



## MIZ<sup>®</sup>-21B

### The Most Powerful Handheld Eddy Current Tester

#### FEATURES & BENEFITS

##### ▶ Wheel Bead Seat Inspection

Early crack detection allows you to repair or replace damaged wheels before bigger problems develop. With Zetec's Bead Seat Probes, you can inspect this region with only one pass around the wheel, greatly increasing throughput.

##### ▶ Airframe Fastener Row Inspection

Rapidly detect longitudinal fatigue cracks between fastener holes, such as at lap splices, with the MIZ-21B and the Reflection (Driver-Pickup) Sliding Probe.

##### ▶ C-scan Display for Fastener Holes

The C-scan display is a unique way to present the "big picture" in fastener hole inspection. This method works exceptionally well with an indexing rotating scanner when fasteners are removed.

##### ▶ Probe Optimization

The MIZ-21B also includes a Probe Plot feature that plots probe response to both the test and reference specimens over a range of frequencies. This feature helps you choose the probe's optimum operating frequency for each application.



#### Superior Flaw Detection and Faster Aircraft Inspections

Take advantage of the reliable eddy current technology in a convenient handheld package that gives you more ways to find more defects in less time. Test for cracks, corrosion, heat damage, and more. Dual frequency capability and digital conductivity testing are included in the MIZ-21B.

The MIZ-21B incorporates the power of dual-frequency testing, digital conductivity testing, and nonconductive coating thickness measurement. Its industry standard 50-ohm probe drive provides the optimum balance between probe input and instrument output. Yet it's priced to provide excellent value when you need a dedicated eddy current instrument.

The MIZ-21B has seven different eddy current data display modes. Choose XY Impedance Plane, Bar Graph, Triggered Sweep, Auto Sweep (slow or fast), C-scan, and digital conductivity. For rapid analysis, the dual display feature can present signals side-by-side in sweep and XY modes. Or, you can view a reference signal and a live test signal simultaneously.

The MIZ-21B's dual-frequency mixing capability suppresses undesirable variables to let you more easily identify and size flaws. Digitally mark up to 10 display points on the screen. Signal size is identified as a percent of screen height using the ruler on the electronic graticule.

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### Specifications

#### Case

- Dimensions: 11 L x 5 W x 2.5 D inches (28 x 13 x 6 cm)
- Weight: 3.9 lb (1.7 kg)

#### Power

- Batteries: internal, rechargeable, memory-free long-life nickel metal hydride (NiMH)
- 12-hr operation without additional accessories; more than 9 hours with backlight on
- On-screen message area for low battery and signal saturation
- Less than 2.5-hr quick charge
- Universal charger power input: 85-264 VAC / 47-63 Hz
- Optional external 12 VDC alkaline battery power pack

#### LCD Display with Backlight

- 240 x 320 pixels
- 2.25 x 4.50 inches (5.7 x 11.4 cm)
- Fast-responding, high-contrast
- Wide viewing angle (60°)
- Extended temperature range maintains clear visibility and speed at temperatures below freezing
- Backlight with long-life LED
- Operates in total darkness
- Maintains full contrast in brightest sunlight
- High-strength polycarbonate window with scratch-resistant coating

#### Inputs/Outputs

- Remote Connector (serial port) for PC interface, supports:
- Printing via Hewlett-Packard, Epson emulation, or Seiko DPU-414 Type II thermal printer
- Screen capture to PC
- Store or recall test configurations to PC
- Software revision updates
- Selectable horizontal and vertical analog outputs
- Probe Connector – auto-switches to interface with all standard probe configurations
- Battery Connector – charging and external power

#### Environmental

- Operating temperature range: 14° to 131°F (-10° to 55°C)
- Storage temperature range: 0° to 140°F (-17.7° to 60°C)
- Humidity: 0 to 100% noncondensing

#### Certification

- MIL-STD-810
- CE Mark
- ISO 9001

#### Flaw Detection

- Programmable analog drive and gain stages
- Noise-suppressing synchronous demodulation circuitry
- 16-bit A/D converter
- High-gain analog circuitry

#### Display Modes

- XY Impedance Plane
- Bar Graph
- Triggered Sweep
- Auto Sweep Slow
- Auto Sweep Fast
- C-scan (Plotted Waterfall)
- Screen data clearing is manual (CLR button) or automatic (variable persist mode)
- 2-signal display can show two signals side-by-side in sweep and XY modes

#### Scanner Support

- Supports HS Scanners
- Support for other manufacturers' scanners is available, consult Zetec for details

#### Memory

—Non-volatile (data retained with power off):

- Stores 50 test configurations
- Stores 10 screen images for review or comparison
- 8-second buffer memory: adjustable cursor scrolls through entire data buffer to select a range of data points for more in-depth review
- Stores up to 10 reference points

#### Conductivity Testing/Metal Sorting

- Conductivity and coating thickness measurement at 4 frequencies: 60, 120, 240 and 480 kHz
- Digital readout in 1 to 102 %IACS (0.5 to 70 MS/m)
- Meets BAC 5651 requirements

#### Autoset Phase/Autoset Gain

- Quickly and automatically set values for probe drive, gain, scale, and rotation. Autoset Phase sets the rotation so that the lift-off signal deflects horizontally to the left from the reference signal.

#### Frequency

- 50 Hz to 8 MHz
- 2 independent frequency selections to support dual frequency testing

#### Phase

- Manually adjustable in one- and ten-degree steps from 0° to 359°

#### Gain Adjustment Range

- Vertical and horizontal scale independently adjustable from 1 to 99

#### Probe Drive

- Adjustable to six output drive levels
- 50-ohm probe drive (industry standard) provides optimum balance between probe input and instrument output

#### Filters

- Adjustable high-pass, low-pass, and bandpass filters
- On-screen numeric read-out of cutoff frequency

#### Alarms

- Audio alarm with adjustable volume
- Visual LED alarm
- Alarm area is shown on the display; alarm box size and positioning are independently adjustable
- Alarms can be set for all display modes, as well as for conductivity limits
- In XY, YT, and Bar Graph display modes, alarm can trigger either inside or outside of the gated area
- TTL, visual, and adjustable audio output alarms are provided
- Headphone outputs

#### Probe Configuration

—Internally switches to interface with all standard probe configurations

- Single
- Differential (selectable internal or external balance load for single-coil operation)
- Reflection (Driver-Pickup)
- Differential Driver-Pickup



Zetec holds ISO 9001 and ISO/IEC 17025 certifications

