

# Household Electrical Safety Handbook



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## Part 1 Introduction

1. The term "electrical safety" broadly refers to the safety of generation, transmission, distribution and use of electricity. As far as members of the general public are concerned, the distribution and use of electricity in residential premises are the two aspects which have close relation to our household safety.
2. Unsafe electrical appliances and electrical installations may cause fire, and the use of them may also cause electric shock and injury. To protect your family members and properties, you must ensure that you have a safe household environment (including your building and residential units) by paying attention to electrical safety.



3. You must buy safe household electrical appliances, and use them properly and maintain them appropriately. To ensure the safety of the electrical installations in your residential premises, you must employ registered electrical contractors to carry out periodic inspection and maintenance, and to ensure that there is no illegal addition or alteration.

## Part 2 Safety Guidelines for Household Electrical Appliances

### 2.1 Safety Tips for Buying and Using Electrical Appliances

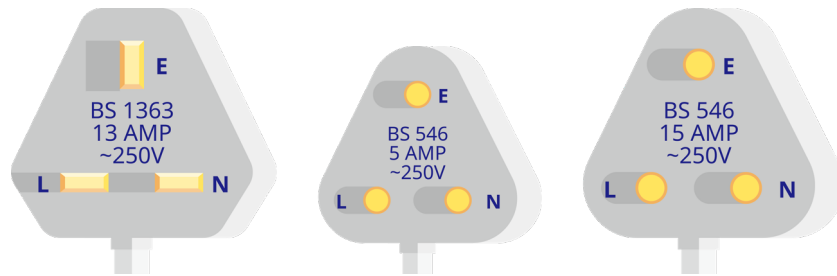
1. Buy only electrical appliances which meet the local statutory safety requirements (see note 1) for use in Hong Kong. Electrical appliances which are brought outside Hong Kong may not be suitable for use under the local power supply conditions (e.g. rated voltage and frequency) and environmental conditions (e.g. temperature and humidity).
2. Electrical appliances must bear the proper markings as shown on the diagram or be accompanied with a notice indicating the same.



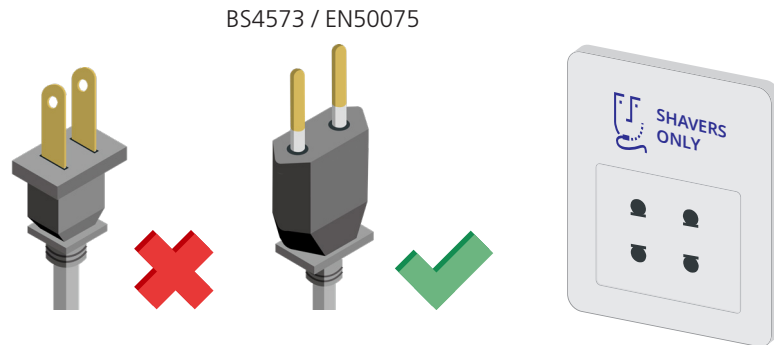
- Manufacturer's Name or Trade Mark → **SAFE BRAND**
- Model No. → MODEL 3388
- Rated Voltage - V or Volts / → INPUT 220V / 50Hz
- Rated Frequency Hz or Hertz
- Rated Consumption → POWER 800W (4.2A)
- Double Insulation or Reinforced Insulation (If Applicable)

Note 1: For details, please refer to the Outline of Electrical Products (Safety) Regulation in the homepage of the Electrical and Mechanical Services Department (EMSD) at [www.emsd.gov.hk](http://www.emsd.gov.hk)

3. Apart from fixed electrical appliances (e.g. ceiling luminaires and electric water heaters) which do not receive power supply from socket outlets, an electrical appliance must be fitted with a 3-pin plug which complies with the safety requirements.



4. Do not buy or use any electrical appliance which is fitted with a 2-pin plug unless the appliance is fitted with a 2-round-pin plug which complies with safety standard BS4573 or EN50075 and is designed to receive power supply from a shaver supply unit inside a bath room (e.g. electric shaver, toothbrush or epilator).



5. For all fixed electrical appliances which do not receive power supply from socket outlets, the connection of power supply must be carried out by a registered electrical contractor (see Part 3 for details).

6. To prevent electric shock, electrical appliances must be effectively earthed, i.e. the metallic casing of an electrical appliance is connected to the "earth" pin of its plug. Electrical appliances without earth connection must be of double insulation or reinforced insulation design, and such appliances usually bear a symbol " □ " .

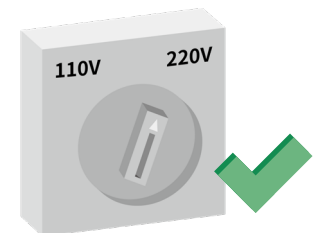
7. Electrical appliances must be accompanied by proper operation manuals depicting the installation, assembly and operation procedures and safety precautions. Adhere to the instructions given in its manual when using an electrical appliance.



8. Any electrical appliance of rated voltage less than 200V a.c. (e.g. audio-video (AV) appliances rated at 110V a.c.) must not be connected directly to the 220V a.c. household power supply system in Hong Kong. Any such appliance must bear a proper warning label.



9. Set the voltage selector, if any, on an electrical appliance to 220V a.c. (the household voltage in Hong Kong). Otherwise, it may damage the appliance and cause fire.



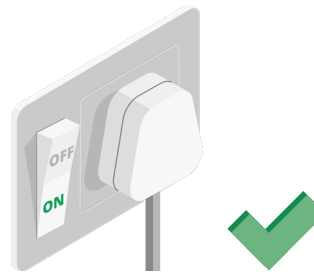
10. Before use, check electrical appliances (including plugs and flexible power cords) to see if they are damaged or worn-out, especially when they have not been used for a prolonged period of time.



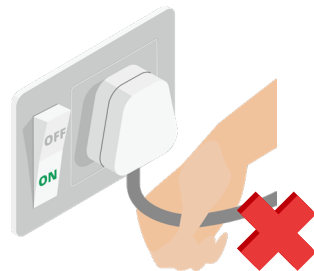
11. Electrical appliances must be fitted properly and with robust structures for stable operation. Under normal operation, there should not be any sign of overheating (e.g. discolouration, charring and deformation) or difficult starting, excessive noise or vibration, crack or loosen part. If the safety of an electrical appliance is in doubt, stop using it and hand it to an experienced technician for inspection.



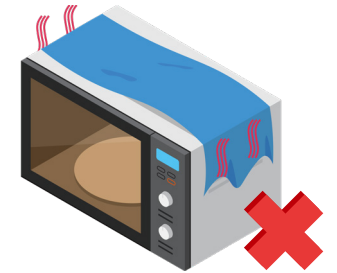
12. Switch on an electrical appliance only after firmly plugging it into a socket outlet, and unplug an electrical appliance only after switching it off. Otherwise, it may cause hazard arising from sparking.



