MODEL 258B VIBRATION ANALYZER AND BALANCER KIT

E00350-1: Model 258B Vibration Analyzer and Balancer Kit Includes:

Qty.	Description	Qty.	Description
1	258B Vibration Analyzer & Balancer Kit	1	Power Cable, UK
		1	Power Cable, Europe
2	Accelerometer	1	Polymate Demonstration Software
2	Accelerometer Cable, 25FT		
2	Accelerometer Mounting Magnet	1	Precision Portable Scale, 120 gram
		2	Adapter 544 to accel cable
1	Laser Speed Sensor Kit	1	Connector bnc fem/fem
1	Power Cable, North America	1	Operation Manual

Accessories for the Model 258B

Part Number	Description
E48901	Bump test software module
E48930	Polymate v1.5 software analysis program. Allows users to download data from the Model 258B and perform spectral analysis
E21200	Reflective tape for use with speed sensor, 45.7m long x 6mm wide (150 ft x 0.25in)
E45058	Spare battery for 258B instrument
E45274	Memory Expansion Card
E39581	Strobe light kit, 120VAC
E39582	Strobe light kit, 240VAC
E45073	External battery charger
E41626	AC Power Cable for battery charger, Australian plug
E41952	AC Power Cable for battery charger, S.Africa/India plug
E48800/S/006	BNC to 6 pin vibration input cable for use with patch panel outputs, 1.8m (6') long
E47309	Printer cable, serial to parallel interface. Connect Model 258B to any parallel port PCL printer

Sensors for the Model 258B

Part Number	Description
E48630	Laser speed sensor kit, steel body. Includes 5m (10ft) cable, magnetic flex arm and carrying case
E48624-5	Cable for laser speed sensor to Model 258B, 5m (16ft)
E48624-10	Cable for laser speed sensor to Model 258B, 10m (32ft)
E44445	High Sensitivity velocity sensor, 25mm (1 in.) diameter
E41529	Magnetic holder for E44445 sensor
E48617/S/025	Cable for E44445 sensor
E04526	Type 544 Velocity Vibration Sensor
E04332	Magnetic holder for use with 544 sensor

USA Headquarters: Telephone: (1) 502 366 0916 Fax: (1) 502 238 1001
IRD LLC 4740 Allmond Ave. Louisville, KY 40209, USA
UK: Telephone: +44 1244 538170 Fax: +44 1244 528900
IRD UK Ltd. International House, Aviation Park, Flint Road, Saltney Ferry, Chester UK CH4 0GZ
MEXICO: Telephone: +52.55.5689.8325 Fax: +52 55.5689.8160
IRD Balancing México S. de R. L. de C.V.; Miguel G. Kramer #29, Col. Atlántida Del. Coyoacán, México, D. F.C.P. 04370
CANADA: Telephone: 1.450.724.4066 Fax: 1.450.724.4077
IRD Canada Ltd. 755 Jean-Baptiste-Varin, La Prairie, QC J5R 6P3, Canada

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MODEL 258B VIBRATION ANALYZER AND BALANCER KIT

A SINGLE INSTRUMENT FOR A RANGE OF SERVICE, MAINTENANCE AND INSPECTION APPLICATIONS

The Model 258B is part of the IRD Balancing line of analysis and balancing products and is a flexible instrument platform designed to be a single tool for a range of maintenance, inspection, service, and diagnostic applications.

The Model 258B is a simple, easy to use instrument with an intuitive user interface that makes it ideal for expert and non-expert users alike.

The Model 258B is an adaptable instrument system, with individual modules for FFT Vibration Analysis and Balancing applications. This flexibility allows users to perform multiple tasks with a single tool. There is the option to add a Bump Test firmware module for increased productivity. These features make the Model 258B an excellent choice for machinery diagnostics or as a field service tool.

The Model 258B package includes the FFT Vibration Analysis and Balancing modules, 2 accelerometers, a laser speed sensor kit, precision scale and all other accessories necessary to use the 258B immediately.

