GIMA
PROFESSIONAL MEDICAL PRODUCTS

VET ELECTRONIC SPHYGMOMANOMETER

REF CONTEC08A-VET (GIMA 80550)

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55°C / -20°C   95% / 0%   1060 hPa / 700 hPa

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Foreword

Please read the User Manual carefully before using this product. The User Manual which describes the operating procedures should be followed strictly. This manual detailed introduce the steps must be noted when using the product, operation which may result in abnormal, the risk may cause personal injury and product damage and other contents, refer to the chapters for details. Any anomalies or personal injury and device damage arising from use, maintain, store do not follow requirements of the User Manual, Our company is not responsible for the safety, reliability and performance guarantees! The manufacturer's warranty service does not cover such faults!

Our company has a factory record and user profile for each device, users enjoy free maintenance services for one year from the date of purchase. In order to facilitate us to provide you with a comprehensive and efficient maintenance service, please be sure to return the warranty card when you need repair service.

⚠Note: Please read the User Manual carefully before using this product.

Described in this User Manual is in accordance with practical situation of the product. In case of modifications and software upgrades, the information contained in this document is subject to change without notice.

The warning items

Before using this product, you should consider the safety and efficacy of the following described:
- Described each measurement results combined with clinical symptoms by qualified doctors.
- The reliability and operation of using this product whether meets the operation of this manual relate to the maintenance instructions.
- Do not perform maintenance and service while the device is in use.

⚠**Warning: Replace accessories which not provided by our company may lead to the occurrence of errors. Replace adapters, cuffs or SpO₂ probes at will may result in wrong measurement results. Without our company or other approved maintenance organizations trained service personnel should not try to maintain the product.**

Responsibility of operator
- The operator must carefully read the User Manual before use this product, and strictly follow the operating procedure of the User Manual.
- Fully consider the security requirements during product design, but the operator should not ignore the observation for the patient and the state of machine.
- The operator has the responsibility to provide the use condition of the product to our company.

Responsibility for our company
- Our company have the responsibility to provide qualified product which conform to company standard of this product.
- Our company will provide the circuit diagram, calibration method and other information at the request of the user to help the appropriate and qualified technicians to repair those parts designated by our company.
- Our company have the responsibility to complete product maintenance according to the contract.
- Our company have the responsibility to respond the requirements of user in time.

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Chapter 1 Safety Precautions
- In order to use it correctly, please read the "Safety Precautions" carefully before using it.
- Operators do not need professional training, but should use this product after fully understanding the requirements in this manual.
- To prevent users from suffering damage or loss due to improper use, please refer to "Safety Precautions" and use this product properly.

⚠ Warning ⚠

Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician.

Please hand measurement results to the doctor who knows animal health and accept diagnosis.

Please use approved accessories for the device and check that the device and accessories are working properly and safely before use.

Otherwise the measurement result may be inaccurate or an accident may occur.

Without our company or other approved maintenance organizations trained service personnel should not try to maintain the product.

This device can only be used for one test object at a time.

Do not use the device in the case of there are flammable anesthetic gasses mixing with the air or nitrous

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oxide.

Otherwise it may cause risk.

Advice

Do not strike or drop the device;

Do not inflate before the cuff wraps around the limbs;

Do not inflect the cuff and the air tube forcibly.

Description of functions:

The Sphygmomanometer apply to measure the non-invasive blood pressure and SpO₂ of animal, user can store 100 items records of measurement results at most. Each record includes detailed measuring time, systolic pressure, diastolic pressure, average pressure, pulse rate and record number, etc. With 2.8 inch color LCD screen, clear interface, the function of data review is complete. User can implement ON/OFF, manual measuring, system setup, parameters change and other operations with five buttons which are located on the front panel of the device.
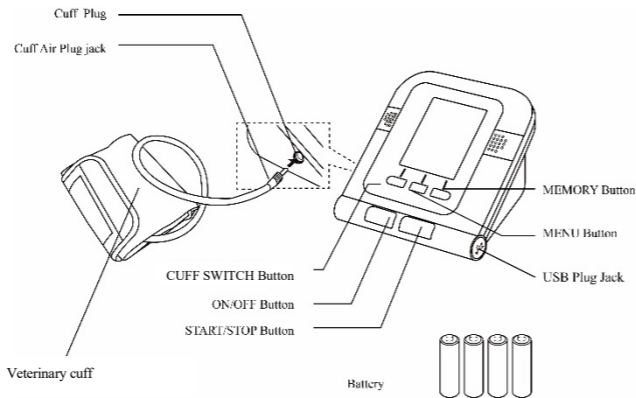
With timing shutdown function, if there is no operation and SpO₂ measurement, the device will automatically turn off after 2 minutes. With USB interface, Users can send measurement results to PC. Refer to the help or explication of the related software for specific operation.