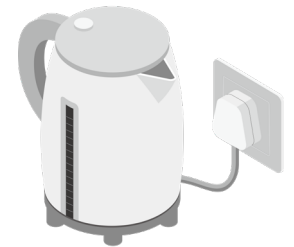
13. Do not unplug an electrical appliance by pulling its flexible power cord. Otherwise, it may damage the wire connection and cause danger.



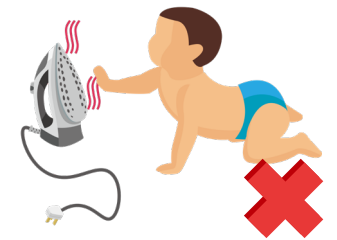
14. Ensure that there is sufficient space around an electrical appliance for heat dissipation. To prevent overheating and fire, do not cover electrical appliances or place objects around them. TV sets and other AV products, chargers, luminaires, electric fans, electric heaters, refrigerators and washers/dryers, etc. are of particular concerns.



15. An electrical appliance with high power consumption (e.g. air-conditioner, dehumidifier, electric heater, electric water kettle/pot, electric rice cooker and washer/dryer) should receive power supply from a single fixed socket outlet to which the connection of any other appliance should be avoided.



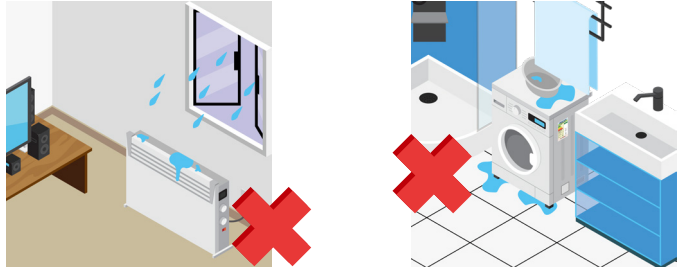
16. Keep children away from operating electrical appliances, especially those with heating or rotating parts (e.g. luminaires, hair dryers, irons, electric heaters, electric cooking ovens, electric fans and washers/dryers).



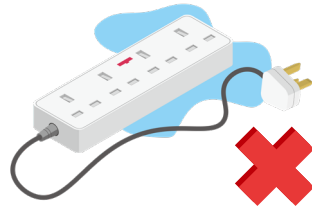
17. Do not let the flexible power cord of any electrical appliance touch or be too close to any hot object (e.g. cooking range and electric heater).



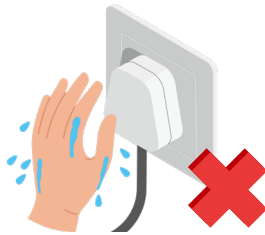
18. To prevent danger, do not let water seep into or place any vessel containing water on any electrical appliance. Keep electrical appliances away from windows or balconies.



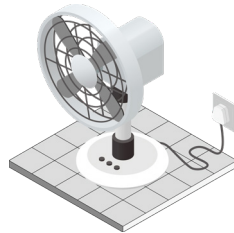
19. To prevent electric shock, avoid using any extension unit in a wet or humid environment (e.g. bathroom or kitchen). Great care should be taken whilst using an electrical appliance in such environment.



20. Avoid touching any electrical appliance, socket outlet or switch if hands are wet.



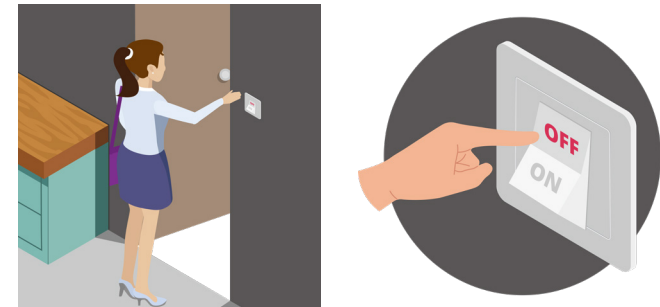
21. Place an electrical appliance on a flat and firm surface, and ensure that no excessive tension is applied to its flexible power cord.



22. Do not use any inflammable chemical substance (e.g. insecticide and thinner) near an operating electrical appliance.



23. For safety, before going out, electrical appliances (other than essential appliances) should be switched off as far as practicable.



24. For some electrical appliances, the starting current may be several times greater than that at normal operation. Therefore, when a blackout occurs, major electrical appliances should be switched off to avoid, when power supply is resumed, the occurrence of momentary circuit overload and hence a blackout again. Besides, it may cause injury if an electrical appliance with heating or rotating part operates without the user's prior awareness.

## 2.2 Maintenance and Repair of Electrical Appliances

1. Adhere to the instructions given in the user manuals to clean electrical appliances periodically. Unplug electrical appliances before cleaning.



2. Ensure that an electrical appliance operates in an environment which conditions (e.g. temperature and humidity) agree with that specified in the user manual.

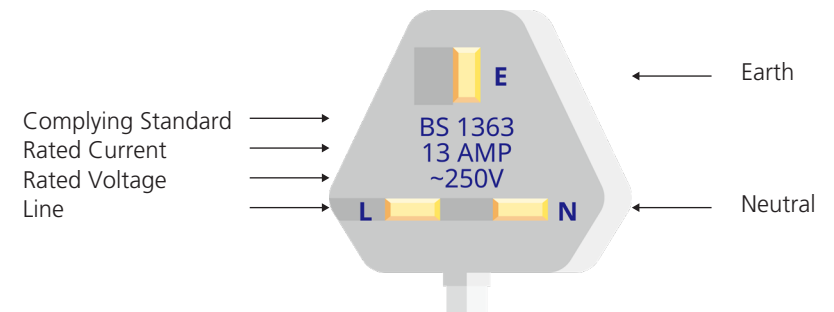
3. Employ experienced technicians to carry out periodic inspection and repair for electrical appliances.



## 2.3 Additional Safety Tips for Individual Electrical Appliances

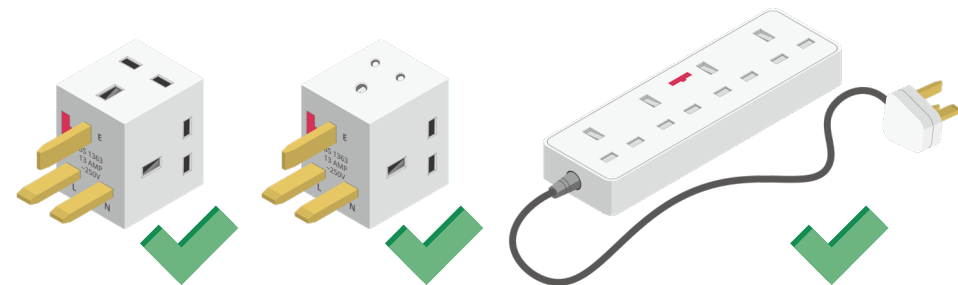
### 1. Plugs

- Only buy and use 3-pin plugs which comply with the safety requirements.
- 3-pin plugs must be marked with all the information as shown on the diagram.

