



Experience the Trace Quality



Happier Living Everyday

THREE CHANNEL ECG RECORDER

BPL CARDIART® GenX3i



Three Channel ECG Recording with unique trace darkness control

ECG Trace Print on 80mm Wide Paper with selectable trace darkness feature



Colour TFT Screen

Wide 4.3 inch 65K Color TFT display to observe 12-lead, real-time ECG waveforms



Intuitive, One-Touch Function Keypad

Color-Coded Silicone function keys for soft One-Touch Operation with Alphanumeric keypad for entering Patient & Hospital information



Ergonomic Design

Enhanced portability with built-In power supply & integral handle



Short Recharge Time

Rechargeable Lithium battery for energy-efficient operation - Recharge time <3.5 hrs.

* Compatible with selected printers only
Optional feature



ECG Analysis & Interpretation

Gender, Age & Race specific Advanced ECG Analysis & Interpretation - **The Glasgow ECG Interpretation Algorithm**



Multiple Operating Modes

Auto & Manual modes with selectable rhythm, PDF Transfer of ECG via USB# & Page Save Features



Paperless Workflow

ECG Data Export feature to multiple formats enables paperless workflow



Direct Print Feature*

Direct print on color A4 USB# printers in different print layouts



Capacity

Internal record storage for up to 250 ECGs with cyclic overwrite.



Optional features

USB, FTP Server Upload, HL7, RT-VIEW for PC connectivity.

Optional Enhancements*



PC Connectivity with ECG Viewer Software

Stored and Real-time ECG transfer to PC through USB enabled by RT-Viewer software

* Upgradable at additional cost

The Glasgow ECG Interpretation Algorithm

Glasgow University



Glasgow ECG Interpretation Algorithm is acknowledged as being one of the best ECG interpretation algorithms in the world. This algorithm is tried and tested across all major human ethnic groups the world over and hence has clinical application across all populations.

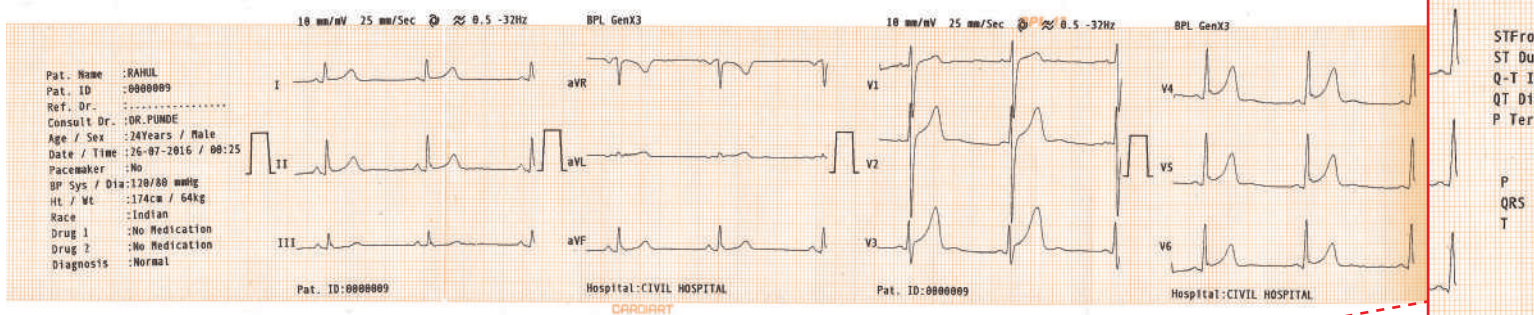
The ECG is particularly important in the emergency department, as it usually forms the basis for immediate therapeutic interventions and/or subsequent diagnostic tests.

The Glasgow ECG Interpretation Algorithm, developed at the University of Glasgow enables automated means of providing ECG analysis, interpretation and printing of reports and this makes it efficient in complementing the role of a clinician. This algorithm is very effective in interpreting STEMI (ST Segment Elevation Myocardial Infarction) appearances on the ECG.

