SEMICONDUCTOR TRAINER

Model Number: GOTT-SEMICON-24



DESCRIPTION

The semiconductor trainer GOTT-SEMICON-24 offers a complete set of experiments related with semiconductor based analog circuits. Due to the builtin instrumentation functions such as an AF generator, a frequency counter, a multimeter and a tracking power supply, the trainer GOTT-SEMICON-24 is a complete experimental tool by itself. The built-in multi-function features also increase experiment efficiency by reducing the time spent in preparation and keeping all the hardware well organized. An easy to follow, step-by-step experimental manual will guide the user through each experiment.

FEATURES

- All the necessary components are provided in the trainer. It extremely easy to change circuit values and to see the impact on the circuit
- Two 3 digits decade capacitors and three BCD programmable resistors are provided in the unit.
- These components provide the accuracy needed in the circuit.
- Two variable resistors are provided in the unit. These resistors are used to adjust the input and output levels, time constants and bias outputs.
- The large size breadboard in the trainer provides ample room even for a complex circuit. Jumper wire connections between nodes eliminate soldering.

SPECIFICATION

MAIN UNIT

DC Outputs ±0~15V Dual Output

Decade Capacitors : $100pF^{\sim}0.1\mu F$ (3 digits)

1000pF~1μF (3 digits)

Decade Resistors : $1k\Omega^{\sim}15k\Omega$

 $10k\Omega^{-150k\Omega}$ $100k\Omega^{\sim}1.5M\Omega$

10Hz~100kHz (in 4 ranges)

AF Generator (Digital Display): Output: 1V/10V (in 2 ranges)

Waveform: Sine, Square

Multi-tester: DC: $10mV^220V$, (Imp.: $10M\Omega$)(3½digits)

AC: 10mV~20V (rms) Resistance : $10\Omega^{\sim}2M\Omega$

Protection DC O/L Alarm & Indication

AC Output 30VCT(15V+15V) 0.1A max

 $0^{\sim}1000\Omega(3W)$ Variable Resistors:

 $0^{100k}\Omega(1W)$

Switches Slide, Push, SPDT-Toggle

Input Power: AC 110/240V 50~60Hz

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EXPERIMENT MODULES

BREADBOARD (STANDARD MODULE)

CODE 624-657 **555 TIMER (OPTIONAL ITEM)**

CODE 624-652

BASIC SEMICONDUCTOR (OPTIONAL ITEM)

CODE 624-653



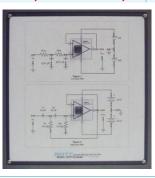


LOW-PASS FILTER AND HIGH-PASS FILTER (OPTIONAL ITEM)

CODE 624-654 **NPN AND PNP AMPLIFIER CIRCUITS (OPTIONAL ITEM)**

CODE 624-655 **ELECTRONIC COMPONENTS** (OPTIONAL ITEM)

CODE 624-656







EXPERIMENT TOPICS:

- Pulse Distortion and Propagation Delay
- Operational Amplifiers: Amplifiers and Inverters
- Operational Amplifiers: Voltage Comparators
- Schmitt-Trigger Gates
- Monostable Multivibrators
- 555 Timer: Astable Operation
- P-N Junction Diode Characteristics

- Electronic Voltage-regulated Power Supply
- **Diode Rectifier**
- Low Pass Filter
- High Pass Filter
- NPN and PNP
- **Electronic Components**

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
SEMICONDUCTOR TRAINER	GOTT-SEMICON-24	624-651
555 TIMER	GOTT-24-M1	624-652
BASIC SEMICONDUCTOR	GOTT-24-M2	624-653
LOW-PASS FILTER AND HIGH-PASS FILTER	GOTT-24-M3	624-654
NPN AND PNP AMPLIFIER CIRCUITS	GOTT-24-M4	624-655
ELECTRONIC COMPONENTS	GOTT-24-M5	624-656

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