

MULTI PARAMETER MONITOR

MAGNA

- 7" (17.8 cms) Colour TFT LCD Screen with LED back light
- ECG, SpO₂ and NiBP
- Arrhythmia indication
- 24 Hours Graphical and Tabular Trend
- Zoom option in graphical trend
- 24 Hours NiBP Trend with Alarm condition
- User Selectable Colour Scheme
- Separate visual alarm indicators for ECG, SpO₂ & NiBP
- Audible Alert tones
- Built-in Rechargeable Battery



TECHNICAL SPECIFICATIONS

GENERAL	Display	Colour TFT LCD with LED back light
	Display area Resolution	153.60 x 86.64 800 x 480 pixels
	Writing speed	25mm/sec
	Alarms	Visual (Bell) & Audio
	Freeze Keyboard	On demand Flat
	CNS Back panel connector	9 Pin D-sub Connector
	Dimensions	235 x 174 x 140 mm
	Weight	2.5Kgs (Approx)
POWER SUPPLY	AC-DC adapter AC mains variation	15V DC/1.5 A (BPL Supplied) 100 - 264 V AC
	Power consumption	< 22VA
	Battery Battery Backup duration	Rechargeable NiMH 9.6V/1800mAh 120 minutes (min) continuous with a fully charged battery
	Patient Safety	Class 1 BF type applied part
SpO ₂	Amplifier	Fully Isolated
	SpO ₂ Range	0 - 100%
	Accuracy Low Alarm Limit Range	± 2% at 80 - 100%; ± 3% at 70 - 79%; ± 3.5% at 60 - 69% 50 ~ 95%
	High Alarm Limit Range	55 ~ 100%
	Resolution Pulse Rate range	1% 30 - 240 BPM
	Pulse Rate Accuracy	±2BPM or 2% whichever is higher
	Plethysmograph	Displayed on channel 2 Auto gained
	DOLPHIN Module (optional)	Class 4 DF type applied part
	Patient Safety Amplifier	Class 1 BF type applied part Fully isolated
	SpO ₂ Range	0 - 100%
	Accuracy Low Alarm Limit Range	± 3% at 70 - 100%; Unspecified at 0-69% 50 ~ 95%
	High Alarm Limit Range	55 ~ 100%
	Resolution	1%
	Pulse Rate Range Pulse Rate Accuracy	30 - 240 BPM ±5BPM
	Plethysmograph	Displayed on channel 2 (auto gain)
ECG	Patient Safety	Class 1 CF
	Defibrillator Protected Leads	Yes User selectable I, II, III
	Heart Rate range	30 - 250 BPM
	Heart Rate Accuracy Low Alarm Limit Range	±2BPM or 2% whichever is higher 30 to 240 BPM
	High Alarm Limit Range	40 to 250 BPM
	Bandwidth	0.5Hz to 35Hz
	User gain settings for 1mV CMRR	5mm, 10mm, 15mm, 20mm > 90dB @ 50Hz
	Input impedance	> 2.5Mohms
	Leakage Current Patient Isolation	<10µA > 4000 V AC @ 50Hz for 1 minute
	Reset Recovery	Automatic return of waveform within
	FCC Display	0.5 seconds after defibrillation or electrical overload 6 seconds real time ECG on channel 1
	ECG Display Arrhythmia Definition	o seconds real time ECG on chainlei 1
	Asystole (ASSY)	No QRS complexes are detected for more than 4 seconds
	Bradycardia (BRDY) Tachycardia (TACH)	If the HR value of the patient drops below 50 BPM If the HR value of the patient exceeds 150 BPM
	Missed Beat (MSBT)	If present RR interval is > 1.9 times of previous average RR interval
NiBP		
	Method	Automatic Oscillometric
	Parameters	Systolic, Diastolic and Mean arterial pressure
	Parameters Operating Modes Cycle Times in Auto mode	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3,4, 5, 10, 15, 30, 60, 90 minutes
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes
	Parameters Operating Modes Cycle Times in Auto mode	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 $^{\sim}$ 260 for Adult, 30 $^{\sim}$ 160 for Child, and 25 $^{\sim}$ 120 for Neonate 20 $^{\sim}$ 235 for Adult, 15 $^{\sim}$ 130 for Child, and 10 $^{\sim}$ 105 for Neonate
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 \sim 260 for Adult, 30 \sim 160 for Child, and 25 \sim 120 for Neonate 20 \sim 235 for Adult, 15 \sim 130 for Child, and 10 \sim 105 for Neonate 20 \sim 255 for Adult, 15 \sim 140 for Child, and 10 \sim 110 for Neonate
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 $^{\sim}$ 260 for Adult, 30 $^{\sim}$ 160 for Child, and 25 $^{\sim}$ 120 for Neonate 20 $^{\sim}$ 235 for Adult, 15 $^{\sim}$ 130 for Child, and 10 $^{\sim}$ 105 for Neonate 20 $^{\sim}$ 255 for Adult, 15 $^{\sim}$ 140 for Child, and 10 $^{\sim}$ 110 for Neonate 30 $^{\sim}$ 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes 15 Minutes 16 mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate 20 ~ 235 for Adult, 15 ~ 130 for Child, and 10 ~ 105 for Neonate 20 ~ 255 for Adult, 15 ~ 140 for Child, and 10 ~ 110 for Neonate 30 ~ 45 seconds Meets ANSI/AMI SP10-2002, EN 1060-4 Maximum 20 seconds
