

NON-INVASIVE BLOOD PRESSURE

Continuous measurement on freely moving large animals



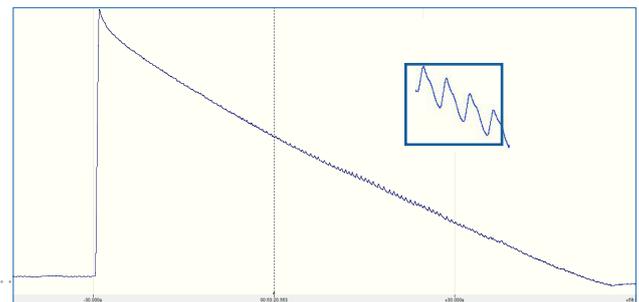
KEY FEATURES

- » Uses well-established oscillometric method of non-invasive blood pressure measurement
- » An air-filled cuff placed around the tail or limb is inflated then deflated during each measurement cycle
- » For large animals: dogs, NHP, pigs



MEASURED PARAMETERS

- » Systolic, diastolic and mean blood pressure
- » Amplitude of pulses
- » Heart rate
- » Pulse transit time, when ECG is also recorded



Measurement cycle with pressure pulses enlarged from deflation zone

HARDWARE

- » NIBP module connects to emkaPACK4G transmitter
- » Inflatable cuffs are available in different sizes
- » Custom-designed, field-tested undershirts and jackets house transmitter and NIBP module
- » Runs in user defined series of measurement cycles



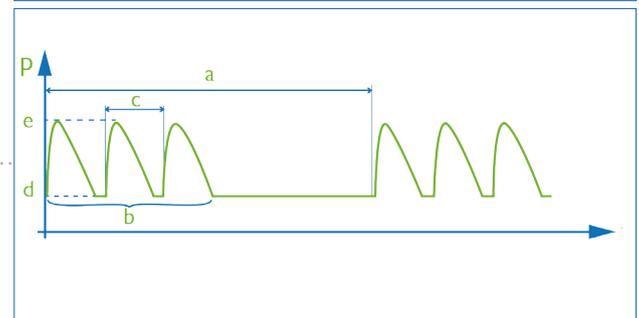
Dog with jacket, NIBP module in pocket and cuff on tail

MEASUREMENT CYCLES

- » Possible remote triggering at any time
- » Fail-safe never to impede blood circulation

DATA ACQUISITION & ANALYSIS

- » Acquisition and real-time analysis with iox software
- » Possible synchronized video recording
- » In-depth analysis and review with ecgAUTO software



Add-on to emkaPACK4G non-invasive telemetry

NOT A "BLACK BOX" RECORDING!

Other existing systems operate as "black boxes". After each measurement cycle, they deliver numbers for blood pressure and heart rate, but the user cannot see the quality of the recorded signal and has no way to estimate the reliability of the measurement and/or edit or discard data.

With the NIBP you comply with GLP rules and are able to:

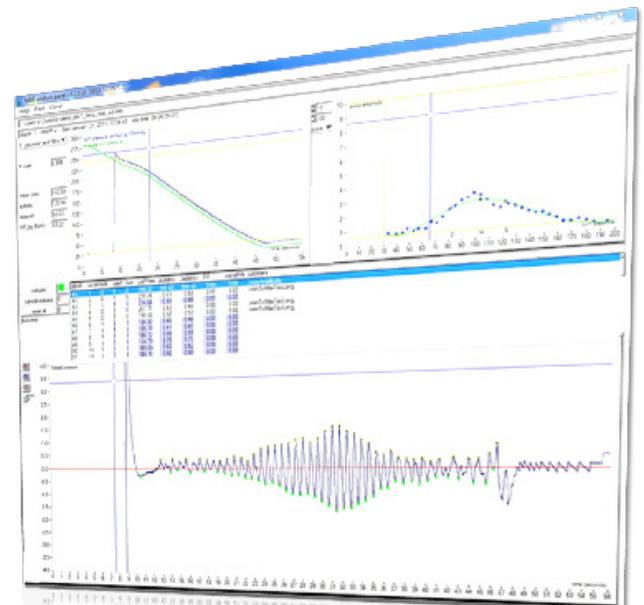
- » Examine the recorded data
- » See how values are computed
- » If needed, edit and/or invalidate results

FAST ACCLIMATATION

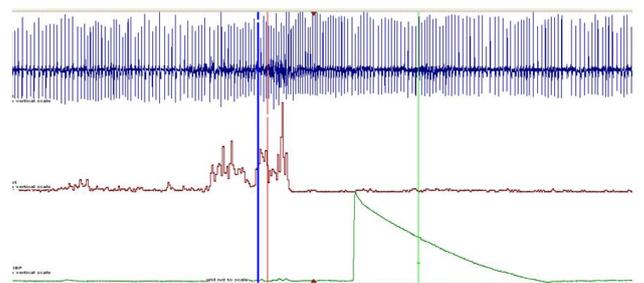
- » The system has been used on dogs and primates
- » Video recordings prove that subjects, either awake or asleep, do not react when cuff inflates

SPECIFICATIONS

NIBP module	
Dimension	81x56x27.5 mm
Weight (module + cable)	78g
Cuff pressure range	10 to 290 mmHg
Sampling frequency	250 Hz

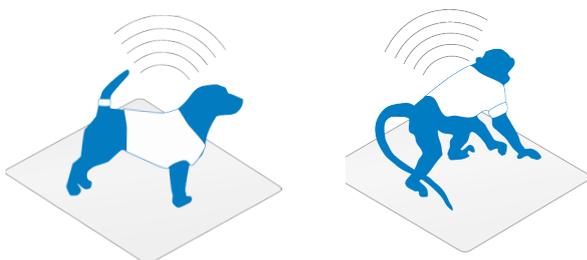


In-depth measurement control and edition



ECG, acceleration and NIBP from sleeping dog

Movement increases heart rate (blue cursor), but NIBP cycle triggers no movement (green cursor).



In addition to non-invasive blood pressure (NIBP), emkaPACK4G also allows:

- » 9 lead **ECG**
- » **temperature**
- » posture & activity (3 axis + total acceleration)
- » 2 **respiration** belt signals
- » **blood pressure** from easyTEL+ implant or vascular access port (VAP)