

# YiLianKang™ Pet

## Blood Ketone Monitoring System

Thank you for choosing YiLianKang™ Pet Blood Ketone Monitoring System (Model: PM 900B). You now have a very simple and accurate way to test  $\beta$ -ketone in Bovine whole blood samples in just a few simple steps anytime, anywhere.

By following the instructions outlined in this quick reference guide, it will assist you in setting up the system and you will be able to use the YiLianKang™ Pet blood ketone monitoring system to monitor  $\beta$ -ketone level to detect ketosis in cows.

### Component

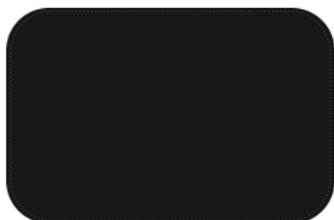
Before testing, read the instructions carefully and learn about all the components of the YiLianKang™ Pet Blood Ketone Monitoring System.



Meter



Test Strips

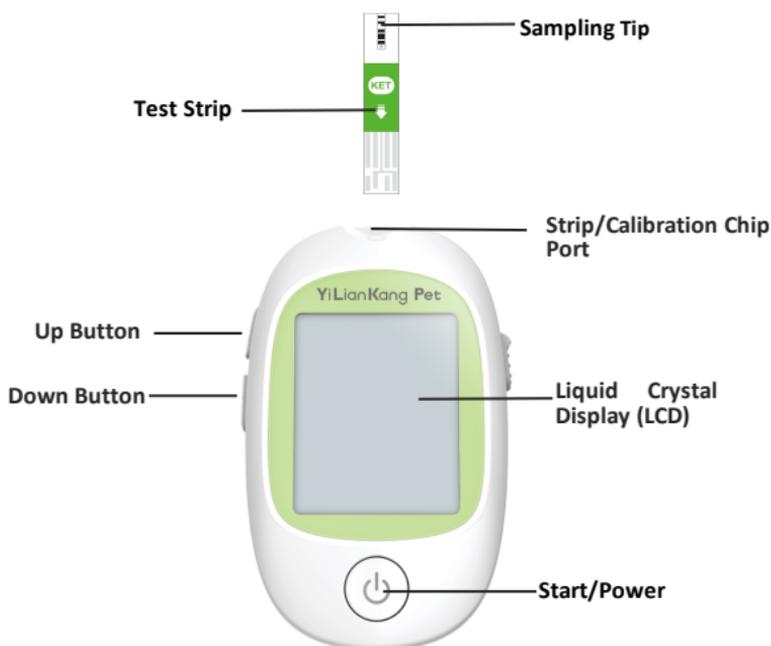


Carrying Case



Calibration Chip

## Glance of Meter and Test Strips



**Sampling Tip:** Apply blood or control solution area.

**Test Strip:** Insert this end of the test strip into the meter in the direction of the arrow until it stops.

**Strip Port:** Test strips are inserted into this area to perform a test / Coding the meter by inserting the calibration Chip.

**Strip Ejector:** Slide the ejector forward to discard the used test strip.

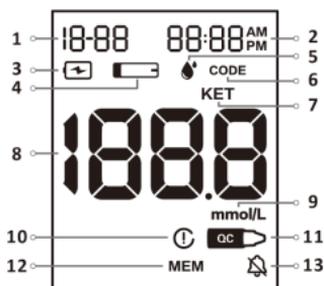
**Liquid Crystal Display (LCD):** Shows test results, and helps you through the testing process.

**Start/Power:** Enter setting model and confirm the setting, when the meter is in PC and Memory mode. Hold Start/Power button, the meter will turn on/off.

