

*AC500 PRO Blood Glucose Monitoring System*

# ***User Manual***

*For in vitro diagnostic use only*



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## Introduction

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Thank you for choosing the TysonBio AC500 PRO Blood Glucose Monitoring System. As you already know, self monitoring of blood glucose (SMBG) is a necessary part of the treatment plan of people with diabetes mellitus. Adapted for its ease of use and quick response time, the TysonBio AC500 PRO System has the ability to process accurate results utilizing only a small volume of blood for in vitro diagnostics.

The TysonBio AC500 PRO System is been designed with auto coding feature. It means the meter will code itself automatically every time you insert a test strip.

Please read the entire User's Manual carefully before using this product.

## Intended Use Statement

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The TysonBio AC500 PRO Blood Glucose monitoring System is Intended to be used for the quantitative measurement of glucose (sugar) in fresh capillary whole blood from fingertip, palm, or forearm. The TysonBio AC500 PRO Blood Glucose Monitoring System is intended for testing outside the body (in vitro diagnostic use) and is intended for multiple-patient use in professional healthcare settings as an aid to monitor the effectiveness of diabetes control program. This system should only be used with auto disabling, single-use lancing devices.

The TysonBio AC500 PRO Blood Glucose Monitoring System should not be used for the diagnosis of or screening of diabetes or for neonatal use. Alternative site testing should be done only during steady-state times (when glucose is not changing rapidly).

The TysonBio AC500 PRO Blood Glucose Test Strips are for use with the TysonBio AC500 PRO Blood Glucose Meter to quantitatively measure glucose (sugar) in fresh capillary whole blood samples drawn from the fingertips, forearm or palm.

## Important Safety Instructions

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- Users need to adhere to Standard Precautions when handling or using this device. All parts of the glucose monitoring system should be considered potentially infectious and are capable of transmitting bloodborne pathogens between patients and healthcare professionals. For more information, refer to “Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007”, <http://www.cdc.gov/hicpac/2007ip/2007isolationprecautions.html>.
- The meter should be disinfected after use on each patient. This Blood Glucose Monitoring System may only be used for testing multiple patients when Standard Precautions and the manufacturer’s disinfection procedures are followed.
- Only auto-disabling, single use lancing devices may be used with this device.

Cleaning Solution and Disinfecting Solution:

- Super Sani-cloth Wipes (EPA Reg. No. 9480-4), manufacturer: PDI Healthcare.

For more product information, contact PDI Healthcare at 1-888-463-6332 or visit website at [www.pdihc.com](http://www.pdihc.com).

## About the Product

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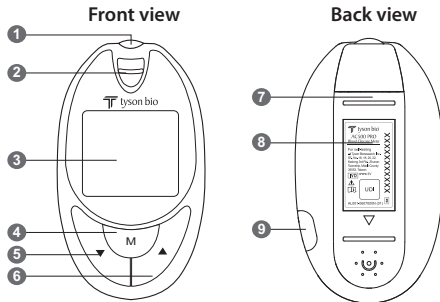
Your TysonBio AC500 PRO System is made up of several components. This booklet is designed to guide you through the operation of the system with detailed directions and pictures. Your TysonBio AC500 PRO System contains:

- One Tyson Bio AC500 PRO Blood Glucose Meter
- One Tyson Bio AC500 PRO Blood Glucose Test Strip vial
- Two bottles of Tyson Bio AC500 PRO Control Solution
- One Tyson Bio AC500 PRO Blood Glucose Monitoring System User Manual
- One Tyson Bio AC500 PRO Blood Glucose Monitoring System Quick Reference Guide
- One Tyson Bio AC500 PRO Blood Glucose Test Strip Package Insert
- One Tyson Bio AC500 PRO Control Solution Package Insert

***Note: 25, 50 test strips vial can be purchased individually.***

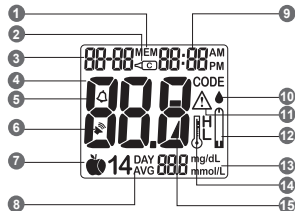
## About the Meter

- 1. Test Port** Insert the test strip here.
- 2. Strip Eject Button** Press this button to ejects the test strip.
- 3. Display** Shows blood glucose results and messages.
- 4. M Button** Press this button to set the year/date/time; to view results and test average in memory; to enter control solution test mode or to turn the meter off.
- 5. ▼Button** Press this button to decrease number/move forward in meter setting.
- 6. ▲Button** Press this button to set the reminder alarm and HI / LO alarm.
- 7. Battery Cover** Press this button to increase number/move backward in meter setting.
- 8. Label** Slide cover to install and replace batteries.
- 9. Data Port** Connect interface cable to transfer data.  
(Side of the meter)



