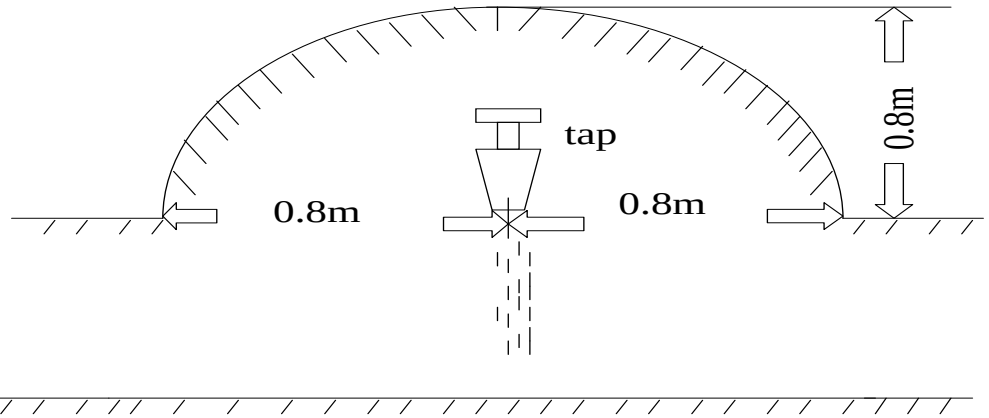
- E.g. Wall-mounted junction box or lighting fitting mounted on the wall above the bathtub. A person standing in the wet bath-tub can touch the exposed metallic part of the light fitting or junction-box. Also, water could be sprayed on these devices when using the shower.
- E.g. Weatherproofing of electrical accessories located outdoors outside 45 degrees from ceiling overhang



7. Non-Weatherproof Electrical Device Exposed to Weather or Water Splashing

E.g. Switches/ SSOs located near water tap source to be protected from water splashing

Acceptable distance between switch/socket outlet from water tap.



Note:

1. Switch/SSO shall be installed above the water tap source and outside the 0.8m zone to prevent water splashing.

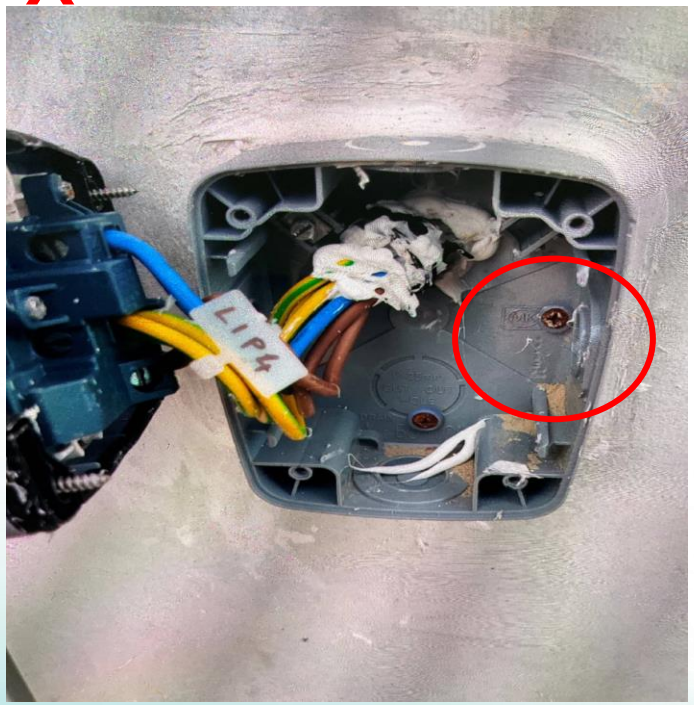
2. Switch/SSO installed above the water tap source but less than 0.8m away from it shall be provided with a splash-proof cover to protect against water splashing.

