



ScreenPlex™

Troubleshooting Guide

Version 1.02

This guide provides novice and advanced users with the information needed to successfully troubleshoot experiments using ScreenTape®, the TapeStation™ and ScreenPlex™ Software.

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Lab901 Software

Issue	Reason	Fix
The TapeStation informs user ScreenTape is inserted incorrectly	The barcode has not been scanned by the TapeStation	Insert the ScreenTape again, ensuring that the bar code is facing away from the sample block and towards the front of the instrument.
A ScreenTape has been inserted but has not registered	The barcode has not been scanned by the TapeStation	Power cycle the TapeStation and restart the laptop. If the problem persists, contact Lab901
Pop-up says 'barcode content not recognised'	The scanner has successfully decoded a barcode, but the content is not that of ScreenTape	Check that Lab901 ScreenTape has been inserted in the ScreenTape holder
A pop-up screen states 'The licensed application of your system does not support the use of the ScreenTape just inserted'	The wrong ScreenTape type has been inserted for the analysis software mode	Either change the ScreenTape type, or shut down the controller and restart with an alternative analysis mode
All the lanes are grey when the ScreenTape is recognised	All the lanes have already been used on this piece of ScreenTape	Insert a new ScreenTape into the TapeStation
The TapeStation will not run due to the presence of discarded tips in the tip-buckets	Tip buckets have not been emptied effectively	Always remove all used tips from the tip buckets
The TapeStation will not run due to an expired needle	The needle has performed the number of pierces it is reliably capable of within its lifetime	Insert a fresh needle cartridge, ensure the sample tray is completely empty and run the needle change procedure (click Needle Change - Run in the main menu)
The TapeStation informs user that a tip may be affixed to the pump	A power outage occurred during a run, at a stage where the instrument expects to be holding a pipette tip	Follow on screen instructions and the TapeStation will remove the tip
The TapeStation will not run due to maintenance requirements	Technical maintenance must be performed in order to ensure reliability of the system	Contact Lab901 to arrange field or factory maintenance
The default file name has not been changed, but the year is incrementing, not the experiment number	The dash after the experiment number has been deleted	Ensure a dash after the incremental number (e.g. 2007-03-29-00-myfilename.txt)
The experimental number has started at 01 again	The controller has been shut down and restarted	Manually type in the desired experiment number – the TapeStation will then restart automatically incrementing
An e-mail alert has asked that the user updates the Lab901 controller	Software upgrades are necessary to ensure the optimum performance of the ScreenTape system	Go to the specified link and save the file to the desktop of the laptop driving the instrument. Alternatively, save the controller to a USB, then drag the installer onto the desktop at a later date. Double-click the installer icon on the desktop and it will install the new software automatically.



Lab901 Software Error Messages

Message	Reason	Fix
Please power cycle the instrument	An error has occurred during the experimental run	Switch the TapeStation off and then back on again
Failed to connect to the barcode scanner or camera	The drivers have not installed properly	Power cycle the TapeStation. If the message persists, try a different USB port on the laptop for the cable to connect to the TapeStation
There was a problem trying to create the TestKitSuite	The Lab901 controller cannot find the file, or the file is corrupted	Ensure that the TestKitSuite.xml is located in C:\Program Files\Lab901\ScreenTape System and that the file name has not been changed. If the problem persists, download a new TestKitSuite.xml from www.seegene.com
USB device malfunction	This is a Windows generated message and not part of the Lab901 software	Power cycle the TapeStation and restart the laptop. If the problem persists, contact Lab901
New hardware found	A new USB port may have been used to connect the TapeStation to the laptop	Please refer to the User Manual. If the problem persists, contact Lab901.

ScreenTape®

Issue	Reason	Fix
A bubble has appeared in the buffer chamber of the ScreenTape	This may occur over time	Holding the ScreenTape with the label facing you, flick the bottom of the ScreenTape. This will move any bubbles to the top of the chamber.

The TapeStation™

Issue	Reason	Fix
The experimental run has aborted	Lid may have been opened during run	Always check the LED located on the front of the TapeStation before opening the lid. If the LED is constant, the lid can be opened as the TapeStation is idle. If the LED is flashing, do not open the lid as the TapeStation is running.
Tips are stuck on pump or in tip cartridge	The wrong tips have been used	Only use tips and consumables recommended by Lab901
A 'found new hardware' pop-up launched when the USB cable of the TapeStation was inserted into the laptop	The USB cable has been inserted into a new port	Follow the instructions detailed in the Installation and Setup Guide at the beginning of this manual
A log file has been requested by Lab901	Data collected from the instrument during experimental runs may provide information about performance	Go to C:\Program Files\Lab901\ScreenTape System and locate the files called Inst-000XX.log and Inst-000XX-general.log (if available), whereby XX denoted the number of the instrument. Please note that the file extension is not always shown.



ScreenPlex™ Software

Issue	Reason	Fix
On result launch, a message states that the software failed to map a suitable top and bottom marker	There may be an error in the ladder lane	Perform the entire run, including samples, on a new piece of ScreenTape
Unidentified peaks have been detected in the sample	There may be the presence of an unknown fragment in the sample or a particle has adhered to the outside of ScreenTape	Freshly prepare the sample again and re-run on a new piece of ScreenTape
Re-running a sample that has been left in the TapeStation has provided a different result to the previous run	The samples have settled since mixing with the loading buffer	Only run freshly prepared samples within the TapeStation
A completely blank lane has appeared in the results	There may be a bubble in the sample	Briefly centrifuge the sample to remove any bubbles and re-run on a new piece of ScreenTape. If the problem persists, please contact Lab901.
All markers and sample bands within a lane appear very faint		
The Lab901 markers are the only fragments within the sample lane	The sample has been mixed with the loading buffer incorrectly, is too dilute or amplification has not occurred	Freshly prepare the samples again, ensuring the samples are adequately mixed. If the markers are still the only visible fragments within the lane, perform the PCR reaction again
All the markers and sample fragment bands in the gel image appear slanted and smudged	There may have been a bubble at the top of the gel	Ensure you check the top of the gel for bubbles prior to running in the TapeStation. Any bubbles present at the top of the gel can easily be moved out of the way. Hold the tape with the ScreenTape label facing you and flick the bottom of the tape
The residual primers has been annotated as the bottom marker	The residual primer is too concentrated and has met the bottom marker threshold	Go to the Review pane and deselect the residual primer. This should annotate the bottom marker correctly.
A very faint band within a sample has not been selected by the software	The sample band does not meet the threshold criteria for automatic selection	If required, go to the review window and add the peak manually
The software has returned a positive result for a mark on the gel image that does not look like a DNA fragment band	There may be a particle on the outside of ScreenTape	Either go to the review pane and manually deselect the ghost band or freshly prepare the sample again and re-run on a new piece of ScreenTape