

Switches

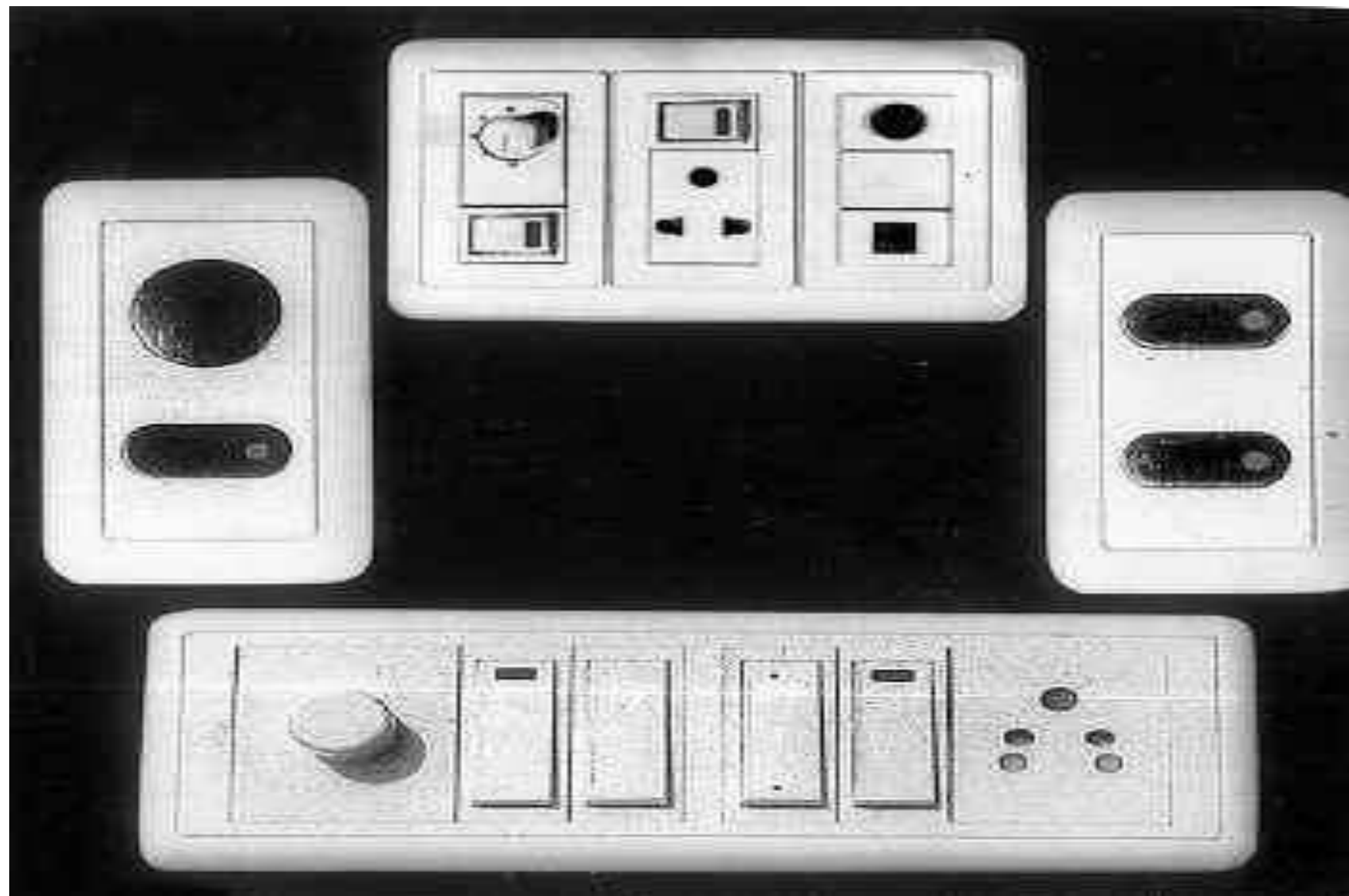
**Dr.R.Priscilla, HoD of Physics,
ADM. College for Women,
Nagapattinam.**

SWITCHES

A switches is used to make or break an electric circuit.