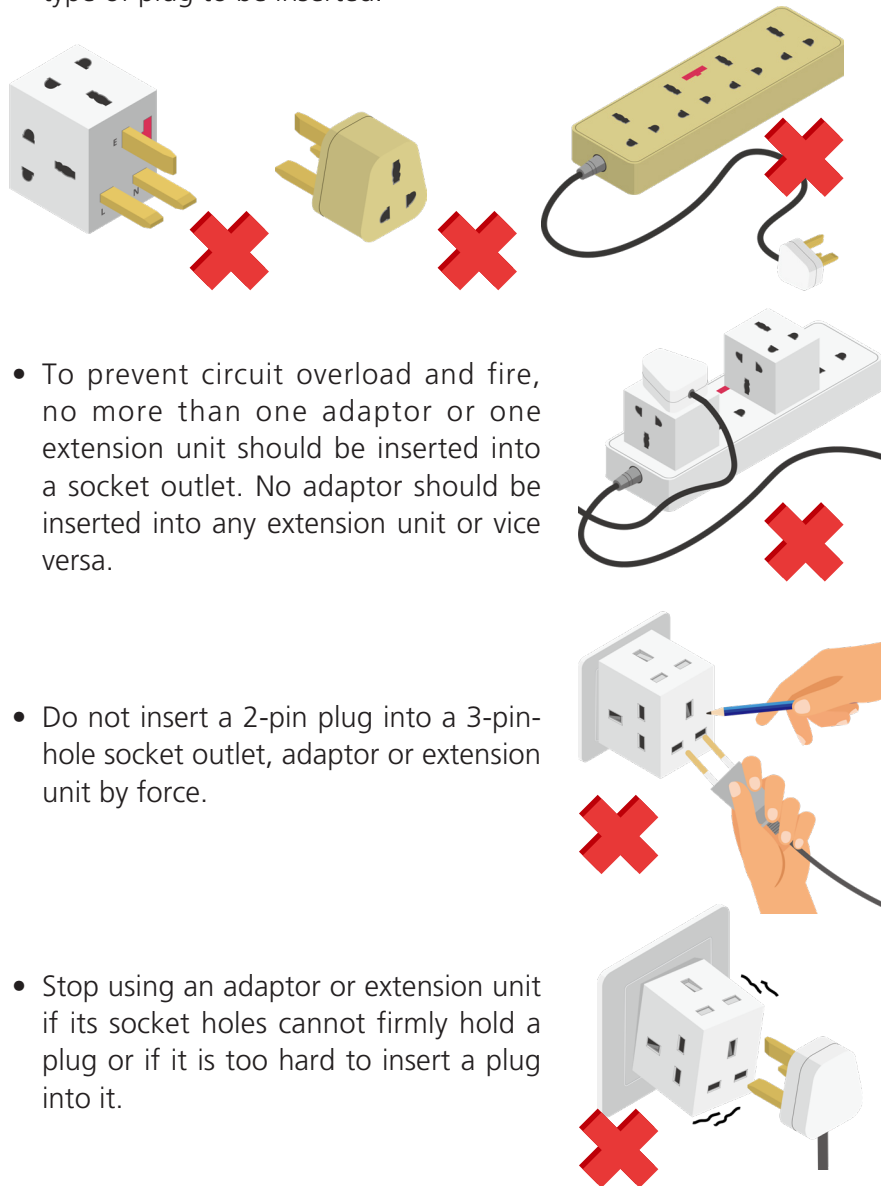


### 2. Adaptors and Extension Units

- Only buy and use adaptors and extension units which comply with the safety requirements.
- Socket holes must be fitted with safety shutters.



- Do not buy or use any adaptor or extension unit which is fitted with irregular socket holes. Each socket must only allow one type of plug to be inserted.

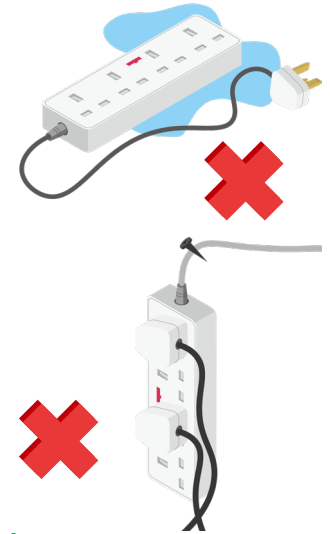


- To prevent circuit overload and fire, no more than one adaptor or one extension unit should be inserted into a socket outlet. No adaptor should be inserted into any extension unit or vice versa.

- Do not insert a 2-pin plug into a 3-pin-hole socket outlet, adaptor or extension unit by force.

- Stop using an adaptor or extension unit if its socket holes cannot firmly hold a plug or if it is too hard to insert a plug into it.

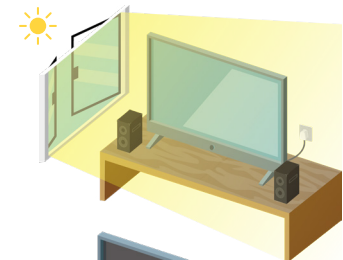
- Do not place any extension unit in a wet or humid environment (e.g. bathroom and kitchen).



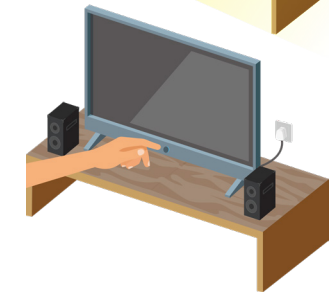
- Do not suspend any extension unit by its flexible power cord. Otherwise, it may damage the wire connections and cause danger.

### 3. TV Sets and other Audio-Video (AV) Products

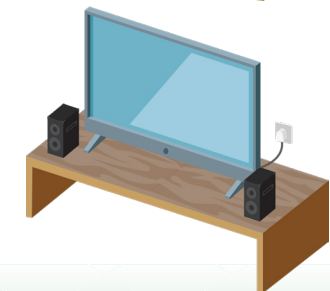
- Avoid placing any AV product in a humid, dusty or hot environment or under direct sunlight.



- Disconnect power supply if an AV product is not to be used for a prolonged period of time. Avoid switching it off merely with a remote controller.



- Place an AV product on a flat and firm surface to prevent it from falling down and causing injury.





#### 4. Electric Water Heaters

- For new installation of electric water heater, the fixed electrical installations and water pipes shall be installed by a Registered Electrical Contractor (REC) and a designated person# as required by Water Supplies Department (WSD) respectively.