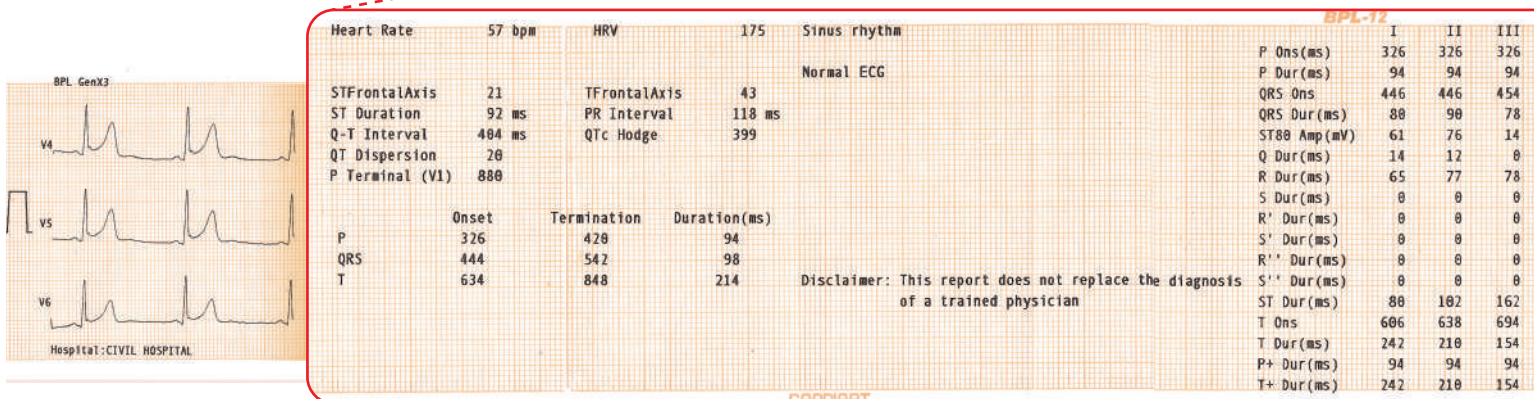


Scan the above image with BPL AR App to view the recorded webinar on Glasgow ECG Interpretation Algorithm

Short (Minimal) Version of Glasgow Interpretation with Analysis & Medians



Detailed Version of Glasgow Interpretation with Analysis & Medians



Size of the above ECG trace not to scale

Unique Features of Glasgow Algorithm



QT_c measurements facilitating assesment of cardiac risk



This algorithm is very effective in interpreting STEMI (ST Segment Elevation Myocardial Infarction) based on age and gender dependent criteria



This algorithm uses measurement from large databases for children and adults giving a high specificity



Has the ability to cope with patients of all ages from birth to old age



"Critical values" included in diagnostic reporting template



10-sec HRV information disclosure

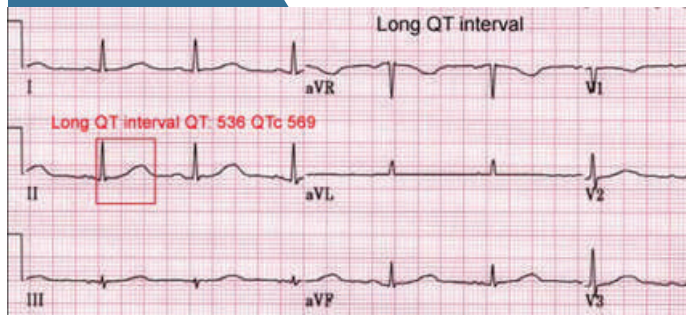


Offers short diagnostic reports for hospitals and detailed reports for primary health centers

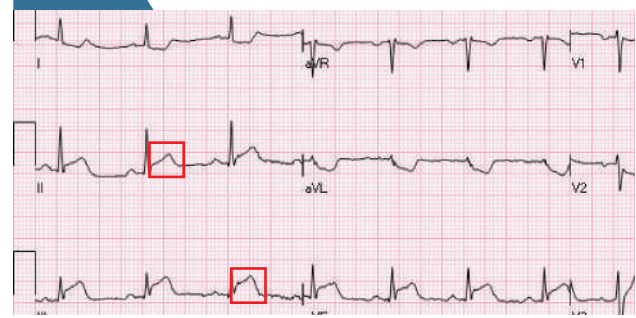


The Glasgow ECG Interpretation Algorithm meets applicable IEC 60601-2-25 requirements.