## About the Meter Display

- 1. Memory Symbol**  
Indicates in memory mode.
- 2. Control Solution Test**  
Appears when doing a control solution test and marking the result as a control solution test.
- 3. Date**
- 4. Test Result Area**  
Display test results.
- 5. Alarm Function Symbol**  
Appears when the clock alarm is set.
- 6. Buzzer Icon**  
Appears when buzzer is ON
- 7. Meal Indicator**  
Pre-meal 🍏 and post-meal 🍎
- 8. Day Average Symbol**  
Shows the average value of test results.
- 9. Time**
- 10. Blood Drop Symbol**  
Flashes when it is ready to apply sample to test strip.
- 11. Warning Symbol**  
Appears when result is out of the range of your setting reference value.
- 12. Test Strip Symbol**  
Appears to tell you when the meter is ready for test.
- 13. Units of Measurement**  
Unit of mmol/l or mg/dL will appear with the test result.
- 14. Temperature Message**  
Appears if your meter is out of operating temperature range.
- 15. Battery Symbol**  
Appears when the battery is low or must be replaced.



## About the Test Strip

Each strip can be used only once.

The test strip consists of the following parts:

### 1. Target Area

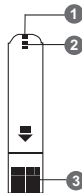
This is where blood is drawn into the test strip.

### 2. Confirmation Window

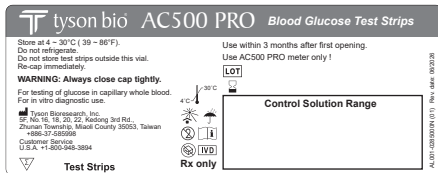
This is where you can confirm that enough blood has been applied to the target area.

### 3. Contact Bar

This end of the test strip is inserted into the test port to activate the meter. (white side face up).



## About the Test Strip Vial



Test Strip Vial Label



Test Strip Vial

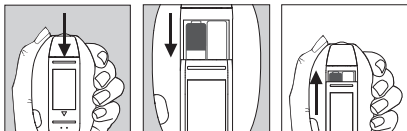
## Installing/Replacing the Battery

When the battery is low, the meter will show a warning signal. When this display appears, it is time to replace a new battery. When the low battery warning signal is shown, the meter will provide accurate results for approximately 50 more measurements.



### ***How to Replace the Battery***

1. Requires (2) AAA batteries when replacing.
2. From the back of the meter, gently slide and remove the battery cover.
3. Insert the batteries with the + and – ends matching the marks in the battery compartment.
4. Slide battery cover back into place.



## Setting Up the Meter

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To turn the meter on, first install the batteries, then proceed with the following instructions.

### Setting the Date, Time

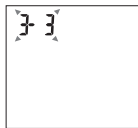
1. Press and hold **M** for 4 seconds with meter turn off to enter this mode.
2. Press **▲** or **▼** to select "24hr" or "12hr" setting. Press **M** to set. (Fig.1)
3. The year will now appear and flash. Press **▲** or **▼** to select the year. Press **M** to set. (Fig.2)
4. The number in the month position will now flash. Press **▲** or **▼** to select the month. Press **M** to set. (Fig.3)
5. The day will now flash. Press **▲** or **▼** to select the date. Press **M** to set. (Fig.3)
6. The number in the hour position will now flash. Press **▲** or **▼** to select the hour. Press **M** to set. (Fig.4)
7. The minute will now flash. Press **▲** or **▼** to select the minute. Press **M** to set. The date and time you set will show on the display screen. Press **M** to turn off the meter. You have now completed the meter date/ time setting. (Fig.4)



(Fig.1)



(Fig.2)



(Fig.3)



(Fig.4)

## Setting the Reminder Alarm

The meter provides four user setting reminder alarms for worry free testing. (Default is alarm off.)

1. Press and hold ▼ for 4 seconds with meter turn off to enter this mode.
2. The first reminder alarm will appear on the display. (Fig.5). Press ▲ or ▼ to select which alarm you want to set (number 1 to 4). Press **M** to confirm.
3. Press ▲ or ▼ to select "YES" or "NO". If "NO" is chosen and **M** is pressed, the meter goes back to reminder alarm setting mode. If "YES" is chosen, press **M** to confirm and the time will appear. (Fig.6)
4. The number in the hour position will now flash. Press ▲ or ▼ to select hour. Press **M** to set. (Fig.7)
5. The minutes will now flash. Press ▲ or ▼ to select the minutes. Press **M** to set and meter will go to reminder alarm setting. (Fig.8)
6. Press ▲ or ▼ to select reminder alarm 2 to 4. Repeat steps 3 to 5 to set the next three reminder alarms. (if needed).
7. After finishing reminder alarm setting, HI alarm setting appear.