(Remarks: # For the details of designated person, please visit WSD website: Employ a Licensed Plumber.)

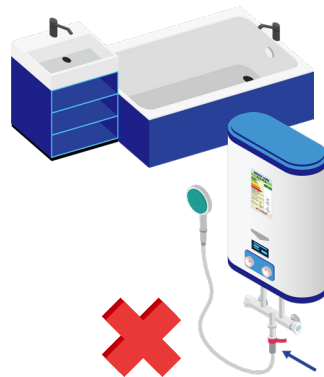
- Electric water heaters commonly used in households are shower type electric water heaters (also known as low-pressure water storage type or open-outlet type electric water heaters) and unvented thermal storage type electric water heaters.



Open - outlet Type Water Mixer

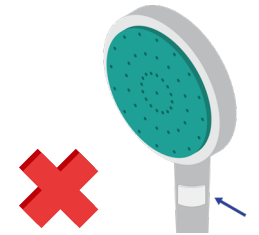
- The water storage tank of a shower type electric water heater must not be pressurized. The pressure inside the tank is relieved via the water outlet, flexible hose and showerhead to prevent excessive high pressure from building up. It must only be fitted with a proprietary mixing faucet and shower accessories (including flexible hose and showerhead) or alternative mixing faucet and shower accessories approved by the manufacturer.

- The water outlet of a shower type electric water heater must remain unblocked. Under normal operation, small amount of steam / water may come out from the showerhead. To prevent excessive high pressure from building up inside the tank and hence an explosion, do not install an on/off control valve at the water outlet or connect the outlet to a basin or tub.



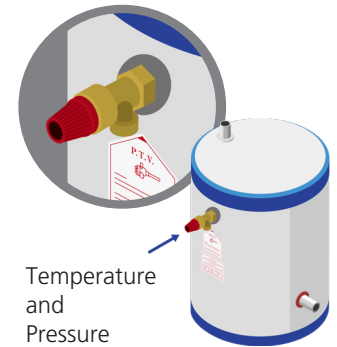
On / Off Control Valve

- Shower head with on/off valve must not be installed for shower type electric water heater to prevent excessive pressure from building up inside the water storage tank.



On / Off Control Valve

- The water storage tank of an unvented thermal storage type electric water heater may withstand a certain degree of high pressure. An electric water heater of this type must be fitted with a temperature and pressure relief valve in addition to a thermostat and a thermal cutout.



Temperature and Pressure Relief Valve

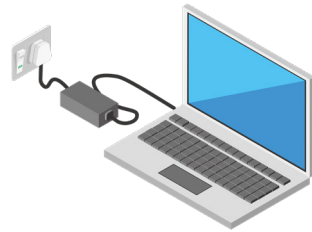
- If any abnormality is found, switch off the electric water heater immediately and arrange an experienced technician to inspect it.



- Switch off electric water heaters after use.

## 5. Chargers, AC Adaptors and Power Transformers

- Care should be taken when buying or using
  1. battery chargers (for mobile phones or other products),
  2. AC adaptors (for notebook computers or portable video/still picture cameras, etc.), and
  3. power transformers (for electrical appliances rated at a voltage other than 220V which is adopted in Hong Kong (e.g. AV products rated at 110V)).

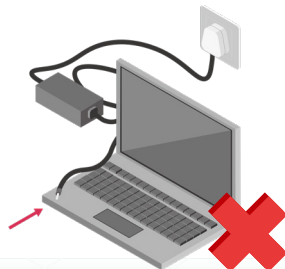


- Avoid connecting to power supply if not in use.
- Under normal operation, they may be quite warm. However, they should not be too hot (e.g. too hot for hands).
- Ensure that the output voltage of a charger, AC adaptor or power transformer matches with the input voltage of the appliance to be connected. Also, the rated output power (or current) must not be less than the input power (or current) of the appliance.

- Battery charging time should not be too long. Adhere to the instructions given in the user manuals. Avoid leaving any operating battery charger unattended.



- Do not let the electrodes of the output connector be in contact with any metallic object (e.g. the metallic casing of an electrical appliance). Otherwise, it may cause short-circuiting and fire.



## 6. Luminaires

- Check if a luminaire is suitable for direct mounting on a combustible surface (e.g. wooden or fibre false-ceiling), and check if a lamp bulb must operate with its lamp cap at the lower position. See if there is any relevant symbol.



Suitable for direct mounting on a combustible surface



Not suitable for direct mounting on a combustible surface



Suitable for mounting on a combustible surface provided that a thermally insulating material is used to separate the luminaire from the surface

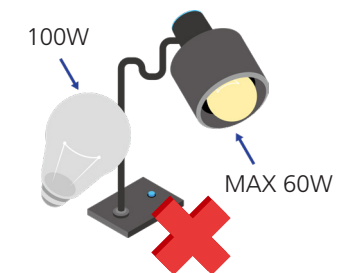


Lamp cap must be at the lower position

- To prevent burns, do not touch an operating lamp bulb. Doing so with wet hands may also cause glass cracking.

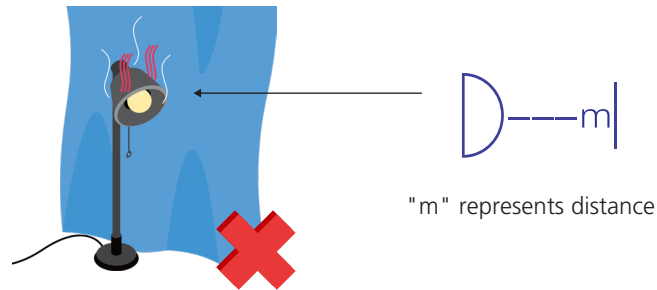


- The rated wattage of a lamp bulb must not be higher than that specified for the lamp holder. Otherwise, it may overheat the lamp holder or the lampshade and cause fire.



- Before replacing a lamp bulb, switch it off and let it cool down.

- To prevent fire, do not place any luminaire (especially high-power luminaire) close to any curtain, rug and cloth, etc. Check if there is a symbol specifying the required minimum distance to be maintained between a luminaire and the illuminated objects.



- To save energy, use energy-saving lamps as far as practicable.
- General domestic Christmas decorative luminaires are not earthed. Therefore, these luminaires must be of double-insulation or reinforced-insulation design. Besides, these luminaires are not of waterproof design. Do not use them in an outdoor environment.

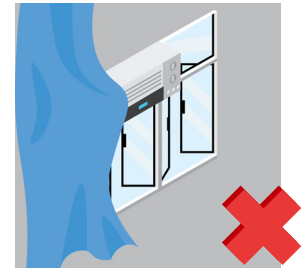


## 7. Air Conditioners and Dehumidifiers

- To prevent damaging an air-conditioner or a dehumidifier, do not switch it on within 3 minutes after switching it off.