- **Types of switches:**
 1. **Flush switch**
 2. **Tumbler switches**
 3. **Pull switch**
 4. **Rotary switches**
 5. **Push button switches**
 6. **Main switches**
 7. **Two-way switch**



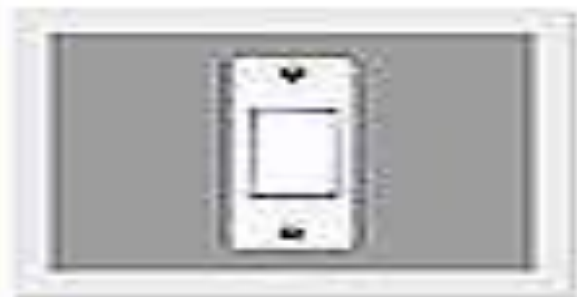






Types of Switches

(single pole, double pole, 3-way, 4-way)



SWITCHES / STARTER BUTTON



Push & Pull Switch Small Rod



Push & Pull Switch Long Rod



Toggle (Three Way) ON/OFF Switch



Toggle (Two Way) ON/OFF Switch



Push & Pull Switch Small Deluxe



Toggle Switch (Three Way) Deluxe



Toggle Steel Body (Two Way)
ON/OFF



Toggle Steel Body (Three Way)
ON/OFF



Two Way (ON/OFF) Blinker Type



ON/OFF Piano Type
Red, Yellow, Blue



Rocker Switch Assst Colour
A+B / GRN



2 Way Switch Metal ON/OFF



3 Way Switch Metal



Panel / Wiper Switch



Hand Dimmer Switch ON/OFF



Head Light Switch 2 Stage 4 Point

Fuses

- *A fuse is a safety device, put in series with the circuit.*
- *It carries the same current that passes through the device to be protected.*
- *When an abnormal current passes, the fuse melts, thus opening the circuit and protected other materials in the circuit.*

maxi fuse



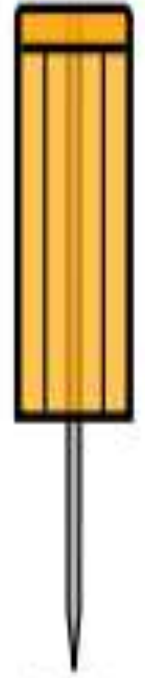
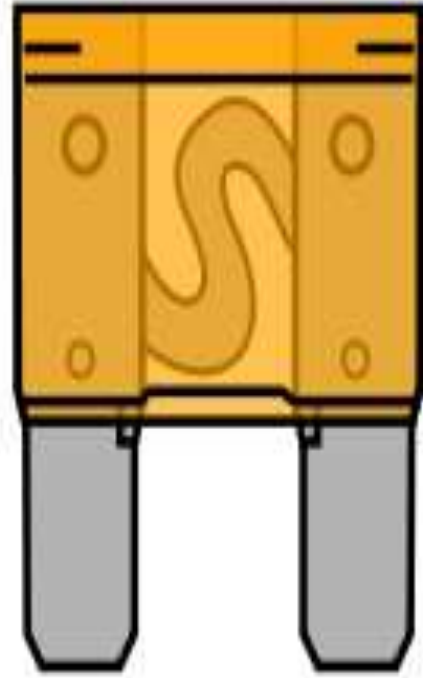
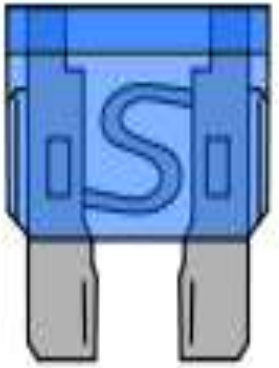
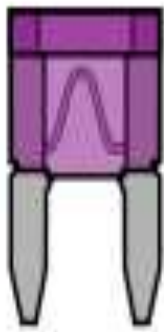
ATO fuse



