

# 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.

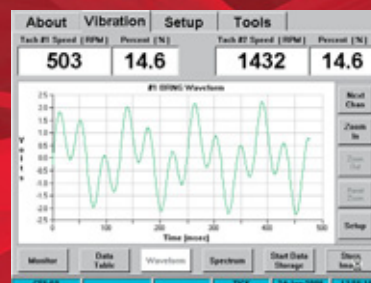


### DATA TABLE

About		Vibration		Setup		Tools	
Tach #1 Speed (RPM)	Percent (%)	Tach #2 Speed (RPM)	Percent (%)				
499	14.5	1432	14.6				
#1 RMS (milts 1/8")	Dist (milts 1/8")	TFR (milts 1/8")					
150.25	183.74	197.08					
429.30	606.82	1253.37					
154.96	189.38	203.18					
Phase:	355.3	26.2	76.6				
Monitor	Date Table	Waveform	Spectrum	Start Date Storage	Save Change		
076-58		TOCK	24-Jan-2008	11:54:01			

*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.

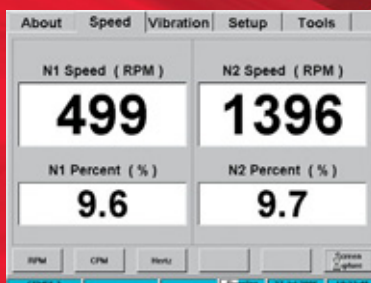


In some applications, the DAU can be used without the portable computer to measure speed and vibrations.

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

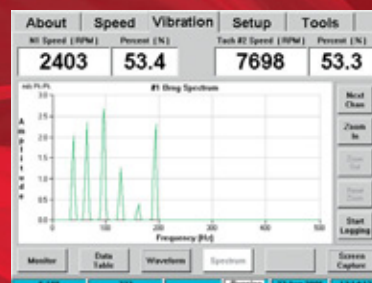
The latest signal processing technology. Built-in Calibration Wizard supports automatic calibration.

## 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

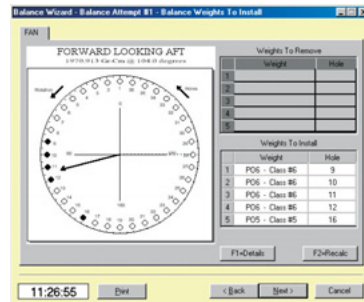
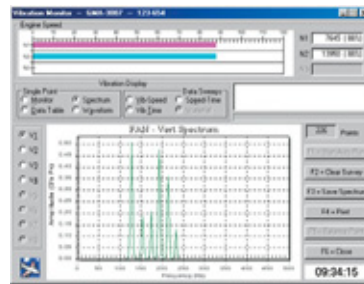
Clear, concise graphics indicate where vibration problems exist. Broadband and tracked vibration levels are reported quickly and accurately, ensuring rapid diagnosis. Vibration surveys are performed exactly the same way as with your existing PBS-4100.

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