

TearLab Osmolarity System

TROUBLESHOOTING GUIDE



PROBLEM	EXPLANATION	ACTION
Test Card is attached, green light does not illuminate, and Pen does not beep.	A. Test Card is not properly attached. B. Test Card is used. C. Pen battery is low. D. Pen electrical contacts are worn.	1. Remove Test Card and reattach if protective cover is still on. NEVER use a Test Card that does not have a protective cover. 2. Dock Pen into Reader to assess battery charge level. 3. Use the Electronic Check Card to confirm Pen function. 4. Try a new Test Card. 5. Contact TearLab Customer Support.
Pen begins beeping approximately 30 seconds after tear collection.	Pen will time out in 10 seconds.	Immediately dock the Pen into the Reader. Pen must always be docked within 40 seconds of tear collection.
Pen's green light turns off with an unused Test Card attached prior to tear collection.	1. Two minutes have passed since attachment of Test Card and Pen has entered Sleep Mode. 2. Pen battery is too low for tear collection.	1. Remove unused Test Card and reattach onto Pen. Proceed with tear collection. 2. Dock the Pen to allow battery to recharge. Reader LCD will indicate battery charging status.
Electronic Check Card does not fall within the expected value range.	The TearLab Osmolarity System does not meet manufacturer specifications.	Retest using the second Electronic Check Card. If result does not fall within the expected value range, contact TearLab Customer Support.
Osmolarity Control Solution results do not fall within the expected value range.	Either Test Cards or TearLab Osmolarity System do not meet manufacturer specifications.	1. Check the expiration date of the Test Card and Osmolarity Controls. 2. Test with the Electronic Check Card. A. If results are out of range, contact TearLab Customer Support. B. If results are in range, retest Osmolarity Controls. If results are still out of range, contact TearLab Customer Support. 3. Do not perform patient testing until Osmolarity Control results are within the expected value range.
When Pen is removed from Reader, Pen beeps twice and LCD displays "Bat Low."	Pen battery is low and testing cannot proceed.	Dock Pen into Reader to recharge battery.
Reader LCD displays "Used T/C."	Test Card has already been used. Test Cards are for single use. Pen will not accept a Test Card that has been used previously to collect tear fluid samples.	Remove the Test Card and dispose in a biohazard container. Attach a new Test Card and proceed with testing. If necessary, the last test can be recalled by pressing and holding the RECALL Key.
Reader LCD displays "Pen T/O."	Pen was not docked into Reader within 40 seconds of tear collection. Data is lost.	Retest patient with a new Test Card. Dock Pen into Reader within 40 seconds of tear collection.
Reader LCD displays "Above Range."	Test result was above 400 mOsm/L.	Verify function with quality control procedures. Retest patient, as values outside the measurement range may be indicative of an error. Once confirmed, record patient result as "Above 400 mOsm/L."
Reader LCD displays "Below Range."	Test result was below 275 mOsm/L.	Verify function with quality control procedures. Retest patient, as values outside the measurement range may be indicative of an error. Once confirmed, record patient result as "Below 275 mOsm/L."
Need to confirm which Test Card code was entered onto Reader after an osmolarity test was performed.	Not sure if correct Test Card code was entered onto Reader during test. Osmolarity test result may be inaccurate.	Using either Pen, test with an Electronic Check Card in the same docking port as the test in question. The Test Card code that is displayed on the Reader LCD will be the same code as the last test performed. Verify if this Test Card code matches the code for the test in question. If it does not match, disregard the osmolarity test result.
Reader fails to detect a docked Pen.	Pen or Reader electrical contact failure.	Dock Pen, charge batteries, and retest with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E51."	Pen/Reader communication error.	Dock Pen, charge batteries, and retest with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E52."	Pen not responding to Reader.	Dock Pen, charge batteries, and retest with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E53."	Communication protocol failure between Pen and Reader.	Dock Pen, charge batteries, and retest with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E54."	Reader and Pen software do not match size error.	Test with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E55."	Reader and Pen firmware incompatible version error.	Test with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E56."	Pen failed premeasurement relay check.	Test with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E57."	Pen battery will not hold a charge.	Test with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.
Reader LCD displays "E58."	Measurement attempted with uncalibrated Pen.	Test with Electronic Check Card. If error repeats or result does not fall within the expected value range, contact TearLab Customer Support.