

# Enhanced Vibrex™ 2000 Plus (EV2K+) Fixed Wing



Cost-Effective Balancer/Analyzer with Superior Enhanced Performance



# VIBREX™ EV2K PLUS

The EV2K+ is a vibration analysis and balancing tool that rapidly and accurately acquires and analyzes aircraft and engine vibration data. It uses that data to calculate balance solutions and to analyze aircraft vibration levels across a broad frequency range.

## CUSTOMIZED KITS & UPGRADES AVAILABLE

The EV2K+ product line comes as a complete kit, with all the software, accessories and instructions for your particular application in a rugged, portable carrying case.

With over 45 years of experience on more than 300 different applications, Honeywell products are proven and reliable. As new aircraft come into the market Honeywell is always there developing new applications for your customized needs.

## PRE-PROGRAMMED SOFTWARES:

Aerospatiale

- ATR42, ATR72

Antonov

- AN-32

Bombardier

- DASH 4, DASH 5, DASH 6 (Twin Otter), DASH 7, DASH 8

British Aerospace

- BAE 146

Canada Air

- CL215T, 415

Casa

- C212, 295, CN235

Cessna

- Caravan 2, Conquest

Dornier

- DO228, DO328

Embraer

- MB-120, Tucano

Lockheed

- C-130J

Pilatus

- C-6, PC-7, PC-7MkII, PC-9, PC-12



Piper

- CHEYENNE

Raytheon

- 1900D, KING AIR, BONANZA

Saab

- 340

Short

- 312, Tucano

Swearingen

- MERLIN, METRO III

## EV2K+ FIXED WING FEATURES:

- Enhancements to allow management of specific propeller configurations
  - Save user specified adjustment and clock angle sensitivities
  - Save auto-corrected sensitivities for specific propellers or engines
- Includes aircraft specific fixed wing balance charts
  - Select from factory configurations
  - Single plane solutions
  - Respect any manufacture's limit
  - Auto correct balance coefficients
  - Auto corrected charts can be saved as a new configuration
  - Display, Review and Print measurements and solutions
- Alternate Solutions for different configurations
  - Solve to a minimum reading other than zero
  - Exclude or edit settings on specific adjustment points
  - Turn off option to respect manufacturers' limits. Best solution will be provided
- Collect vibration data from up to 4 velocimeter channels
  - Allows balance of up to 4 propellers at a time

Easy to understand menus allow the user to initiate and complete up to 4 different balancing jobs at one time. The instrument will automatically correct for the propeller/rotor response to weight changes and this correction can be saved for future balancing exercises.

A "first round hit" solution means less vibration, even on the first adjustment. Two azimuth channels has the capability to support Magnetic Pickup, and Photocell. The EV2K+ can support up to four vibration inputs.

All measurements, sensitivities, solutions, and annotations are stored in memory and can be reviewed on the instrument, printed on the optional portable thermal printer, or downloaded to a personal computer.

#### Main Menu

- ▶ GENERIC PROP BALANCE
- ▶ FIXED WING BALANCE
- ▶ TRACK & BALANCE
- ▶ SPECTRUM ANALYSIS  
next menu, push START

#### Generic Prop Balance with Save and Recall

- ? PROP CONFIG 1 OF 2
- 101-300 HP ENG
- ▶ [ 56.00] GMS/IPS
- ▶ [10:30] CLOCK ANGLE
- CORRECTI ON

- ? PROP CONFIG 2 OF 2
- ▶ SAVE CONFIG AS  
[ENG S/N 123456 ]
- ▶ REMOVE CONFIG
- to solve, push START

#### Aircraft Specific Balance

- Dash-8 Run 1
- Component:
- ▶ <100/300 Left >
- Regi me:
- ▶ <1050 RPM 75% Tq>
- Change Type:
- ▶ <Wei ght >
- to solve, push START

- RUN 1 SOLUTN =1of1==
- (in grams) Pred:0.01
- 15 47.5
- 16 62.0
- 17 62.0
- 18 31.0
- ▶ ALTERNATE
- next menu, push START