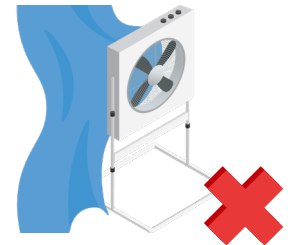
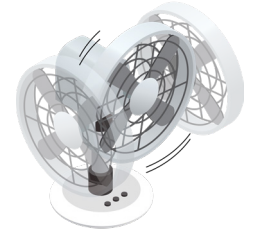


- Ensure that the air intake and outlet grilles are not obstructed.

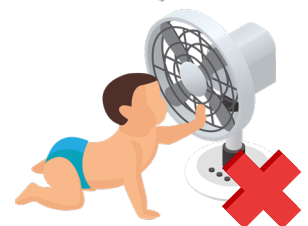


## 8. Electric Fans, Exhaust Fans and Cooker Hoods

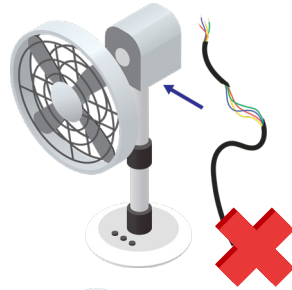
- Install or place an electric fan at a location where there is sufficient space for free movement and heat dissipation.
- Prevent any loose object (e.g. paper and cloth) from being sucked into an operating electric fan, exhaust fan or cooker hood. Otherwise, it may cause overheating and catch fire.
- To prevent injury, avoid touching an operating ceiling fan whilst working at high levels. To prevent a ceiling fan from falling down, its installation must comply with the requirements given in the user manual.



- Check if it is easy for children to insert their fingers into a fan guard. Also check if a fan guard may easily become loosened or be dismantled by children.

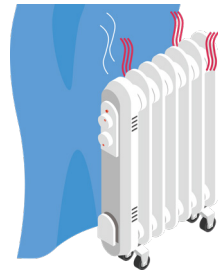


- Check if the flexible power cord between the moving and static parts of a fan has been damaged by prolonged use. A damaged cord may cause danger arising from short-circuiting or exposure of live wire cores.
- Adhere to the instructions given in the user manual to clean electric fans, exhaust fans and cooker hoods periodically. Excessive dust on a fan motor may prevent it from normal heat dissipation.



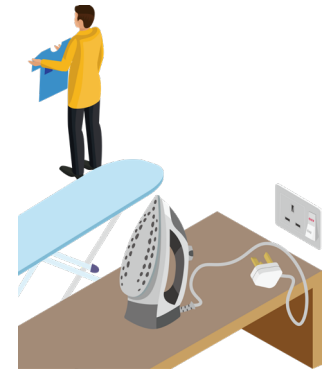
## 9. Hair Dryers and Electric Heaters

- To prevent fire, do not place an operating electric heater near any combustible object (e.g. blanket, cloth, curtain, rug and sofa).
- Do not obstruct the air intake grille and outlet nozzle of an operating hair dryer or blowing type electric heater. Otherwise, it may overheat the heating elements and cause fire.
- Avoid using any portable electric heater inside a bathroom. Accidental water seepage into an electric heater may cause electric shock.
- Place an electric heater on a flat and firm surface to prevent it from collapsing and hence resulting in fire or burns.



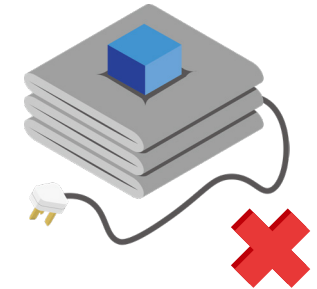
## 10. Electric Irons

- When not ironing, place the heated iron on a flat and firm surface. Unplug the iron before filling it up with water. After use, place the iron on a flat and firm surface, which is out of reach of children, for cooling down.



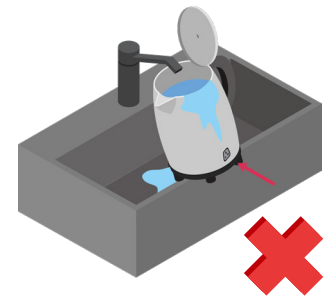
## 11. Electric Blankets

- Do not fold an electric blanket improperly or place any heavy object on it. Otherwise, it may cause overheating and fire. Adhere to the instructions given in the user manual.



## 12. Electric Rice Cookers and Kettles/Pots, etc.

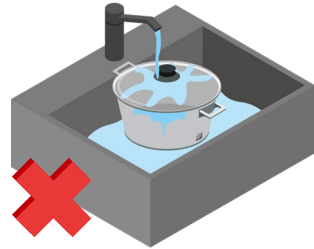
- When filling up an electric rice cooker, kettle/pot, multi-function cooker or coffee maker, etc., do not expose the connector at one end of the flexible power cord and the socket on the appliance to water. Ensure that the connector and socket are not deformed by prolonged use to avoid poor electrical contacts and overheating. Do not fill water above the specified maximum level.
- Ensure that the bottom of the rice pan is dry before it is put into a rice cooker, and that the condensate collector is not clogged.



- Ensure that there is no water seepage into an appliance when food is being processed.



- Do not immerse an appliance or rinse it with water when cleaning.



### 13. Electric Cooking Ovens

- To prevent fire, do not place any combustible object near an electric cooking oven (e.g. microwave oven, electric oven, toaster and toaster oven).

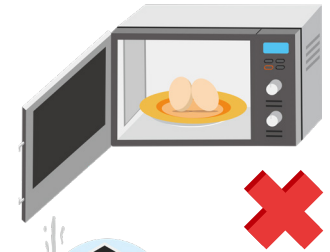


- When using a microwave, electric or toaster oven, do not let water splash on the hot viewing glass. Otherwise, it may cause glass cracking and danger.

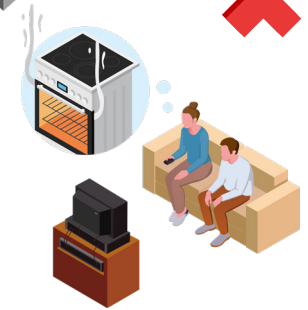
- Do not use any utensil with metal ingredients in a microwave oven. Otherwise, it may cause explosion and catch fire. As many plastic utensils comprise of invisible metal ingredients, choose only suitable utensils for use in microwave ovens.



- Do not heat any uncooked egg (with or without shell) or nut in a microwave oven as this may result in explosion. Read the instructions given in the user manual carefully.



- Beware of overcooking and fire hazard. Do not leave any operating electric cooking oven unattended.



