



# SIMUL - G

PC-ECG machine with Interpretation

## Key Features

- ✓ Measurements of all 12 leads with Interpretation
- ✓ PC based ECG Machine with DSP Technology
- ✓ Full Frequency Response 0.05 to 150 Hz
- ✓ Simultaneous Acquisition
- ✓ ECG conversion possible into Image format
- ✓ Upgradation for telemedicine
- ✓ Simultaneous acquisition of 12 Leads.
- ✓ Display of running traces of 12 leads split into group of 6 each.
- ✓ Facility to send ECG data to Remote care server for expert opinion

### Dimension and Weight

Dimension (L x B x H)	: 105 X 65 X 40 mm
Weight	: 150gm

### Environmental

Operating Temp	: -5 °C to +50 °C
Operating & Storage	: 0 to 95 % non-condensing Humidity

### Power supply

Input	: USB powered
Power consumption	: < 3 Watt

### Performance

Display	: 1024 x 768 pixels,
Display area	: 320 mm x 240 mm

## Acquisition

Frequency response	: 0.05 Hz to 150 Hz with notch at 50Hz
Filter	: DSP, Muscle tremor filter 20, 30 or 100hz
Input impedance	: 10 M $\Omega$
Time constant	: > 3.2 sec
A/D conversion	: 12 bit
Noise	: < 20 $\mu$ V <sub>rms</sub>
Leakage current	: < 10 $\mu$ A
Patient isolation	: Optical isolation
Sensitivity	: 5, 10 & 20 mm/mV selectable
CMRR	: > 120 dB
Sweep speed	: 12, 25, and 50, 100 mm /S adjustable
Accuracy of HR	: +/- 2 BPM
Sampling Frequency	: 250 samples per second simultaneous, from ADC 1000 sample/second
Model	: Model available with blue tooth facility
Storage	: Multiple test storage facility
Leads-Off detection	: Yes
Printout	: Manual print with grid On/Off facility, print Color reports on A4 paper

## Acquisition

- ✓ Simultaneous body level acquisition of 12 Leads
- ✓ Display of running traces of 12 leads split into group of 6 each
- ✓ Frequency Response – DSP filter of 0.05 to 100Hz with notch at 50Hz
- ✓ Leads-Off detection
- ✓ Facility to store 12 lead Unaveraged ECG
- ✓ Facility to Rerun test
- ✓ Automatic measurement with detection of P+ start, P+ end, P – end, Q start, R Start, R end, S end, r' end, s' end, T Start, T End, U start, U end points on the median once

## Display

- ✓ Display of 4 seconds of ECG traces of 12 leads
- ✓ with standardization pulse and corresponding
- ✓ medians next to each lead
- ✓ Display HR
- ✓ Display long lead, QRS detection Lead, BP and gain
- ✓ Leads-Off detection with a message indicating the lead during the test
- ✓ Selectable lead colors

## Acquisition settings

- ✓ Relearn the median template
- ✓ Gain: 0.5, 1.0, 2.0 mV/cm
- ✓ Facility to change long lead, QRS detection lead and amplify QRS lead

## Minimum PC configuration

Operating system & CPU	: Win7 / Windows XP / Windows 2000 P4, 2 Ghz, 40 Gb HDD 256 MB RAM, USB port for Simul-G unit connection 15" Color monitor Resolution 1024 X 768
Printer	: HP Laser Jet 6L Gold/ Pro HP Laser Jet 1000, HP Laser Jet 1010
Stabilizer.	: 1 KVA
CD ROM	: LG, Samsung Sony, ASUS (Recommended) Type : Speed 52X
Earthing connection	: Independent

## Review display modes

- ✓ Review data of selected patient
- ✓ 12 medians screen: 12 medians are displayed with ST-level
- ✓ Resting ECG display: 2.5 sec all leads with medians and 10 sec of long lead

## Zoom Median

- ✓ Display the amplitude in volts of all fiducial points
- ✓ Displays following ECG interpretation
  - Rhythm statements : Sinus Rhythm / Junctional or NonSinus Rhythm suspected / Sinus Bradycardia / Sinus Tachycardia
  - PR interval statements : PR is normal / PR is long / PR is short
  - QRS interval statements : Normal QRS Width / Wide QRS
  - QT interval statements : Normal QT interval / QT Interval is prolonged / QT Interval - Little clinical significance
  - QRS Axis statements : QRS Axis is normal / Right axis deviation / Left axis deviation / QRS Axis is indeterminate
  - ST abnormalities statements : Normal ST level / ST Elevation / ST Depression
  - T wave inversion : Lead names of leads showing T wave inversion
  - ECG : Normal ECG / ECG not normal / Otherwise normal ECG

- ✓ Display the amplitude in volts of all fiducial points
- ✓ Displays following ECG interpretation
- ✓ ST level and ST slope
- ✓ Display intervals of PQ, PR, QRS, QTC in ms and axes in degree of P, QRS and T
- ✓ Display amplitude in volts of P, Q, R, S, r', s', T, U and QRS waves
- ✓ Display RR interval and HR
- ✓ Facility to change P+ start, P+ end, P – end, Q start, R Start, R end, S end, r' end, s' end, T Start, T End, U start, U end points
- ✓ Facility to enter comments to print on ECG reports
- ✓ Facility to send ECG data to Remote care server for expert opinion

## Review settings

- ✓ Grid/Graph/No grid option on all review screens
- ✓ Facility to edit HR and BP of any stage
- ✓ Facility to edit Patient Details
- ✓ Create the bitmap (GIF) of the selected report/s and save at selected location
- ✓ Facility to backup patient data and review saved data
- ✓ Facility to Edit interpretation
- ✓ Facility select / deselect printing of interpretation

## Reports

- ✓ Resting ECG report
- ✓ 12 leads(All leads) measurement report with interpretation
- ✓ 5 seconds ECG report

## Settings

- ✓ Hospital details
- ✓ Referring Doctor list
- ✓ Standard comment
- ✓ Simul-G system configuration

DUE TO OUR CONTINUOUS PRODUCT DEVELOPMENT PROGRAM, THE SPECIFICATIONS MAY CHANGE

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