**Up Button:** Selects meter settings and performs other menu selection functions.

**Down Button:** Recalls previous test results from the meter memory and performs other menu selection functions.

## Meter Display



Number	Symbol	Indicator	Means
1	18-88	Date	Indicates the testing date in month/day format.
2	88:88 AM/PM	Time	Indicates the time of 24H format or 12H format.
3		Low Power Icon	Warns you when you should replace the battery.
4		Strip Icon	Blood Drop / Strip Icon will appear before applying the sample and during the time of meter reminding. These two symbols appear at the same time.
5		Blood Drop Icon	Blood Drop / Strip Icon will appear before applying the sample and during the time of meter reminding. These two symbols appear at the same time.
6	CODE	Code Icon	Indicates the test strip calibration code number.
7	KET	Test Parameter	KET means blood $\beta$ -ketone test.
8	1888	Test Result Area	Indicates the test result and calibration code number.
9	mmol/L	Measurement Unit	Measurement unit mmol/L are for $\beta$ -Ketone.
10		Invalid Value Icon	Appears if mark the value is invalid, and also will be displayed together with control solution value.
11		QC Icon	Indicates a test result when running quality control.
12	MEM	MEM	Shows a test result stored in memory.
13		Sound Icon	This icon appears when the sound is turned off.

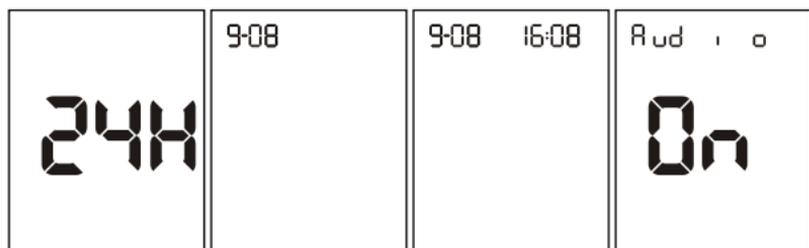
## Set the Meter

Before using the meter for the first time, press the Power button for 2 seconds to enter the setup mode.

Press the Up or Down button to switch between the two settings, then press the Power button to save your choice.

The sequence of setting is:

1. 24H/12H
2. Date
3. Time
4. Audio Features (On/Off)



The meter will automatically turn off when the setting is complete.

## Coding the Meter

It is necessary and important to calibrate the meter every time when you open a new kit box. To do that, simply insert the calibration chip to strip port of the meter for corresponding test every time you change to a new box of test strips. You can easily find a calibration chip in the strip box.

With the meter turn off, insert the corresponding calibration chip into the strip port of the meter. It should easily snap into place. Once you code the meter, you can take out the calibration chip and start testing.



**Note:** KET starts from "900" with a 3-digit code number.

# Blood $\beta$ -Ketone Test

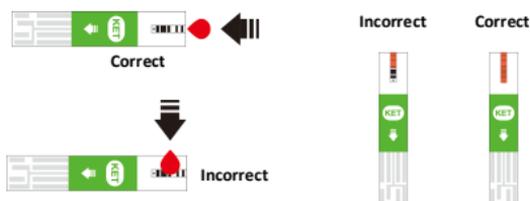
## Prepare Before Testing

1. When opening the new vial in first time, check the security label (tamper seal) closely, and remark the date on the vial label.
2. Take a test strip out and then close the vial tightly.
3. Insert a test strip into the strip port, contact bars end first and facing up, to turn on the meter and display all the display segments, the meter will beep if the audio option is on.
4. Compare the strip type and code number on the meter display with the strip vial label (or strip foil pouch) which tested, and make sure that they are matched.



## Perform a Testing

1. Touch the blood sample to the sample tip at the end of the test strip. If the audio option is turned on, the meter will beep to indicate the sample is sufficient and the measurement has started. If you applied a drop of blood, but do not see the starting of the countdown, you may reapply a second drop of blood within 3 seconds.



### Do Not:

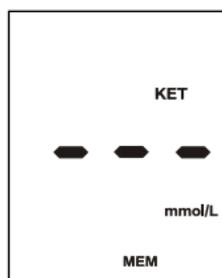
- Apply the sample to the front or back of the test strip.
  - Smear the blood drop onto the test strip.
2. The meter will count down from 4 to 1 and then display the measurement's results. The results will be saved in meter's memory automatically.
  3. Slide the strip ejector forward to discard the used test strip.
- Note:** Dispose of blood samples and materials carefully. Treat all blood samples as if they are infectious materials. Follow proper precautions and obey all local regulations when disposing of blood samples and materials.