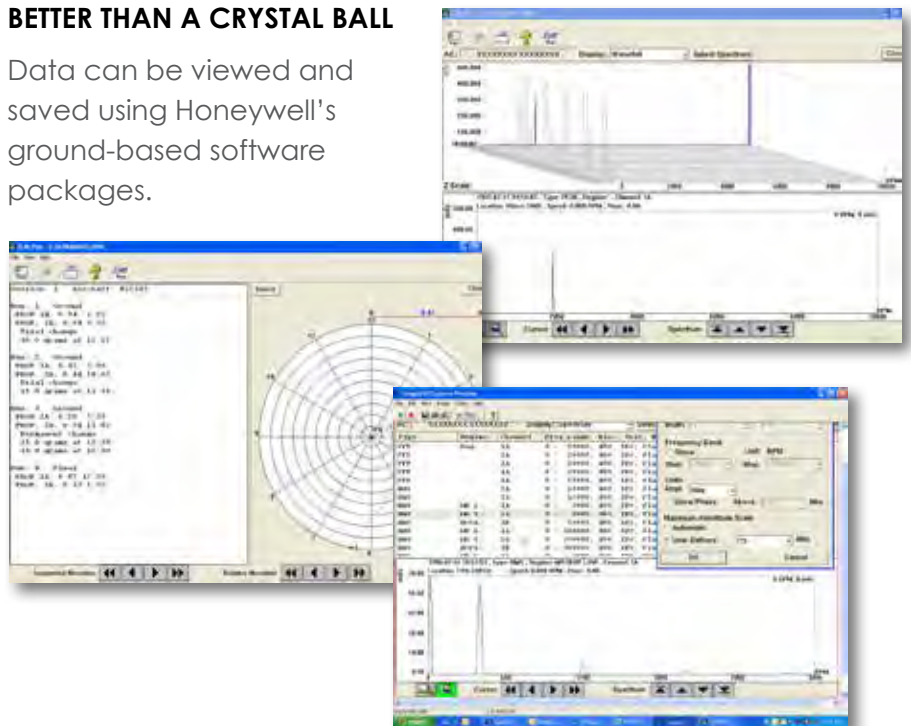
## PINPOINT PROBLEM COMPONENTS

Spectrum Analysis - Use the Enhanced Vibrex 2000 spectrum feature to pinpoint problem components with ease. The "List Peaks" spectrum printout identifies the highest peaks quickly. Use the harmonic and order features to identify misalignment, mechanical looseness, or imbalance to guide your maintenance action.

An added feature of the Enhanced Vibrex 2000 Plus model is a simple yet sophisticated spectrum viewer.

## BETTER THAN A CRYSTAL BALL

Data can be viewed and saved using Honeywell's ground-based software packages.



Diagnostic Solutions International LLC is a veteran owned small business registered with the Small Business Administration and Central Contracting.

With more than 200+ years combined experience diagnosing and solving complex vibration, rotor track and balance, and engine performance issues, Diagnostic Solutions International LLC offers an extensive knowledge base and expertise, yielding reduced down time, repair costs, and reactive maintenance. We specialize in providing on-site technical support, training, and health and usage monitoring system data management and analysis.

Diagnostic Solutions International LLC is the Premiere Worldwide CBM HUMS Distributor.

SPECIFICATIONS	
<b>Physical</b>	
Dimensions	7.38"H x 7.25"W x 1.81"D 18.75 cm x 18.42 cm x 4.6 cm
Weight	3.5 lbs. (with batteries) nominal
Power requirement	3-6.4 VDC 250mA
<b>Interfaces</b>	
Vibration sensor	4 ea. Velocimeter, (19 mV/IPS sensitivity)
Mag pickup / tach.	2 ea. Pulse input, Magnetic Pickup / Photocell / FasTrak™
Accessory power	4 ea. D-Cell batteries Reverse polarity circuit protected and fused
Portable Computer or Printer	1 Serial, RS-232, 9600 baud
<b>Balance Measurements</b>	
Phase accuracy	± 15°
Balance frequency range	240 to 10,000 RPM (Basic), 120 to 30,000 RPM (Plus)
Phase resolution	2 minutes or 1 degree
<b>Spectrum Analysis (F<sub>max</sub>, RPM)</b>	
Enhanced Vibrex 2000 Plus	1200-600,000
FFT resolution	400 Lines
<b>Performance</b>	
Memory	1 MB
Firmware	Programmable Flash Memory
Accuracy (Basic)	± 5% from 5 Hz to 333 Hz
Accuracy (Plus)	± .5dB from 4 Hz to 500 Hz ± 1dB from 501 Hz to 10 KHz
Spurious free dyn. range	>50dB
Velocimeter input ranges	0 to 380mV peak (20 ips)
Velocimeter input sensitivity	19mV/IPS peak
Mag p/u, input freq. range	100 - 50,000 RPM
Mag p/u, RPM accuracy	0.15%
Mag p/u, input voltage range	0.5 to 12 Volts peak nominal
<b>Environmental</b>	
Temperature	0°C to 50°C, or 32°F to 120°F
EMI susceptibility and radiated emissions standards	
Industrial Electronic Control Equipment Class	CE certified to: Standard EN50081-2; Standard EN50082-2
<b>Ground Software</b>	
Vibrex 2000 Download	Included
Vibrex 2000 Plot	Included

Specifications subject to change without notice

ISO9001 | AS9100C | AS9120A  
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