Model 4551A Troubleshooting Guide

This chapter lists problems that might occur during normal operation of the Model 4551A Vial Autosampler along with possible solutions. Any maintenance that involves the interior components of the Model 4551A should be performed by OI Analytical trained technical support personnel only. If a problem still exists after reviewing the following chart or if it is not addressed, contact OI Analytical's Customer Service Department for assistance at (800) 336-1911 or (409) 690-1711.

> ***CAUTION:*** To reduce the risk of electrical shock, do not remove the Model 4551A cover (or back panel). No operator-serviceable parts are inside. Refer servicing to qualified OI Analytical customer service personnel.

Model 4551A Troubleshooting Chart

Symptom	Probable Cause	Corrective Action
Unit will not turn on	Power cord not plugged in	Plug in power cord
	Blown fuse	If back panel fuse, replace the fuse. If any other fuse, contact the Customer Service Department.
	Faulty power supply	Contact the Customer Service Department
Communication lost between Model 4551A and Sample Concentrator (locked-up or not executing commands)		Turn both units off and then back on.
	O•I•NET BNC cable is not connected	Connect BNC cable. Press [Hold][2nd][ON] and then press [ENTER].
	Units are out of synchronization	Clear the Sample Concentrator by returning to STANDBY
Model 4551A not extracting sample from VOA vial or wash station	If the sample pump is not running: loop fill time is "0"	Extend loop fill time
	Leak (sucking air)	Leak-check associated fittings
	Clogged needle	Clean the needle
	Clogged filter	Clean, remove, or replace the filter

Symptom	Probable Cause	Corrective Action
Model 4551A not extracting sample from VOA vial or wash station	Needle sleeve over tightened No transfer gas Needle transfer and sleeve transfer lines reversed	Loosen nut slightly Turn transfer gas on Switch lines
Model 4551A extracts wash water or blanks, but not from VOA vial	Model 4551A has been programmed to perform blanks only	Check programming
Sample is pumped from vial or wash station, but not transferred to sparger	Transfer time is “0” Transfer gas tubing is disconnected Transfer valve is unplugged	Extend transfer time Connect transfer gas tubing Contact the Customer Service Department
Slow sample transfer to sparger	Model 4560 needle opening obstructed Leak Insufficient gas flow	Raise needle slightly off Model 4560 frit Leak-check all connections Verify at least 50 psi external gas
Model 4551A not performing washes	Washes turned off	Check programming
Model 4551A needle assembly not lowering to pierce vial	Carousel cover removed, interlock switch interrupted Wrong vial type Low gas pressure	Replace carousel cover Use only standard 40-mL VOA vials Verify at least 50 psi external gas
Tray advances to unwanted position	Wrong “start” sample position programmed	Check programming
Needle not piercing center of septum	Bent needle Carousel/needle tower needs alignment	Replace needle Contact Customer Service Department
Wash vessel com-pletely overflows	Wash fill time excessive	Reduce wash fill time
Needle remains in wash or waste station without raising	Carousel cover is off Low gas pressure	Replace carousel cover Ensure gas supply

Symptom	Probable Cause	Corrective Action
Reagent (blank) water drips from spout	Siphoning effect, bottle is higher than the Model 4551A	Position bottle lower than Model 4551A
One of the following zones shows no sign of power (movement): • Carousel • Needle Drive • Sample Valve • Actuator • Sample Pump	Associated cable may be unplugged	Contact the Customer Service Department
Wash station completely empties when filling sample loop	Wash fill time too short Loop fill time too long	Increase wash fill time Decrease loop fill time

SAM Option Troubleshooting Chart

Symptom	Probable Cause	Corrective Action
SAM (A or B) not injecting at selected intervals	SAM A and B programming reversed	Check programming
No spike	Vent switch on Reservoir fitting loose Leak Pressure is too low	Turn vent switch off Tighten the reservoir fitting Perform a leak check Verify that the SAM is primed