mini fuse



low-profile mini fuse



Scale 1:2





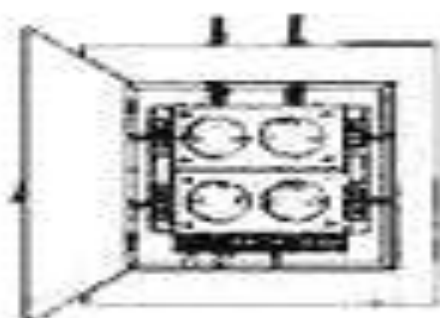
plug fuse



plug fuse



plug fuse



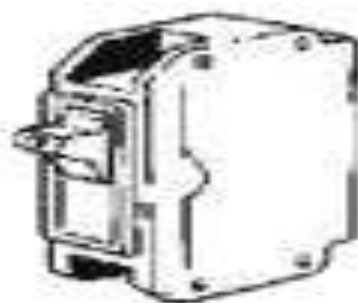
4 fuse panel



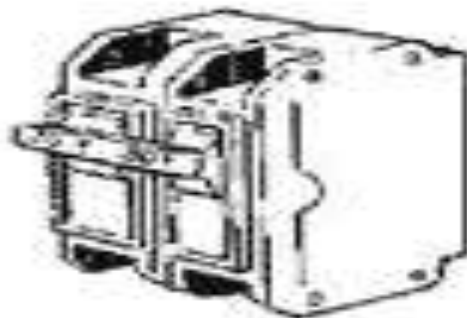
pull-out fuse block



cartridge fuse



single pole



double pole

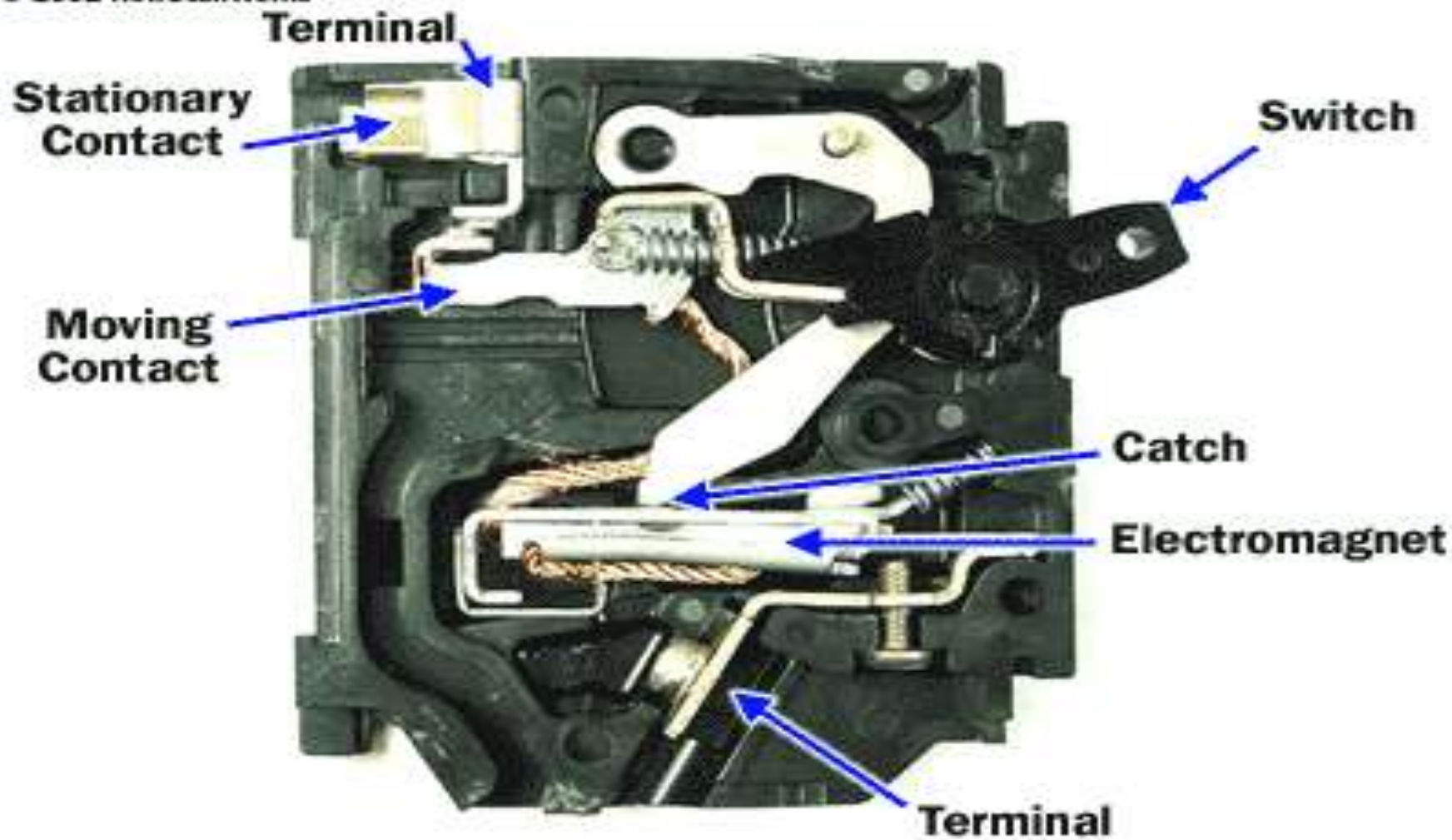


ground fault

CIRCUIT BREAKER

- It is switching device to protect an electric circuit from excessive current.
- It has the same action as a fuse.
- Many houses now have a circuit breaker between the incoming mains supply and the domestic circuits.
- This device uses the magnetic effect of an electric current.

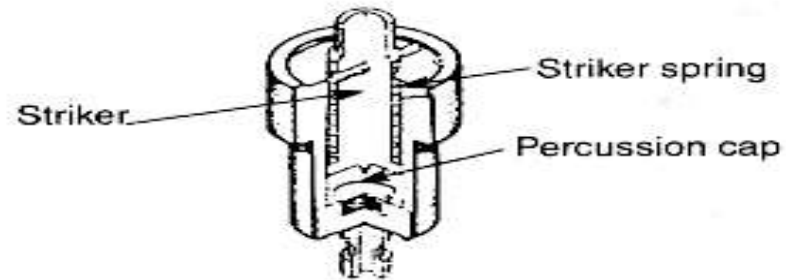
- *The current flow through a small coil.*
- *When the current becomes too large, the magnetic field due to this current operates a trip switch.*
- *The trip switch breaks the circuit.*
