

Troubleshooting guide (Hemocue 301)

Error code	Explanation	Action
The analyzer shows an error code	May be a temporary fault.	Turn off the analyzer and turn it on again after 30 seconds. Take a new microcuvette and repeat the measurement. If the problem continues, see specific error code below.
E00	No stable endpoint of the measurement is found within the time range. 1. The cuvette is faulty. 2. The circuit board is out of order.	1a. Check the expiration date for the microcuvettes. 1b. Take a new microcuvette and repeat the measurement. 2. The analyzer needs service. Contact UNHCR HQ (PHS).
E01-E05	1. Dirty optronic unit or faulty electronics or optronic unit.	1a. Turn off the analyzer and clean the optronic unit. 1b. The analyzer needs service. Contact UNHCR HQ (PHS).
E06	1. Unstable blank value. The analyzer might be cold.	1. Turn off the analyzer and allow to reach room temperature. If the problem continues, the analyzer needs service. Contact UNHCR HQ (PHS).
E07	1. The battery power is too low.	1a. The batteries need to be replaced. Turn off the analyzer and replace the batteries, 4 type AA. 1b. Use the power adapter.
E08	The absorbance is too high. 1. Light blocking item in the cuvette holder.	1a. Check that the analyzer and microcuvettes are used according to the HemoCue Hb 301 operating manual and instructions for use. 1b. The analyzer needs service. Contact UNHCR HQ (PHS).
E10-E30	1. Dirty optronic unit or faulty electronics or optronic unit.	1a. Turn off the analyzer and clean the optronic unit. 1b. The analyzer needs service. Contact UNHCR HQ (PHS).
E40	1. The cuvette holder is not replaced properly after cleaning. 2. Dirty optronic unit. 3. The microcuvette is not a HemoCue Hb 301 microcuvette. 4. The microcuvette is damaged.	1. Make sure that the cuvette holder is replaced properly. 2. Turn off the analyzer and clean the optronic unit. 3. Only use HemoCue Hb 301 microcuvettes in the HemoCue Hb 301 Analyzer. 4. Take a new microcuvette and repeat the measurement.
E41-49	1. The optronic unit has been scratched due to incorrect maintenance. 2. Hardware error.	1. Clean the optronic unit, using the HemoCue Cleaner. The analyzer needs service. Contact UNHCR HQ (PHS). 2. The analyzer needs service. Contact UNHCR HQ (PHS).
HHH	1. Measured value exceeds 25.6 g/dL (256 g/L, 15.9 mmol/L).	1. A control of the total system should be performed with liquid Eurotrol control solutions (low, normal, high).
No characters on the display	1. The analyzer is not receiving power. 2. If on battery power, the batteries need to be replaced. 3. The display is out of order.	1a. Check that the power adapter is connected to the analyzer and the AC power supply. 1b. Check that the cable is not damaged. 2. Turn off the analyzer and replace the batteries, 4 type AA. 3. The analyzer needs service. Contact UNHCR HQ (PHS).

<p>The display contains erroneous characters</p>	<ol style="list-style-type: none"> 1. The display is out of order. 2. The microprocessor is out of order. 	<ol style="list-style-type: none"> 1. The analyzer needs service. Contact UNHCR HQ (PHS). 2. The analyzer needs service. Contact UNHCR HQ (PHS).
<p>The display shows "FIR"</p>	<p>This function is for manufacturing use only.</p>	<ol style="list-style-type: none"> 1. Remove and replace all cables and/or batteries, and restart. 2. The analyzer needs service. Contact UNHCR HQ (PHS).
<p>The display shows "battery picture"</p>	<ol style="list-style-type: none"> 1. The batteries need to be replaced. 2. If on AC power, the power adapter or the circuit board is out of order. 	<ol style="list-style-type: none"> 1. Turn off the analyzer and replace the batteries, 4 type AA. 2a. Check that the power adapter is properly connected and working. 2b. The analyzer needs service. Contact UNHCR HQ (PHS).
<p>The display does not switch from 'timer symbol' and "Hb" to three flashing dashes and 'hemocuvette symbol' (ready for measuring)</p>	<ol style="list-style-type: none"> 1. The cuvette holder sensor is out of order. 	<ol style="list-style-type: none"> 1. The analyzer needs service. Contact UNHCR HQ (PHS).
<p>Measurement on control materials are out of range- either too high or too low</p>	<ol style="list-style-type: none"> 1. The microcuvettes are beyond their expiration date, damaged or have been improperly stored. 2. The optical eye of the microcuvette is contaminated. 3. The controls are beyond their expiration dates or have been improperly stored. 4. The control has not been mixed properly and/or is not at room temperature. 5. The microcuvette has not been placed in the analyzer within 40 seconds of filling. 6. Air bubbles in the microcuvette. 7. The optronic unit is dirty. 8. The control is not suitable for use with the HemoCue Hb 301 system. 9. The calibration of the analyzer has been changed. 	<ol style="list-style-type: none"> 1. Check the expiration date and the storage conditions of the microcuvettes. 2. Remeasure the control with a new microcuvette. 3. Check the expiration date and the storage conditions of the control. Remeasure the control with a new microcuvette. If the problem continues, contact the manufacturer of the control. 4. Make sure that the control is mixed properly and at room temperature. If the problem continues, contact the manufacturer of the control. 5. Remeasure the control with a new microcuvette. 6. Check the microcuvette for air bubbles. Remeasure the control with a new microcuvette. 7. Clean the optronic unit. 8. Contact the distributor for control information. 9. The analyzer needs service. Contact UNHCR HQ (PHS).
<p>Measurement on patient samples are higher or lower than anticipated</p>	<ol style="list-style-type: none"> 1. Improper sampling technique. 2. The microcuvettes are beyond their expiration date, damaged or have been improperly stored. 3. The optical eye of the microcuvette is contaminated. 4. Air bubbles in the microcuvette. 5. The optronic unit is dirty. 6. The calibration of the analyzer has been changed. 	<ol style="list-style-type: none"> 1. Check the expiration date and the storage conditions of the microcuvettes. 2. Remeasure the sample with a new microcuvette. 3. Check the microcuvette for air bubbles. Remeasure the sample with a new microcuvette. 4. Clean the optronic unit. 5. The analyzer needs service. Contact UNHCR HQ (PHS).