Electronics Kit – Gates Trainer

EM1768-001 To Learn Basic Gate Logics

Description:

The 'IEC' GATES TRAINER is a special panel that permits overlays depicting various types of 'gates' to be attached. The instructor applies one of the digital overlays to the flat panel and holds up the assembly to face the students.

The students are asked to look at the gate function and graphic and predict which gate conditions on the inputs cause what condition on the output. The markings on the back face of the instrument permits the instructor to identify the overlay fitted and allows the selection of the correct set of LEDs to come on to demonstrate the function of that particular gate.

The markings ensure that the instructor can never make a mistake. The 9V battery is easily changed by removing the transparent rear panel.

It is common for instructors to permit the students interrogate each other by using the 'Gates Trainer' amongst themselves. In very short time the basic gates are fully understood.

Length: 315mm	Width: 170mm	Height: 65mm	Weight: 600g

Kit Contains:

1 pce   Main panel to which the Gate Overlays attach. The rear has instructions and switches to operate LEDs that show the gate logic on the front.

6 pcs   'Gate Overlays' for attaching to the main panel. One each for AND, OR, NAND, . NOR, NOT, XOR (exclusive OR) gates.

1 pce   Transparent cover which can be used as a storage tray during experiments.

1 pce   Instruction sheet for using the Gates Trainer and for teaching the students about digital gates.

Why Digital ?:

Digital electronics is now used in all fields of electronics from computers to digital phones and most industrial machines and motor vehicles. If electronics is to be studied or if computer programming is to be attempted, digital logic should be studied.

Digital logic can be either mechanical or electrical.

If a door has 2 locks, AND logic is required to open the gate. Lock 1 opened AND lock 2 opened = door OPENED.

If a light has 2 on/off switches in different rooms, OR logic must be used. Switch 1 on OR switch 2 on = light ON.

Features Of The 'IEC' Gates Trainer:

- It is made in Australia by IEC and is low in cost.

- It is very compact and easy to store.

- Unit is self powered by one 9V battery or can be powered by 240/12V.AC. mains plug pak.

- The whole concept of predicting which LEDs will illuminate is fun for students and they enjoy learning the gate functions. Students proceed with enthusiasm.

Repairs:

It is impossible to make electronic equipment 100% safe from damage by students, but care has been taken to protect the circuits from damage. Should this equipment ever need repair, IEC is in Melbourne and can repair all equipment that it manufactures.

Designed and manufactured in Australia

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