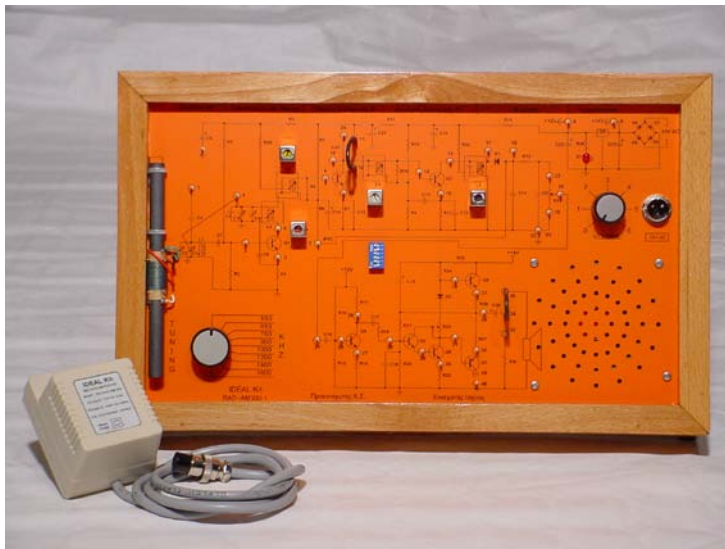


RAD AM300A | AM TRANSMITTER – RECEIVER TRAINER

Technical specifications:

The RAD AM-300A trainer is an ideal training system for the radio – communications laboratory, for the training of the students in transmitting and receiving AM signals. The trainer consists of two independent stand alone boards with dimensions 35cm x 20cm each, the RAD - AM 300-1 receiver and the RAD - AM 300-2 transmitter each with a power supply pack. The trainer has also an experiments manual (student's – instructor's).

RAD - AM 300-1 Receiver board



The receiver board is a printed circuit epoxy board placed in a frame. The board operates by 12VAC from the power supply pack or from an electronic work bench. On the upper side of the board there is an analytical layout of the receiver's circuits consisting of the following blocks :

1. Power supply for the voltage rectification and regulation
2. Signal detection
3. Two (2) I.F. amplifiers
4. Oscillator and mixer
5. RF Input
6. Audio Frequencies (A.F.) Preamplifier
7. Power amplifier (A.F.)
8. Speaker

On the upper side of the board there are also the Volume and Tuning adjustments, the tuning coils, 36 test points and 6 fault insertion switches.

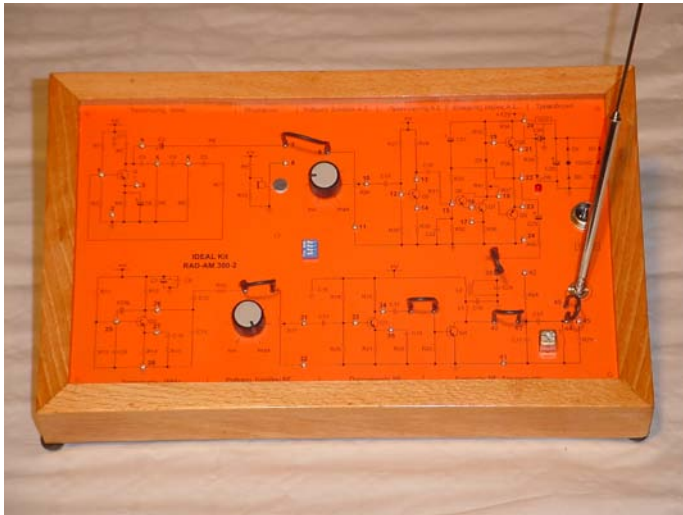
On the lower side of the board where the imprinted circuit is, the rest of the components are connected exactly at the location pointed out by the circuit's layout for an easy and fast location as well as for their protection.

With this board the student can cover the following experiments as indicated by the relative manual :

Study of the Sound circuits department

Power amplifier and driving circuit
A.F. Voltage amplifier (preamplifier)
AM Tuner
Diode detection circuit
I.F. Amplifiers, AVC ,Hi fidelity control of the receiver's circuits
Converter, tuning procedure, receiver adjustment.
Faults location and restoration in the receiver

RAD - AM 300-2 Transmitter board



The transmitter board is a printed circuit epoxy board placed in a frame. The board operates by 12VAC from the power supply pack or from an electronic work bench. On the upper side of the board there is an analytical layout of the transmitter's circuits consisting of the following blocks :

1. Power supply for the voltage rectification and regulation
2. A.F. Power amplifier
3. A.F. Preamplifier
4. A.F. Input adjustment
5. Microphone
6. 1KHz sine signal oscillator
7. 1MHz sine signal oscillator
8. RF input adjustment
9. RF Preamplifier
10. RF Amplifier - Modulator

On the upper side of the board there are also two (2) adjustments for the RF and A.F. inputs of the modulator, the antenna with the tuning coil, 34 test points and 4 switches for fault insertion. On the lower side of the board where the imprinted circuit is are connected the rest of the components exactly at the location pointed out by the circuit's layout for an easy and fast location as well as for their protection.

With this board the student can cover the following experiments as indicated by the relative manual :

Basic amplitude modulation principles – Radio frequencies mixers
Crystal oscillator
RC oscillator
Faults location and restoration in the transmitter