3. Switch/SSO installed below any water tap source must be of weather-proof type.

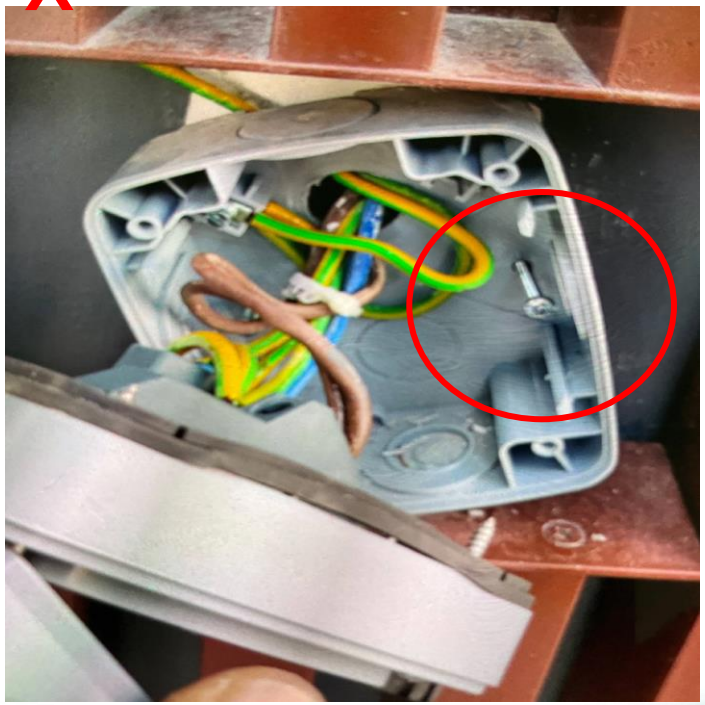
7. Non-Weatherproof Electrical Device Exposed to Weather or Water Splashing

IPX6 electrical devices meant for protection against weather or water should be installed using intended holes

X



X

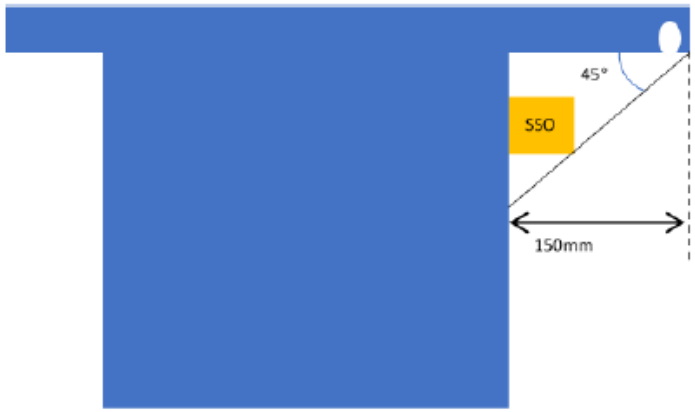


7. Non-Weatherproof Electrical Device Exposed to Weather or Water Splashing

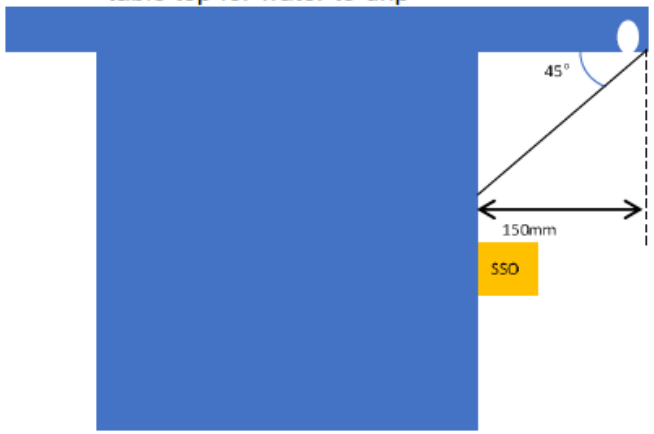
E.g. Fixed accessories installed at kitchen island shall be protected against water ingress

≥ 150mm distance:

a) Normal SSO/Switches for installation above 45° from the edge of the table top and groove provided on table top for water to drip



b) Splashproof SSO/Switches for installation below 45° from the edge of the table top and groove provided on table top for water to drip



< 150mm distance: weatherproof SSO/Switches



7. Non-Weatherproof Electrical Device Exposed to Weather or Water Splashing

E.g. Fixed accessories installed at kitchen island shall be protected against water ingress