### NOTE:

**When the alarm is ringing, press any one button to turn off or the alarm will turn off automatically after 30 sec.**



(Fig.5)



(Fig.6)



(Fig.7)



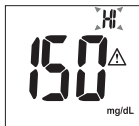
(Fig.8)

## Setting the HI / LO Alarm

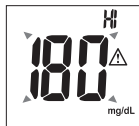
1. Press and hold ▼ for 4 seconds with meter turn off to enter this mode.
2. Press and release ▼ to move through reminder alarm setting, the HI alarm setting will appear. Press **M** to confirm. (Fig.9)
3. To change HI alarm setting, press ▲ or ▼ until you reach your desired HI setting and then press **M** to set. (The HI alarm value range is 100-400 mg/dL / 6.0-21.0 mmol/L, default is 180 mg/dL / 10 mmol/L.) (Fig.10)
4. To change LO alarm setting (Fig.11), press ▲ or ▼ until you reach your desired value and then press **M** to set. (Fig.12). You have now completed the meter alarm setting. Press **M** to turn off the meter. (The LO alarm value range is 30-90 mg/dL / 2.4-5.8 mmol/L, default is 70 mg/dL / 3.9 mmol/L.)

### NOTE:

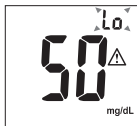
***The hypoglycemic (LO) and hyperglycemic (HI) alarm glucose values should be selected in consultation with your health care provider.***



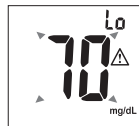
(Fig.9)



(Fig.10)



(Fig.11)



(Fig.12)

## Setting the Sound

1. Press and hold ▲ for 4 seconds with meter turn off to enter this mode. The “bi and speaker icons” display will appear. (Fig.13)
2. If you want to hear beep sound during testing, press ▲ or ▼ to select “On”, then press **M** to set. To turn the beep sound off, press ▲ or ▼ to select “OFF”, then press **M** to set. (Fig.14)



(Fig.13)



(Fig.14)

## Important Information

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### ***You have to know before testing***

- Always keep the test strips in the original vial only. Tightly close the vial immediately after removing a test strip.
- Do not use test strips and control solutions beyond the expiration date printed on the package since this may cause inaccurate results.
- Use each strip immediately after removing it from the vial. Each test strip can be used once.
- **Any changes to administration of medication based on results obtained from the TysonBio AC500 PRO blood glucose test system should not be made without the guidance of a physician or qualified healthcare professional.**
- Low or high blood glucose readings can indicate a potentially serious medical condition. If your blood glucose reading is unusually low or high, or if you do not feel the way your reading indicates, repeat the test with a new test strip. If your reading is not consistent with your symptoms or if your blood glucose result is less than 60 mg/dL (3.3 mmol/L) or higher than 240 mg/dL (13.3 mmol/L) you should contact your healthcare professional and follow his or her treatment advice.

## Testing Your Blood Glucose Level

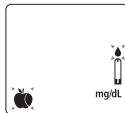
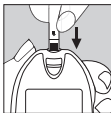
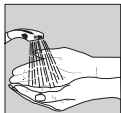
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Before testing blood glucose, you need the following items:

1. TysonBio AC500 PRO meter
2. TysonBio AC500 PRO test strip
3. Single use lancing device

### Preparing the Test Strip

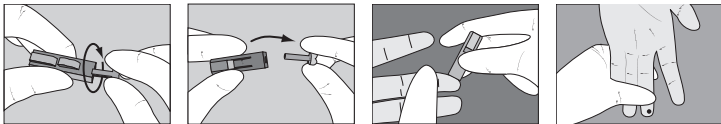
1. Wash hands using soap and warm water. Rinse and dry thoroughly.
2. Pull out a test strip from the vial and re-cap the vial immediately.
3. Insert the test strip into the test port. The white side should face the front the meter and the arrow should be pointed towards the test strip port. The meter will automatically turn on.
4. A beep will sound, and a clockwise moving dotted lines will appear.
5. After system checking ok, a flashing "●" symbol will appear. You can press ▲ or ▼ to select the meal indicator for marking the test as premeal 🍏 or postmeal test 🍎 (default premeal).
6. Now you are ready to obtain a blood sample.



## Obtaining a Blood Sample

SAMPLE MAY BE OBTAINED FROM FINGER, PALM or FOREARM

1. Twist and pull off protective tab to break seal on lancet and place in disposal.
2. Position lancet firmly against puncture site as illustrated. Press down firmly until an audible click is heard.
3. To obtain sufficient blood sample, hold the puncture site downward and gently apply intermittent pressure to the surrounding tissue.
4. Dispose of used lancets at the point of use in an approved sharps container. Never reuse lancets.