## Recall the Meter Memory

The meter automatically stores up to 700 tests for blood  $\beta$ -ketone. Each record includes the test result, date and time. The oldest record will be erased to make room for a new one if memory reaches its limit.

### Viewing Stored Records

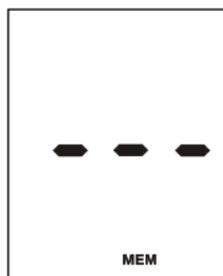
1. Press the Down button to turn the meter on and enter memory mode.
2. If you are using the meter for the very first time, the meter display will show three dashed lines (---), the word "MEM" and the unit of measure. This shows that no data has been stored in memory.



### Clearing the Memory

Extreme caution should be used when clearing the memory. This is not a reversible operation. To clear the memory:

1. With the meter off, press and hold the Down Button for 2 seconds. This will turn on the meter and enter the delete mode.
2. Then press and hold both the Up and Down buttons for 2 seconds again to clear the memory.
3. The display will show "MEM" and "---", then the meter will clear its memory and turn itself off after a moment.
4. If you entered the delete mode but want to exit without deleting the recorded data, press the Power button. This will turn the meter off without deleting any data.



# Maintenance

Proper maintenance is recommended for best results.

## Replacing the Batteries

Your YiLianKang™ Pet Blood Ketone Monitoring Meter uses two 3.0 Volt CR 2032 lithium batteries.

When the battery icon (🔋) is showing, it means the Meter Battery is running dry. You should replace the Meter Battery as soon as possible. An “E-7” error message will appear if the Meter Battery is too low to perform any more tests. The meter will not function until the Meter Battery is replaced.

### **Instructions:**

1. Turn the meter off before removing the battery.
2. Turn the meter over, slide the battery cover down to open it.
3. Remove and discard the old battery. Insert two new CR 2032 3.0V coin cell batteries in the battery carrier. Make sure the plus (+) side is facing up.



4. Close the battery cover and make sure that it snaps shut.
5. Recheck and reset the clock setting after the battery replacement, if necessary. To set the meter clock, see **Set the Meter**.

## **Caring for YiLianKang™ Pet Blood Ketone Monitoring System**

YiLianKang™ Pet Blood Ketone Monitoring Meter does not require special maintenance or cleaning. A cloth dampened with water and a mild detergent solution can be used to wipe the outside of the meter. Take care to avoid getting liquids, dirt, blood or control solution into the meter through the strip or data ports. It is recommended that you store the meter in the carrying case after each use.

The YiLianKang™ Pet Blood Ketone Monitoring Meter is a precision electronic instrument. Please handle it with care.

## Specifications

Feature	Specification
Parameter	Blood $\beta$ -Ketone
Measurement Range	Blood $\beta$ -Ketone: 0.0 - 8.0 mmol/L
Hematocrit Range	$\beta$ -Ketone: 10% - 70 %
Result Calibration	Plasma-equivalent
Sample	When testing $\beta$ -Ketone, use bovine blood samples
Minimum Sample Size	Blood $\beta$ -Ketone: 0.9 $\mu$ L
Test Time	Blood $\beta$ -Ketone: 5 seconds
Units of Measure	Blood $\beta$ -Ketone: The meter is preset to millimole per liter (mmol/L)
Memory	Blood $\beta$ -Ketone: 700 tests
Automatic Shutoff	2 minutes
Meter Size	86 mm $\times$ 52 mm $\times$ 18 mm
On/Off Source	Two CR 2032 3.0V coin cell batteries
Battery Life	Around 1000 tests
Display Size	32 mm $\times$ 40 mm
Weight	53 g (with battery installed)
Operating Temperature	Ketone: 5 $\sim$ 45 $^{\circ}$ C (41 $\sim$ 113 $^{\circ}$ F)
Operating Relative Humidity	10 $\sim$ 90% (non-condensing)
Operating Altitude	0 - 10000 feet (0 - 3048 meters)
Data Port	19200 baud, 8 data bits, 1 stop bit, no parity

# Troubleshooting

The meter has built-in messages to alert you of problems. When error messages appear, note the error number, turn off the meter and then follow these instructions.