X

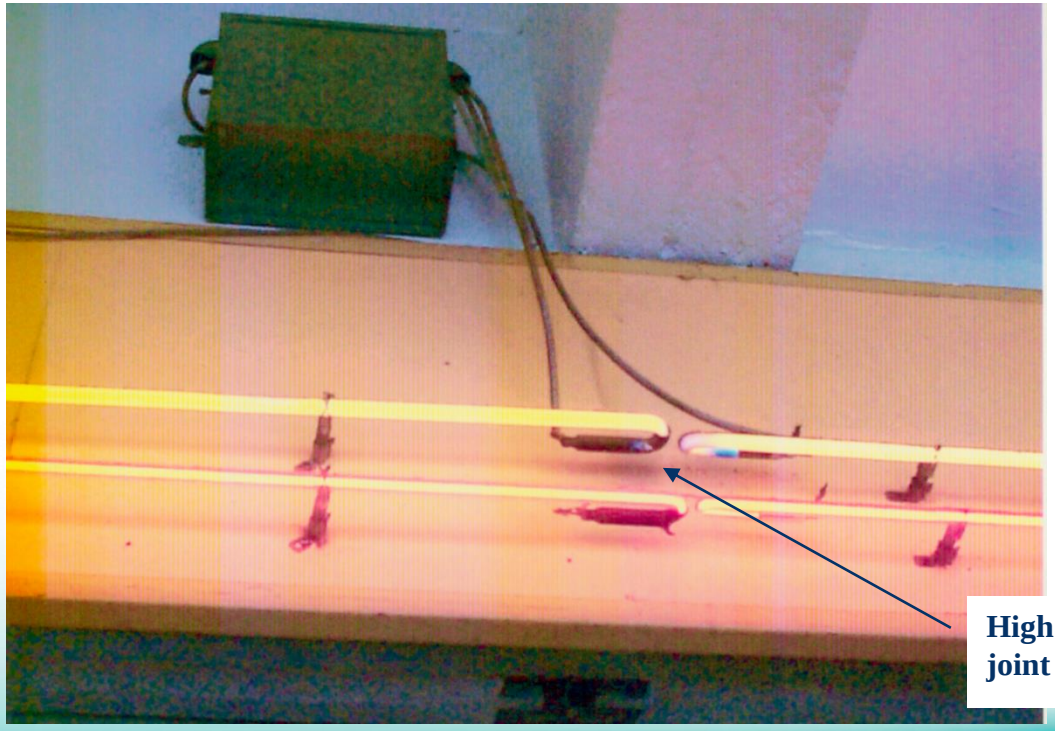


✓



8. Exposed Live Parts

E.g. In high voltage discharge lighting installation, the joint of the high voltage conductor is exposed and not covered with suitable insulation. Furthermore, this joint can be touched by the person standing on the floor.



9. Accessory Not Provided for Lighting Point

E.g. Using PVC insulated connector instead of the following accessories for the final connection to light fitting.





a) A ceiling rose to SS 23

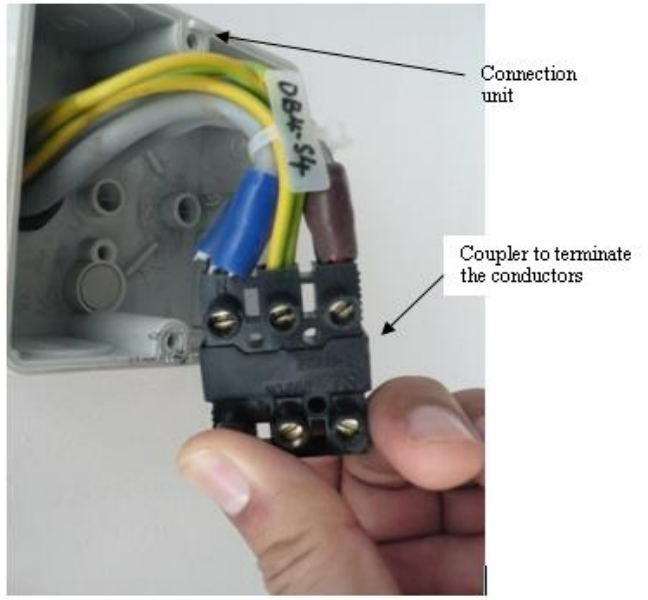
b) A luminaire supporting coupler to BS 6972 or BS 7001

