Cardell® – the name you trust for veterinary monitoring.

Monitoring solutions that deliver unmatched performance in exam, treatment and surgery.

Trusted

- #1 Validated veterinary-specific blood pressure monitoring
- Preferred by top teaching schools and veterinary practices worldwide
- Used by the world’s leading referral and emergency practices
- Validated and published, peer-reviewed studies on cats, dogs and more

Supported

- Full-time clinical support team
- RACE certified provider of monitoring education
- Leading provider to monitoring wet labs at national/regional conferences
- Demo equipment available

Recommended

“The Cardell® Monitor has proven to be an effective tool because it is easy to use and delivers reliable readings, even on cats, kittens and puppies.”
Lorraine K. Jarboe, DVM, DABVP
2010 President, American Association of Feline Practitioners

“I have tried many of the monitors on the market today, and I went with Cardell® because it accomplished the goals that we needed. It is accurate, simple to use, and our technicians really love it.”
Fred Metzger, DVM, DABVP
Owner, Metzger Animal Hospital, State College, PA

“We need patient monitors that are reliable workhorses that we can count on at all times, in all situations. Cardell® Monitors pull all of the best technologies together in a family of monitors that are used throughout our hospitals.”
Neil Shaw, DVM, DACVIM
Medical Director, Blue Pearl Vet

From diagnostic to multiparameter monitoring, Cardell® technology is designed to quickly provide accurate and consistent readings. Advanced motion artifact suppression technology is designed to help eliminate errors caused by shivering, panting or other movement common with animals. Readings are displayed in 15-20 seconds, designed to provide critical information needed to get ahead of potential issues with your patient’s health.

No other blood pressure monitor manufactured today has as many peer-reviewed, published studies comparing its accuracy and reliability to direct invasive blood pressure, the gold standard. Following are two studies that have validated the Cardell® non-invasive blood pressure for reliability and accuracy for use on animals versus direct pressure.


With its touch screen technology, veterinary specific algorithms, and updated interface, the Cardell® Touch multiparameter monitor is designed to make anesthetic procedures safer and more efficient.

Cardell® Touch

Designed to be more versatile and easier to use than its predecessors, the Cardell® Touch can help veterinary professionals improve patient care and efficiency by simplifying every step of the procedure, from patient setup and alarm adjustment, to data export and analysis.

Above all, an anesthesia monitor should be safe, reliable and user-friendly. The Cardell® Touch is designed to be both highly advanced and easy to use. With veterinary-specific algorithms and exclusive Cardell® Blood Pressure Technology, the Touch is the latest innovation from the most trusted name in veterinary vital signs monitoring.

Distinctive features:

- 10.5” touch screen designed to make patient set up faster and easier
- Redesigned menus and improved controls for intuitive navigation
- Smaller, lighter form factor to allow for easy transportation
- USB port for downloading patient data
- Customizable alarm settings for up to three users
- World Class Cardell® BP, Nellcor® SpO₂
- Upgrade to CO₂ monitoring at any time by adding a Masimo® SideStream® or mainstream CO₂ module
- Invasive Blood Pressure and PhaseIn™ multigas available
- Enhanced ECG data export capabilities
- Optional integrated 3-channel graphical printer
- 2-year warranty

Add CO₂ or Multigas at any time.

Monitoring CO₂ can alert you to trouble with your patient within two breaths.
Cardell® Insight

Designed to be compact, lightweight and durable, with an intuitive interface to make our monitors easier to use. And they’re designed to fit anywhere you need them: on a narrow shelf, hanging on a cage or IV stand, or in a carry bag for ultimate mobility.

Popular uses:
- All areas including exam, treatment, surgery, recovery
- Monitoring patients as they move around your hospital
- Mobile practices and field monitoring purposes

Diagnostic Monitoring

- Measures systolic blood pressure
- Measures diastolic blood pressure
- Measures MAP
- Measures pulse rate
- Has automated cycle
- Has user-selectable alarms
- Detects artifacts
- Efficient and user-friendly
- Noise will NOT interfere
- Patient acceptance

Mode of operation
- Measures individual pulse wave, momentary situation
- Average all pulse waves over 10-15 seconds

Prep of measurement site
- Shear & apply gel
- NONE

Cuff measurements
- Can be learned with some practice
- Easy to learn

Patient acceptance
- Can be learned with some practice

Cardell® BP Kit
Seven cuff sizes ranging from 2 – 10 cm in width, made from a soft, hypoallergenic material and a complimentary Cardell® Cuff Selector.

CO₂ Sampling Tubes and Adapters
Available in two sizes to help minimize dead space. Sidestream sample lines have built-in filters for moisture management without messy water traps.

ECG Cables and Lead Wires
Paired with copper clips, designed to be malleable and ultra-conductive. Includes electrode gel to help sustain readings.

YSI Temp Probes
Designed to be durable and deliver accurate readings from either end of the patient. Large probe is included with the Cardell® Touch.

MAXFAST-1 Reflectance Sensor
Can be applied to the tail (wrap included), designed for head and neck surgery or dental procedures.

Accessories

Each of our monitors come with the accessories needed to allow for full monitoring capability, including cuffs, probes, sensors and connecting cables appropriate for the parameters chosen. They have been carefully selected to allow optimum performance on animals. Several optional accessories are also available. Consider stocking key accessories should they require replacement due to accident or normal wear and tear.

