DESCRIPTION

The semiconductor trainer GOTT-SEMICON-24 offers a complete set of experiments related with semiconductor based analog circuits. Due to the built-in 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 performance.
- 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~0.1µF (3 digits)
  1000pF~1µF (3 digits)
- Decade Resistors: 1kΩ~15kΩ
  10kΩ~150kΩ
  100kΩ~1.5MΩ
  10Hz~100kHz (in 4 ranges)
- AF Generator (Digital Display): Output: 1V/10V (in 2 ranges)
  Waveform: Sine, Square
- Multi-tester: DC: 10mV~20V, (Imp.: 10MΩ)(3½digits)
  AC: 10mV~20V (rms)
  Resistance: 10Ω~2MΩ
- Protection DC O/L Alarm & Indication
- AC Output 30VCT(15V+15V) 0.1A max
- Variable Resistors: 0~1000Ω(3W)
  0~100kΩ(1W)
- Switches Slide, Push, SPDT-Toggle
- Input Power: AC 110/240V 50~60Hz
**EXPERIMENT MODULES**

<table>
<thead>
<tr>
<th>BREADBOARD (STANDARD MODULE)</th>
<th>CODE</th>
<th>555 TIMER (OPTIONAL ITEM)</th>
<th>CODE</th>
<th>BASIC SEMICONDUCTOR (OPTIONAL ITEM)</th>
<th>CODE</th>
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<td>624-657</td>
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<tr>
<th>LOW-PASS FILTER AND HIGH-PASS FILTER (OPTIONAL ITEM)</th>
<th>CODE</th>
<th>NPN AND PNP AMPLIFIER CIRCUITS (OPTIONAL ITEM)</th>
<th>CODE</th>
<th>ELECTRONIC COMPONENTS (OPTIONAL ITEM)</th>
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**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

**Warranty:**

2 Years

**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.

**ORDERING INFORMATION**

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<thead>
<tr>
<th>ITEM</th>
<th>MODEL NUMBER</th>
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<tr>
<td>SEMICONDUCTOR TRAINER</td>
<td>GOTT-SEMICON-24</td>
<td>624-651</td>
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<td>555 TIMER</td>
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<tr>
<td>BASIC SEMICONDUCTOR</td>
<td>GOTT-24-M2</td>
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<td>LOW-PASS FILTER AND HIGH-PASS FILTER</td>
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<td>NPN AND PNP AMPLIFIER CIRCUITS</td>
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<tr>
<td>ELECTRONIC COMPONENTS</td>
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* Proposed design only, subject to changes without any notice.