

Spectrum Analyzer

Safety Handout

Last Revised July 27, 2005

The engineering department owns several models of spectrum analyzers. All are expensive and should be handled with care. Fortunately, spectrum analyzers include a lot of protective circuitry. They are therefore difficult (but not impossible) to damage through negligence.

There are three safety guidelines for using a spectrum analyzer:

1) Obtain permission before using any spectrum analyzer

Remember that you must obtain special permission each time you wish to use a spectrum analyzer. We have a limited quantity of spectrum analyzers and they are expensive to replace, so the EE/CE technician needs to know any time a spectrum analyzer is in use. (EXCEPTION: You may use a spectrum analyzer without explicit permission if it is part of a pre-built lab setup that a faculty member has constructed for a class lab.)

2) Always use an outlet with earth ground connected

Most of the safety mechanisms in a spectrum analyzer rely on a connection to earth ground. You must use a 3-prong outlet receptacle (receptacle with earth ground).

3) Actively prevent over-voltage conditions

One easy way to damage a spectrum analyzer is to apply too high a voltage to the input. Please limit the voltages you apply.