# TITLE: SURFACE WIRING FOR LIGHTING CIRCUIT

## **OBJECTIVES**

- 1. Introducing the concepts and functions of one-way switch.
- 2. Practice surface wiring for light circuit.
- 3. Learn to do fixing and fitting of components and accessories in the final sub circuits.
- 4. Know how to carry out testing of electrical installation.

## FINAL SUB-CIRCUITS 'LIGHTING CIRCUIT'

# One-way switch

This circuit is normally used to control one lighting point. Extension of other lighting control circuit can be done by connecting the extension circuit parallel to the existing circuit. Where the Jive point is connected to the switch and the neutral point to the ceiling rose. Figure 1 shows the wiring circuit of the one-way switch lighting control circuit.

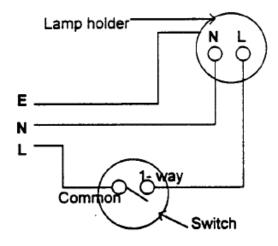


Figure 1

## TOOLS AND COMPONENTS

#### Hand tools:

- 1. Hammer
- 2. Plier
- 3. Screw driver
- 4. Wire cutter
- 5. Wiring nails and screw
- 6. Plumbum clips
- 7. Multimeter

# Components:

- 1. 1 unit of one-way switch
- 2. 1 units of one-way switch with fan regulator
- 3. 1 units of batten holder
- 4. 1 unit siling ros
- 5. Distribution fuse board (DFB)
- 6. 1.5 mm<sup>2</sup> cables (black, green)
- 7. Electric bulb.

## **PROCEDURE**

- 1. Interpret the wiring circuit diagram shows in Figure 3 and visualize the layout to the work place.
- 2. Mark position of cable route. components and accessories.
- 3. Select tools needed and prepare saddles/clips to specified cable sizes and prepared for installation.
- 4. Read the wiring diagramed prepare cable. Layout the cables and prepared for installation
- 5. Install accessories fixing blocks and terminate cables into the accessories.
- 6. Perform visual inspection on the completed installation. Check and test the installation using appropriate meters.
- 7. Maintain all tools and equipments.