

PBS-4100 *PLUS*

VIBRATION
& BALANCING
SYSTEM



The Latest Evolution in Aircraft Engine Maintenance

The most advanced vibration analysis and trim balancing tool available, the PBS-4100 *PLUS* is designed to simplify the jobs of engine mechanics and power plant engineers. Its sophisticated electronics and software streamline vibration testing, while its small size, light weight and rugged construction make it very easy to handle.



You can use the PBS-4100 *PLUS* on-wing or in a test cell to test and diagnose engines and keep aircraft flying. Use it on any type of engine or aircraft to perform engine vibration surveys, diagnose

vibration problems and trim balance engines. Pre-programmed parameters for different engines speed set-up and ensure that data is accurate. The PBS-4100 *PLUS* continues a 20-year tradition of supplying airlines, airmotives and engine manufacturers with a reliable and easy-to-use engine vibration tool. If you own an earlier model of the PBS-4100, you can easily upgrade without any re-training or additional accessories to maintain your current fleet. The new PBS-4100 *PLUS* is completely compatible with earlier PBS systems.

- Existing cable harnesses will all fit.
- Current procedure cards will still work.
- Saved engine data and balancing coefficients will still work.

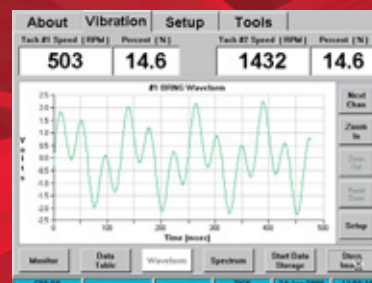


DATA TABLE

About		Vibration		Setup		Tools	
Tach #1 Speed (RPM)	Percent (%)	Tach #2 Speed (RPM)	Percent (%)				
499	14.5	1432	14.6				
#1 (RPM)	Tot	Tot	Tot				
(inches / inch)	(inches / inch)	(inches / inch)	(inches / inch)				
150.25	183.74	197.08					
429.30	606.62	1253.37					
154.96	189.38	203.18					
Phase:	355.3	26.2	76.6				
Monitor	Data Table	Waveform	Spectrum	Start Data Storage	Clear Change		
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Quick displays of vibration levels and engine speeds.

WAVEFORM



You can quickly check the sensors, the cables, and the vibration signals.

Robust Performance, Simple to Maintain, PLUS New Features That Make Your Job Easier Than Ever Before

Self-calibration software.

Full interactive touch screen on the DAU. Select among speed, vibration and other data displays.

Low maintenance costs.

Data acquisition unit with internal shock protection and passive cooling – ensures reliable operation under the most severe conditions.



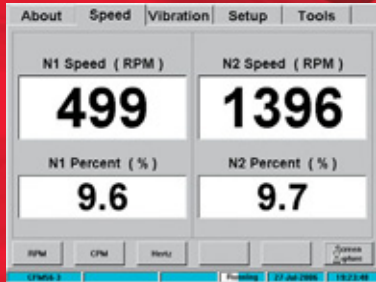
Used in conjunction with the 1500CS Portable Calibrator, a Diagnostic Wizard helps to isolate problems down to cables, sensors and system components.

In some applications, the DAU can be used without the portable computer to measure speed and vibrations.

30% lighter and 40% smaller than previous PBS-4100 systems. Easier to move and faster to connect.

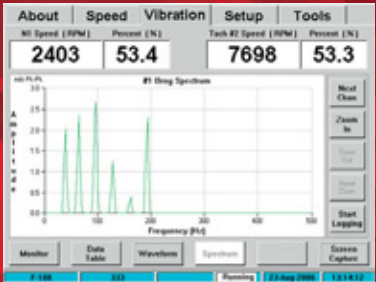
The latest signal processing technology. Built-in Calibration Wizard supports automatic calibration.

SPEED



Speed display is easy to read, so you always know current engine conditions.

SPECTRUM



Spectrum analysis tracks vibration down to its source.