Purpose:

The device can be used to measure NIBP and SpO2 of the animals to provide reference data for relevant personnel, which is suitable for animals of different sizes and species. It can be used in multiple places, such as home, related animal medical institutions.

Chapter 2 Main Unit

The production is in the package. Open the package and confirm whether the production is whole.

Accessories:

The Veterinary Blood Pressure Monitorsupports cuffs in a variety of sizes, please choose suited cuff according to the size of the animal.

USB Data Line   User Manual

Optional Accessories:

AC adapter AC adapter cable
Input: voltage: AC 100 V~240 V
    frequency: 50 Hz/60 HZ
    Rated current: AC 150 mA
Output: DC 6.0 V±0.2 V 1.0 A
or DC5.0 V±0.2 V 1.0 A

SpO₂ probe: Integrated SpO₂ probe (Optional)

A. SpO₂ measurement
    Range:0 %~100 %
    Error: 70~100 %:±2 %;Below 70 %:unspecified
    Resolution: 1 %

Note: because SpO₂ probe measurements are statistically distributed, only about two-thirds of SpO₂ probe measurements can be expected to fall within ±Arms of the value measured by a CO-OXIMETER.

B. Pulse rate measurement
    Range:30 bpm~250 bpm
    Error: ±2 bpm or ±2 %(select the larger)
    Resolution: 1bpm

C. Optical sensor: red light(wavelength: 660 nm, output power less than 6.65 mW) infrared light(wavelength: 880 nm, output power less than 6.75 mW). Optical sensors are light-emitting components that affect other medical devices that use this wavelength range. This information may be useful to clinicians who perform optical therapy.

D. Error in weak filling condition: SpO₂ and pulse rate can be shown correctly when pulse-filling ratio is 0.4 %. SpO₂ error is ±4 %; when measuring range is 30 bpm~100 bpm, pulse rate error is ±2 bpm; when measuring range is 100 bpm~250 bpm, pulse rate error is ±2 %.

Note:

◎The optional probe of the Veterinary Blood Pressure Monitor is an integrated SpO₂ probe, the measuring part is integrated with the probe;

Cuff:

There are several suitable cuffs(range of limb circumference,middle of upper limb)

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the range of limb circumference is 6-11 cm
the range of limb circumference is 10-19 cm
the range of limb circumference is 18-26 cm

⚠ Note ⚠

When the product and accessories described in this manual are about to exceed the period of use, they must be disposed according to relevant product handling specification. If you want to know more information, please contact our company or representative organization.
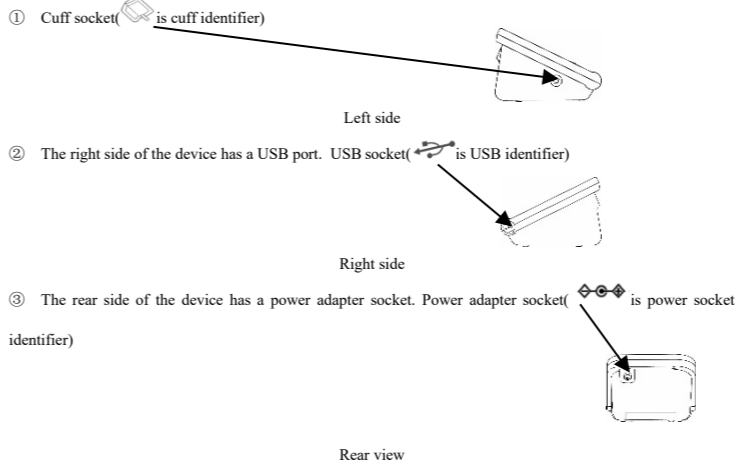
*The device will automatically turn off after two minutes in which there is no operation to the device, even if you forget to turn the power off.