### 14. Blenders and other Electric Food Processing Appliances

- Ensure that there is sufficient food in a blender, juice extractor or other food processor before switching on. Such an appliance should not be used for a prolonged period of time. Adhere to the instructions given in the user manual.

- To prevent injury, any rotating part (especially the high-speed rotating cutter) of a food processor must be fixed securely. Ensure that the container lid is closed and secured before switching on.

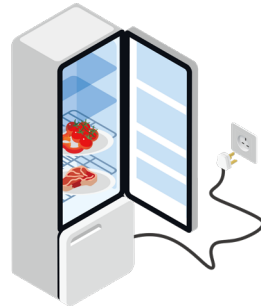


- Unplug the power supply if not being used or if a rotating part is being replaced.



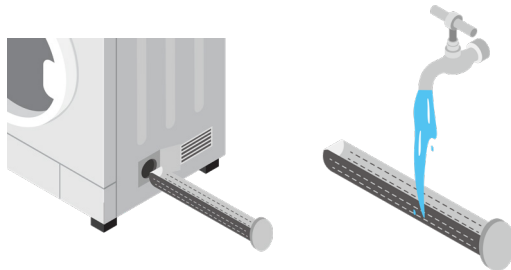
## 15. Refrigerators

- If a refrigerator is not to be used for a prolonged period of time, clear the food in it and unplug it.



## 16. Washers/Dryers

- Avoid leaving any operating washer/dryer unattended.
- Do not exceed the loading capacity and adhere to the appropriate temperature setting and drying time as instructed in the user manual.
- Do not dry clothes containing downs, latex, rubber or wax, etc in a dryer. Otherwise, it may cause overheating and fire.
- Adhere to the instructions given in the user manual to remove foreign items in its drainage system periodically. This prevents the drainage pump from overheating.

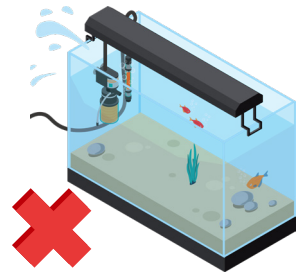


- Avoid obstructing the exhaust vent of a dryer. Otherwise, it may cause internal overheating. Clean up the vent filter periodically.



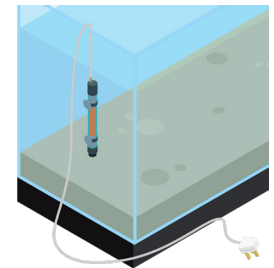
## 17. Electrical Aquarium Appliances

- Ensure that there is no water seepage into any electrical aquarium appliance (e.g. aquarium luminaire, filter and air pump) when filling up an aquarium tank. Otherwise, it may cause electric leakage.



- Ensure that electrical appliances are well clear of the water level. Beware of possible splashing on the appliances due to fish movements.
- Better buy and use waterproof electrical aquarium appliances.

- The heating tube of an immersion-type heater should be entirely immersed into water before switching on. Otherwise, it may cause glass cracking and danger.



## 18. Vacuum Cleaners

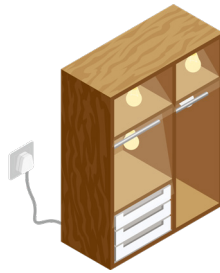
- Do not use a vacuum cleaner to pick up water. Otherwise, it may cause electric current leakage.



- To prevent a vacuum cleaner from overheating, adhere to the instructions given in the user manual to clean up the dust bag periodically.

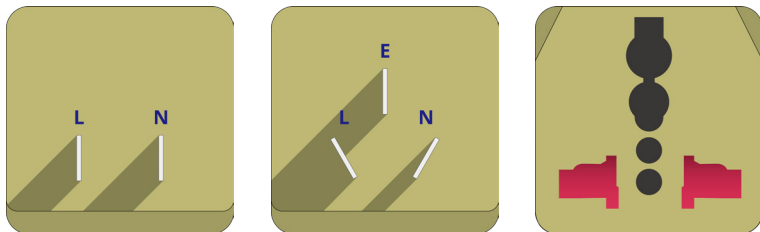
## 19. Electrical Appliances Fitted to Furniture

- Electrical appliances fitted to furniture (e.g. luminaires and switches) must comply with the statutory safety requirements.
- Any such appliance must be fitted with a 3-pin plug which complies with the safety requirements, and its parts (including the flexible cable connecting the plug, switches, electrical wiring and connectors, etc.) must be securely fixed.
- Metallic casing must be earthed. Sufficient isolation or insulation for live parts must be allowed for.
- Electrical wires must be adequately sized to prevent overheating and fire.



## 20. Travel Adaptors

- Travel adaptors which are designed for use outside Hong Kong are not regulated by the Electrical Products (Safety) Regulation. Extra care should be taken when buying any such adaptor or using it outside Hong Kong.



- When using any such adaptor in a place outside Hong Kong, ensure that the rated voltage and current of the adaptor and the electrical appliance to be connected to agree with those of the power supply system in that place.

- Avoid using any such adaptor for a prolonged period of time or leaving it unattended.
- Do not use any such adaptor if its pins may not be inserted securely into a socket outlet.
- When using such an adaptor, keep it away from any combustible object. Ensure that there is sufficient ventilation space around the adaptor for heat dissipation.
- Do not use any 2-pin adaptor for 3-pin electrical appliances unless the appliances are of double or reinforced insulation design.

## 2.4 Recall of Unsafe Electrical Appliances

1. If the Director of Electrical and Mechanical Services opines that an electrical appliance is unsafe, he may require the supplier to recall the appliance, refund the consumer upon surrendering a purchase receipt of the appliance, and notify the public of the matter through TV, newspapers and other effective means. Consumers should make the appliance and its purchase receipt available and arrange a refund in a way as publicized by the supplier. Consumers are therefore advised to retain the receipts when purchasing electrical appliances.

