

BASIC ELECTRICITY AND ELECTRONICS TRAINING KIT

Model Number : GOTT-BEET-PIM



DESCRIPTION

GOTT series of experiment devices features in the electric profession, covering from the circuit, electrical, electronics, motor control, power electronics, electrical drive to automatic control principle, and all other electric experiments courses. It is applicable to experimental teaching of electricity for all types of institutions of higher education as well as college and vocational schools.

GOTT series of experiment devices concentrates on internationally advanced engineering and technology education philosophy, which is designed and developed by combining with the courses of institutions in different countries and regions. Its core idea is to emphasis on the improvement of students practical ability, analysis capabilities, which fully reflects the requirements of modern experimental innovative teaching, research, engineering ideas, and so on. As it's characteristic of independent structure module, it is suitable for users to select flexible configuration according to their own schools or courses features.

ELECTRONICS MODULE

The experiment devices have a nine-hole universal plug-in board as its core and also some RLC components and various analog and digital circuit components as its basic module. Its special material and structural plug-in system promise good contact; its transparent and removable plastic module makes the real components direct viewed and easy to replace; building –block module makes the combination of circuits flexible and universal; standard printed module makes the circuit easy to understand. Besides the regular classic experiment circuits, it is also applicable to innovative experiments for open laboratory.

POWER ELECTRONICS MODULE

Various circuits are built up on aluminium alloy stent with peg board components, the height of the board is 298mm. The width is 100mm, 200mm, 300mm, 400mm respectively. The material is anti-corrosion and flame-retardant. The main line and the branch line of the three-phase-five-wire system can be clearly showed among the flexible combination of the various modules.

ACCESSORIES

5 X Leads black 20 cm x 2 x 4 mm
 5 X Leads black 40 cm - 1 x 4mm + 1 x 2 mm
 4 x Leads blue 30cm – 2 x 2mm
 4 x Leads red 20cm – 2 x 4 mm
 8 x Leads red 40cm – 1 x 4mm + 1 x 2mm
 1 x Power Supply Unit (KA19010), 0-30VDC 1A
 Regulated 0, 6, 12, 24, 42VAC

LITERATURE

1 X Instruction/Operation Manual

ENGINEERING AND DIRECT VIEWED

Safe and transparent experiment devices module, which can directly and truly show the change of the working condition. Each device corresponds to its own symbol, with clear and direct viewed circuits which is easy to check.

SECURITY AND RELIABILITY

Three phase-five-wire system power supply with leakage, over-current, short circuit protection
 No exposed live contact on the surface of power electronics module
 Special processed plugs and contacts makes sure of long life(100,000times), and on all contacts the resistance is lower than $10^{-6}\Omega$, and the distributed capacitance is less than 10pF.

SYSTEM DESCRIPTION

This training kit is specially developed for use in educational electrical / electronics laboratories as teaching for basic electricity and electronics in particular electronic for industrial applications. This kit is extremely versatile. It can cater for hands-on experience in assembly, testing and construction from simple to complex circuits. This kit consists of a PVC box, series of plug-in components, universal patch panel and set of connecting leads/ bridge.

It is a plug-in system whereby circuit construction is achieved by assembly require plug-in components on the patch panel and inter-connect together to form the desired experimental circuits. Each plug-in unit consists of a commonly available electronics component mounted on insulated boards approximately 20 x 40 mm or 40 x 40 mm or 40 x 85 mm size. The patch panel can easily accommodate any externally connected test and measuring instrument.

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Topics Area**Fundamental of AC & DC**

- Symbols
- Introduction to electricity
- Volt , current and resistance
- Conductor and insulator
- Basic electrical circuit
- Ohms Law
- Resistance, series-parallel circuit
- Magnesium
- Inductance
- Capacitance
- Transformers

Basic Electronics

- diodes
- Rectifier
- Power supply
- Voltage dividers
- Voltage regulators
- Transistors
- Common bass configuration
- Common emitter configuration
- Common collector configuration
- Amplifiers
- Oscillators
- UJT,FET, diac and triac
- Thyristors
- Logic circuits
- Logic gate
- ICs

Motors and Generators

- Magnesium
- DC motor and generator
- AC Motor

EQUIPMENT LIST

Each kit shall consist of the following :

1 x PVC box with patch panel and Storage system for the :

1 x Resistor 22R, 1W	1 x Electrolytic cap 470 F, 35V	1 x PTC Resistor	3 x Transistor NPN, BC107
1 x Resistor 47R, 1W	1 x Resistor 4K7, 1W	1 x LDR Resistor	1 x Resistor NPN, MJE3055
1 x Resistor 56R, 1W	2 x Resistor 10k, 1W	2 x Lamp 6V, 3W	1 x Thyristor C 106D
2 x Resistor 100R, 1W	1 x Resistor 15K, 1W	4 x Lamp 12V, 3W	10 x Connecting board with pins
1 x Resistor 220R, 1W	2 x Resistor 22K, 1W	4 x Lamp-holder	1 x Injunction 2N2646
1 x Resistor 470R, 1W	1 x Resistor 100K, 1W	1 x Single-pole switch	1 x Triac BTA08-400B
2 x Resistor 1K	1 x Resistor 3R3, 5W	1 x Turn-over switch	1 x Diac DB3C609
1 x Resistor 1K5	1 x Resistor 10R, 5W	1 x Push Button (NC)	1 x FET 2N5458
3 x Resistor 2K2	1 x Resistor 22R, 5W	1 x Push Button (NO)	1 x Voltage regulator IC 7812
4 x Iron nails, 20mm long	1 x Resistor 68R, 5W	1 x Relay 12VDC 2-pole (DPDT)	1 x DC motor 6V, 2W
1 x Choke 0.1H, 0.15A	1 x Resistor 100R, 5W	1 x Relay 6VDC 1-pole (SPDT)	2 x Bar magnet
1 x Polyester cap, 0.01 F, 60V	1 x Resistor 220R, 5W	4 x Diodes Si 1N5404	2 x Plotting compass
2 x Polyester cap. 0.1 F 60V	1 x Potentiometer 1K, 0.25W	2 x Diodes Ge	1 x Direction-finding compass
2 x Electrolytic cap 10 F, 35V	1 x Potentiometer 50K, 0.25W	1 x Zener diode 6.2V, 1W	1 x Shaker for iron filling
1 x Electrolytic cap 22 F, 35V	1 x Potentiometer 500K, 0.25W	1 x Zener diode 12V, 5W	1 x Packed iron filling
2 x Electrolytic cap 220 F, 35V	1 x NTC Resistor	2 x Transistor PNP, BC177	1 x Roll of thin thread

Manuals :

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manuals & Training will be provided where applicable.
- (3) Designs & Specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

Warranty :

2 Years

ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
BASIC ELECTRICITY AND ELECTRONICS TRAINING KIT	GOTT-BEET-PIM	157-001

*Proposed design only, subject to changes without any notice.