### **Note:**

***Auto-disabling, single use lancing device is commonly available at medical supply distributors or drug stores.***

### **CAUTION:**

***All parts of the glucose monitoring system should be considered potentially infectious and are capable of transmitting blood-borne pathogens between patients and healthcare professionals.***

#### ***To reduce the chances of infection:***

- ***Only an auto-disabling, single use lancing device should be used.***
- ***Wear gloves during any procedure that involves potential exposure to blood or body fluids. A new pair of clean gloves should be worn by the user before testing each patient.***
- ***The device must be cleaned and disinfected after every use to prevent carry-over of blood and infections agents between patients.***
- ***Refer to section "Cleaning and disinfection procedure" (page.23) for how to clean / disinfect the meter.***
- ***Wash hands thoroughly with soap and water after handling the meter, lancing device, or test strips.***

Please refer the following practice guidelines:

- Biosafety in Microbiological and Biomedical Laboratories (BMBL) found at <http://www.cdc.gov/biosafety/publications/bmbl5/>
- "Protection of Laboratory Workers From Occupationally Acquired Infections; Approved Guideline-Third Edition" Clinical and Laboratory Standards Institute (CLSI) M29-A3.

## Applying Blood Sample to the test strip

1. After obtaining a blood sample, discard the first drop of blood prevent the contamination of body fluid, touch the tip of the test strip to the drop of blood. Blood is automatically drawn into the test strip. Hold the tip of the test strip touching the blood drop until the meter beeps.
2. As soon as enough blood has filled the confirmation window (see picture) of the test strip, the meter will start the countdown from 5 to 1. The blood glucose result will appear on the display and will be stored into the meter memory automatically.

### **NOTE:**

**To ensure accurate results, make sure the confirmation window of the test strip is completely filled with the blood sample.**



3. After the test result appears, if no further tests are performed, the meter will automatically shut off after 3 minutes. After finishing the test, push the strip eject button to remove the used strip or use a tissue to remove test strip from the meter for proper disposal.

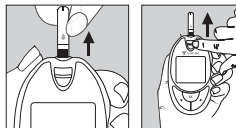
**Warning:** Always discard the used test strip into suitable waste container.

**CAUTION:**

**Used lancets and test strips may be considered biohazardous waste in your area.**

**Dispose of used lancets and test strips at the point of use in a proper container.**

**Be sure to follow your local regulations for proper disposal.**



**HI and LO Readings**

1. The meter is designed to display test results range between 20 to 600 mg/dL (1.1 to 33.3 mmol/L). If a "HI" message appears on the display, your meter has detected that the blood glucose level is higher than 600 mg/dL (33.3 mmol/L). Review your testing procedure and test again with a new test strip to confirm the result. **If the same result occurs, consult the patient's healthcare professional immediately.**
2. If a "LO" message appears on the display, your meter has detected that the blood glucose level is lower than 20 mg/dL (1.1 mmol/L). Review your testing procedure and test again with a new test strip to confirm the result. **If the same result occurs, consult the patient's healthcare professional immediately.**



## Available Alternate Sites Testing : Palm and Forearm

TysonBio AC500 PRO Blood Glucose Monitoring System provides alternate sites testing (AST). This system provides the ability to test on the palm and the forearm with the equivalent results to fingertip testing.

### **CAUTION:**

***1. Physiologic differences in the circulation between the finger and other test sites like the forearm and palm may result in differences in blood glucose measurements from the other test sites and your fingertips. Changes in blood glucose may be observed in finger blood samples sooner than blood samples from the forearm and other alternate sites. Rub the alternate test sites about 20 seconds before lancing. If you are testing for hypoglycemia (low blood glucose), or if your patients suffer from hypoglycemia unawareness, we recommend that you test on your fingertips.***

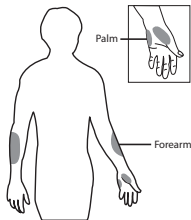
**2. Check with the patient's Physician or Diabetes Healthcare Professional to see if palm or forearm testing is appropriate for patient.**

**3. We strongly recommend you do AST ONLY in the following intervals:**

- In a pre-meal or fasting state (more than 2 hours since the last meal).
- Two hours or more after taking insulin.
- Two hours or more after exercise.

### **DO NOT use AST if:**

- If patient is ill or under stress.
- If the glucose result is low or high.



There are limitations for doing AST. Please consult your healthcare professional before you do AST.