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 \sim 260 for Adult, 30 \sim 160 for Child, and 25 \sim 120 for Neonate 20 \sim 235 for Adult, 15 \sim 130 for Child, and 10 \sim 105 for Neonate 20 \sim 255 for Adult, 15 \sim 140 for Child, and 10 \sim 110 for Neonate 30 \sim 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4 Maximum 20 seconds $<$ 2mHg/minute Systolic: 30 \sim 250 mmHg; Diastolic: 10 \sim 215 mmHg
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range High Alarm Limit Range	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate 20 ~ 235 for Adult, 15 ~ 130 for Child, and 10 ~ 105 for Neonate 20 ~ 255 for Adult, 15 ~ 140 for Child, and 10 ~ 110 for Neonate 30 ~ 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4 Maximum 20 seconds $^{\prime}$ 42 Maximum 20 seconds $^{\prime}$ 45 Maximum 20 seconds $^{\prime}$ 57 Maximum 20 Systolic: 30 ~ 250 mmHg; Diastolic: 10 ~ 215 mmHg Systolic: 35 ~ 255 mmHg; Diastolic: 15 ~ 220 mmHg
ENVIRONMENTAL	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range High Alarm Limit Range Temperature	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes 15 Minutes 16 mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate 20 ~ 235 for Adult, 15 ~ 130 for Child, and 10 ~ 105 for Neonate 20 ~ 255 for Adult, 15 ~ 140 for Child, and 10 ~ 110 for Neonate 30 ~ 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4 Maximum 20 seconds $<2mHg\ / minute$ Systolic: 30 ~ 250 mmHg; Diastolic: 10 ~ 215 mmHg Systolic: 35 ~ 255 mmHg; Diastolic: 15 ~ 220 mmHg
ENVIRONMENTAL	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range High Alarm Limit Range	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate 20 ~ 235 for Adult, 15 ~ 130 for Child, and 10 ~ 105 for Neonate 20 ~ 255 for Adult, 15 ~ 140 for Child, and 10 ~ 110 for Neonate 30 ~ 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4 Maximum 20 seconds $^{\prime}$ 45 Maximum 20 seconds $^{\prime}$ 50 mmHg, Diastolic: 30 ~ 250 mmHg; Diastolic: 10 ~ 215 mmHg Systolic: 35 ~ 255 mmHg; Diastolic: 15 ~ 220 mmHg
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range High Alarm Limit Range Temperature Relative Humidity ECG Patient Cable	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate 20 ~ 235 for Adult, 15 ~ 130 for Child, and 10 ~ 105 for Neonate 20 ~ 255 for Adult, 15 ~ 140 for Child, and 10 ~ 110 for Neonate 30 ~ 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4 Maximum 20 seconds <2mmHg / minute Systolic: 30 ~ 250 mmHg; Diastolic: 10 ~ 215 mmHg Systolic: 35 ~ 255 mmHg; Diastolic: 15 ~ 220 mmHg Operating: 10 to 40°C; Transport and Storage: 20 to 60°C Operating: 485 % non condensing; Transport and Storage: 10 to 90 % non condensing 1 No. Sp02 Cable with finger Probes 1 No.
STANDARD	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range High Alarm Limit Range Temperature Relative Humidity ECG Patient Cable Adult Reusable NiBP Cuff	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo
	Parameters Operating Modes Cycle Times in Auto mode Operating time in Turbo mode Blood Pressure Measure Range Systolic Diastolic Mean Typical determination Time (without artifact) Blood Pressure Accuracy Cuff Inflation time Air Leakage rate Low Alarm Limit Range High Alarm Limit Range Temperature Relative Humidity ECG Patient Cable	Systolic, Diastolic and Mean arterial pressure Manual, Automatic & Turbo 1, 2, 3, 4, 5, 10, 15, 30, 60, 90 minutes 5 Minutes In mmHg 30 ~ 260 for Adult, 30 ~ 160 for Child, and 25 ~ 120 for Neonate 20 ~ 235 for Adult, 15 ~ 130 for Child, and 10 ~ 105 for Neonate 20 ~ 255 for Adult, 15 ~ 140 for Child, and 10 ~ 110 for Neonate 30 ~ 45 seconds Meets ANSI/AAMI SP10-2002, EN 1060-4 Maximum 20 seconds <2mmHg / minute Systolic: 30 ~ 250 mmHg; Diastolic: 10 ~ 215 mmHg Systolic: 35 ~ 255 mmHg; Diastolic: 15 ~ 220 mmHg Operating: 10 to 40°C; Transport and Storage: 20 to 60°C Operating: 485 % non condensing; Transport and Storage: 10 to 90 % non condensing 1 No. Sp02 Cable with finger Probes 1 No.

 $^{\ ^{*} \ \}textit{Due to constant upgradation, specifications \& features subject to change without prior notice.}$

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BPL Limited - Health Management Solutions

11th KM, Bannerghatta Road, Arakere, Bangalore - 560076. Ph: +91-80-2648 4314/4348/4350/4388/0209. Toll Free: 1800-4252355 www.bpl.in/healthcare

For enquiries contact: sales.healthcare@bpl.in