c) A batten lampholder to SS 125 or SS 126

d) A luminaire designed to be connected directly to the circuit wiring

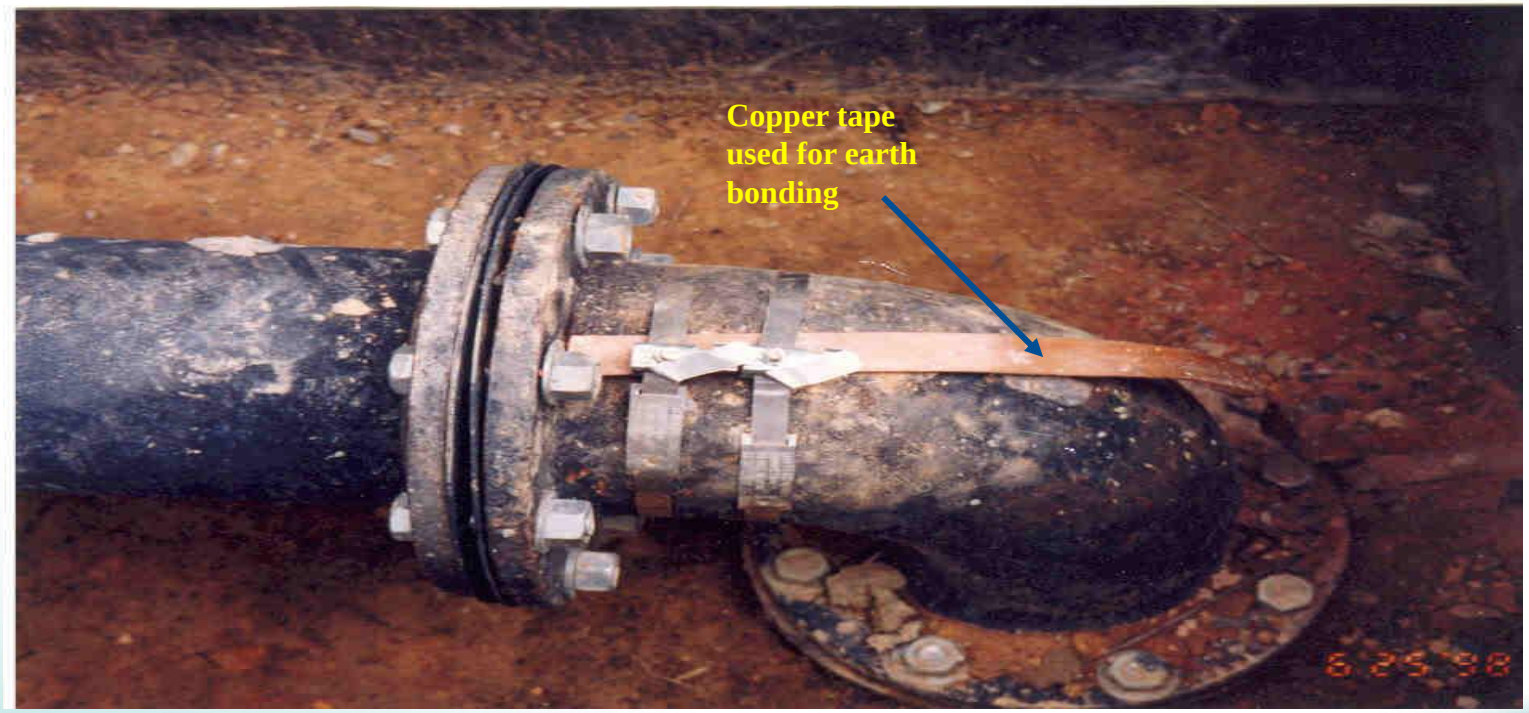
e) A suitable socket outlet

f) A connection unit to SS 241 or BS 1363 Part 4.



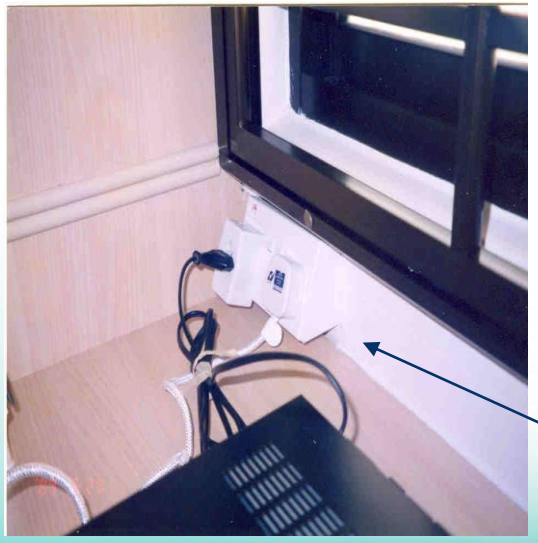
10. Main / Supplementary Equipotential Bonding Not Provided

Main equipotential bonding not provided for main water pipe, gas pipe or exposed metallic part of building structure.



