Mentor UT for Corrosion

App-based corrosion inspection for today's workplace

- Powerful 32/32 array inspection with conventional UT channel
- Create your own inspection 'Apps' or use pre-installed apps on the device
- Lower training costs with customizable apps and user interface
- Streamline reporting with built-in analysis and data export
- Pair with GE's industry leading dual-element, linear DM probes

LABQUIP NDT

Your Local NDT partner

Mentor UT

- Powerful 32/32 array flaw detector
- Conventional UT channel
- 18 kHz pulse repetition frequency (PRF)
- IP 65 durability
- Glove-friendly, customizable touch-screen user interface

GE introduces Mentor UT, the powerful, connected ultrasonic flaw detector optimized for corrosion mapping. Mentor UT brings the power of array inspection to everyday use with an intuitive, touch-screen interface and customizable inspection applications. Increase your inspection productivity through guided, on-device setup and calibration.

Now You Have an App for Corrosion

What if corrosion inspection was as easy as using an app on your smartphone? What if you could customize the user interface of your UT instrument for different inspection jobs? Mentor UT combines outstanding UT performance with today's advances in software to create a new kind of inspection experience. Complex inspections are now as easy as following on-screen menus. Use GE-provided on-device apps for corrosion inspection, or create your own using GE's desktop software, Mentor Create.

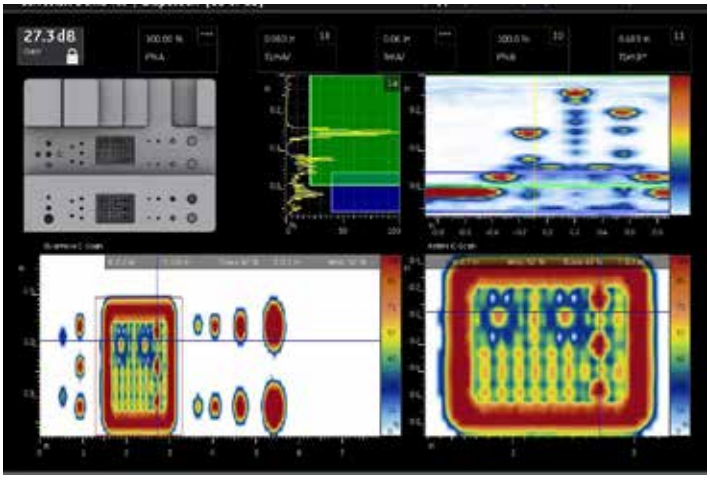
Lower Training Costs for New Inspectors

For NDT managers who struggle to maintain a staff of qualified experts, Mentor UT makes it faster and easier to train inspectors to conduct UT inspections. On-screen menus guide inspectors through every step of the inspection, from probe selection and calibration through conducting the inspection and reporting results. The durable, daylight-readable touchscreen makes navigating the device easy and intuitive. Inspection procedures, training documents, pictures and reference guides can all be viewed on the Mentor pictures, videos and reference guides for immediate access during field inspections.

Custom application-specific workflows

Automatic probe identification

Guided calibration



Corrosion scanning made easy

Improve Inspection Productivity

Mentor UT is more than just cutting-edge software. It combines a powerful 32/32 array flaw detector with a conventional channel, allowing you to instantly switch between PA and conventional inspection.

Avoid errors in probe selection and calibration with automatic probe ID and guided setup.

Mentor UT has been developed with the quality and precision you've come to expect from GE's DM corrosion probes, and it stands up to tough environments with its IP65 durability rating. Archiving and reporting are easy with the ability to store A-scan data, as well as post-inspection analysis and reporting, on the device.

Field-Ready Right Out of the Box

Take the guesswork out of inspection setup with probe kits and inspection apps, already installed on your Mentor UT device.

Mentor UT for Corrosion can be easily partnered with GE's rugged, field-proven DM probes and your preferred commercially available mechanical corrosion scanner.

Need to create a custom inspection procedure for a specific need?

Mentor Create software allows you to design and customize inspection workflows and custom user interfaces for your unique applications.

