

An Electrocardiogram (ECG or EKG, abbreviated from the German Elektrokardiogramm) is a graphic produced by an electrocardiograph, which records the electrical activity of the heart over time. Analysis of the various waves and normal vectors of depolarization and repolarization yields important diagnostic information.

- It is the gold standard for the diagnosis of cardiac arrhythmias
- It guides therapy and risk stratification for patients with suspected acute infraction.
- It helps detect electrolyte disturbances (e.g. Hyperkalemia and hypokalemia)
- It allows for the detection of conduction abnormalities (e.g. right and left bundle branch block)

12 Lead ECG Simulator provides a quick, accurate measurement of all 12 leads including both Unipolar and Bipolar configurations for verifying the performance of real time ECG monitoring, heart-rate monitoring. Illustrates the fundamentals of standard limbs (unipolar and bipolar) and chest leads interpretation and rhythm recognition in an easy-to-use manner. ECG rhythms produced can be changed in specific boundaries (heart-rate, amplitude).

Also demonstrates ECG observation comprising P, Q, R, S, T, U (U wave is only for lead II) waves in different leads arrangements. This trainer is compatible with Heart-rate Monitor cum ECG Trainer ST2351 which receives the ECG signals generated by and measures the heart-rate as number of heartbeats per minute. The abnormalities occurring in human cardiovascular system like Tachycardia (faster heartrate) and Bradycardia (slower heart-rate) can also be studied.

Capable to illustrate all 12 leads of ECG simultaneously at a single point, where all waveforms are adjacently placed to help you understand ECG graph Interpretation.

#### Scope of Learning

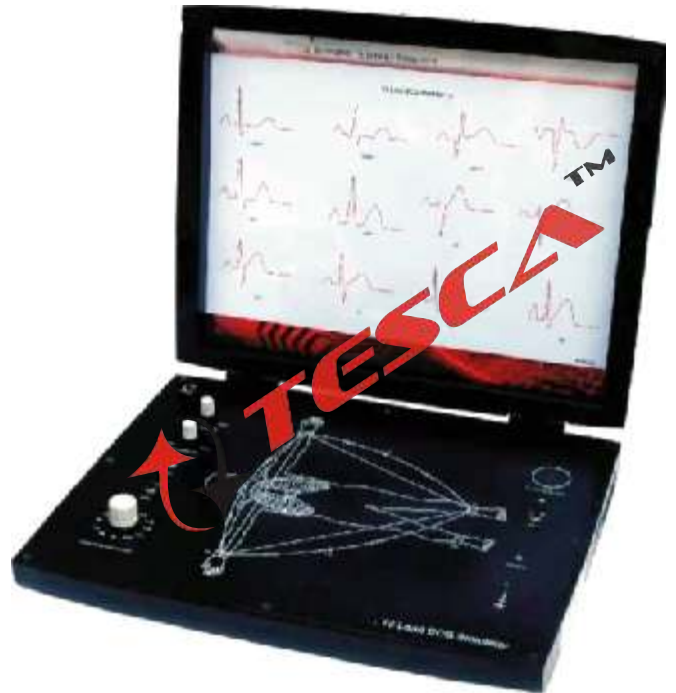
- Study of lead I, lead II, lead III of Standard Bipolar lead configuration
- Study of avR, avL, avf lead of Standard Augmented Uni-polar leads configuration.
- Study of Chest leads V1, Chest leads V2, Chest leads V3, Chest leads V4, Chest leads V5, Chest leads V6 of Standard Uni-polar leads Configuration.
- Study of all the standard ECG leads (12 leads) Unipolar and Bipolar configurations simultaneously.
- To demonstrate the measurement of Normal Heart-Rate using ST2351
- Study of the heart abnormality conditions that occurs in human
- Cardiovascular System (Tachycardia, Bradycardia) using Order Code 71801

#### Features

Provides amplified ECG output with P, Q, R, S, T, U waves.

Compatible with Heart-rate monitor cum ECG Trainer 71801

Provides in-depth study of Standard Unipolar and Bipolar Leads Configuration for ECG measurement Variable Heart rate generation from 30-300 heartbeats/minute



Variable ECG amplitude 200mV – 4V DC

Every Systole indication by LED (visible) and audible (Buzzer) sound controls

#### Technical Specifications

<b>Generating Range</b>	: 30-300 heartbeats/minute
<b>ECG Amplitude Range</b>	: 200mV- 4V DC.
<b>Heartbeat indication</b>	: Both visible (LED) and Audible (Buzzer) controls
<b>Bipolar Leads</b>	: Lead I, Lead II, Lead III.
<b>Unipolar Leads</b>	: avR, avL, avF, Chest leads (V1-V6)
<b>Power supply</b>	: 230V 10%, 50Hz

Separate output channels Left arm (LA), Right arm (RA), Left leg (LL), Right leg (RL) and Chest Leads (V1-V6) for representing Standard Limb and chest leads configurations. A separate point indicated (12 Lead) to view the all 12 Lead standard ECG waveforms simultaneously.

Note: Specifications are subject to change.

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