

Honeywell

ENHANCED VIBREX 2000 PLUS (EV2K+)



English



**COST-EFFECTIVE ENHANCED BALANCER/ANALYZER
WITH SUPERIOR PERFORMANCE**

ENHANCED VIBREX 2000 PLUS (EV2K+)

THE COST-EFFECTIVE ENHANCED BALANCER/ANALYZER FOR FIXED-WING PROPELLER BALANCING OR HELICOPTER ROTOR TRACK AND BALANCE

Whether you have a fixed-wing aircraft, helicopter, turbine engine or reciprocating engine, the Enhanced Vibrex 2000 Plus meets your needs.

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.

The balancer/analyser acquires accurate fixed-wing and helicopter vibration readings and allows you to balance the propellers or blades using the integrated display and aircraft pre-programmed software – without the use of paper charts, or you can use any of the 150 available Honeywell or factory paper charts.

Beyond that, the unit is also capable of balancing shafts and blowers, making the EV2K+ a complete balancing tool. The spectrum analyzer provides the operator with an overview of rotor, drive train and engines with component frequencies of 600,000 rpm or less, and balance speeds below 30,000 rpm.

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.



EV2K+ FEATURES:

- **Built-in configurations** for popular *helicopter and fixed-wing* models
- EV2K+ now interfaces with the hands-free **optical tracker**; allowing use with both *Strobex* or *FasTrak™* for helicopter blade track
- Fixed-wing propeller balance
- Helicopter track & balance (RT&B)
- Vibration and spectrum analysis
- **Four channel** input for multiple balance jobs (with optional cables)
- Automatic weight sensitivity correction
- RS232 interface for connection to printer and/or personal computer
- Uses common rechargeable or disposable D-Cell batteries

CUSTOMIZED KITS AND UPGRADES AVAILABLE

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

As new aircraft come into the market, we are developing new applications kit and software packages for your customized needs.



ENHANCED VIBREX 2000 PLUS (EV2K+)

THE COST-EFFECTIVE ENHANCED BALANCER/ANALYZER FOR FIXED-WING PROPELLER BALANCING OR HELICOPTER ROTOR TRACK AND BALANCE

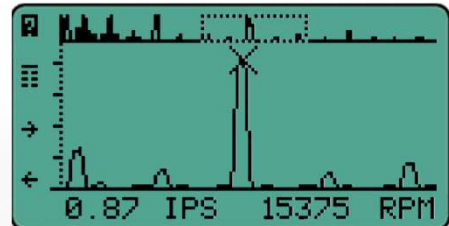
Easy to understand menus allow the user to initiate and complete up to four different balancing jobs at one time. The EV2K+ will automatically correct for the propeller/rotor response to weight changes and this correction can be saved for future balancing exercises. A "first round hit" solution means less vibration, even on the first adjustment. Two azimuth channels have the

capability to support magnetic pickup, photocell and FasTrak™ optical tracker. With the use of optional interface cables, the EV2K+ can support up to four vibration inputs.

▶ PROPELLER BALANCE
▶ HELICOPTER BALANCE
▶ TRACK & BALANCE
▶ SPECTRUM ANALYSIS
next menu, push START

RUN 1 PROP MEAS
16AUG10 08:48:10 #1A
▶ [ANNOTATE]
480 RPM
0.85 IPS @ 6:12
ID: N1234
▶ REDO MEAS
solution push START

☐ CHOOSE A/C MODEL
▶ <AS-350B1 >
▶ ADD AIRCRAFT MODEL
▶ EDIT AIRCRAFT MODEL
if ok, push START

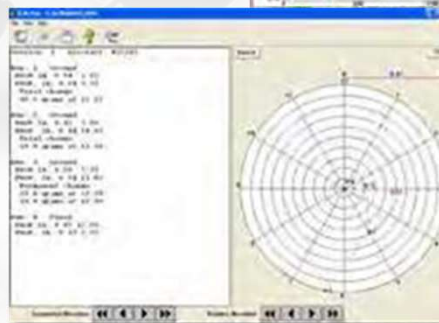
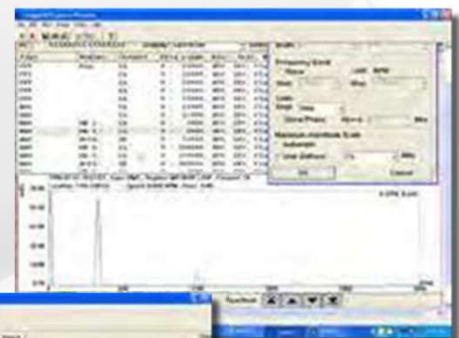


