



www.avionteq.com

Zing™ Test

V2K+

**Honeywell**

**Customer Support**

Honeywell is dedicated to supporting our customers' needs. Our worldwide customer service is available via phone, fax or e-mail. We can help your organization improve skills in rotor/propeller smoothing and vibration related troubleshooting.

Customer service is augmented by our in-house expert teams that provide equipment repair and calibration. Honeywell International representatives support over 180 countries.

Specifications	
<b>Physical</b>	
<b>Dimensions</b>	7.38"H x 7.25"W x 1.81"D 18.75 cm x 18.42 cm x 4.6 cm
<b>Weight</b>	3.5 lbs. (with batteries) nominal
<b>Power Requirement</b>	3-6.4 VDC 250mA
<b>Interfaces</b>	
<b>Vibration Sensor</b>	2 ea. Velocimeter (19 mV/IPS sensitivity)
<b>Mag pickup / Tach.</b>	2 ea. Pulse input, magnetic pickup or logic type
<b>Accessory Power</b>	4 ea. D-Cell batteries Reverse polarity circuit protected and fused
<b>Portable Computer or Printer</b>	1 Serial, RS-232, 9600 baud
<b>Balance Measurements</b>	
<b>Phase Accuracy</b>	± 15°
<b>Balance Frequency Range</b>	240 to 10,000 RPM (Basic) 120 to 30,000 RPM (Plus)
<b>Phase Resolution</b>	2 minutes or 1 degree
<b>Spectrum Analysis (Fmax, RPM)</b>	
<b>Vibrex 2000</b>	1500-24,000
<b>Vibrex 2000 Plus</b>	1200-600,000
<b>FFT Resolution</b>	400 Lines
<b>Performance</b>	
<b>Memory</b>	1 MB
<b>Firmware</b>	Programmable Flash Memory
<b>Accuracy (Basic)</b>	± 5% from 5 Hz to 333 Hz
<b>Accuracy (Plus)</b>	± .5dB from 4 Hz to 500 Hz ± 1dB from 501 Hz to 10 KHz
<b>Spurious Free Dyn. Range</b>	>50dB
<b>Velocimeter Input Ranges</b>	0 to 380mV peak (20 ips)
<b>Velocimeter Input Sensitivity</b>	19mV/IPS peak
<b>Mag p/u, input Freq. Range</b>	100 - 50,000 RPM
<b>Mag p/u, RPM Accuracy</b>	0.15%
<b>Mag Ppu, Input Voltage Range</b>	0.5 to 12 Volts peak nominal
<b>Environmental</b>	
<b>Temperature</b>	0°C to 50°C, or 32°F to 120°F
EMI susceptibility and radiated emissions standards	
<b>Industrial Electronic Control Equipment Class</b>	CE certified to: Standard EN50081-2; Standard EN50082-2
<b>Ground Software</b>	
<b>Vibrex 2000 Download</b>	included with all models
<b>Vibrex 2000 Plot</b>	included with 2000 Plus, optional with the Basic

Specifications subject to change without notice



**The cost-effective balancer/analyzer with superior performance**

**Honeywell Aerospace**

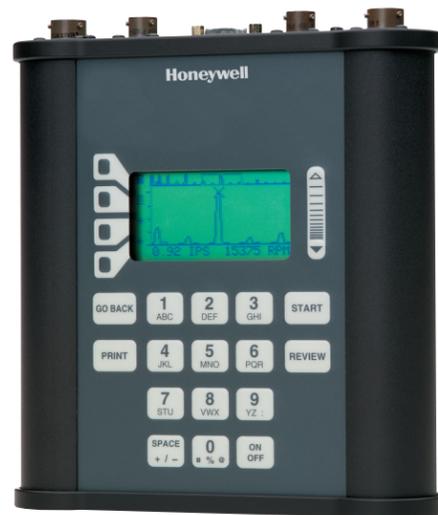
1944 East Sky Harbor Circle  
 Phoenix, AZ 85034  
 800-601-3099  
 International: 602-365-3099  
[www.honeywell.com](http://www.honeywell.com)

**Honeywell**

Zing™ Test V2K+  
balancer/analyzer  
with superior performance



# The cost-effective balancer/analyzer for fixed-wing or rotorcraft.



blades using the integrated display – 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 Vibrex 2000 Plus a complete balancing tool system.

The spectrum analyzer provides the operator with an overview of rotor and drive train vibration.

### The model to fit your needs

Zing Test V2K+ is applicable to aircraft and engines with component frequencies of 600,000 rpm or less and balance speeds below 30,000 rpm. For reciprocating engine powered aircraft, the Zing Test V2K+ basic model is a sure fit.

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

The Zing Test V2K+ 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.

This balancer/analyzer acquires accurate plane and helicopter vibration readings and allows you to balance the propellers or



### Zing Test V2K+ Features

- Propeller balance
- Helicopter track & balance
- Vibration analysis
- Multiple channel input for multiple balance jobs
- Automatic weight sensitivity correction
- RS232 interface for connection to printer and/or personal computer
- Uses common rechargeable or disposable D-cell batteries
- Strobex for helicopter blade track

### Customized Kits Available

The Vibrex 2000 Plus comes as a complete kit, with all the software, accessories and instructions for your particular application in a rugged, portable carrying case.

With more than 50 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.

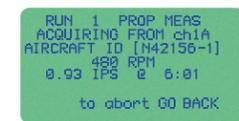
### Four easy steps to FAA-approved prop balance

The easy-to-understand manuals enable the user to initiate and complete up to four different balancing jobs at one time. The instrument automatically corrects for the propeller response to weight changes and these corrections can be saved for future balancing exercises.

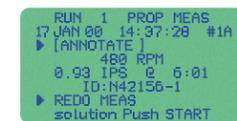
A “first round hit” solution means less vibration, even on the first adjustment. Two channels allow the user to measure the propeller and rear of the engine during balancing.

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.

Use the V2K+ with Honeywell’s FAA approved “The Smooth Propeller” publication to lower vibration and improve ride quality.



1. Acquire data



2. Show results



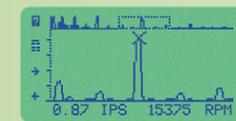
3. Show balance quality



4. Display adjustments to achieve a balanced propeller

### Pinpoint problem components

**Spectrum Analysis** – Use spectrum analysis 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 is a simple yet sophisticated spectrum viewer.

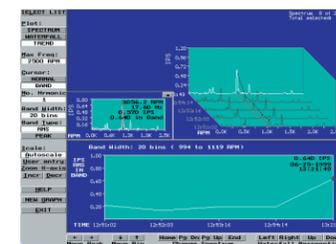
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MAX FREQ: 30000 RPM, 74.99 RPM/BIN
TIME: 17Jan00 14:39:22

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      =====
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0.95                1950
0.93                7649
0.87                15372
0.86                450
0.52                1425
0.40                11548
0.31                5774
0.29                23021
0.19                9598
    
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### Better than a crystal ball

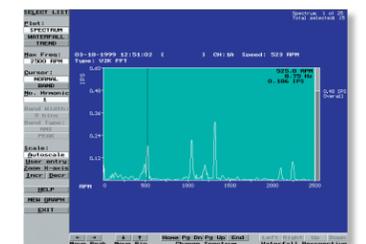
Data can be viewed and saved using Honeywell’s ground-based software packages.



Use the “Waterfall Plot” to Trend & Predict component failures.



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.