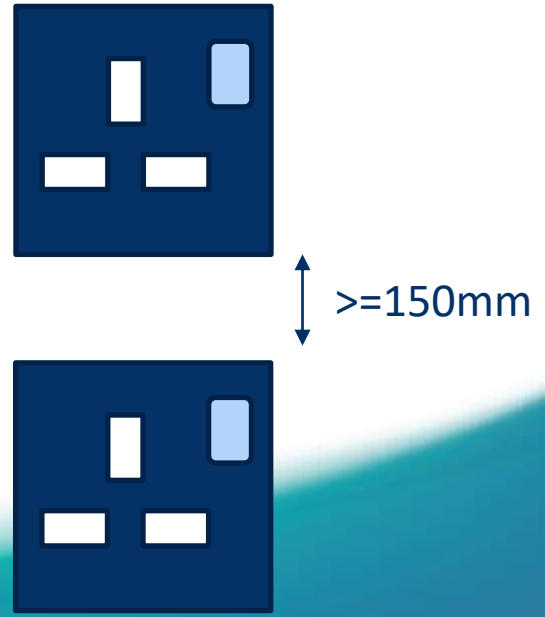
11. SSO Installed at Less Than 150mm Above Floor Level or Working Surface

- When a SSO is mounted on a wall, it is recommended that it should be mounted at a minimum height of 150mm from the floor level or 150mm above working surface.
- When two SSO are installed side by side vertically, a distance of 150mm must be provided between the two SSO.





Pedestal is required if SSO is mounted less than 150mm from the floor level or working surface



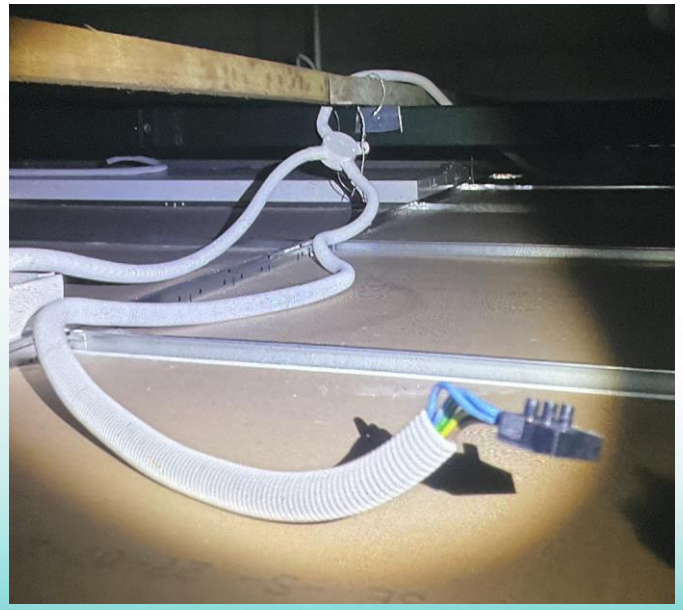
12. Wiring Above False Ceiling Not Properly Installed or Installed Without Mechanical Protection

E.g. Cable laid on the false ceiling

E.g. Cable is laid in the conduit and hung in the air between two walls across the room.