After receiving the product, there may be a protective film on the screen that you can remove for better display effect.

Chapter 3 External Interfaces

⚠ Note ⚠

When removing NIBP cuff, please take plug at the front of the windpipe to pull out.

① Cuff socket(is cuff identifier)

Left side

② The right side of the device has a USB port. USB socket(is USB identifier)

Right side

③ The rear side of the device has a power adapter socket. Power adapter socket(is power socket identifier)
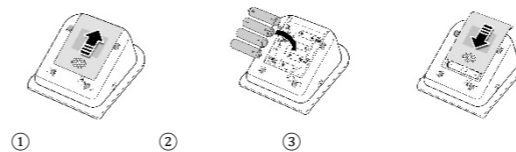
Rear view

⚠ Note ⚠

The USB jack is only used for communication with the upper computer, not for power supply. If an adapter is required, please insert its cable into the power adapter jack.

Chapter 4 Battery/AC Adapter Installation

The product can use battery or AC adapter as power source.

①   ②   ③

4.1 Battery Installation

① Demount the battery cover in the direction of the arrow.
② Install "AA" batteries according to ⊕⊖ polarities.
③ Slide to close the battery cover.

Icon "   ": the batteries power will exhaust. Replace with four new batteries (the same sort) at the same time. Test while low power may cause data deviation and other problems.

Turn the unit off before replacing the batteries.

⚠ Note ⚠

When the battery reaches the end of its life, or if the battery is found to have odor, deformation, discoloration or distortion, stop using the battery and dispose of the used battery in accordance with local regulations, otherwise it will cause environmental pollution.

4.2 Usage of power adapter

1.Connect the sphygmomanometer and the power adapter. Insert the power adapter plug into the power adapter socket on the right side of the device.

2.Please insert the power plug of the adapter into the AC 100 V~240 V socket.

⚠ Note ⚠

The device can be disconnected from the power supply network by unplugging the adapter plug.

When cut off the power supply, first cut off the connection of power socket and the regulated power supply, then cut off the connection of regulated power supply and the sphygmomanometer.

Please be sure to use dedicated medical grade power adapter.

⚠ Note ⚠

When regulated power supply and batteries are both used at the same time, the battery power will not be consumed.

Switch regulated power supply and battery as power supply when the device is off, otherwise, the device may shutdown due to power failure.

The device can be used normally after it is turned on ,without waiting for the device to be prepared.

Chapter 5 Button Functions

All the operations to the Veterinary Blood Pressure Monitor are through the buttons. The names of the buttons are above them. They are:

【ON/OFF】 ON/OFF button. Press this button to turn on/off the device.

【START/STOP】 Press it to inflate the cuff and start a blood pressure measurement. During measuring, press it to cancel the measurement and deflate the cuff.

At all levels interface, the three buttons correspond respectively with the text prompts below the LCD screen, pressing any button will carry on the corresponding function, such as 【UP】 【MENU】 【ENTER】 【DOWN】 etc.

Chapter 6 Setting the Date and Time

It is necessary to set date and time after power on.

The Veterinary Blood Pressure Monitor can automatically stores measurement results with date and time.

If batteries power exhausts or removed, the time to stop.

At the moment, please reset date and time.

The Veterinary Blood Pressure Monitor stores measure results of three users automatically, and up to 100 items for every user. If the date and time are set correctly, the date and time when measuring will be correct in the memory, otherwise it may not be correct.The results can be uploaded to PC via USB and processed with the PC software.

1、There are two modes of time setting:

(1) When using the Sphygmomanometer for the first time or after the Sphygmomanometer has been placed without power supply for a certain time(more than 3 minutes), after power on, there is a prompt of time error on the main interface, set date and time with 【UP】，【DOWN】 and 【ENTER】 button.

(2) Press 【MENU】 button on the main interface to enter system menu, then enter 【SYSTEM TIME】 item, the current time will be displayed on the screen. Set date and time with 【UP】，【DOWN】 and 【ENTER】 button.

2、After setting, select 【CONFIRM】 option and press 【ENTER】 button to confirm the setting value. If you do not want to change the time, select 【EXIT】 option and press 【ENTER】 button to return to the previous menu.

