

1510A Precision Signal Source Makes Calibrations a Breeze

One of the great features of the new 1510A is its ability to be controlled via USB. Now, the 1510A becomes a precision, remote-control signal generator – highly accurate and traceable to NIST.

Via USB, any attributes of the output signals can be changed; including voltage levels, frequency, waveshape and phase. You can set up 2 channels and lock them together at any frequency ratio, with any phase relationship.

The newest member of the PBS-4100 vibration family – the PBS-4100+ - has taken advantage of this feature, and uses the 1510A to perform automatic self-calibrations.



1510A Precision Signal Source

Traditional Calibration Methods Can Be Tough - Generally, the calibration and alignment of an instrument involves painstaking procedures that require one or more signal generators, oscilloscopes and voltmeters. It requires a trained technician to operate the test equipment, accurately record the data, analyze the results, and make judgments and comparisons against acceptable tolerances.



PBS-4100+ Vibration System

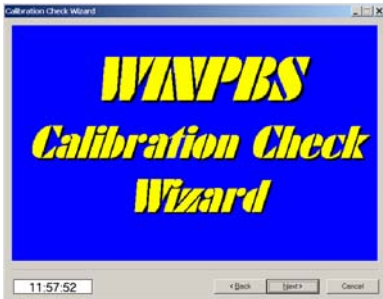
After taking the initial data, the technician normally has to open the unit, make adjustments to bring it into the specified tolerance, followed by another round of measurements and checks.

For a sophisticated, multi-channel vibration instrument such as the PBS-4100+, this requires testing across a wide range of frequencies and voltages.

All this testing, adjusting and re-testing requires several hours of time, which means expense. Even worse, that instrument can be out of service for a significant time – this always seems to be the time when you need it the most.

The Future is Here - Automated Calibration with the 1510A – The latest release of the *WinPBS* software, used on all current PBS-4100 systems, now supports an integrated calibration check and alignment. This new feature employs the power of the 1510A and its USB control to automatically perform a complete Calibration Check of the PBS unit. If the PBS unit is out of tolerance, the Calibration function automatically performs a second set of tests to determine calibration factors, which are automatically stored in the instrument.

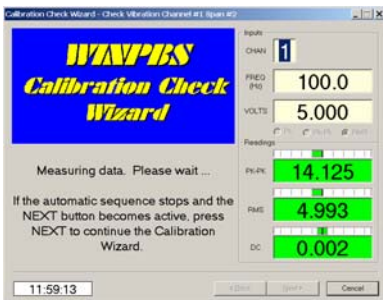
From calibration check to alignment – the process is automatic, accurate, and simple. It's a technicians' dream. In less than 10 minutes the following steps are performed:



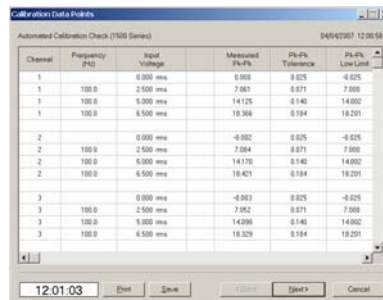
Step 1 – Start the Calibration Wizard. Then, just follow the instructions with the **NEXT** button.



Step 2 – Connect the 1510 to the PBS-4100+.



Step 3 – The 1510A is controlled by the PBS-4100+, and instantly generates each required precision signal. The PBS-4100+ measures the signals and calculates corrections. When the readings are **GREEN**, everything is within factory tolerance.



Step 4 – In less than 10 minutes, all data has been taken and a summary report table is produced. Your calibration is done!

Integrate the 1510A into your system – The USB control capability of the 1510A is not limited to PBS-4100+ systems. Software is available from MTI Instruments to help you integrate the power and flexibility of the 1510A into your special testing and control needs. Contact MTI Instruments for more information.