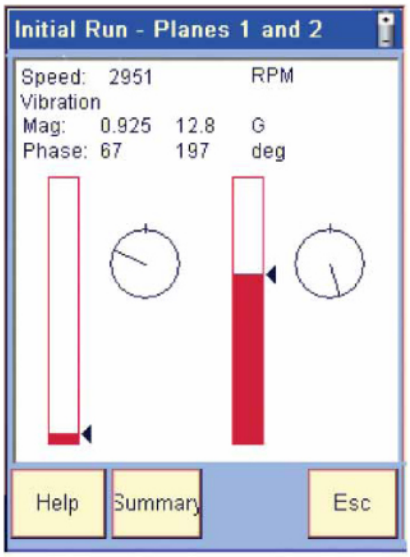
The Model 258B's high level of performance, intuitive software and ruggedness make it the ideal analysis tool and balancing instrument for operations where both on site and shop based analysis and maintenance will be performed.

KEY FEATURES:

- 1 and 2 plane dynamic balancing
- 1 and 2 channel vibration analysis
- Intuitive graphical user interface
- Rugged design and construction
  - 2 meter multiple drop
  - IP 65 rated for dust and water resistance
  - Protective rubber case
- Large color display designed for indoor and outdoor use
- Simple to use for non-vibration experts
- On screen user assistance
- Right or left hand operation
- Modular design enables expandability

MODEL **258B**

BALANCING MODULE



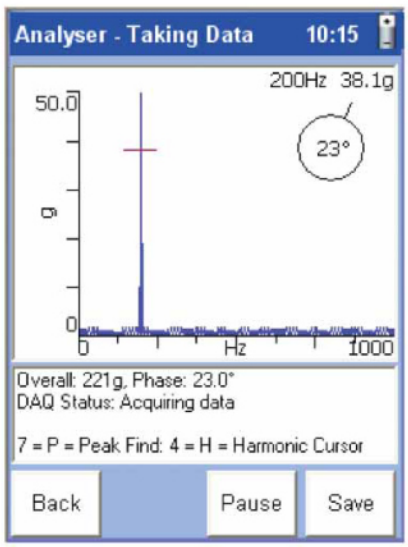
The Model 258B balancing module is a simple to use application allowing users to measure the unbalance in a rotating component and to calculate the required correction.

KEY FEATURES:

- High precision 1 or 2 plane Dynamic Balancing
- "Dynamic L-R or Static-couple display
- Ability to resolve balance weights and to estimate trial weights
- Easy to follow interface with graphical outputs
- Results displayed in summary table

- **Minimize vibration** - Unbalance is the major source of machine vibration.
- **Minimize structural stress** - The forces produced by unbalance have to be absorbed by the surrounding structure.
- **Increase machine and bearing life** - The time between outages can be extended if the machine is running smoothly.
- **Increase product quality** - Minimum vibration, especially on machine tools, produces better parts.
- **Increase personnel safety** - Dangers associated with machine failure and exposure to high levels of vibration are minimized.
- **Increase productivity** - Machines running smoothly have more "uptime" availability
- **Lower operating costs** - Extra machines are not required "just in case" of breakdowns. Spare capacity is kept to a minimum. Energy consumption is reduced.

FFT VIBRATION ANALYSIS MODULE



The FFT Analysis functionality of the Model 258B is a powerful and easy to use tool for measuring vibration signals, and breaking them down into their component frequencies.

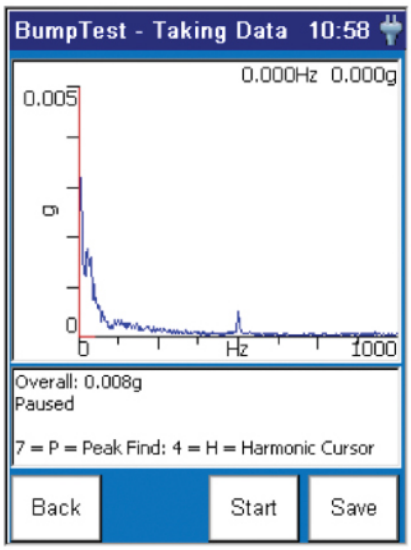
The user friendly interface displays spectral data and phase information in a simple, easy to understand format.