⚠ Note ⚠

The range of year is from 2010 to 2099. When the year reaches 2099, pressing the 【UP】 button will return to 2010.

If the time is not set after power on,the time recorded the BP data may be different with the actual time.

Chapter 7 About Unit

There are two units: "mmHg" and "kPa".

The default is: "mmHg".

Enter the 【SYSTEM SETUP】 submenu in 【SYSTEM MENU】，then select 【UNIT】 option to switch units between "mmHg" and "kPa".
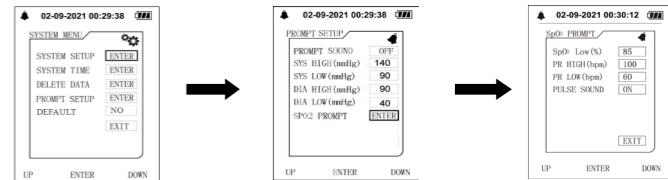
Chapter 8 Over-limit Prompt Function

The Sphygmomanometer has two kinds of reminding methods:the technical parameter over-limit prompt and the physiological parameter over-limit prompt.

8.1 Physiological parameter over-limit prompt

The sphygmomanometer has the function of over-limit prompt, the user can press 【MENU】 button to enter system menu, select 【PROMPT SETUP】 option to enter its interface, then set the limit value of blood pressure. When the BP measurement result is higher than the high limit or lower than the low limit and the prompt is ON, the physiological prompt will occur; in 【PROMPT SETUP】 interface, select 【SpO₂ PROMPT】 option to enter its interface, when the SpO₂ measurement result is higher than the high limit or lower than the low limit and the prompt is ON, the physiological prompt will occur.

In the state of physiological prompt, press any button to cancel the prompt and it does not affect the next prompt; the prompt can be closed permanently with prompt switch of the prompt setup menu until the prompt switch be opened again.

8.2 Technical parameter over-limit prompt

When power is about to exhaust and prompt is ON, the prompt will occur. This prompt can not be canceled unless being closed or the power replaced.

Chapter 9 The Usage Method of Sphygmomanometer

9.1 Accurate Measurement Way

To accurately measure the animal's blood pressure, it is necessary to ensure that the cuff is placed at the same level as its heart, and the animal is calm and does not move during measurement, otherwise the accuracy may be affected.

To prevent the animal from motion, it is necessary to wrap the cuff in a proper and comfortable manner (see section 9.2) to ensure that it does not cause discomfort to the animal.

At the same time, it is better to interact with the animal through gentle tones and motions, and calm the nervous animal when necessary. During the measurement, closely observe the animal's condition to ensure that it is in a relaxed state, to get accurate and reliable data.
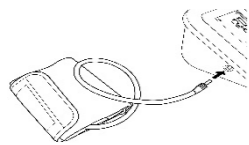
9.2 Applying the Cuff

The cuff can be wrapped to any limb of the animal, and the base of the tail can also be wrapped if necessary. Please take the measurement in a room with an appropriate environment (see Chapter 18).

Carry out the operation in a room with comfortable temperature.
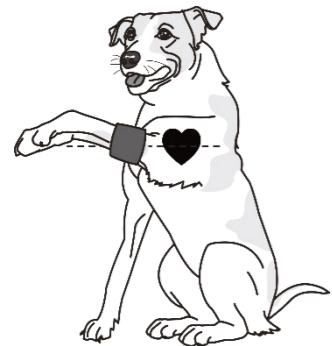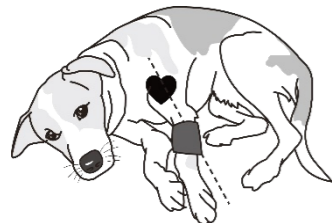
Wear the cuff accurately following these steps:

① Make sure the air plug is securely inserted in the main unit.

②Wrap the cuff to the animal's leg, and ensure that the cuff is at the same level as its heart. To ensure the same level and the measurement accuracy, the wrapping method of the cuff can be flexibly adjusted according to the animal's posture. The specific methods are as follows:

When the animal is in a supine position, the cuff should be wrapped to the sturdy part of its upper limb, and the position of the cuff can be adjusted to ensure that the cuff is almost at the same level as its heart in the vertical direction.

