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## Introduction

This document explains some of the user interface (UI) messages in BD FACSuite $^{\text{TM}}$  Clinical software, the possible causes when they appear, and appropriate action to be taken by the user. For more information on troubleshooting error messages, see the BD FACSLyric $^{\text{TM}}$  Clinical Reference System.

### **Failures**

The following table lists the UI messages in BD FACSuite™ Clinical software, the possible causes and recommended solutions when certain tasks are completed with Fail status.

Message in Software	Possible Causes	Recommended Solutions	
Characterization QC, Performance QC, Laser Setup, and CS&T Bead Lot Transfer tasks will complete with Fail Status in the following situations:			
Linearity is out of specification range	Poor bead prep	<ul><li>Re-prep beads.</li><li>Contact BD Technical Support.</li></ul>	
	Bubbles or particulates in flow cell	<ul> <li>Perform sample injection tube (SIT) flush.</li> <li>Try rerunning characterization QC or performance QC or CS&amp;T bead lot transfer.</li> <li>Contact BD Technical Support.</li> </ul>	
Instrument Sensitivity is out of specification range	Poor bead prep	<ul><li>Re-prep beads.</li><li>Contact BD Technical Support.</li></ul>	
	Fluorescence buildup from the sheath filter	<ul> <li>Perform SIT flush</li> <li>Try re-running characterization QC or performance QC or CS&amp;T bead lot transfer.</li> <li>Run DI water as a sample (in preview mode) for 10 minutes.</li> </ul>	

Message in Software	Possible Causes	Recommended Solutions
Bright Bead %rCV is out of specification range	Poor bead prep	<ul><li>Re-prep beads.</li><li>Contact BD Technical Support.</li></ul>
	Laser alignment drift, or bubbles or particulate in flow cell	<ul> <li>Perform SIT flush.</li> <li>Try re-running.         Characterization QC or         PQC or CS&amp;T bead lot         transfer.</li> <li>If this is encountered         during a performance         QC, run laser setup.</li> <li>Contact BD Technical         Support.</li> </ul>
Assay/Tube Settings Setup tas	k will complete with Fail status in	the following situations:
Task fails to put beads on target for one or more channels	Failure to put beads on target occurs when the difference between target median fluorescence intensity (MFI) and actual MFI for a channel is > 10%. In the Assay Setup Report, the photomultiplier tube voltages (PMTVs) and actual median values for the failed detector(s) will be shown in red. This could be caused by poor CS&T bead prep or bubbles or particulates in the flow cell	Re-prep beads, perform SIT flush, and try the Assay/Tube Settings Setup task again.

# Warnings

The following table lists the UI messages in BD FACSSuite™ Clinical software, the possible causes and recommended solutions when certain tasks are completed with Warnings.

Message in Software	Possible Causes	Recommended Solutions	
Characterization QC, Performance QC, Laser Setup, and CS&T Bead Lot Transfer tasks will complete with Warnings in the following situations:			
Laser Power is out of range	Possible laser failure	If the message persists, contact BD Technical Support.	
Laser Current is out of range	Possible laser failure	If the message persists, contact BD Technical Support.	

Message in Software	Possible Causes	Recommended Solutions
LJ alarm boundaries warnings	The parameter has moved beyond the default 3SD range.	<ul> <li>Look for trending in Levey Jennings (LJ) values. If they are not trending, and the 3SD range has become too small over time due to instrument stability, then the user can set up new min/max boundaries.</li> <li>Perform a SIT flush and rerun PQC.</li> <li>If LJ values are trending in one direction, contact BD Technical Support.</li> </ul>
CS&T beads expiration warning	Bead lot has expired	Use a bead lot that has not expired.
Laser Alignment Check warning	The %CV value has changed by more than 50% from the values found on the characterization QC report. Laser drift or bubbles or particulates in the flow cell could be causing this issue	<ul><li>Run laser setup.</li><li>Re-prep beads.</li><li>Perform SIT flush.</li></ul>
Delta PMT voltage is greater than 50 V (Performance QC only)	The PMT voltage has changed by more than 50 V from the values found on the CQC report. This could be due to laser drift or bubbles or particulates in the flow cell	<ul> <li>Run laser setup.</li> <li>Re-prep beads; perform SIT flush.</li> <li>Rerun CQC.</li> </ul>
Assay/Tube Settings Setup task v	vill complete with warnings in t	he following situations:
Laser Power is lower than the power minimum value	Laser power has dropped below the minimum laser power value that was set by BD Field Service Engineer at installation.	Contact BD Technical Support.
Laser Current is higher than the current maximum value	Laser current is higher than the value set by the BD Field Service Engineer at installation.	Contact BD Technical Support.
CS&T beads expiration warning	Bead lot has expired	Use a bead lot that has not expired.

Message in Software	Possible Causes	Recommended Solutions
Reference settings or spillover values (SOV) created with expired FC Beads	Expired BD™ FC Beads used while creating SOV or reference settings	Update with BD FC Beads that have not expired.
Expired Reference Settings warning	Reference settings have expired	Update reference settings.
Missing SOV	Assay contains a fluorochrome that has not been added to default reference settings	Add the missing fluorochrome to the reference setting.

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For In Vitro Diagnostic Use.





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