### **Limitations:**

- (a) AST measurements should never be used to calibrate continuous glucose monitors (CGMs).
- (b) AST measurements should never be used in insulin dosing calculations.

## Control Solution Test

The control solution is used to check and ensure that the system is working properly and that the test is performing correctly.

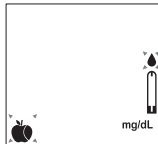
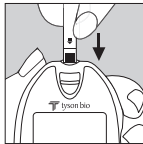
### ***When to Perform a Control Solution Test***

1. Daily or per facility protocol.
2. When you are using your system for the first time.
3. When you are using a new batch of test strips.
4. Anytime you question the performance of the system, or when the blood glucose test results are lower or higher than patients normal level.

**NOTE:**  
***There are three control solutions at different desired range of aqueous glucose (Level 1, Level 2 or Level 3). For more information about the control solution, please read your control solution package insert. Two sets of control solution should be used, a high level and a low level control solution of your choice. For order information, please contact customer service.***

### ***To Perform a Control Solution Test***

1. Make sure the control solution is at room temperature (59°F to 82°F or 15°C to 28°C ) prior to testing.
2. Insert a test strip, white side face up, with the arrow pointing toward the test port. The meter will automatically turn on.
3. All segments of the LCD display will appear, a beep will sound, and a clockwise moving dotted lines will appear.



- After system checking ok, a flashing "💧" symbol will appear.
- Press and hold **M** for 4 sec to switch to control solution mode. The "⏏" will appear which indicates that the meter will mark your current test as a control solution test. Now you are ready to apply the control solution.
- Gently swirl or invert control solution bottle a few times. **DO NOT SHAKE.** Discard the first drop of control solution and squeeze a small drop of control solution on a clean nonabsorbent surface (such as a clean piece of wax paper). **Do not apply control solution to the test strip directly from the bottle.**
- Bring the tip of the test strip to lightly touch the drop of Control Solution. Control Solution is automatically pulled into the strip through the tip. Hold until the meter beeps. The meter will now starts the countdown from 5 to 1 and the control solution test result will appear.

**CAUTION:**

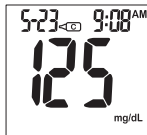
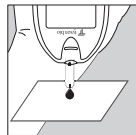
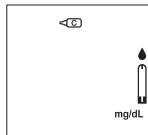
***Please remember that in order to prevent contamination, follow the above instructions properly when performing the control solution test.***

**Comparing Control Solution Results**

The system is functioning properly if the result falls inside the specified range printed on the test strip vial. If the test result falls outside the specified range, repeat the test.

**Results falling outside the specified range may be caused by**

- Error in performing the test
- Control solution temperature is lower than 59°F(15°C) or higher than 82°F(28°C)
- Expired or contaminated control solution
- Expired or contaminated test strips
- Meter malfunction



**Note:**

***The result will not be included in calculating the average when the meter is set in the control solution test "⏏" mode. DO NOT use the system if the problem persists. Please contact customer service.***

## Memory Features

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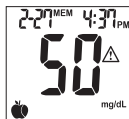
### ***View results stored in the memory***

View results stored in the memory

1. Press **M** to turn on the meter. The date and time will appear first.
2. Press ▼ to review previous results. Results will be shown starting with the most recent. Test result memory sequence will display when button is pressed and test result with date and time the test was taken will display when button is released. (Fig.15)
3. You can press ▼ or ▲ to scroll forward or backward through the results. When "000" appears on the display, you have viewed all of the results in the memory. (Fig.16). Press **M** to turn off the meter.

### ***Note:***

***The meter will hold 500 results in the memory. When the memory is full, the oldest result will be removed and replaced with the newest result.***



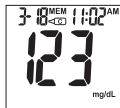
(Fig.15)



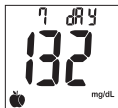
(Fig.16)

### ***View control solution and day average result***

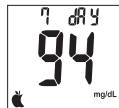
1. Press **M** to turn on the meter. The date and time will appear first. Press **M** again to view the average results.
2. The control solution result will show on screen first. (Fig.17) Continue to press and release **▼**, the 7-days result marked with a pre-meal indicator and post-meal indicator will be shown on display in sequence. (Fig.18-19)
3. Press **▼** to scroll forward to view 14-days and 30-day averages. You can press **▲** to scroll backward. When "000" appears on the display, you have viewed all of the results in the memory. Press **M** to turn off the meter.