The module also makes it quick and easy for an operator to assess relative vibratory motion. By providing a 'phase vector' reading (needed for diagnosis of some machine faults) an operator can build a picture of the relative vibratory motion.

Placing sensors, setting up and taking measurements can all be done without the need to stop the machine.

- Single FFT spectrum display plus Phase vector – provides a simplified interpretation of vibration data
- 2 Hz to 40 kHz , 100 – 12,800 lines of resolution
- Phase reading shown as a simple vector diagram - no need to stop a running machine saving time and increasing operation efficiency
- Overall vibration reading
- True Peak and True Peak-Peak Detection
- Live display of signal spectrum

OPTIONAL BUMP TEST MODULE



The Bump (Rap) Test module may be added to allow for the identification of the natural resonant frequencies of a mechanical structure. In some cases, the presence of a resonance can cause excessive levels of vibration and / or noise.

This test helps identify the source of spectral components using data gathered from an accelerometer or other sensors. Build quality and some mechanical faults such as cracking can sometimes be identified by a shift in the natural frequency. As such this module can also be applied to applications like:

- Turbine Blade Testing – ensuring turbine blades do not have any major natural frequencies that coincide with the operating speeds of the turbine or its integer multiples
- Structural Mechanical Integrity – identifying weak or unstable structures prior to failure
- Crack Detection in Metallic Components - cracked or poorly bonded products will have less stiffness resulting in a change in natural frequency

GENERAL SPECIFICATIONS

- Frequency Range: 2Hz to 40kHz
- Vibration Input Channels: 2
- Vibration Input Type: ICP, AC, DC
- Amplitude readout: 0.01 to 1,000 mV/EU auto-ranging
- Detection: Peak, RMS, Peak to Peak
- Filter: Dual, narrow band digital tracking filters with averaging.
- Number of Balance Planes: 1 or 2.
- Calibration Method: Trial Weights.
- Unbalance Readout: grams, ounces, pounds or Engineering units
- Vibration Readout: micrometers, mils, millimeters/second, inches/second, g's or ESP
- Display of Dynamic (Left/Right) Unbalance or Static/Couple Unbalance
- Display of correction angles for adding or removing rotor balance weights
- Unbalance Display in Digital and Polar Format
- Rotor Memory storage for up to 500 balancing runs
- Additional storage on separate memory card, not included
- Automatic Vector Splitting of unbalance corrections
- Vector Addition of unbalance corrections for combining weights
- Handheld configuration:
  - 190 x 134 x 50 mm (Length x Width x Height)
  - Weight: 0.72 kg (1.6 lb) (no accessories)
  - Power: Rechargeable Lithium Ion Battery
  - Battery Usage: 4 to 6 hours on full charge
  - Sealing: IP 65 (Dust and Water Proof)
  - Drop Test: 2 Meters (6.5 feet)
  - Temperature: Operating -10 to +50° C
- Processor: 400 MHz X-scale
- Operating System: Windows CE
- Battery: Li-Ion smart battery pack (battery is recharged via main power adapter)
- Communication: Active Sync via USB, IrDA, or RS232
- Internal Storage: 64 Mb
- PC Cards: PCMCIA type II or SD (not included)
- Display 1/4 VGA Color TFT screen
- Data Entry: Keypad and arrow keys
- Printer Output: PCL and IRDA
- On board language support: English, Spanish, French, German (Deutsch), Italian, Chinese, Portuguese, Dutch, Polish, Swedish, Russian, Romanian, Finnish (Suomi), Czech (Cestina)