**Household Electrical  
Appliance Centre**

Address : xx

Official Receipt Date : xx-xx-xxxx

Product Description	Unit Price	Quantity	Sub-total
Total			xxx

# Part 3 Safety Guidelines for Electrical Installations in Residential Premises

## 3.1 Electrical Installations and their Owners

### 1. Communal Electrical Installations in Buildings

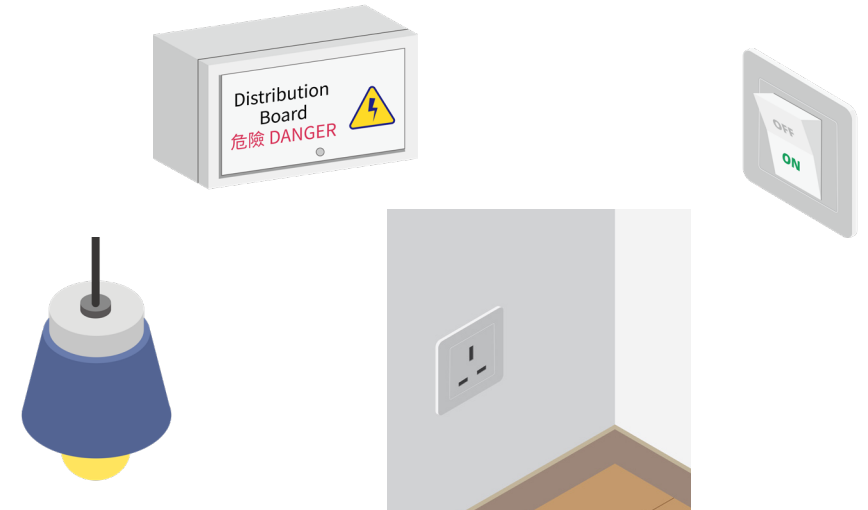
- The communal electrical installation in a building includes the main switch, sub-circuit switches and electrical wiring (e.g. risers) for supplying power to all individual residential units and shops in that building and includes other communal electrical facilities (e.g. lifts, water pumps and lighting facilities at lobbies and staircases).



- The owners of the communal electrical installation in a building include the incorporated owners and the property management agent of that building. If there is no incorporated owners, the owners of the communal electrical installation include the landlords, occupiers and tenants of all the individual residential units and shops.

### 2. Electrical Installations in Residential Units

- The electrical installation in a residential unit includes the distribution board, electrical wiring, switches, socket outlets and any electrical appliance that receives power from other than a socket outlet.



- The owners of the electrical installation in a residential unit include the landlords, occupiers and tenants of that unit.



### 3.2 Responsibilities of the Owners of Electrical Installations

1. Take appropriate measures (e.g. arranging for proper maintenance and repair) to prevent electrical accidents.
2. Ensure that their electrical installations are free of any illegal addition or alteration.



3. Arrange registered electrical contractors to carry out any electrical work (e.g. addition to, alteration of, inspection, testing and repair of an electrical installation), including those in connection with a renovation work. Registered electrical contractors shall arrange registered electrical workers of appropriate grades to carry out different categories of electrical work.



4. Arrange registered electrical contractors to inspect and test their electrical installations periodically in accordance with the Electricity (Wiring) Regulations.

### 3.3 Registered Electrical Contractors and Workers

1. Name lists of registered electrical contractors / workers are available for reference at the Registration and Permit Office of the Electrical and Mechanical Services Department (EMSD). The name list of the contractors is also available at the Public Enquiry Services Centre of all District Offices.
2. Registered electrical contractors should display in a prominent place at his/her principal place of business the original certificate.

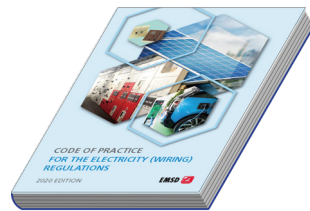


3. Registered electrical workers hold registration certificates issued by EMSD for identification purpose.



### 3.4 New Installations, Additions or Alterations

1. New electrical installations and any addition to or alteration of an existing electrical installation shall comply with the current statutory safety requirements.



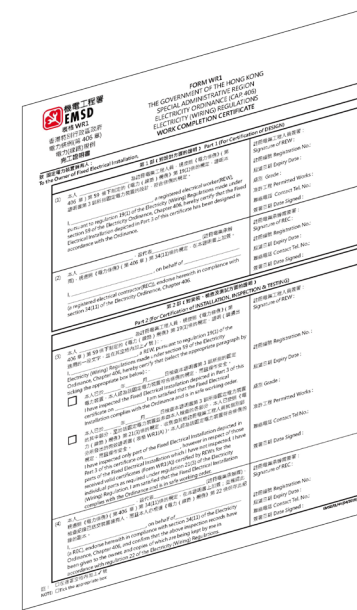
2. Before carrying out any addition to or alteration of an electrical installation, the owners should engage a registered electrical contractor to carry out a feasibility study. The owners should also consider the future electricity demand to decide whether it is necessary to apply to the power company for increasing the approved loading of the installation.



3. When the electrical work (including new installation, addition, alteration and repair) is completed, the electrical installation must be inspected and tested by a registered electrical worker before the installation is energized.



4. After inspection and testing, the registered electrical contractor and worker shall issue a Work Completion Certificate (EMSD Form WR1) to confirm that the electrical installation is safe and complies with the statutory safety requirements.



Electricity Ordinance (Cap. 406)  
Electrical (Wiring) Regulations  
Work Completion Certificate - Form WR1

5. It is not necessary for the owners to submit this certificate to EMSD. However, they should retain it for future reference.



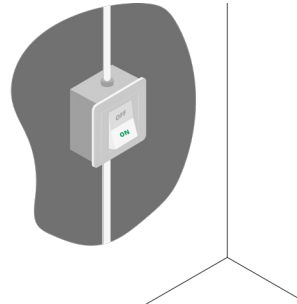
### 3.5 General Tips for Electrical Installations

1. Electrical installations must have effective earthing arrangement. To ensure safety, do not remove any earthing connection.

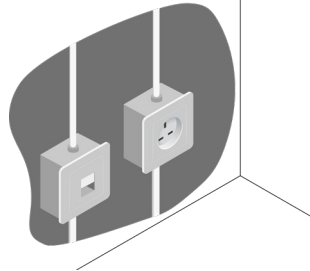


安全接地終端 - 切勿移去  
SAFETY ELECTRICAL CONNECTION  
- DO NOT REMOVE

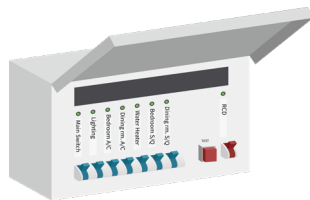
2. Concealed electrical wiring of new electrical installations must have suitable mechanical protection (e.g. conduits).



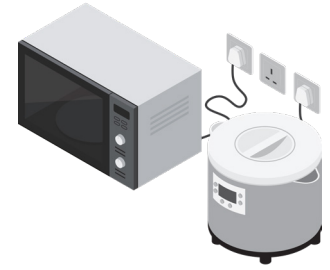
3. Electrical wiring must be segregated from telephone / telecommunication wiring. The wiring of these two categories must not be installed inside the same conduit or trucking unless specific safety requirements are complied with.



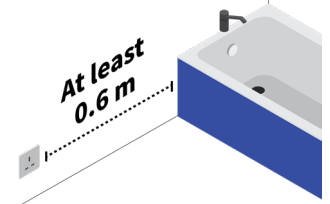
4. Distribution boards must have identification labels to indicate the purposes of individual circuits.