(Fig.17)



(Fig.18)



(Fig.19)

### ***NOTE:***

1. The consecutive 7/14/30-day average is calculated from the blood glucose results obtained during the last consecutive 7/14/30-day. If there are not enough testing results for the calculation of 7-, 14-, 30-day averages, the average result will not be shown.
2. A result with a thermometer symbol indicates that the reading was taken outside of the meter's specified operating temperature range and may not be accurate. This value is included in your 7-, 14- and 30-day averages.
3. LO (under 20 mg/dL) and HI readings (over 600 mg/dL) will not be stored in the memory.

### ***Exiting the Memory Mode***

1. Press the **M** to turn off the meter at any time.
2. Meter will shut down automatically after 3 minutes with no further action.

## Transfer Test Results to a Computer

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You can use the meter with TysonBio Link Health Management Software to transfer test results to your computer.

1. **Obtain the required software and cable**

For order information please call Customer Service or visit website of [www.tysonbio.com](http://www.tysonbio.com)

2. **Install the software on a computer**

Follow the instructions provided with software to install the software.

3. **Get ready to transfer test results**

With meter turned off, connect the interface cable to a serial port on your computer, then connect the other end of interface cable to the data port located on the side of the meter. The word "PC" will appear on the display, indicating that the meter is in the communication mode.



4. **Transfer data**

Follow the instructions provided in the software to download the results from the meter. After finishing the data transfer, press **M** button to turn off the meter.

**Note:**

**While in the communication mode, you will be unable to perform a blood glucose test. If the meter is not in the PC link mode, it will not respond to computer commands.**

## **Cleaning and Disinfection procedures**

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### ***Meter cleaning and disinfecting:***

- Cleaning removes blood and soil from the meter. Disinfecting removes most, but not all possible infectious agents (bacteria or virus) from the meter, including blood-borne pathogens.

### ***When to clean and disinfect the meter:***

- The meter **MUST** be cleaned and disinfected after use on each patient.
- Always clean and disinfect the meter before allowing anyone else to handle.
- Do not clean the meter during a test.

### ***The following product has been approved to clean the meter.***

- Super Sani-cloth Wipes (EPA Reg. No. 9480-4), manufacturer: PDI Healthcare.
- The meter has been validated for 5,200 cleaning and disinfection cycles.

When using any disinfection wipe, take extreme care not to get liquid in the test strip dock or key parts of the meter. With all recommended glucose meter cleaning methods, it is crucial that the meter be completely dry before testing a resident's glucose level. Please follow the disinfectant product label instructions to ensure proper drying time.

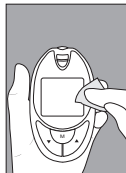
While there are many other product options for disinfecting blood glucose meters, Tyson Bio has not tested the effectiveness of these products on the AC500 PRO meter. If you use a product or method other than those that we've recommend above, you should document accordingly in your cleaning protocol.

**CAUTION:**

- ***Ensure that the cloth is only damp, not wet. Liquid entering the meter may cause meter malfunctions.***
- ***Wash hands thoroughly with soap and water after handling the meter, lancing device, or test strips.***

***Stop using meter and call Customer Service at 1-800-948-3894 if:***

- Thin silver streaks appear on the screen.
- The screen becomes cracked, soft, dissolved, brittle or swollen.
- You are unable to turn on/off your meter.
- You are unable to enter meter settings, function modes or recall your testing results.
- Unable to insert test strip into test port.



## Care and Storage

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1. Handle the meter with care. Dropping or throwing the meter may cause damage to the device.
2. Do not expose the meter, test strips, and control solution to extreme conditions, such as high humidity, heat, freezing cold or dust.
3. The meter should be stored at room temperature in a dry and clean space. **DO NOT STORE IN DIRECT SUNLIGHT OR AREAS WITH HIGH HUMIDITY AND/OR DUST.** It is advised that you store the meter and its accessories in a clean carrying case.

For healthcare professionals using this system on multiple patient, please be aware that all items that come in contact with human blood should be handled as potential biohazards. Users should follow the guidelines for prevention of blood-borne transmittable diseases in a healthcare setting for potentially infectious human blood specimens as recommended in the National Committee for Clinical Laboratory Standards, Protection of Laboratory Workers from Instrument Biohazards and Infectious Disease Transmitted by Blood, Body Fluids and Tissue: Approved Guideline. NCCLS document M29-A [ISBN 1-56238-339-6].