- *When trip, i.e., when the circuit is broken, the instrument can be re-set by simply pushing a button. So it is not necessary to keep a supply of spare fuses or fuse wire.*



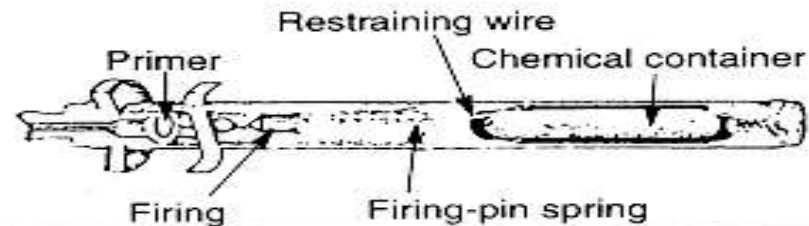
THE RELAY

- *The relay is a magnetically operated switch.*
- *It is designed to make or to break one or more of the contacts between its terminals.*

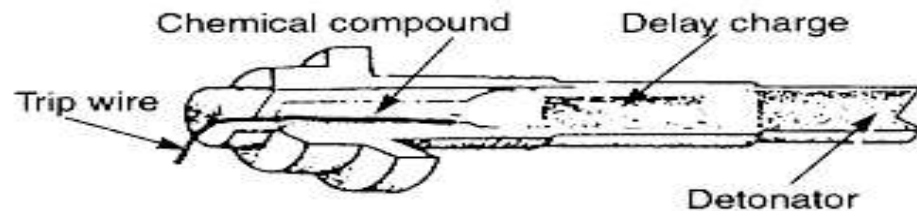
Mechanical. A spring drives a striker against a percussion cap, which fires the detonator.



Chemical. A small container of a chemical compound is broken by the initiating action. The chemical compound reacts with another substance to generate heat, which ignites the detonator.



Friction. The initiating action ignites substances inside the fuse by friction. The flame fires the detonator.



Electrical. The initiating action closes an electrical circuit, which functions as an electrical detonator.

