DRE Waveline EZ

Patient Monitor

Portable patient monitor with a user-friendly touch-screen

ECG, Respiration, SpO_2, NIBP and Temperature. Available with $EtCO_2$ and a printer.

Featuring cutting-edge innovations and impeccable craftsmanship, the DRE Waveline EZ patient monitor is the perfect choice for health care professionals who demand precision, performance and affordability. It features an intuitive touchscreen that helps you quickly and accurately evaluate patient conditions, resulting in better patient care. Utilize the Waveline EZ to monitor ECG, respiration, SpO_2, NIBP and temperature; it's also available with $EtCO_2$ monitoring and a printer.

Features:

- Monitors ECG, respiration, SpO2, NIBP and temperature.
- Also available with EtCO2 monitoring and a printer.
- Touch-screen provides immediate operation.
- Simultaneous multi-lead ECG monitoring.
- ***New for 2015!*** Masimo SET® Pulse Oximetry.
- Advanced ST and arrhythmia detection.
- Graphical and tabular trending.
- Displays three waveforms.
- Battery backup.
- Audible and visual alarms.
- Quick BP readings recall.

Intuitive touch-screen provides immediate operation

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800-477-2006 • 502-244-4444 • FAX: 502-244-0369

www.dreveterinary.com

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Technical Specifications

Safety Approval & Quality System

- Designed to meet IEC60601-1-1988, EN60601-1-1, EN60601-2
- Class II Equipment, double insulated
- Type BF applied parts
- ISO9001 & EN46001 Certified

Power Requirements

Power Supply	AC 90-264V/47-63Hz
Input Power	≤55VA
Fuses	Two fuse sockets in the rear panel indicated by "FUSE", Φ 5X20, 2A/250V
Battery	12V/4.0AH sealed lead-acid
Charge time	≥4 hours
Operating time	≥2 hours (full recharge)
Battery Charging Method	Automatic charging after monitor is connected to AC power supply (with charge protection function)
Discharge Protection	When powered by battery, the monitor will be automatically turned off when battery power is almost used up

Performance Specifications

ECG

Patient Safety

Standard	IEC60601-1-1988
CMRR	≥60dB (Common Mode Rejection Ratio)
Heart Rate Range	20 ~ 254bpm ± 1bpm
Heart Rate Averaging	8 second average
ST Segment Range	-0.8 ~ + 0.8mV
Interface	AAMI 6-pin
Lead Selection	I, II, III (3 lead mode) I, II, III, aVR, aVL, aVF, V (5 lead mode) (ST and Arrhythmia analysis)
Lead Fault Alarm	Audible, Visual
Input	5-lead ECG patient cable
QRS Indicator	Audible and Visual Alert
Waveform Storage	6 minutes
Sweep Speed	12.5/25/50 mm/sec
Gain Selection	4mV, 2mV, 1mV, 0.5mV, 0.25mV, Auto
Trends	2 hours → 4 hours → 8 hours → 24 hours → 48 hours
Patient Isolation	
- Breakdown voltage	*4000VAC 50Hz 60 seconds*
- Leakage current	*<10μA*
Frequency width	
- Monitoring mode	*0.5 ~ 40Hz (+0.4dB,-3.0dB)*
- Surgery mode	*0.5 ~ 20Hz (+0.4dB, -3.0dB), not calibration significant*
Patient Drive Current	<10μA

Performance Specifications

ECG continued

Enclosure Leakage Current	<0.1mA
Maximum T Wave Rejection Capability	1.2mV
Heart Rate Alarm Response Time	< 7 seconds
Aspect Ratio	0.24 ~ 0.6 sec/mV
Alarm Frequency	Low alarm: 2-2.4kHz High alarm: 3-3.4kHz
Defibrillator Protected & ESIS Protected	Tested with 5kV
Recovery Time Following Defibrillation	<5 seconds

Respiration

Measurement Method	Thoracic Impedance
Respiration Rate Range	0 ~ 100±1rpm
Accuracy	±2 rpm

Pulse Oximetry (SpO_2)

SpO_2 Range	0-100% Adult/Pediatric/Neonate
SpO_2 Averaging	8 second average
SpO_2 Accuracy	±2% (70 ~ 100%), ±3% (40 ~ 70%)
Pulse Rate Range	30 ~ 250bpm
Pulse Rate Averaging	8 beat average
Pulse Rate Accuracy	±1% @ 30 ~ 100bpm
Sensor Types	Finger, Universal "Y", wrap probes
Pulse Rate Display	Digital

Non-Invasive Blood Pressure (NIBP)

Method	Automatic oscillometric
Parameters	Systolic, diastolic, mean arterial pressure, pulse
Scale	mmHg or kPa
Operating Modes	Manual, Automatic, Continuous
Repeat Cycles	1 ~ 10, 15, 30, 60, 90, 120 minutes
Determination	
- Systolic, Adult/pediatric	*40 ~ 250mmHg (5.3 ~ 33.3kPa)*
- Systolic, Neonate	*20 ~ 160mmHg (2.7 ~ 21.3kPa)*
- Diastolic, Adult/pediatric	*10 ~ 180mmHg (1.3 ~ 24.0kPa)*
- Diastolic, Neonate	*10 ~ 140mmHg (1.3 ~ 18.7kPa)*
Cuff Pressure Range	
- Adult/pediatric	*0 ~ 300mmHg (0 ~ 40.0kPa)*
- Neonate	*0 ~ 140mmHg (0 ~ 18.7kPa)*

Performance Specifications continued

NIBP continued

Initial Cuff Inflation	
- Adult/pediatric	*170±10mmHg (22.7±1.3kPa)*
- Neonate	*100±10mmHg (16.0±1.3kPa)*
Deflation Pressure	30mmHg(4.0kPa) higher than the last systolic pressure
Cuff Inflation Rate	No greater than 50mmHg/sec
Measurement Time	
- Typical	*25 seconds*
- Maximum	*40 seconds*
- Typical Stat	*20 seconds*
Pressure Display Accuracy	±3mmHg
BP Pulse Rate Accuracy	±2% @ 40 ~ 240bpm
Cuff	Neonate, infant, pediatric, standard adult

Temperature (Dual Channel)

Range	0 ~ 50°C
Probe	YSI® 400 Skin surface or rectal /esophageal
Scale	Celsius
Accuracy	±0.1°C
Resolution	0.1°C

CO_2

Type	Side stream, mom-dispersive IR
CO_2 Range	0-99mmHg
Scale	mmHg/kPa
Accuracy	+- 2mmHg (0-40mmHg) +- 5mmHg (41-76mmHg) +-10mmHg (77-99mmHg)
Calibration	Automatic
Respiration Range	0-150rpm, +- 2rpm

TFT Color Display

Size	8 inches
Matrix	640 (H) x 480 (V) pixels

Dimensions

Size	Approx. 9" (w) x 8.2" (h) x 4.7" (d)
Weight	Approx. 6 lbs.

Recorder (Optional)

Type	Built-in 2-channel thermal array recorder
Print mode	Text or waveform
Waveforms	Real time or alarm-triggered
Resolution	400dpi vertical, 800dpi horizontal
Annotations	Time, date, vital sign readings

Specifications subject to change without notice

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