X



X



X

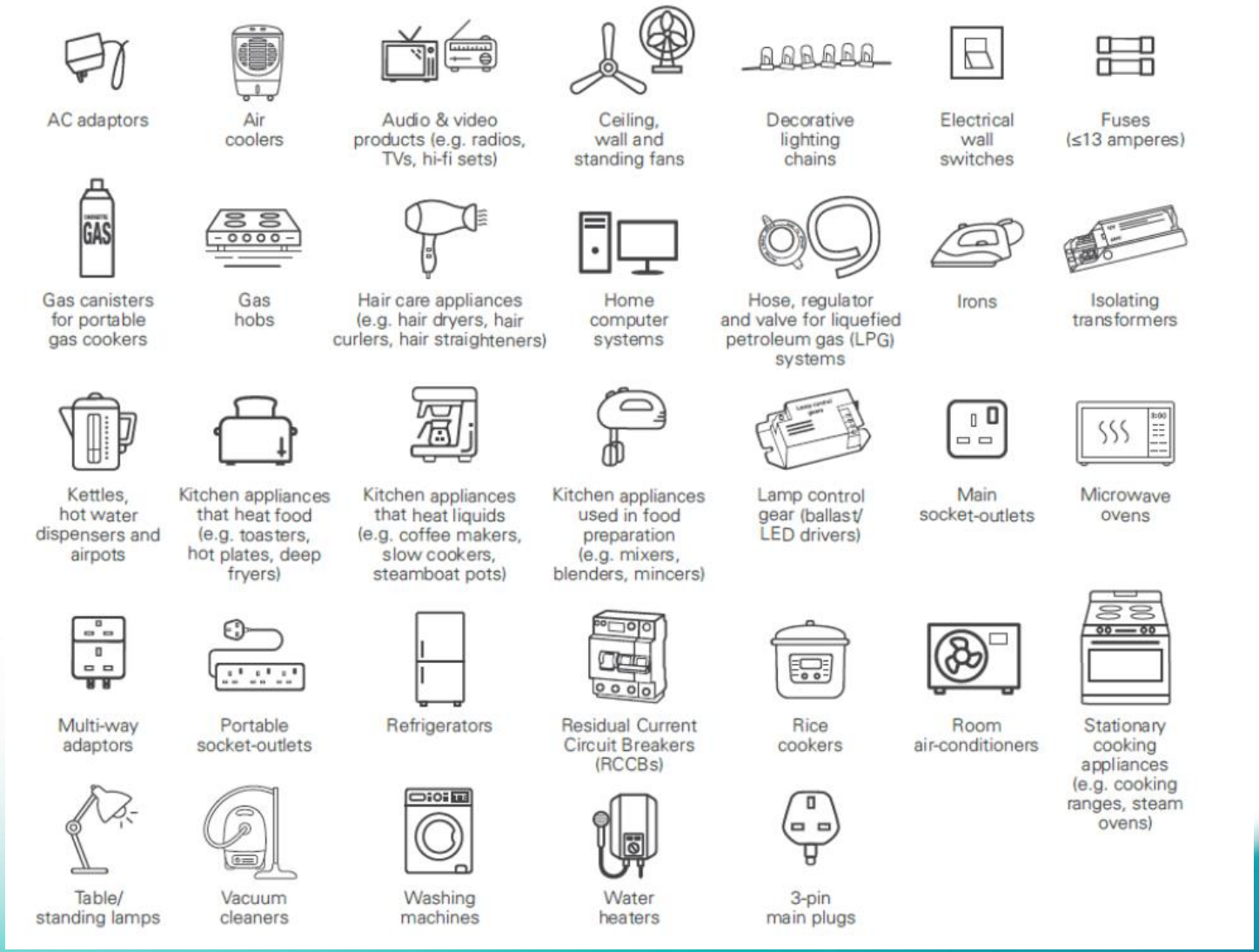


13. Circuit Breaker Overrated - Does Not Afford Protection

- E.g. A lighting circuit is protected by a 16A MCB but the light holder is rated at 2A.
- RCCB rating and accessory rating shall be same or higher than MCB rating