Setting the Standard for Connectivity

Building on the success of the Mentor EM and Mentor Visual iQ products, Mentor UT is the first UT device equipped with wireless connectivity and live streaming. Remote collaboration saves time, simplifies reporting and gives field inspectors the confidence of a second opinion for tough inspection calls.

Learn more and activate your free trial at www.inspectionworks.com

Specifications

Physical	
Dimensions (W x H x D)	295 mm x 230 mm x 60 mm (12" x 9.4" x 2.4")
Weight, w/Battery	2.9 kg (6.5 lbs)

Display	
Size	264 mm (10.4") diagonal
Resolution	1024 x 768 pixels
Mode	Indoor and Outdoor specific color modes
Viewing Angle	± 85˚ all directions

Touch Screen (Multi-touch)	
Gloved Operation	Yes
Surface	Chemically strengthened glass, scratch resistant, chemical resistant, optically bonded to display

Data Storage	
Solid State Hard Drive	16 GB
USB Storage	USB 2.0 w included module
Data Capture	
Data Files	Full ASCAN capture for every CSCAN point, all settings. Recall on instrument with full analysis capability.
Settings Files	All instrument settings plus position in workflow.
Screen Capture	JPG Format
Report	PDF Format

Connectivity	
Wi-Fi	Yes. 802.11 b, g, n
Remote Collaboration	Local Network and Internet-Enabled via InspectionWorks Connect
InspectionWorks Enabled	Yes

I/O	
Axes	2 digital quadrature encoders for X-Y axes
Audible	Tone, 2.7 kHz

Power	
Internal Battery	63 WH Lithium Ion
External Battery (included)	84 WH Lithium Ion
Input	100 to 240 VAC, 47–63 Hz, 1.9 A
Battery Life	3 hrs internal, 6 hrs with included external battery under typical operating conditions
Compliance	Meets IATA air transport regulations with one contained installed battery and one packed external battery

Environmental	
Operating Temperature	-20C to +55 C (-4F to 131F) to MIL-STD-810G Method 501.5 & 502.5, Procedure I
Storage Temperature	-20C to +70C (-4F to 158F) to MIL-STD-810G Method 501.5 & 502.5, Procedure II
Ingress Protection	Tested to IP65
Shock	4' Transit Drop to MIL-STD-810G method 516.6, Procedure V

Data Visualization	
User Interface	Customizable with Mentor Create software
Zoom	Any data view may be expanded to full screen with gesture
Instructional Material	Rich Text, JPG, PNG, BMP, PDF or Video (MP4)
Views	ASCAN, ESCAN, CSCAN, CSCAN OVERVIEW
Probe Selection	Swap between conventional and phased array on same screen
Measurements	Amplitudes, Depth, Distance, % Wall Loss, Thinnest Point, X and Y Positions
Calibrations	Phased Array: TCG, Material Velocity, Probe Delay, Auto80, Encoder Cal, Dead Element Check Conventional: 2 Point (Material Velocity and Probe Delay)

Ultrasonic Specifications

Scanning	
Aperture	1–32 Elements
Max Elements	32
Focal Laws	1024
Scanning	Linear, focused

Pulser	
Pulse Shape	Bipolar Square Wave
Voltage	20–150 in 5 V steps
Width (auto or manual)	50–3000 nS
Delay Step Increment	10 nS

Receiver and Digitizer	
Gain	0–78 dB in 0.2 dB steps
Number of Points	Up to 16
Slope	50 dB/µS
Rectification	Pos HW, Neg HW, Full, RF
System Bandwidth	0.5 MHz to 15 MHz
PRF	10 Hz to 18 kHz
Digitizing Rate	62.5 MHz, up-sampled to 500 MHz
Delay Step Increment	2.5 nS
Acquisition Range	50 nS to 150 µS
ASCAN Compression Points	512, 1024, 2048, 4096
Filters	1, 2, 4, 5, 7.5, 10 MHz, and Broad Band
Gates	A, B and IF, controlled by gesture or menu parameters
TOF Modes	J–Flank, Zero Before, Zero After, Peak
Amplitude Modes	Readings up to 800% FSH – deep dynamic range
Start Modes	Initial Pulse, IF
Thickness Resolution	0.05 mm (0.002")

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