

	controlled (ON and OFF) from a single location only.	to be operated from two different locations such as the staircase wiring of a lamp.
--	--	---

## Surface wiring versus Conduit wiring:

### Surface Wiring

Surface wiring involves installing electrical wires on the surface of walls or ceilings, enclosed in protective channels like plastic or metal trunking.

#### Advantages:

1. Quick and easy to install without needing to open up walls.
2. Wires are easily accessible for maintenance, repairs, or modifications.
3. Generally cheaper due to reduced labor and material costs.
4. Ideal for temporary setups or frequently changing layouts.

#### Disadvantages:

1. Can be visually unappealing as wires and conduits are visible.
2. More prone to damage as they are exposed on the surface.
3. Might not be as robust as concealed wiring, especially in high-traffic areas.

### Conduit wiring

Conduit wiring is a method of electrical wiring where the electrical cables are installed on the surface of walls or ceilings using conduits. This type of wiring is commonly used in both residential and commercial buildings by making holes in the wall at equal distances in a straight line. Thereafter, rowel plugs go into the holes with saddles above the plugs to allow the installation of conduits for the wires to pass.

#### Advantages and disadvantages of conduit wiring

Here are some of the advantages and disadvantages of surface conduit wiring:

## PROCEDURE

- 1)The circuit diagram was drawn
- 2)The Consumer Control Unit and the patresses were fixed at their designated positions using the screws given
- 3)Connecting wires were partially stripped before being connected to the 4)Consumer Control unit, the patresses, and the bulb holders. The length of the wire stripped away is equal to the length of the wire that would be inside the appliances
- 5)The connecting wires were connected to the live and neutral terminals of the Consumer Control Unit.
- 6)This was followed by the connection of wires to the first and major switch.
- 7)The second and third switches were connected such that action on one switch neutralized the effect on the latter switch.
- 8)The wires were then connected to the circular box where the separate wires were connected to their respective light bulbs
- 9)L1 and L2 were connected in parallel connection to each other while L3 and L4 were connected in series, the entire circuit was then reinforced with saddle clips.
- 10)On connection to a power socket and switch on the circuit, the bulbs lit, with a slight difference in brightness between L3 and L4 due to the series connection, however, L1 and L2 had identical light intensity.
- 11)On use of the switches the first switch neutralized the second switch.

Preview from Notesale.co.uk  
Page 7 of 12