EV2K+ PRE-PROGRAMMED SOFTWARE LIST

Helicopters		
Airbus	Bell	Robinson
• AS332, AS350B, AS350B1, AS355, AS365, BK117, BO105, EC120, EC130, EC135, EC145	• BL206B, BL206L, BL212, BL222, BL407, BL427, UH-1H	• R-22, R-44, R-66
AgustaWestland	Enstrom	Sikorsky
• A109E Power, A119, AW139	• x80	• S-61
	MD Helicopters	Schweizer
	• MD-500, MD-520N	• SW-300
Fixed Wing		
Aerospatiale	Cessna	Piper
• ATR42, ATR72	• Caravan 2, Conquest	• CHEYENNE
Antonov	Dornier	Raytheon
• AN-32	• DO228, DO328	• 1900D, KING AIR, BONANZA
Bombardier	Embraer	Saab
• DASH 4, DASH 5, DASH 6 (Twin Otter), DASH 7, DASH 8	• EMB-120, Tucano	• 340
British Aerospace	Lockheed	Short
• BAE 146	• C-130J	• 312, Tucano
Canada Air	Pilatus	Swearingen
• CL215T, 415	• PC-6, PC-7, PC-7 MklI, PC-9, PC-12	• MERLIN, METRO III
Casa		
• C212, 295, CN235		

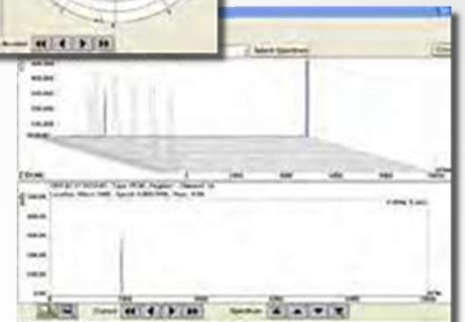
BETTER THAN A CRYSTAL BALL

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



Use the Polar Plot to manually or automatically plot balance points.

Spectral Plot lets you integrate and differentiate into any units—mils, IPS, g's, etc.



Use the "Waterfall" to Trend & Predict Component failures.



ENHANCED VIBREX 2000 PLUS (EV2K+)

THE COST-EFFECTIVE ENHANCED BALANCER/ANALYZER FOR FIXED-WING PROPELLER BALANCING OR HELICOPTER ROTOR TRACK AND BALANCE

THE VIBRATECH COMPANY

For more than 30 years, Vibratech is a major actor in the field of vibratory analysis on aircraft.

Vibratech owns two customer service and maintenance centers located in France and in China for repairs and calibration on vibratory analysis equipment.

Our company helps various organizations to develop dynamic adjustments procedures for their flying prototypes.

Our specialized technical team remains at your disposal for any technical support and assistance required.

Training courses can be performed all over the world.

Honeywell



DIAGNOSTIC
SOLUTIONS
INTERNATIONAL LLC

DISTRIBUTOR

TECHNICAL SPECIFICATIONS		
Physical	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., 1.6 kg (with batteries) nominal
	Power Requirement	3-6.4 VDC 250mA
	Battery Life	40 hrs (typical)
Interfaces	Vibration sensor	2 ea. Velocimeter (4 ea. with optional cables)
	Mag pickup / tach.	2 ea. Pulse input, Magnetic Pickup or logic type
	Accessory power	4 ea. D-Cell batteries Reverse polarity circuit protected and fused
	Portable Computer or Printer	1 Serial, RS-232, 9600 baud
Balance Measurements	Phase accuracy	± 1°
	Balance frequency range	120 to 30,000 RPM
	Phase resolution	2 minutes or 1 degree
Spectrum Analysis	Analysis Ranges (Fmax, RPM)	1200-600,000
	FFT resolution	400 Lines
	Window Type	Flat top
Performance	Memory	1 MB
	Firmware	Programmable Flash Memory
	Accuracy	± .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
	Environmental	Temperature
EMI susceptibility and radiated emissions standards		
Industrial Electronic Control Equipment Class		CE certified to: Standard EN50081-2; Standard EN50082-2

Specifications subject to change without notice.

Oct 2021

VIBRATECH

213 Avenue Louis Castillon | 83370 Saint Aygulf | France

Phone +33 (0)4 94 81 72 13 | Fax +33 (0)4 94 81 72 59 | Mail contact@vibratech.fr



vibratech.fr | vibratech-intl.cn