Display	Causes	Solution
Meter fails to turn on	Battery may be damaged or not be charged	Replace battery.
	The operation environment is too cold	If meter has been exposed to or stored in cold conditions, wait 30 minutes to allow the meter to reach room temperature then repeat the test.
 E-0	Power On self-check error	Remove the battery for 30 seconds and then put it back and turn meter on again. If the problem persists, please contact your local distributor.
 E-1	Internal calibration check error	Turn off the meter or take out the test strip. If the problem persists, please contact your local distributor.
 E-2	Test strip is contaminated or used, or being exposed to moisture.	Repeat the test with a new test strip.
 E-3	Sample was applied to the test strip too soon	Repeat the test and apply sample after blood drop/test strip symbol appears.
 E-4	Strip is removed during testing	Repeat the test slowly and steady.
 E-5	Insufficient sample	Repeat the test and apply enough sample to fill the test strip check window.
	Sample application error due to late sample re-dosing	Repeat the test and apply enough sample to fill the test strip check window within 3 seconds.
 E-6	Sample application improperly or HCT value out of range	Check the blood HCT value and Repeat the test.
	Battery is running out. Only allow maximum 5 tests	Replace the battery as soon as possible.
<sup>(b)</sup>  E-7	Battery is discharged and the meter does not allow more tests until replacement with a new battery	Replace the battery and reset, then repeat the test.

Display	Causes	Solution
E-8	The operation Temperature is anomalous changed	Please double check the operation condition is steady, then repeat the test.
HIT	Temperature has exceeded the operating temperature of the system	Move to a cooler environment and repeat the test.
LOL	Temperature is below the operating temperature of the system	Move to a warmer environment and repeat the test.
E-9	Hardware damaged	Please contact your local distributor for meter replacement
E 10	Calibration chip failure or damaged	Replace the calibration chip and perform the test again.
E 11	Calibration chip not matched	Replace the calibration chip and perform the test again
E 12	Communications failure; This Error may also appear when a test strip is inserted and start flashing “---” while connect to a cable OR when the meter is ready for blood dropping / counting down for a test while connect to a cable	There is an error in transferring data to the PC. See the package insert included in the Data Management Software for troubleshooting.

## Index of Symbols

	Consult instructions for use
	Store between -20 ~ 50 °C (-4 ~ 122 °F)
	Contains sufficient for <n> tests
	Use by
	Lot Number
	Manufacturer
	Authorized Representative
	Sterilized using irradiation
	Catalog #
	Model Number
	Serial Number
	Do not reuse
	6 months expiry date from the date of first open vial
	Do not dispose along with household waste
	Fragile, handle with care
	This Side Up
	Keep away from sunlight and heat
	Keep Dry

## Warranty Card

Please complete the warranty card that came with this product and mail it to your dealer to register your purchase and validate your warranty.

If the meter fails to work for any reason other than obvious abuse within the first five (5) years from purchase, we will replace it with a new meter free of charge.

For your records, also write the purchase date of your product here.

Date of purchase: \_\_\_\_\_

Model Number: \_\_\_\_\_

Meter Serial Number: \_\_\_\_\_

The problem description: \_\_\_\_\_

You expect:

- Replace a new meter
- Return after maintenance

**Note:** *This warranty applies only to the meter in the original purchase, and does not apply to the battery supplied with the meter.*

Local Dealer Information:

**Thanks so much for your kind support!**



Effective Date: 2022-08-18