Prolonged QT interval

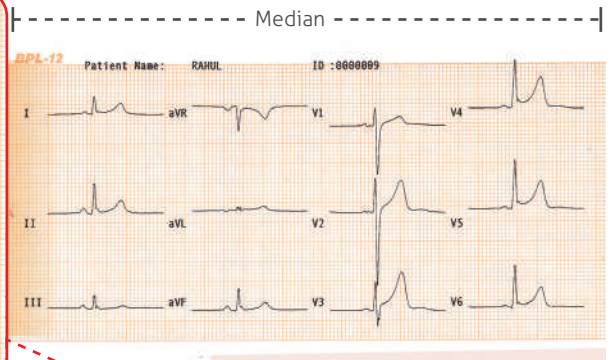


STEMI

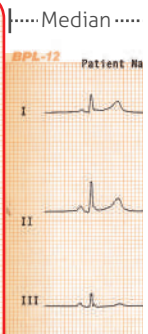


Heart Rate:	57 bpm	HRV:	175	Sinus rhythm
Normal ECG				
STFrontalAxis	21	TFrontalAxis	43	
ST Duration	92 ms	PR Interval	118 ms	
Q-T Interval	404 ms	QTc Hodge	399	
QT Dispersion	20			
P Terminal (V1)	880			
	Onset	Termination	Duration(ms)	
P	326	420	94	
QRS	444	542	98	
T	634	848	214	

Disclaimer: This report does not replace the diagnosis of a trained physician



III	aVR	aVL	aVF	V1	V2	V3/V4R	V4	V5	V6	QRS IntD	I	II	III	aVR	aVL	aVF	V1	V2	V3/V4R	V4	V5	V6
326	326	326	326	326	326	326	326	326	326	36	34	38	18	19	28	22	26	28	40	34	40	
94	94	94	94	94	94	94	94	94	94	63	169	114	0	18	140	63	38	76	74	67	60	
454	446	452	460	444	444	444	450	456	448	0	0	0	-113	-35	0	-20	0	0	0	0	0	
78	88	56	76	94	86	72	92	86	92	538	892	408	705	137	625	1898	3047	1272	1370	1388	1243	
14	-69	23	45	137	314	338	216	182	118	***	***	***	***	***	***	***	***	***	***	***	***	
0	0	0	0	0	0	0	0	0	14	Q Amp (mV)	-34	-27	0	0	-24	0	0	0	0	0	0	-47
78	13	46	76	31	32	40	92	86	77	R Amp (mV)	504	865	408	26	113	625	513	976	840	1370	1388	1196
0	74	0	0	62	53	31	0	0	0	S Amp (mV)	0	0	0	-679	0	0	-1385	-2071	-432	0	0	0
0	0	0	0	0	0	0	0	0	0	R' Amp (mV)	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	S' Amp (mV)	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	R'' Amp (mV)	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	S'' Amp (mV)	0	0	0	0	0	0	0	0	0	0	0	0
162	184	164	180	102	106	118	76	64	98	ST Amp (mV)	46	38	-8	-42	27	14	58	172	209	154	131	81
694	638	672	636	640	636	634	620	606	638	STT28 Amp (mV)	67	72	5	-69	31	38	145	330	354	222	196	127
154	210	176	212	208	212	214	214	242	210	STT38 Amp (mV)	104	122	18	-112	43	70	188	479	521	316	293	190
94	0	36	94	50	94	94	94	94	94	T+ Amp (mV)	301	392	99	0	115	242	263	919	1102	878	792	572
154	0	176	212	208	212	214	214	242	210	T- Amp (mV)	0	0	0	-345	0	0	0	0	0	0	0	0



