

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* offers added features and enhanced functionality to simplify the job of engine mechanics and flight line personnel. Small, lightweight, fast working and ruggedly built, it incorporates the latest configuration of electronics to maximize performance and maintainability.



With all its pluses, the PBS-4100 *PLUS* continues the field-proven performance of the existing PBS-4100 configuration, earned on more than

10 different aircraft platforms over the past 20 years. These include the A-10, B-1, B-2, KC-135, C-5, C-17 and U2, among others. Like its predecessors, the PBS-4100 *PLUS* can be used on all engines and aircraft in the Air Force inventory.

If you've worked with earlier models, you won't need retraining to use the PBS-4100 *PLUS* for vibration diagnostics, surveys and balancing, or to maintain historical engine data. The unit is completely compatible with earlier PBS systems.

The Latest Configuration of the PBS-4100

- Your existing cable harnesses will all fit.
- Your existing T.O. procedures will work unchanged.
- Your saved engine data and balance coefficients are all compatible.

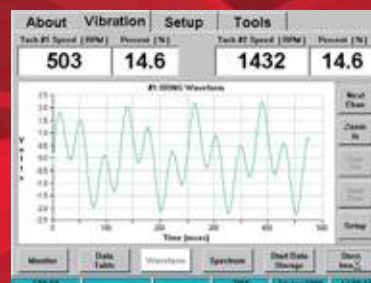


DATA TABLE

About		Vibration		Setup		Tools	
Tach #1 Speed (RPM)		Percent (%)		Tach #2 Speed (RPM)		Percent (%)	
499		14.5		1432		14.6	
#1 (RPM)	Diff (mils %/RPM)	#2 (mils %/RPM)	TRF (mils %/RPM)				
200	150.25	183.74	197.08				
W1	429.30	606.82	525.37				
W2	154.96	189.38	203.18				
W3							
W4							
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Phase	355.3	26.2	76.6				
Monitor	Save Values	Waveform	Spectrum	Real Time Storage	Print Setup		

Quick displays of vibration levels and engine speeds.

WAVEFORM



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

Robust Performance, Enhanced Mission-Readiness, *PLUS* 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 absorbers
and passive cooling –
ensures reliable
operation under the most
severe conditions.



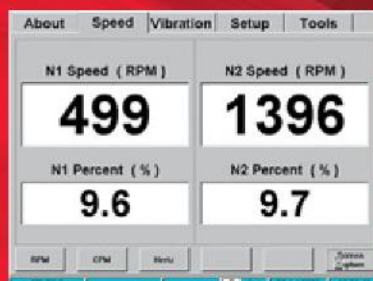
*Used in conjunction with the
1500CS Portable Calibrator,
a Diagnostic Wizard helps
to isolate problems
down to cables, sensors
and system components.*

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

30% lighter and 40%
smaller than PBS-4100.
*Easier to move, faster
to deploy.*

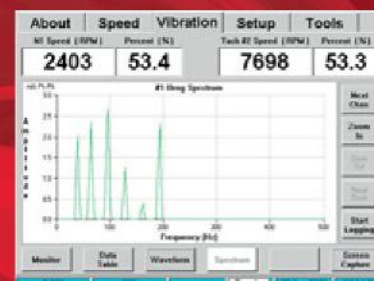
The latest signal
processing technology.
*Built-in Calibration
Wizard supports
automatic calibration.*

SPEED



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

SPECTRUM



*Display tracks
vibration down to
its source.*

PBS-4100 *PLUS* Does It All

Familiar Functions

With proven WinPBS Functions, no retraining is needed. Users are instantly ready to use the PBS-4100 *PLUS* to manage engine types, acquire and save data, balance engines and solve vibration problems.

Vibration Surveys

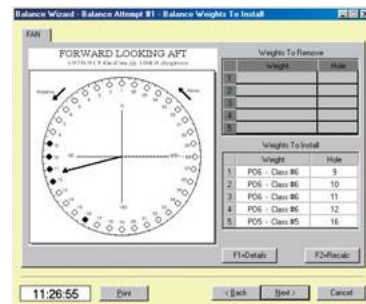
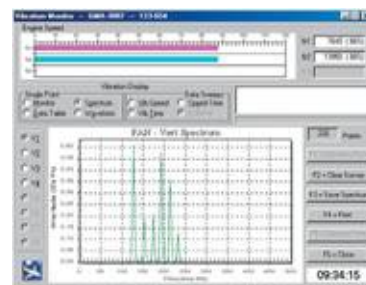
Clear, concise graphics indicate where vibration problems exist. Broadband and tracked vibration levels are reported quickly and accurately, ensuring rapid diagnosis. Vibration surveys are performed exactly the same way as with your existing PBS-4100.

Vibration Diagnostics

The PBS-4100 *PLUS* identifies the specific cause of engine vibrations, making it easier for you to repair.

Trim Balancing

We've kept the trim balance procedures the same, so you can quickly reduce vibration levels and get the aircraft back in service.



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

- *Advanced design – fast, accurate, reliable*
- *Smaller, lightweight, easier to use*
- *Fully compatible with existing cables and accessories*
- *Rugged and versatile*



PBS-4100 *PLUS* – Ready for Action

MTI's latest generation of PBS-4100 systems joins earlier versions in serving the U.S. military on the flight line and in test cells for all the following engine types:

- | | | |
|------------|-------------|---------------------|
| • F100-100 | • F110-100 | • F414-400 |
| • F100-200 | • F110-129 | • J52 |
| • F100-220 | • F110-132 | • J79 |
| • F101-102 | • F110-400 | • J85 |
| • F103-100 | • F117-100 | • JT8D |
| • F103-101 | • F118-100 | • TF30 |
| • F103-102 | • F118-101 | • TF33-3, 5, 9, 102 |
| • F108 | • F404-102 | • TF33-P7, 100 |
| | • F404-400 | • TF34-100A |
| | • F404-402 | • TF34-400B |
| | • F404-F1D2 | • TF39-1C |



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

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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