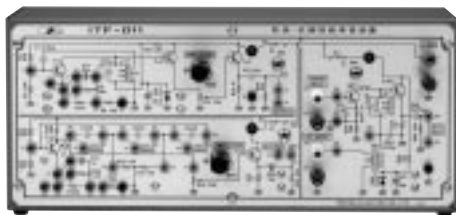
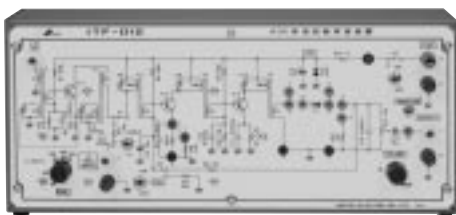


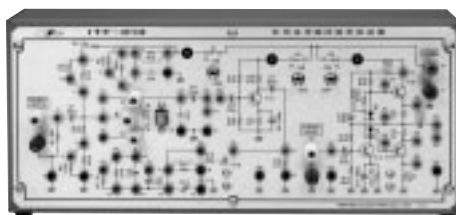
ITF-015



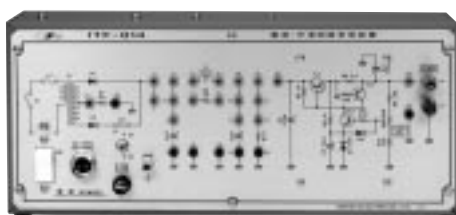
ITF-011



ITF-012



ITF-013



ITF-014

ITF-01

Electronic Circuit Training Kit

The ITF-01 is composed of four units with rack mount that offer a practical way to study a various circuits that form the basis of a larger electronic circuit. Since the combination of the ITF-012, 013 and 014 composes a radio receiver, students will gain an understanding of the basic circuits as well as how they interact overall.

Characteristics:

- The four training kits can be assembled in the ITF-015 rack mount to form a radio receiver, on which training exercises can be performed.
- Since an amplifier circuit is the basis of most other electronic circuits, by studying it students will gain fundamental knowledge of circuits in general.
- The standard basic operation of each circuit is only possible when all are connected together, however, constants designed by instructors can also be attached, expanding the possibilities for student learning.
- The ITF-014 training kit also operates as the power source for all four kits, making an external power source unnecessary.

Learning items:

1. ITF-011 Oscillator and Modulator Training Kit

- Collector tuning (bias, frequency and oscillation)
- CR-type phase shift oscillators
- Collector modulation circuits

Specifications

Collector tuning type oscillation circuit

Oscillation frequency 100 kHz $\pm 5\%$, 5 Vp-p or more

CR-phase-shifting type oscillation circuit

Oscillation frequency 1 kHz $\pm 20\%$, 5 Vp-p or more, external setting possible

Collector modulation circuit

Carrier wave frequency 100 kHz
Signal wave frequency Approx. 1 kHz

2. ITF-012 AM Receiver Circuit Training Kit

- IF tuning characteristics
- AGC and non-AGC bias characteristics
- Detection characteristics
- Receiver circuits and frequency converters

Specifications

Antenna Built-in bar antenna, external antenna terminal
Receiving frequency 520 kHz to 1650 kHz, adjustable
IF adjustment 455 ± 10 kHz or more
AGC selection AGC on/off switchable

3. ITF-013 Audio Amplifier Circuit Training Kit

- Bias setting, amplitude, frequency characteristics, phase characteristics and wide band amplification (feedback, peaking and low-frequency boosts)
- 2-stage amplifier circuits
- Power amplifier circuits (bias, power, efficiency and distortion)

4. ITF-014 Rectifier Circuit Training Kit

- Half-wave and full-wave rectifier circuits)
- Smoothing circuits (C, LC and π)

Specifications

Transformer secondary winding 18 Vrms, 0.3 Arms
15 V stabilizing power source +15 V $\pm 5\%$ or more, 0.15 A (current limiter approx. 0.25 A)
Power supply AC 100/220 V, 50/60 Hz, 10 W