

Introduction

Lighting Installation – 46851 studies the topics related with the lighting plants in the electric civil installation. It has a modular structure and it consists of educational panels installed on a vertical frame. The modularity of this educational system grants to the students a direct and immediate approach to the topics, offering the opportunity to study various subjects performing several experiments as following

Features

- 01 Facilitates easy and safe wiring by students due to use of 4mm sturdy Shrouded banana path cords & shrouded socket arrangements.
- 02 All Panels are mounted on finely painted sturdy base frame with easy Panels interchangeability.

Panels Provided

SN.	Name of Panel	Order Code	Qty.
01	Aluminum Lighting Installation trainer Rack	69700	01
02	Single Phase Power supply	69501	01
03	Intermediate Switch	69503	01
04	Intermediate Switch and Two-way switch	69504	01
05	Light push button	69505	01
06	Bell door opener Pushbuttons	69506	01
07	Single Phase Transformer	69511	01
08	Incandescent lamp with lamp holder	69514	01
09	Stepping Relay	69535	01
10	Staircase Light Timer	69536	01

Accessories Provided

SN.	Description	Qty.
01	Shrouded connecting leads 4mm 50cm Red	05
02	Shrouded connecting leads 4mm 50cm Black	05

List of Experiments

SN.	Name of Experiment	Panels Required
01	Single-point controlled lighting plant with socket	69501, 69505, 69514
02	Switch-controlled two-lamps lighting installation	69501, 69505, 69514
03	Two-point controlled lighting installation	69501, 69504, 69514
04	Three-point controlled lighting installation	69501, 69504, 69514
05	Four-point controlled lighting installation	69501, 69503, 69504, 69514
06	Circuit breaking relay-controlled lighting installation	69501, 69511, 69514, 69535
07	Switching relay-controlled lighting installation	69501, 69511, 69514, 69535
08	Time relay-controlled lighting installation	69501, 69506, 69514, 69536
09	Hot-cathode fluorescent lamp installation	69501, 69505, 69514

Note: Specifications are subject to change.

DETAILS OF MODULES

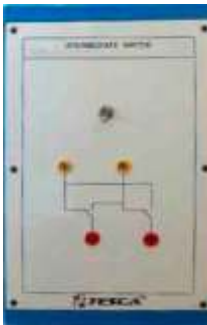


1. SINGLE PHASE POWER SUPPLY Order Code - 69501

Single Phase Power Supply is designed to familiarize students with various methods of protection of power circuits. It has been made with safety and protection in mind and with strong insulation

Procedure

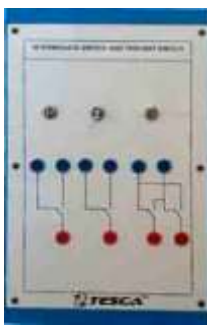
- 01 Connect the Input AC Voltage at Input
- 02 Switch ON the Two Pole MCB Terminal
- 03 Turn the key lock switch
- 04 Check the light indication
- 05 Observe the Output at Output Terminal



2. INTERMEDIATE SWITCH Order Code - 69503

Switch modules come in a wide variety and are designed to familiarize students with various methods of switching voltages, currents and loads. They have been made with safety and protection in mind and with strong insulation. An intermediate switch is used to control

something from more than one location. The module is provided with one switch. The intermediate switch is used where 3 or more switch control one light at a time.



3. INTERMEDIATE SWITCH AND TWO-WAY SWITCH Order Code- 69504

Switch modules come in a wide variety and are designed to familiarize students with various methods of switching voltages, currents and loads. They have been made with safety and protection in mind and with strong insulation. This allows a single light to be turned on or off from and of the switches. The module is provided with 2

two-way switches, and, one intermediate switch

Procedure

- 01 Make the connection as per connection diagram
- 02 Use the intermediate switch as per desired output in the circuit.



4. LIGHT PUSH BUTTON Order Code - 69505

Switch modules come in a wide variety and are designed to familiarize students with various methods of switching voltages, currents and loads. They have been made with safety and protection in mind and with strong insulation. Light Push Button switch is a switch most commonly used to operate electric lights permanently connected equipment, or

electrical outlets.

This module is provided with a single pole switch.

Procedure

1. When we push the switch then both the contact of terminals are connected.



5. BELL / DOOR OPENER PUSH BUTTONS Order Code - 69506

Switch modules come in a wide variety and side terminal are designed to familiarize students with various methods of switching voltages, currents and loads. They have been made with safety and protection in mind and with strong insulation. This module is supplied with 2 switches.

Procedure

- 01 When we push the right-side button than make / connect the contact of right-side terminal.
- 02 When we push the Left side button than make / connect the contact of Left side terminal.

Note: Specifications are subject to change.

DETAILS OF MODULES



6. SINGLE PHASE TRANSFORMER

Order Code - 69511

Single Phase Transformer is meant to step down the voltage at the secondary side. This module has the one transformer in which two different input voltage range. We apply only one input at a time and observe the center tap output. For protection we use the primary fuse 600ma. The module has been made with safety and protection in mind and with

strong insulation

Procedure

- 01 Apply the 230 V AC input at input terminal
- 02 Check the output at secondary 12-0-12 Volt at 2.21Amp / 50VA



7. INCANDESCENT AND FLUORESCENT LAMP

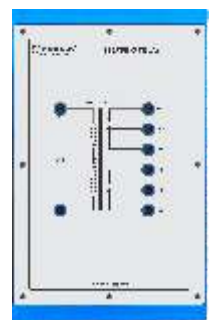
Order Code - 69514

The Incandescent light appears yellowish Compared to fluorecent incandescent lamps produce light from heat. The fluorecent lamp is a low-pressure mercury-vapor gas-discharge lamp that uses fluorescence to produce visible light. The module has two incandescent lamps and one fluorecent lamp with starter. The

module has been made with safety and protection in mind and strong insulation.

Procedure

- 01 Apply the input AC 220V at input (L-N)
- 02 Check the incandescent lamp is glow
- 03 Make the circuit as connection diagram



8. STEPPING RELAY

Order Code 69535

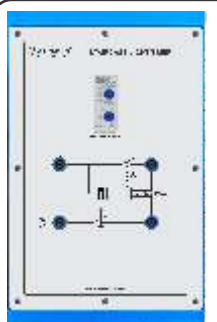
A stepping relay or stepping switch also know uni selector, electro-mechanical device that switches an input signal path to one of several possible output paths, directed by a train of electrical pulses.

Applied Voltage: 12VDC/ 24VDC/ 240VAC

Current: 5A

Procedure

- 01 Apply the 12 V AC input at input terminal



9. STAIRCASE LIGHT TIMER

Order Code 69536

A staircase timer is an electrical switch used to control lighting on a staircase, corridor or lobby. A single action turns on the lights and they remain on for long enough to ascend or descend the stairs. The lights then turn themselves off automatically.

Automatic switch for staircase lighting control with adjustable timing, 110 – 230

Vac, 10 A.

Adjustable Range: 30s – 20 min

Type of contact: No contact

Power Reserve: 3 years

Procedure

- 01 Apply the input AC 220V at input (L-N)
- 02 Make the circuit as connection diagram.

10. ALUMINUM FRAME - MODULAR PANELS

Order Code - 69700.

Aluminum Lighting Installation trainer Rack madeup aluminium profile size 40×40mm, foldable and light in weight 10 panel setup can be interchange conveniently to perform experiments. Dimention Length 1100 × Hieght 1000×Depth 350mm.



Note: Specifications are subject to change.

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