# Display Messages

| Display                                                                           | Description                                                                                                                                                      | Action                                                                                                 |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|  | The system is ready to accept a blood sample.                                                                                                                    | You may now apply a blood sample.                                                                      |
|  | The system is ready to accept a control solution sample.                                                                                                         | You may now apply a drop of control solution sample.                                                   |
|  |  appears when the result is HIGHER than the "HI alarm setting" reference range. | For your reference, or you can change the default setting value 180 mg/dL according to page 10.        |
|  |  appears when the result is LOWER than the "LO alarm setting" reference range.  | For your reference, or you can change the default setting value 70 mg/dL according to page 10.         |
|  | Test result is higher than 600 mg/dL (33.3 mmol/L).                                                                                                              | Repeat the test using a new test strip. If the result is still HI, consult your physician immediately. |

**Display****Description****Action**

Test result is lower than 20 mg/dL (1.1 mmol/L).

Repeat the test using a new test strip. If the result is still Low, consult your physician immediately.



Temperature is high during the test procedure.

Large variation may occur between results due to high or low temperature. Move to the environment (50 - 104°F or 10 - 40°C ) and wait 15 minutes before re-testing.



Temperature is low during the test procedure.

Large variation may occur between results due to high or low temperature. Move to the environment (50 - 104°F or 10 - 40°C ) and wait 15 minutes before re-testing.



Temperature is too high to perform the test.

Repeat the test in a cooler setting (50 - 104°F or 10 - 40°C ). Wait 15 minutes before re-testing.



Temperature is too low to perform the test.

Repeat the test in a warmer setting (50 - 104°F or 10 - 40°C ). Wait 15 minutes before re-testing.

**Display****Description****Action**

The meter is in the PC communication mode.

Follow the instructions provided in the software to download the test results from the meter.



The preset alarm is ringing to remind it is time to perform blood glucose test.

Press any button to shut off or the alarm will turn off automatically after 30 sec.

## Error Messages

| <i><b>Display</b></i>                                                             | <i><b>Description</b></i>                                                    | <i><b>Action</b></i>                                         |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------|
|  | An error message indicating a problem with the test strip.                   | Review the instructions and try again with a new test strip. |
|  | Battery power is low. Meter will provide approximately 50 more measurements. | Replace with two AAA batteries.                              |
|  | Battery power is too low for further usage.                                  | Replace with two AAA batteries immediately.                  |

## Trouble Shooting

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### **1. After inserting test strip, meter does not turn on:**

| <b>Description</b>                                             | <b>Action</b>                                                                                                                        |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| The test strip has not been inserted in to the meter properly. | Review the instructions and re-insert the test strip correctly (white side face up with arrow pointing towards the test strip port). |
| Test strip error.                                              | Replace with a new test strip.                                                                                                       |
| Dead or no battery.                                            | Replace battery (make sure batteries are in facing the correct directions).                                                          |

### **2. After applying sample, test does not start / meter does not beep or begin:**

| <b>Description</b>                                               | <b>Action</b>                                                                          |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Insufficient blood sample.                                       | Repeat the test with new test strip and larger drop of blood.                          |
| Sample applies after three minute shut-off.                      | Repeat test with new test strip. Apply sample within 3 minutes of inserting new strip. |
| LCD display on the meter is blank when trying to perform a test. | Review actions above. If none fix blank screen, contact customer service for help.     |

## Specifications

### *Meter Operating Conditions*

|                 |                                                              |
|-----------------|--------------------------------------------------------------|
| Temperature     | 50°F ~ 104°F (10°C ~ 40°C)                                   |
| Humidity        | 10 ~ 90% RH                                                  |
| Hematocrit      | 30% ~ 55%                                                    |
| Test Sample     | Fresh capillary whole blood from fingertip, palm and forearm |
| Sample Volume   | >0.5 µL                                                      |
| Measuring Unit  | mg/dL                                                        |
| Measuring Range | 20-600 mg/dL (1.1 ~ 33.3 mmol/L)                             |
| Test Time       | 5 sec                                                        |
| Memory Capacity | 500 most recent results                                      |
| Average         | 7/14/30 days average results                                 |
| External Output | USB interface                                                |
| Power supply    | Two AAA batteries                                            |
| Battery Life    | Approximately 1000 tests                                     |
| Dimension       | 100 x 57 x 24 mm                                             |
| Weight          | 58 g without battery                                         |

## Icon Description

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Do not use if package is damaged