When the animal is in a squatting position, the cuff should be wrapped to the sturdy part of its forelimb, then lift the forelimb until the height of the cuff is almost the same as its heart. During this process, keep the animal comfortable and prevent it from motion due to nervousness or fear, resulting in measurement failure.

⚠ Note ⚠
❂Confirm that the cuff is not inflated before wrapping it.
❂Select an appropriate cuff for the animal based on the circumference of its limb.
❂Do not wrap the cuff too tightly around the limb, otherwise it may cause discoloration or even ischemia of the limb.

9.3 BP Measurement

In order to measure accurately, pay attention to applying the cuff properly. Select a proper cuff according to different animals, then select proper cuff type(large, middle and small).

There are two ways to select the cuff mode, in the time interface, press CUFF button to switch cuff mode; or enter the【SYSTEM SETUP】submenu in【SYSTEM MENU】, and complete switching in 【CUFF TYPE】item.

Every CUFF TYPE corresponds to different cuff sizes, which are identified on the cuff. As follows:

Cuff Type	Limb perimeter
Small	<13 cm
Middle	8 ~ 26 cm
Big	>25 cm

⚠ Note ⚠
①Press 【START/STOP】 button to start measurement.
During measurement, please keep correct pose and quiet state, do not move.
If you want to abort the measurement,Press 【START/STOP】 button, the device will stop inflating, and release the air from the cuff.
②Confirm the Measurement Value
The measurement value can be stored automatically, using [memory function] (refer to Chapter11).
*Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician.
⚠ Note ⚠
Wait at least 4-5 minutes between measurements
When repeatedly measuring, the accurate blood pressure value may not be measured due to congestion in the limbs. Please measure after the blood flow is smooth.
● When some factors affect the measurement results in measurement process, error messages will appear on the screen, you can obviate the malfunction and restart a measurement.
● The minimum value of the patient's physiological signal is the minimum limit that the device can measure. The device may obtain inaccurate measurement results when it is operated below the minimum amplitude or minimum value of the patient's physiological signal.
③In the state of the physiological parameter over-limit prompt is not triggered, press any button to carry on the corresponding button function; in audio prompt state, press any button (except 【ON/OFF】button) to clear up the audio prompt.
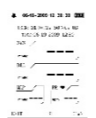④Take off the cuff, press 【ON/OFF】 button to turn the device off.

Chapter 10 Memory Function

The sphygmomanometer is designed to store the blood pressure, pulse rate values and the date and time when measured, which are up to 100 groups. If there have been stored 100 groups, the earliest results will be deleted when saving the 101 group of measurement results.And the"OVERFLOW" will display on the bottom right of the screen, prompting that the data record is full. You can delete the data.

10.1 Review Memory Values
1. In the main interface (interface when starting-up), press【MEMORY】button to review the latest measured values in big-font with the serial number from 1 to 100.
2. Press【UP】/【DOWN】button to circularly switch the former measurement values.
*The right figure shows that there is no measurement result can be displayed.
3. Press【LIST】button to display the data list interface.
4. Press【TREND】 button to display trend interface.
End to display the measurement values:
Press【EXIT】button to return to the main interface or hold【ON/OFF】button to turn the device off.

10.2 Delete Memory Values
Users can delete all memory values of a user instead of separately delete one memory value.
1. Press【MENU】button to enter the system menu, select 【DELETE DATA】option to enter its interface, select the user whose data to be deleted, after confirming again, all measurement results of the selected user will be deleted.
2. Finish Operation
Select 【CONFIRM】or 【EXIT】to return to the previous menu, or hold【ON/OFF】button to turn the device off.

Chapter 11 SpO₂ Measurement Function(Optional)

Precautions during SpO₂ Measurement:

❂The device may not be suitable for all animals, if you can't get a satisfactory result, please stop using it.

❂Data averaging and signal processing generate delay on displayed and transmitted SpO2 value. The data update period is shorter than 30 s, the time for obtaining dynamic average values will increase, which is arisen from signal degradation, low perfusion or other interference, it depends on the PR value.

❂The measurement results may be affected by too long or too much hair. When measuring, insert the part with least hair into the probe sufficiently, or remove the hair of the part to be measured when necessary.

❂The light between the photoelectric receiving tube and the light-emitting tube of the device must pass through the animal's arteriole. Make sure the optical path is free from any optical obstacles like rubberized fabric, to avoid inaccurate results.

