

# ED-1100

## Impedance Plane Flaw Detector



## Special Features

- Large 6" diagonal liquid crystal display provides greater visibility of flaws
- Selectable frequency range from 100 Hz to 6 MHz
- Continuously variable probe drive with overload indicator Wide selection of probes - absolute, differential, and reflection probes -compatible with existing equipment
- Continuous battery operation up to 12 hours
- Proven, reliable microprocessor-based circuit design
- Rugged aluminum case for tough environmental conditions
- Fully portable, weighs only 7.5 lb. (3.4 kg)
- Includes rechargeable batteries, power cord, probe cable and operating manual
- Removable steel hinged cover contains accessory pouch
- Viewing angle can be adjusted with the tilt-stand on the bottom of the unit

## Applications

The ED-1100 is a microprocessor-based impedance plane eddy current instrument which offers high sensitivity, versatility and simplicity of operation. The instrument will locate surface and near-surface defects and conductivity changes in magnetic and non-magnetic materials. The ED-1100 uses absolute, differential and reflection probes to detect flaws or determine properties such as conductivity, hardness, alloy type and heat treat condition. The three modes of operation include: flying dot mode for flaw detection, flying dot with storage mode for comparison purposes, and time base mode for bolt hole scanning. This eddy current instrument is used for a variety of applications including detecting flaws in aircraft wheels, struts, propellers, hubs and engine components, and, on automotive brakes, spindles, internal engine components, steering and chassis assemblies and. The ED-1100 is used in research, maintenance and quality control to verify test results and check materials for fatigue.

# Operation

The ED-1100 is easy to operate and requires minimal understanding of the principles of eddy current testing. The automatic balance/ null feature substantially reduces set-up time for manual operation and application studies. The liquid crystal display is protected by a replaceable scratch shield and can be backlit in poor lighting conditions. This instrument is capable of using a wide variety of probes and coils. Absolute, differential and reflection probes designed for other Centurion NDT products are all compatible with the ED-1100. Digital frequency selection, probe drive and impedance adjustments allow the operator to optimize the system performance for whatever probes or coils are selected. The accessory connector can be used to connect a chart recorder, audio gate or TTL output. Battery charger/power supply is available for 110-220V operation. The instrument comes with probe cable adapter which connects to the face of the unit. The front panel of the instrument includes the following fingertip push-button and dial controls:

- Auto:** Select Standard or Automatic setup mode used to balance the unit.
- Null:** Used in the Standard set-up mode to balance the bridge.
- Erase:** To erase a stored signal on the LCD.
- Store:** Selects the mode of operation between Store and Non-Store Impedance Plane, and Timebase.
- B'Lite:** To turn backlight on and off.
- Accessory:** Analog output available for optional chart recorder and audible gate.
- Drive:** Controls the probe drive. Turn clockwise for higher drive.
- Gain:** A ten-turn control for continuous adjustment of the gain.
- Phase:** Rotates the direction of display from 0° to 360°.
- Probe:** 6-pin LEMO connector
- Frequency:** Continually adjustable operating frequency from 100 Hz to 2 MHz. Controlled by the 10-digit keypad.
- Dot Position:** Vertical and Horizontal control the position of the dot in all modes.
- Power:** On/Off from battery or charger mode. Embedded LED lights when power is on. Power connection is 110 VAC or 220 VAC power adapter and battery charger.
- Charge:** LED indicates line cord is plugged in and battery is being charged.
- Expand:** Push-button to increase the flaw deflection on the Y-axis.

# Specifications

<b>Case Dimension:</b>	6.0" (15.2 cm) W x 12.0" (30.4 cm) L x 6.0" (15.2 cm) D with cover closed
<b>Enclosure:</b>	Case is made of durable aluminum, cover contains accessory pocket
<b>Weight:</b>	7.5 lb. (16.5 kg)
<b>Power:</b>	Rechargeable Ni-Cad battery. 115 or 230V Line operation (specify on order)
<b>Frequency Range:</b>	Variable from 100 Hz to 6 MHz
<b>Readout:</b>	6" (15.2 cm) diagonal liquid crystal display, Impedance Plane or Timebase
<b>Environmental:</b>	Operates in a temperature range of 0°F to 120°F at 85% relative humidity
<b>Output:</b>	Available for chart recorder or external gate driver