

HemoCue[®] Hb 301 System Training



HemoCue[®] Hb 301 System



Intended Use: Quantitative whole blood hemoglobin determination in primary care or blood donation settings



HemoCue[®] Hb 301 System

- The HemoCue[®] Hb 301 System is an ideal choice for primary care and blood donation settings
- The system is comprised of a:
 - 1. Portable HemoCue[®] Hb 301 Analyzer
 - 2. Single-use HemoCue[®] Hb 301 Microcuvettes

Three simple step process:







HEMOCUE[®]

HemoCue[®] Hb 301 System

HEMOCUE®

- 1. HemoCue[®] Hb 301 Analyzer
- 2. AC Adapter or;
- **3**. 4 type AA Batteries
- 4. HemoCue[®] Hb 301 Microcuvettes (with package insert)
- 5. Operating Manual and Quick Reference Guide



HemoCue[®] Hb 301 Analyzer Specifications



- Powered by AC adapter or 4 AA batteries
- Measuring range: 0-25.6 g/dL (>25.6 g/dL HHH)
- Easy to use, retractable cuvette holder
- Optional audio signal



- Error codes displayed for various potential malfunctions or conditions - Refer to the troubleshooting guide in the operator's manual (pages 28-31)
- Wavelengths: 506 nm (hemoglobin) and 880 nm (turbidity)
- Factory calibrated no need for recalibration
- HemoCue[®] Hb 301 System is CLIA-waived



- The HemoCue[®] Hb 301 Analyzer has an internal self-test that verifies the optronic unit of the analyzer is functioning properly. An error code will display if the self-test fails.
- Liquid controls are not a requirement of the HemoCue[®] Hb 301 System.
 If liquid quality controls are required for regulatory reasons, three levels of the Eurotrol[®] Hb 301 Controls are available.



The HemoCue[®] Hb 301 Microcuvettes

- Serves as a pipette and measuring vessel
- Holds approximately 10µL of blood
- Made of polystyrene plastic
- Contains no active ingredients
- Package size: Vial (4x50 for Blood Banks, 4x75 for Public Health)
- Storage conditions:
 - Opened or unopened vial (50-104 °F): until the expiration date printed on each package
 - Unopened short term/transportation (0-122 °F): Up to 6 weeks



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- Capillary, venous or arterial blood maybe used.
- Venous sample Anticoagulant (e.g. EDTA or Heparin) should be used, preferably in solid form to avoid dilutional effects.





Getting Started



- 1. If AC power is available, use the power adapter.
- 2. If no power is available, insert four type AA batteries, 1.5 V.





- Pull the cuvette holder out to the loading position.
- Press and hold the start button until the display is activated.
- The analyzer automatically performs a self-test.
- After about 10 seconds, the display will show three flashing dashes indicating that the analyzer is ready for use.



Three simple steps:



- Completely fill the microcuvette with a drop of blood.
- Place the filled microcuvette into the analyzer within 40 seconds of filling.
- Receive a lab-quality result within 3 seconds.

Using the HemoCue[®] Hb 301 Analyzer



- Result will be displayed in g/dL (grams per deciliter).
- If the cuvette holder remains in the measuring position, the result will remain on the display.
- Record the result.
- Pull the cuvette holder out to the loading position and dispose of the microcuvette in an appropriate biohazard container.
- Once the display shows three flashing dashes, another test may be performed.





- Clean the cuvette holder each day of use using alcohol (20-70%) or mild detergent.
- Dry the cuvette holder completely before re-inserting into the HemoCue[®] Hb 301 Analyzer.
- The optronic unit should be cleaned as directed in the Troubleshooting Guide of the HemoCue[®] Hb 301 Operating Manual.



Helpful Hints



- No Power
 - Make sure the HemoCue adapter is in place and the cord is not damaged.
 - Check the batteries.
 - Make sure the adapter cord has been removed from the HemoCue[®] Hb 301 Analyzer if battery power is being used.
- The HemoCue[®] Hb 301 Analyzer shows an error code
 - Turn it off and turn it on again after 30 seconds.
 - Refer to the Troubleshooting Guide in the Operating Manual for explanations of other ERROR codes and corrective actions to be taken.
- Call HemoCue Technical Support
 - 800.426.7256



HemoCue[®] Capillary Sampling Training



Capillary Sampling







Donor preparation

- The donor should be seated.
- Ensure the hand is warm and relaxed.
- It is best to use the middle or ring finger.
- Fingers which have tight rings on them should not be used for testing unless the rings are removed.



Capillary Sampling



Collection site preparation

- Clean the fingertip (puncture site) with alcohol. This ensures a clean puncture site, removing contamination.
- Wipe the alcohol off with a dry lint free wipe or allow to air dry COMPLETELY.





Collection site preparation

- Prior to performing the puncture, "prime" the fingertip by applying pressure at the upper joint with your thumb, using a rolling motion towards the tip of the finger.
- <u>Do not "milk" the finger</u>, i.e. sliding your thumb from the palm of the hand towards the puncture site.





Lancet

- Apply pressure with your thumb at the upper joint and place your index finger on the side of the patient's finger, in a position that will allow you to gently squeeze.
- Position the lancet off center on the fingertip and press the lancet firmly against the finger prior to activating the lancet. This will aid in obtaining a good sample.





Lancet

- Firmly hold the lancet in place until you activate the lancet, then remove.
- This allows for maximum puncture depth and ensures the lancet has punctured and retracted.
- Remember to release your thumb pressure after removing the lancet to allow blood flow.



Capillary Sampling



Collection

- After the puncture has been made, apply gentle pressure as needed to extrude a large drop of blood.
- Instead of milking, prime the fingertip by applying pressure at the upper joint with your thumb, and rock the thumb.
- When primed you can stimulate the blood flow.
- Wipe away 2-3 good sized drops of blood.



Capillary Sampling



Collection

- Hold the microcuvette opposite the filling end and insert the tip of the cuvette into a large drop of blood.
- Hold the microcuvette in place until the entire teardrop shaped cavity is filled with blood.
- If the microcuvette is not completely filled, discard and use a new microcuvette. Do not add blood to a partially filled microcuvette.



Collection



- Wipe off the excess sample from the outer surfaces of the microcuvette with a lint-free wipe. Both the flat sides and the back straight edge of the microcuvette.
- Be careful not to touch the open end of the microcuvette with the wipe. This may cause blood to be removed which could produce an erroneous result.
- After testing, dispose of the lancet, microcuvette, and other biohazardous material as required according to local policy.





- Make sure the lancet is placed firmly on the fingertip (off center) prior to activation.
- Make sure 2-3 large drops of blood are wiped away prior to filling the microcuvette.
- NO "MILKING" or "SQUEEZING".
- Make sure the HemoCue[®] Hb 301 Microcuvette is filled completely in one continuous motion.
- Make sure blood is not drawn out of the microcuvette when wiping the outside.
- Make sure there are no air bubbles in the optical eye of the microcuvette.

Because when it comes to caring for people, we refuse to compromise.