❂Excessive ambient light may affect the measured results, such as surgical light (especially xenon light sources), bilirubin lamp, fluorescent lamp, infrared heater and direct sunlight. In order to prevent interference from ambient light, make sure to place the sensor properly and cover it with opaque material.

❂Frequent movement (active or passive) or severe activity of the animal will affect the measurement accuracy.

❂The probe should not be placed on a limb with the blood pressure cuff, arterial ductus or intraluminal tube.

Chapter 12 SpO₂ Measurement Method

(This chapter is only suitable for European Union market)
1)Long press the ON/OFF button to turn on the device to enter the main interface.
2)Pinch the clip so that the tongue or ear of the animal is fully inserted into the clip of the probe, as shown in the Figure below.

Place SpO2 probe

3)Insert the SpO2 probe into the USB jack of the device, then it will automatically switch to the SpO2 display interface from the main interface.

Chapter 13 Error Message

Error message will be displayed in the screen if there is something wrong when measuring. The causes and solutions are shown as follows:

Error Message	Causes	Solutions
Self-test failure System failure	Function abnormal	Please contact us
Loose cuff	Cuff is not connected correctly.	Correctly connect cuff (refer to Chapter 9)
Air leakage	Cuff plug fall off	Make sure the cuff plug is securely inserted in the windpipe (refer to Chapter 9)
Air pressure error	Air pressure error	Refer to the troubleshooting
Weak signal	The pulse signal is too weak or the cuff is loose.	Correctly connect cuff (refer to Chapter 9)
Overpressure	Cuff is blocked or squeezed	Correctly connect cuff (refer to Chapter 9)
Excessive movement Over range Saturated signal	The signal extent is too big owing to the limbs or body moving or other reasons when measuring	Keep limbs, body still, measure again
Time out	It takes too much time	

Chapter 14 Troubleshooting

Abnormal Phenomenons	Causes	Solutions
BP measurement values too high or too low.	Cuff is not connected correctly.	Correctly connect cuff (refer to Chapter 9)
	Move limbs when measuring	Keep quiet and restart a measurement
No pressure	Cuff leakage	Buy a new cuff
	The cuff windpipe is not correctly connected with cuff	Correctly connect
	Cuff is not inflated	Stop using the device and contact us
Cuff deflates in short time	Loose cuff	Correctly apply cuff
It can not carry on measurement when press the measurement button		Switch on the power once again and restart a measurement
Power off suddenly when inflating	No use for a long time, the power of batteries can be exhausted owing to the changed temperature	Replace all four batteries with new ones.
Hold the on/off button but can not start the device	Power of batteries can be exhausted	Replace all four batteries with new ones.
	The battery polarities is reversed	Check the battery installation for proper placement of the battery polarities.
Cuff inflation start before press the measurement button or never stop inflating when measuring		Pull out the cuff to deflate. Stop using the device and contact us.
Cuff never deflation		Pull out the cuff to deflate. Stop using the device and contact us.
Air pressure error	No deflation or deflation error or inflation without stop	Pull out the cuff to deflate. Stop using the device and contact us.
	Others	Keep limbs, body still, measure again.
No press value displayed or the value unchanged or change erratically when cuff inflated		Pull out the cuff to deflate. Stop using the device and contact us.
Other phenomenon		Switch on the power once again and restart an operation. Replace the batteries. If no, please contact us.

Chapter 15 Keys and Symbols

Symbol	Description	Symbol	Description
⚠	Caution: read instructions (warnings) carefully	🔔	Open the over-limit prompt sound indication
SYS	Systolic pressure	🔔	Close the over-limit prompt sound indication
MAP	Mean pressure	▭	Low-power
DIA	Diastolic pressure	▦	Full-power
PR	Pulse rate (bpm)	▪▪▪	1. No NIBP data to review 2. No finger inserted to SpO2 probe(Optional) 3. An indicator of signal inadequacy
LARGE	Large animal	□	Class II applied
MIDDLE	Middle animal	⌦	WEEE disposal
SMALL	Small animal	👤	Type BF Applied Parts
INFO	Information	SN	Serial number
⟼	USB socket connect SpO₂ probe (This item only suitable for European Union market)		Interface for connecting cuff
⊕-⊙-⊖	Socket for power adapter	CE	Product complies with European Directive
REF	Product code	EC REP	Authorized representative in the European community
↑↑	This way up	☀	Keep away from sunlight
☂	Keep in a cool, dry place	🌐	Imported by
🌡	Temperature limit	⟊	Atmospheric pressure limit
✪	Follow instructions for use	%	Humidity limit
🍷	Fragile, handle with care	LOT	Lot number
🏭	Manufacturer	⌁	Manufacture Date