Temperature limitation



Batch code



Use by



Keep dry



Do not reuse



Serial Number



Manufacturing date



Manufacturer



In vitro diagnostic medical device



Consult instructions for use



Sufficient for



Keep away from sunlight



Control



Caution

## Tolerance summary of interference substance

| Interference substance | Highest tested concentration with no significant interference | Interference substance | Highest tested concentration with no significant interference |
|------------------------|---------------------------------------------------------------|------------------------|---------------------------------------------------------------|
| Acetone                | 60 mg/dL                                                      | Heparin                | 60 mg/dL                                                      |
| Acetaminophen          | 10 mg/dL                                                      | Ibuprofen              | 40 mg/dL                                                      |
| Ascorbic acid          | 7.5 mg/dL                                                     | Icodextrin             | 750 mg/dL                                                     |
| Alcohol                | 350 mg/dL                                                     | L-Dopa                 | 8 mg/dL                                                       |
| Bilirubin              | 20 mg/dL                                                      | Lecithin               | 500 mg/dL                                                     |
| Benzoic Acid           | 144 mg/dL                                                     | Maltose                | 2500 mg/dL                                                    |
| Caffeine               | 10 mg/dL                                                      | Methyl-DOPA            | 1.5 mg/dL                                                     |
| Cholesterol            | 500 mg/dL                                                     | Potassium Chloride     | 7.455 mg/dL                                                   |
| Creatinine             | 30 mg/dL                                                      | Pralidoxime Iodide     | 7 mg/dL                                                       |
| Dopamine               | 2.55 mg/dL                                                    | Salicylate             | 125 mg/dL                                                     |
| EDTA                   | 400 mg/dL                                                     | Sodium Fluoride        | 1000 mg/dL                                                    |
| Ephedrine              | 10 mg/dL                                                      | Tetracycline           | 4 mg/dL                                                       |
| Erythromycin           | 20 mg/dL                                                      | Tolazamide             | 100 mg/dL                                                     |
| Galactose              | 60 mg/dL                                                      | Tolbutamide            | 100 mg/dL                                                     |
| Gentisic acid          | 2.6 mg/dL                                                     | Triglyceride           | 1500 mg/dL                                                    |
| Glutathione            | 20 mg/dL                                                      | Urea                   | 500 mg/dL                                                     |
| Glycerol               | 9.21 mg/dL                                                    | Uric acid              | 15 mg/dL                                                      |
| Haemoglobin            | 250 mg/dL                                                     | Xylose                 | 20 mg/dL                                                      |

## Limitations of the Procedure

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**Caution:**

***The TysonBio AC500 PRO System is designed for in vitro diagnostic use only and is not intended to test on newborns. Any change or administering of medication based on the TysonBio AC500 PRO blood glucose test results without the consent advice of a physician or healthcare professional is not recommended.***

The TysonBio AC500 PRO test strips are designed for use with fresh capillary whole blood samples obtained from the fingertip, palm and forearm. False results may occur when performing the test while severely dehydrated, severely hypotensive, in shock or in a hyperglycemic-hyperosmolar state. If you believe a patient is suffering from any of the above symptoms, consult a healthcare professional immediately.

## Service and Warranty

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### ***IMPORTANT***

Tyson Bioresearch Inc. cannot endorse the performance of the TysonBio AC500 PRO System when used with test strips other than those designed for the TysonBio AC500 PRO meter. The TysonBio AC500 PRO System manufacturer warranty is valid only when used properly within the guidelines of the provided user's manual and is invalid when the TysonBio AC500 PRO System and TysonBio AC500 PRO test strip are used improperly.

### ***Manufacturer Warranty***

Tyson Bioresearch, Inc. guarantees that this device will be free of defects in materials and workmanship for a period of three years from the date of original purchase. During the stated three-year period, our company shall repair or replace any TysonBio AC500 PRO meter found defective with a new TysonBio AC500 PRO meter.

This warranty does not apply to the performance of a TysonBio AC500 PRO meter that has been accidentally damaged, altered, misused, tampered with or abused in any way. In no event shall our company be liable to the purchaser or any other person for any incidental, consequential, or punitive damages arising from or in any way connected with the purchase or operation of the TysonBio AC500 PRO meter or its parts.

For manufacturer warranty services, purchaser must contact Tyson Bioresearch, Inc. for help.

## Customer Service

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If you have any questions or concerns regarding this product or its operation, or any attempt to correct a problem fails, please call our customer service. Our trained specialists will be happy to assist you, train you, or even reaffirm your results.

### ***Customer Service Hotline***

***1-800-948-3894 (U.S.) (24 hours a day, 7 days a week)***

***+886-37-585998***

***or E-Mail us at***

***service@tysonbio.com***

***website: www.tysonbio.com***

When you call our customer service, please have your meter, test strip and all other system supplies available. This will allow us to answer any of your questions with speed and efficiency.



 Tyson Bioresearch, Inc.

 5F., No. 16, 18, 20, 22, Kedong 3rd Rd.,  
Zhunan Township, Miaoli County 35053, Taiwan

 [www.tysonbio.com](http://www.tysonbio.com)

#### Customer Service

 +886-37-585998 (8:30 ~ 17:30, Monday ~ Friday)

 1-800-948-3894 (U.S.) (24 hours a day)

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