Purchase accessories directly from the Animal Health store at: midmarkanimalhealth.com/store

Cardell® Insight

Bright 7” touchscreen display with anti-glare coating for better viewing from any angle

10 hour battery life with 5 minute auto mode for blood pressure allows for increased mobility

3 animal specific alarm settings provide quicker patient set up

Fixed touch selection provides quick and easy access to most used functions

Essential Facts of Blood Pressure in Dogs and Cats; Egner, Carr & Brown © 2003
### Specifications

<table>
<thead>
<tr>
<th></th>
<th>Cardell® Touch</th>
<th>Cardell® Insight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-invasive Blood Pressure (NIBP)</strong></td>
<td>Cardell® Max IQ Vet NIBP</td>
<td>Cardell® Max IQ Vet NIBP</td>
</tr>
<tr>
<td><strong>Pulse Oximetry (SpO₂)</strong></td>
<td>Nellcor® Oximax®</td>
<td>Nellcor® Oximax® (8015)</td>
</tr>
<tr>
<td><strong>CO₂ (End Tidal Carbon Dioxide)</strong></td>
<td>Optional (add anytime) Masimo® IRMA™ mainstream or ISA™ sidestream</td>
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<tr>
<td><strong>ECG</strong></td>
<td>3-Lead Standard, 5-Lead Optional</td>
<td></td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>2-Channel YSI</td>
<td>—</td>
</tr>
<tr>
<td><strong>Respiration/Method</strong></td>
<td>Indirect: Impedance</td>
<td>Direct: EtCO₂ (optional)</td>
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<tr>
<td><strong>Invasive Blood Pressure</strong></td>
<td>2-Channel (optional)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Anesthetic Gases</strong></td>
<td>Masimo® Phasen™ Multigas mainstream or sidestream (optional)</td>
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<tr>
<td><strong>Display</strong></td>
<td>10.5&quot; LCD Resistive Touch Screen</td>
<td>7&quot; LCD Resistive Touch Screen</td>
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<tr>
<td><strong>Printer</strong></td>
<td>Integrated (optional)</td>
<td>—</td>
</tr>
<tr>
<td><strong>Waveform Display</strong></td>
<td>4-Channel Standard, 6–8 Channels Optional</td>
<td>SpO₂ (8015)</td>
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<tr>
<td><strong>ECG Vector Waveform Display</strong></td>
<td>2-Channel</td>
<td>—</td>
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<tr>
<td><strong>ECG Recall</strong></td>
<td>12 Minutes</td>
<td>—</td>
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<tr>
<td><strong>ECG Gain</strong></td>
<td>Auto, x₁, x₁, x₁, x₂, x₄</td>
<td>—</td>
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<tr>
<td><strong>HR/PR Range</strong></td>
<td>15 - 300 bpm</td>
<td>PR 30 - 240</td>
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<tr>
<td><strong>Graphical Trends</strong></td>
<td>120 Hours</td>
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<tr>
<td><strong>Tabular Trends</strong></td>
<td>600</td>
<td>72 Hours</td>
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<tr>
<td><strong>Parameter Alarms</strong></td>
<td>3 user-defined high/low with 4 defaults (cat, dog, horse, other)</td>
<td>3 defaults (cat, dog, horse)</td>
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<tr>
<td><strong>Download to PC</strong></td>
<td>USB stick</td>
<td>USB stick</td>
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<tr>
<td><strong>Video Output</strong></td>
<td>Integrated (optional)</td>
<td>—</td>
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<tr>
<td><strong>Battery Life</strong></td>
<td>2 – 4 Hours</td>
<td>10 Hours (5 min auto mode)</td>
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<tr>
<td><strong>Voltage</strong></td>
<td>100 – 240V</td>
<td>100 – 240V</td>
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<tr>
<td><strong>Weight</strong></td>
<td>9.1 lb</td>
<td>4.3 lb</td>
</tr>
<tr>
<td><strong>Warranty on Monitor (years)</strong></td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Blood Pressure - Cardell®

- **Technique**: Oscillometric
- **Parameters**: Systolic, diastolic, mean
- **Automatic Cycle Times**: 1, 2, 3, 4, 5, 10, 15, 30, 60 min.
- **Determination Time**: - Small cuff: 15 seconds typical @ 160 breaths per minute 120/30 - Large cuff: 26 seconds typical @ 75 breaths per minute 120/30
- **Max time allowed**: 150 sec.
- **Initial Inflation**: 150 mmHg
- **Range**: 20-265 mmHg
- **Motion Artifact Suppression**: Yes

#### Pulse Oximetry (SpO₂) - Nellcor®

- **Oxygen Sat. Range**: 0-100%
- **SpO₂ Accuracy**: 70-100% = ±2%
- **Pulse Rate Range**: 20-300 BPM
- **Probe**: Digital lingual sensor w/ small and large clips
- **Optional Probe**: Max-Fast® reflectance

#### CO₂ - Mainstream

- **Brand**: Masimo® IRMA™
- **Initialization**: <10 seconds
- **Zeroing**: <1 second
- **CO₂ Accuracy**: 0-15 vol% +/- (0.2 vol% +2% of reading)
- **Respiration Rate Range**: 0-150 breaths per minute
- **Routine Calibration**: None
- **Durability**: 100 × 6 ft drop test
- **Water Removal System**: Norflex Sampling line
- **Airway adapter volume**: Regular (<6 mL), Small (<1 mL)

#### CO₂ - Sidestream

- **Brand**: Masimo® ISA™
- **Initialization**: Auto zero <3 seconds, full initialization <10 seconds
- **CO₂ Accuracy**: 0-15 vol% +/- (0.2 vol% +2% of reading)
- **Respiration Rate Range**: 0-150 breaths per minute
- **Routine Calibration**: None
- **Airway adapter volume**: Regular (<6 mL), Small (<1 mL)

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