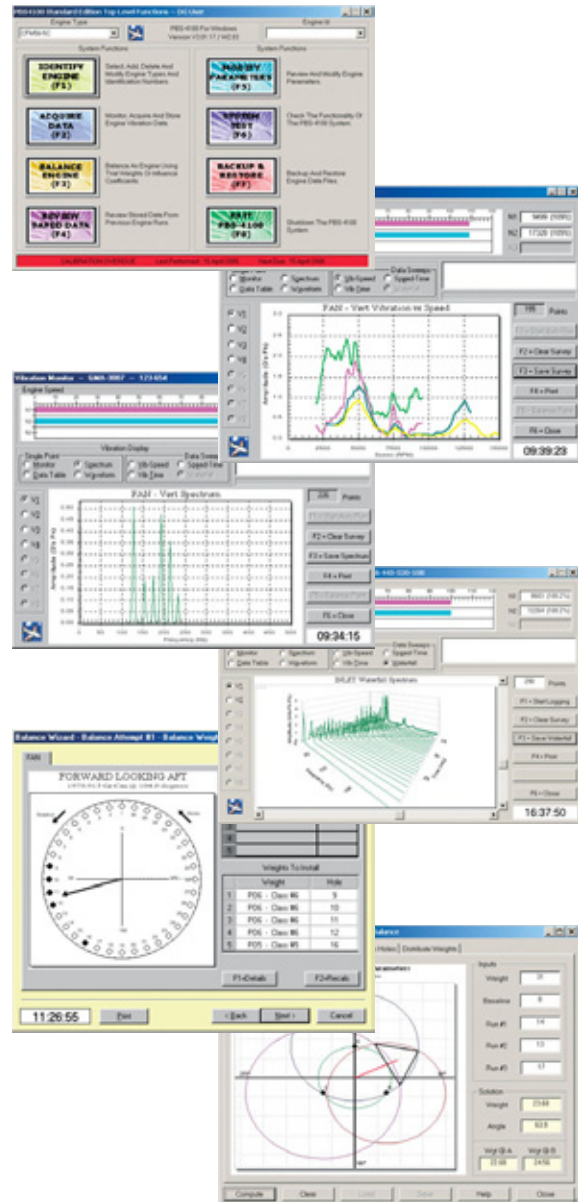
PBS-4100 PLUS Does It All

Complete Set of Functions – The proven *WinPBS* software package provides users with a set of vibration analysis tools to select the specific engine type, acquire and save vibration data, diagnose vibration problems and balance engines. The system also includes a set of maintenance and self-calibration utilities that will keep the system availability at 100%.

Vibration Surveys – Clear, concise full-color graphics pinpoint vibration problems from acceleration and deceleration runs. Broadband and tracked vibration levels are accurately displayed in real-time, enabling rapid diagnosis and return of the aircraft to service.

Vibration Diagnostics – Using the full-color vibration surveys and the spectrum analysis capabilities of the PBS-4100 PLUS, the specific causes of engine vibration are easy to identify and repairs can be made quickly.

Trim Balancing – The WinPBS Balancing Wizard guides users through the trim balancing process with easy-to-follow instructions and graphics. Weight solutions are accurate and help to get the aircraft back into service quickly. And for those times when you really need it, the PBS-4100 PLUS includes a 3-shot plot balance method to keep you flying.



BAR GRAPH



Display for viewing vibration levels and engine speed.

TROUBLESHOOTING



Tools guide you through diagnostics.

Introducing...
**The Latest Configuration
of the PBS-4100!**



The PBS-4100 PLUS

- *Vibration diagnostics – quickly determine the cause of high vibrations*
- *Trim balancing – reduce vibrations with accurate solutions*
- *Works on all aircraft and engine types*
- *Small, lightweight, easy to use*
- *Built-in diagnostics and calibration – reduce maintenance costs*
- *Save money, fuel, and time*



PBS-4100 PLUS – Ready to Work



PBS-4100 systems are used by engine manufacturers, engine and aircraft maintenance shops, commercial airlines and military forces worldwide.

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|--------------|------------------|----------------------|-----------------|-------------------|-------------------|
| • ALF502 | • CF6-80C | • JT3D-3B | • LF507-1F, -1H | • PW4084 | • Tay 620 |
| • Ariel 1C2 | • CF6-80E | • JT3D-7 | • LM2500 | • RB211-22B, 524B | • Tay 650 |
| • BR700 | • CFM56-2 | • JT8D-1, 5, 7 | • LM5000 | • RB211-524C/D4 | • Tay 651 |
| • CF34 | • CFM56-3 | • JT8D-9, 11, 15, 17 | • LM6000 | • RB211-524G, H | • TFE731-2 |
| • CF34-3A | • CFM56-5A, B, C | • JT8D-200 | • PW2037/2040 | • RB211-535C | • TFE731-3 |
| • CF34-3A2 | • CFM56-7 | • JT9D-7, 7A, 7F, 7J | • PW4000 | • RB211-535E4 | • TFE731-3A, -3C |
| • CF34-8C, E | • FT4 | • JT9D-7R4 | • PW4056 | • Spey | • TFE731-5BR |
| • CF34-10 | • GE90 | • JT9D-20 | • PW4084 | • Spey 511 | • TFE731-5R, -5AR |
| • CF6-6 | • GG4 | • JT9D-7Q, 59A, 70A | • PW4158 | • Spey 512 | • Trent 720 |
| • CF6-50 | • GMA3007 | • JT15D-1, -4 | • PW4168 | • Tay 610 | • Trent 800 |
| • CF6-80A | • HF118 | • JT15D-5 | • PW4460 | • Tay 611 | • V2500-A1, A5 |

MTI's latest generation of the PBS-4100 system can work for you. With engine test parameters and connection cables available and proven for all commercial engine types, the PBS-4100 PLUS system is an invaluable engine maintenance tool. Whether you manage a single aircraft or have a large fleet with several different aircraft/engine combinations, the PBS-4100 PLUS will quickly repay your investment with faster solutions to vibration problems and significantly reduce your number of expensive engine removals. The PBS-4100 product line has been proven on the following commercial engine types and others. Call MTI instruments for additional applications, which are being added daily.

MTI has been a leader in advanced technology products for manufacturing, computer and aerospace industries for nearly 50 years. Talk to the experts at MTI for more information about the PBS-4100 PLUS and other instrumentation solutions geared to your specific needs.

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