14. Accessory Used without the Registration/ Approval from Enterprise Singapore (formerly Spring Singapore)

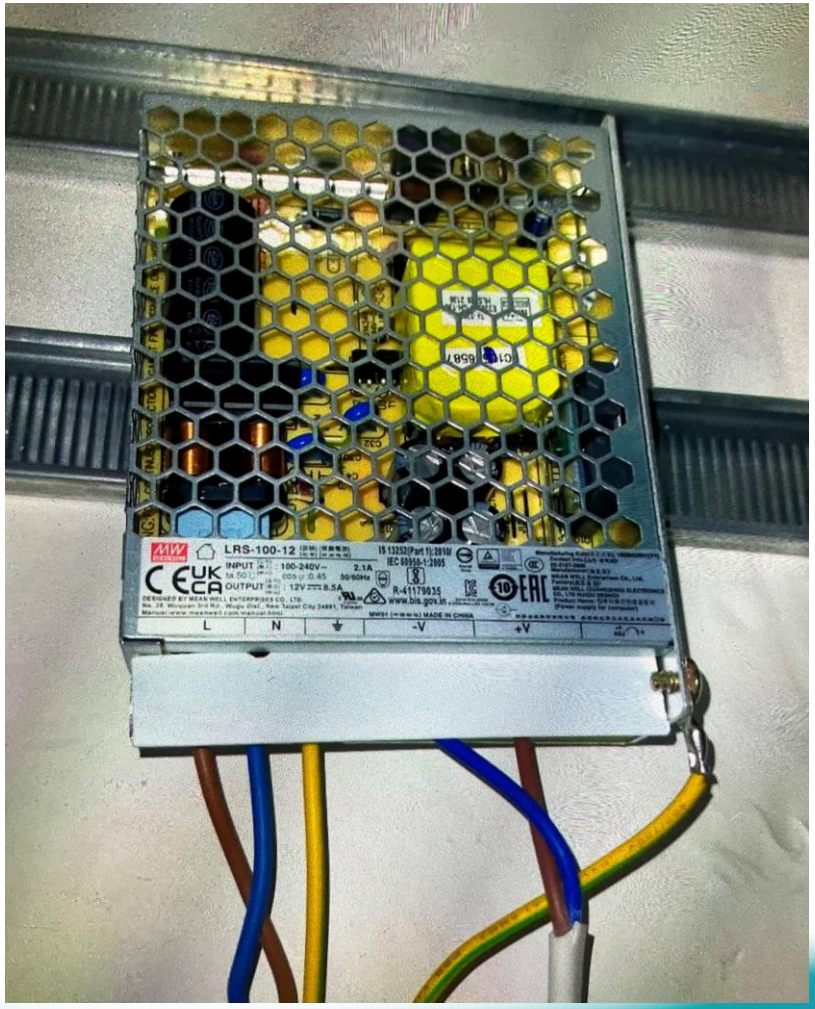
The 33 categories of Controlled Goods are:



