



12 LEAD ECG SIMULATOR MODEL-ECG12SIM100

This trainer has been designed with a view to provide practical and experimental knowledge of ECG Simulator used for ECG training in Biomedical Engineering.



SPECIFICATIONS

1. Hardware

Following Parts are assembled on Single PCB of size - 18 Inch x 15 Inch

1. 12 Lead ECG Simulator Board

1. ECG Amplitude Range : 200mV- 4V DC
2. Support Bipolar leads Lead I, Lead II, Lead III
3. Unipolar Leads : avR, avL, avF,
4. Chest leads V1-V6)
5. Separate output channels Left arm (LA), Right arm (RA), Left leg (LL), Right leg (RL) and Chest Leads (V1-V6)
6. Low pass Filter 5KHz Cutoff frequency
7. 12 Lead 4 Arrhythmia - Bradycardia 30, Normal 60, 100, Tachycardia 120
8. Standard PQRST Waveform
9. Feather Touch Arrhythmias selection
10. LED indicates for each Arrhythmia
11. 10 Leads- RA, LA, RL, LL, & V1-V6 with Universal Sockets.
12. 1V \pm output through 2mm socket for DSO & other application.
13. Operating Voltage DC Voltage 12V adaptor
14. PC connectivity

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Dealer:-

2. Accessories

- | | | |
|----|---|-------------------------|
| 1. | USB Cable | : 1 No |
| 2. | Required Connecting Electrodes | : 1 Set |
| 3. | Power Supply Adaptor | : 12V, 2A - 1 No |
| 4. | Jumper wires | : 50 Nos. |
| 5. | Pen Drive with Software, Library, Driver, Codes, Soft Copy of Manual and Mobile App | : 16 GB |
| 6. | Printed Practical Manual | : 1 No |
| 7. | E-Books for Biomedical IOT Subject | : 10 Nos. in PDF Format |
| 8. | Mp4 Video Class for Biomedical IOT Subject | : 40 Nos |
| 9. | Excitation accessories for each sensor | |

3. Cabinet and PCB

The complete circuit diagram is screen printed on component side of the PCB with circuit and Parts at the same place. The PCB with components on front side is fitted in elegant wooden box having lock and key arrangement. The acrylic cover is fitted on PCB to safeguard parts. It works on 230 V AC Supply.

EXPERIMENTS

1. To understand theory of ECG - Arrhythmia and Bradycardia
2. To understand Standard PQRST Waveform
3. To understand theory, working and Block Diagram of ECG Simulator.
4. To understand installation procedure of ECG Simulator
5. To understand Interface and Connection Diagram of ECG Electrodes.
6. To simulate and draw ECG of a person using ECG Simulator and to interpret it
7. To Observe different types of ECG Waveforms of a person in different conditions and to interpret it
8. To understand how to testing and calibrate any Make ECG Recorder and Monitor, Defibrillator, Amplifier & ECG Related any Machine
9. To understand Standard signals & Actual output signal for ECG
10. To understand Calculations and Tables for ECG
11. To understand Trouble shooting procedure
12. To Observe different types of ECG Waveforms of a person on Computer using PC interface
13. To Observe different types of ECG Waveforms of a person on CRO using 2 mm sockets
14. To send ECG Data using Wifi Wireless Node to Main Base IOT Receiver