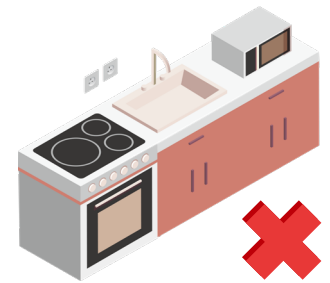
5. An electrical appliance with high power consumption should receive power supply from a single socket outlet. Therefore, sufficient nos. of socket outlets should be installed.



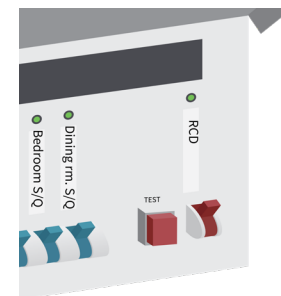
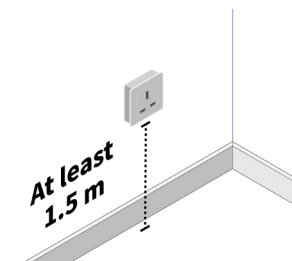
6. Any socket outlet installed in a bathroom must be at least 0.6 metre away from any shower basin and bathtub.



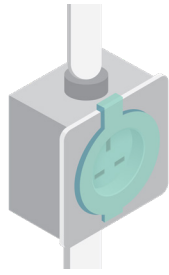
7. Socket outlets should be installed as far away as practicable from any water tap, gas tap and cooking range.



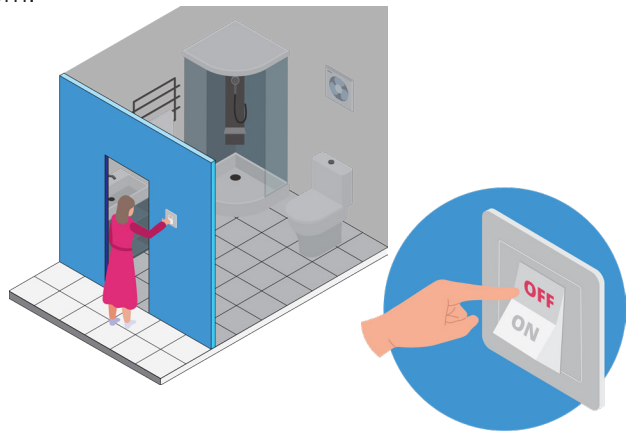
8. In addition to overload protection by Miniature Circuit Breaker, circuits for socket outlets must be protected by a residual current device (RCD) (also called "earth leakage circuit breaker (ELCB)").



9. Outdoor luminaires, socket outlets and switches must be of weatherproof types.



10. For the luminaire, exhaust fan and electric water heater inside a bathroom, the on/off switches should be installed outside the bathroom.



11. For more safety requirements on electrical installations, you may consult registered electrical contractors / workers.



### 3.6 Periodic Inspection, Testing and Certification

1. To ensure safety, any electrical installation in a residential unit, shop and office and the communal electrical installation of any building must be inspected, tested and certified on a Periodic Test Certificate (EMSD Form WR2) at least once every 5 years if the approved loading exceeds 100A (Amperes).



2. The approved loading of the communal electrical installation in most buildings exceeds 100A, whereas that of the electrical installation in general residential units usually does not exceed. If in doubt, the owners may arrange a registered electrical contractor to check.



- After inspection, testing and repair, the registered electrical contractor and worker shall issue a Periodic Test Certificate to confirm that the electrical installation is safe and complies with the statutory safety requirements.



Electricity Ordinance (Cap. 406)  
 Electrical (Wiring) Regulations  
 Periodic Test Certificate - Form WR2

- The owners of the electrical installation shall submit the certificate to EMSD for endorsement. After that, they should properly retain the certificate for future inspection by EMSD.
- Owners may consult a registered electrical contractor / worker for the checklists for periodic inspection and testing for electrical installations.

### 3.7 Proper Use and Maintenance of Electrical Installations

- Arrange for immediate inspection and repair by a registered electrical contractor if the safety of an electrical installation is in doubt (e.g. current leakage or frequent tripping).

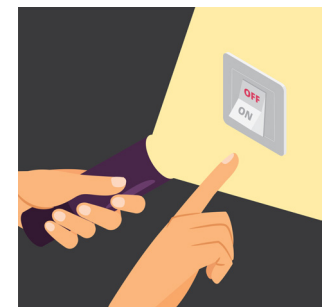


- Avoid touching any socket outlet or switch with wet hands.

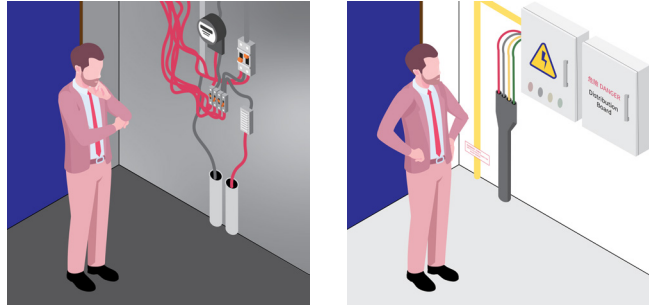


- Each socket outlet should only be inserted with one adaptor or one extension unit to prevent circuit overload.
- To ensure safety, arrange a registered electrical contractor to inspect and test an electrical installation periodically even though its approved loading does not exceed 100A.

- When a blackout occurs, major electrical appliances should be switched off to prevent the occurrence of momentary circuit overload and hence a blackout again when power supply is resumed.



### 3.8 Defects Commonly Found in Electrical Installations

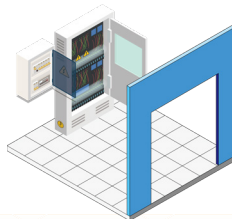


1. Untidy, ageing and worn-out electrical wiring arising from lack of maintenance and repair.
2. Electrical wiring with conductive part exposed.
3. Unused or abandoned wiring not removed.
4. Electrical installation not effectively earthed because of ageing or lack of maintenance and repair.
5. Illegal additions to or alterations of electrical installations leading to overload.
6. Lack of identification labels and warning notices.

7. Switchrooms being used as storerooms.



8. Access to switches or distribution boards being obstructed.



## Part 4 Enquiries or Complaints

For complaints on the supply of unsafe household electrical appliances or on unsafe electrical installations, you may approach the Electrical and Mechanical Services Department (EMSD). Beside, you may also approach EMSD for enquiries on general matters in relation to electrical safety and on the relevant statutory requirements.



Note : This handbook is NOT a statutory document and is prepared for general information only.

## Electricity Legislation Division, EMSD

Address : 3 Kai Shing Street,  
Kowloon, Hong Kong

Hotline : 1823

Fax : 2895 4929

Email : [info@emsd.gov.hk](mailto:info@emsd.gov.hk)

\*Note: This handbook is NOT a legal document  
and is prepared for general information only.

機電工程署  
**EMSD**