14. Accessory Used without the Registration/ Approval from Enterprise Singapore (formerly Spring Singapore)

LED driver is a controlled good and requires Safety Mark

SAFETY MARK
123456-00



14. Accessory Used without the Registration/ Approval from Enterprise Singapore (formerly Spring Singapore)

High Risk



Instantaneous electric water heaters



Mains pressure electric storage water heaters



Domestic electric wall switch



3-pin 13 –Amps socket outlet



3-pin round type 15-Amp socket outlets

Medium Risk



Ballasts for tubular fluorescent lamps



3-pin portable socket-outlets



Multi-way adaptors



3-pin 13-Amp plugs



3-pin 15-Amp plugs



Portable cable reel



Residual current circuit breakers

Lamp control gears



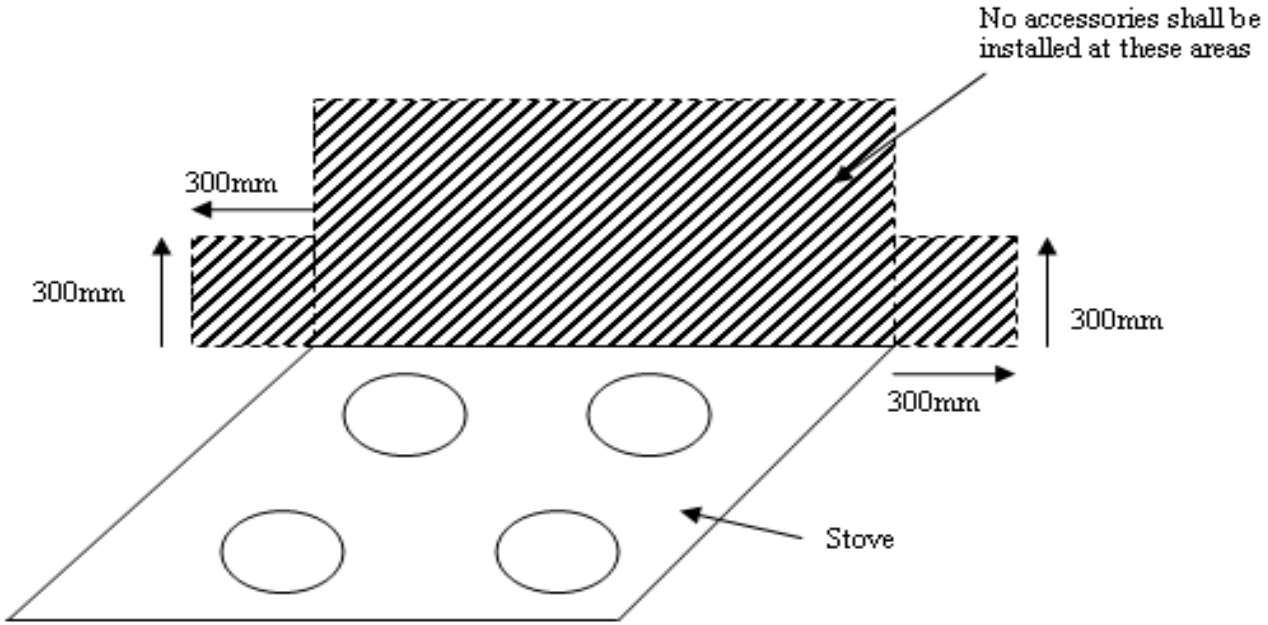
Low Risk



Fuses for use in plugs

15. Non-proper protection against thermal effects

Fixed equipment which in normal operation has a surface temperature sufficient to cause a risk of fire or harmful effects shall have a sufficient distance from adjacent accessories



16. Concealed PVC cable installed at less than 50mm depth from the surface

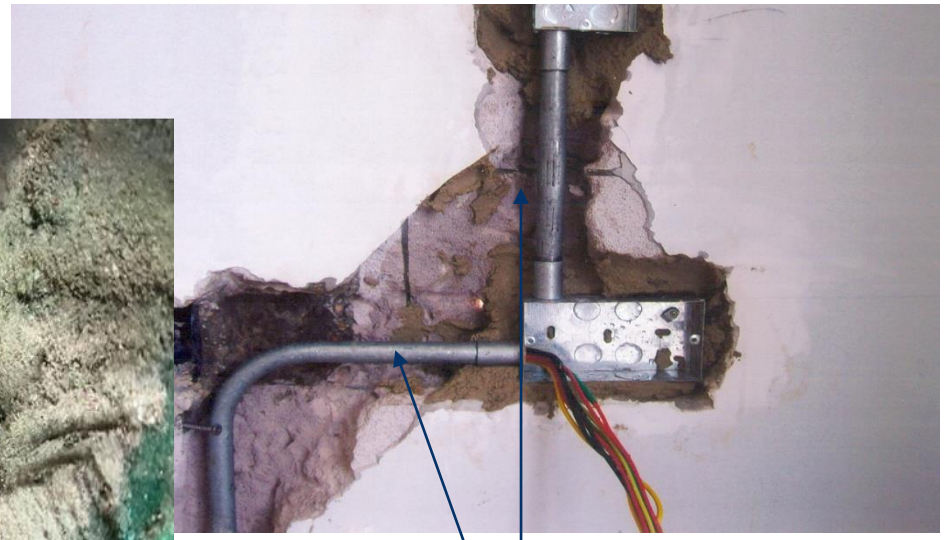
Concealed PVC cable installed at a depth of less than 50mm from the surface shall be protected by a metallic conduit or trunking.

X



X





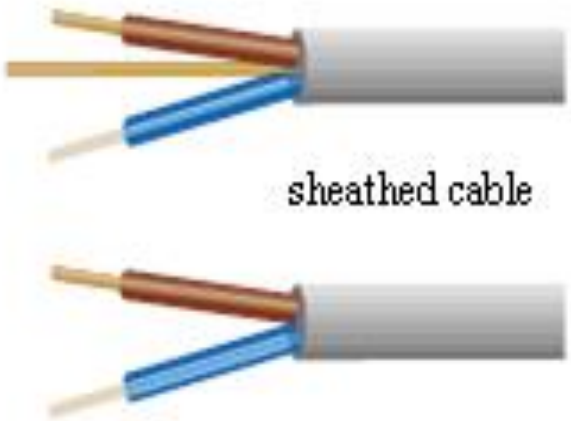
Metallic conduit installed at less than 50mm depth

17. Single PVC insulated cable installed without conduit or trunking

Non-sheathed cables for fixed wiring shall be enclosed in conduit, ducting or trunking

Non-sheathed cable





sheathed cable