Chapter 16 Maintenance, Cleaning and Keeping

*Please do obey the precautions and correct operating methods in this user manual. Otherwise, we will not responsible for any fault.
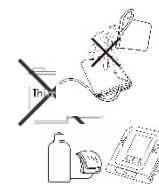
⚠ Warning ⚠

Remove the batteries before cleaning. The accessories and main unit must be separated for cleaning.
Maintenance is not allowed during device using.
Do not squeeze the rubber tube on the cuff.

⚠ Caution ⚠
● High pressure disinfection to the device and accessories is not allowed.
● Do not let water or cleaning agent flow into the socket to avoid device damage.
● Do not soak the device and accessories in liquid.
● If any damage or deterioration of the device and accessories is found, please do not use it.

Maintenance:
● Clean the device and accessories regularly. It is recommended to clean them every one month. When the device or accessory gets dirty, use a dry and soft cloth to wipe. If they are very dirty, it is available to dip the soft cloth into water or mild detergent, and wring out, then use the cloth for cleaning.
● The device should be inspected and calibrated periodically (or obey the requirements of the hospital). It is available to inspect in the state specified inspection institution or by professional personal, or you can contact our company.Long press "USER" button in main interface for 5s to enter the calibration interface.
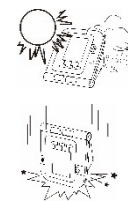
⚠ Advice ⚠
● Do not use gasoline, volatile oil, diluent, etc. to wipe the device.
● Do not clean or wet the cuff.

Storage:

⚠ Advice ⚠
● Do not expose the device in direct sunlight for long time, otherwise the display screen maybe damaged.
● The basic performance and safety of the device are not affected by the dust or cotton wool in home environment, while the device shall not be placed where with high temperature, humidity or dusty.
● Aged cuff may result in inaccurate measurement, please replace the cuff periodically according to the user manual.
● To avoid device damage, keep the device out the reach of children and pets.
● Avoid the device close to extreme high temperature such as fireplace, otherwise the device performance may be affected.
● Do not store the device with chemical medicine or corrosive gas.
● Do not place the device where there is water.
● Do not place the device where with slope, vibration or impact
● Take the batteries out if the device is not to be used for three months or longer.

Chapter 17 NIBP Specification

Name	Veterinary Blood Pressure Monitor
Display mode	2.8" color LCD Display
Measurement method	Oscillometric method
Working mode	Automatic
Operation mode	Continuous operation
Measurement Range	Pressure:0～297mmHg（0～39.6kPa）
	Pulse: 40~240bpm
Resolution	Pressure: 1mmHg(0.1 kPa)
	Pulse: 1bpm
Accuracy	Static pressure: ±3 mmHg(±0.4 kPa)
	Pulse: 5 bpm or 5% select lager
Operating	Temperature:+5 ℃~40 ℃ ,,Measurement accuracy not Affected altitude
	Humidity:15 %RH~85 %RH(Non-condensing)
	Altitude:0 ~3000m
Transport	Transport by general vehicle or according to the order contract, avoid pounded, shake and splash by rain and snow in transportation.
Storage	Temperature: -20 ℃~+55 ℃; Relative humidity: ≤95 %; No corrosive gas and drafty.
Atmospheric pressure	700 hPa~1060 hPa
Power supply	4 "AA" alkaline batteries, AC Adapter(AC, 100 V-240 V, optional)
Rated current	≤ 600 mA
Battery life	When the temperature is 23 ℃, limb circumference is 270 mm, the measured blood pressure is normal, 4 "AA" alkaline batteries cab be used about 300 times.
Dimensions	130(L)*110(W)*80(H) mm
Unit Weight	300 gram(without batteries)
Service life	The service life of the device is five years.
Date of manufacturer	See the label