

9. TROUBLESHOOTING

Problem	Cause	Remedy
1. Peak shape of eluted substances deteriorates	1. Dead volume at column inlet 2. Inlet frit partially blocked 3. Outlet frit partially blocked 4. Separation efficiency of stationary phase affected by contamination 5. Stationary phase damaged mechanically	1. see point 4 on page 6: elimination of dead volume 2. Remove and dismantle piston, replace frit, reassemble and re-insert piston. The column will need to be reconditioned. 3. Remove piston, replace frit, reassemble and re-insert piston. The column will need to be reconditioned. 4. Repack column 5. Repack column
2. "Air" in the column	Gas evolution or solvent evaporation during storage	Recondition column
3. Abnormal pressure increase during operation	1. Incorrect valve position 2. Blocked frit 3. Fittings tightened too much	1. Check valve position 2. see above, 1. 2. 3. Replace fittings and ferrules, re-cut the end of the tubing.
4. Pressure drop during operation	1. Leak in tubing or fitting between pump and column 2. Solvent supply has run out	1. Check tubing and connections 2. Refill solvent
5. Solvents leaking from column	See diagram on following page	See diagram on following page

Revision 2.0
1/1/02