Product Specifications

ECG ACQUISITION	
ECG Acquisition	12 bits; 1000 samples/ sec/ channel
ADC Resolution	2.55 μ V/LSB
Input Dynamics	DC offset: \pm 300mV; AC Differential: \pm 5mV in the pass band
ECG Lead	Standard 12 leads or Cabrera; Acquired 8 leads & Reconstructed 4 leads (Lead III, Lead aVR, Lead aVL, Lead aVF)
Recording Sensitivity	Manual: 2.5 - 5 -10 - 20 mm/mV \pm 5% Auto: Dependent on the signal strength, Optimizes automatically to 2.5-5-10-20 mm/mV \pm 5%
Input Impedance	> 10 M Ω @ 10 Hz
Frequency Response	0.05 Hz to 150 Hz (-3dB) without Mains /Muscle and ADF Filters
Time Constant	> 3.2 seconds
CMRR	> 90dB @ 50Hz
DF Protection	Internal

ECG PROCESSING	
ECG Analysis & Interpretation	Gender, Age & Race specific Advanced ECG Analysis & Interpretation - Glasgow ECG Interpretation Algorithm in Auto mode
ECG Analysis Sampling Rate	500 samples/ second (sps)
Filters	Mains interference/ Muscle filter: Linear phase digital 50 Hz Notch filter with selectable 32 Hz. Anti-drift filter: Selectable Digital 0.5Hz Anti Drift High pass linear phase filter
Pacemaker Recognition	Recognizes pulse in accordance with applicable IEC standards
Signal Memory	10 Seconds for each lead in Auto mode
Operating Modes	Manual: acquisition and printing in real time Auto: simultaneous acquisition and printing
Heart Rate Meter	30 to 240 BPM \pm 10% or \pm 5 BPM, whichever is greater

DISPLAY & STORAGE	
Display	4.3 inch Color TFT LCD with 480 x 272 pixel resolution; 65k Color
Keyboard	Silicone Rubber keypad with 23 keys & 4 LED indicators
Indicators	Mains Connection, Battery Charging, Battery Low & System Errors
Audible Beep	Heart Rate and Key Press
Startup Time	< 4 seconds
Record Storage	250 ECGs in internal memory with cyclic overwrite

SAFETY CLASSIFICATION	
Safety Classification	Class I with internal power supply
Degree of Protection	Type CF

THERMAL RECORDING	
Recording System	Thermal printer, 8 dots/ mm, 72 mm usable print width
Paper Transport Speed	5 mm/sec or 12.5 mm/sec or 25mm/sec or 50 mm/sec
Thermal Paper	In rolls: Height 80mm, Length 20m, gridded
Print Channel	3 Channel + 1 Rhythm or 3 Channel; Manual: 3 Ch.
Print Formats	Auto: 3 Ch, 3 Ch + 1 Rhythm with selectable print durations of 2.5 secs./ 5 secs./ 10 secs.

PC CONNECTIVITY	
Paperless Workflow	ECG Data Export feature to multiple formats enables this specification
PC Connectivity	Real-time ECG transfer to PC over USB (Optional)

BATTERY & POWER	
Battery	Rechargeable Lithium battery 11.1Vdc, 3000mAh
Mains Protection	Fuse: T2A 250 V
Battery Protection	In built PCM Module
Power Supply	100-240 VAC; 50/60 Hz
Battery Charging Time	Approximately 3 hours 30 minutes from total discharge (Unit off)
Power Consumption	Less than 60VA

ENVIRONMENT SPECIFICATIONS	
Operating Temperature	+10 to +40 $^{\circ}$ C
Relative Humidity	Upto 95% RH Non-condensing
Storage/ Transport Temperature	-10 $^{\circ}$ C to 50 $^{\circ}$ C
Relative Humidity	Upto 95% RH Non-condensing

PHYSICAL SPECIFICATIONS	
Dimension	Approx. 300mm x 260mm x 80 mm (length x width x height)
Weight	Approx. 2 Kgs.

STANDARD ACCESSORIES	
Patient Cable	1 No.
Limb Electrodes	4 Nos.
Chest Electrodes	6 Nos.
Thermal Paper Roll	1 No.
Cardijelly Bottle	1 No.
User Manual	1 No.
Earth cable	1 No.
Power Cord	1 No.

*Technical specification subject to change

ISO 13485:2016 CERTIFIED COMPANY

ISO 9001:2015 CERTIFIED COMPANY

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