

## DIGITAL ULTRASONIC FLAW DETECTOR (BASIC TYPE) CODE UFD-B450

- Full plastic housing with tempered glass panel, extremely hard, wear-resistant and scratch-resistant
- Full-digital multi-color high resolution (640x480 pixels) TFT LCD display
- The operation interface style can be selected according to the working environment, and the brightness of LCD can be set freely
- Selectable frequency ranges (automatically set by the instrument) to match probe for optimum performance.
- Can choose to set the incoming wave alarm or lost wave alarm, accompanied by LED light display
- Real-time screenshots of all pages and flaw detection reports, and save them as BMP pictures to U disk
- Export the flaw detection report as a PDF file
- Unique Fn multifunction key design
- There is no limit of the number and duration of video recording through U disk
- Memory of 500 channel files to store calibration setups and probe parameter
- Memory of 1000 wave report files to store A-Scan wave and settings



straight-beam probe  
(included)



angle-beam probe  
(included)



couplant  
(included)

### FUNCTIONS

<b>Flaw detection standard</b>	Built-in common flaw detection standards, direct call, convenient and fast
<b>Auto calibration</b>	Automatic calibration of probe zero offset, probe angle (K value) and material velocity
<b>Peak hold</b>	Compare frozen peak waveforms to live A-Scans to easily interpret test results
<b>Flaw locating</b>	Live display sound-path, projection (surface distance), depth, amplitude
<b>Flaw discrimination</b>	Automatic flaw sizing using AVG or DAC, speeds reporting of defect acceptance or rejection
<b>Flaw sizing</b>	The equivalent dB value of defects or equivalent size of defects are displayed in real time
<b>Curved surface correction</b>	Used for flaw detection of curved workpiece, it can display the circumferential position of defects in real time
<b>DAC/AVG</b>	The curve is automatically generated, and the sampling points can be compensated and corrected. The curve automatically floats with the gain, automatically expands with the detection distance, and automatically moves with the delay time. It can display the AVG curve of any aperture
<b>AWS D1.1</b>	Choosing this standard can reduce manual calculations and improve detection efficiency
<b>Weld diagram</b>	Support V type, T type, L type and other weld types, acoustic path navigation real-time display, weld and defect location real-time display, scaling, easy to locate defects
<b>Automatic rating</b>	Select different AWS standards, automatically calculate the rating of defects and display
<b>Crack height</b>	The crack height is measured and calculated automatically by the diffracted wave at the end
<b>Gate magnify</b>	Spreading of the gate range over the entire screen width
<b>Continuous record</b>	Video recording and playback
<b>Echo coding</b>	Display 1~9 echo display area in different colors, used to analyze the defect position
<b>Scan freeze</b>	Display freeze holds waveform and test distance data
<b>Peak mark</b>	Capture and mark the peak in real time
<b>B scan</b>	Intuitively display the defect shape of the workpiece and the detection result is more intuitive

## SPECIFICATION

Measuring range	0~15000mm
Working frequency	1~20MHz
Material velocity	100~20000m/s
Repetition frequency	20~2000Hz
Dynamic range	≥26dB
Vertical linearity	≤5.0%
Horizontal linearity	≤0.5%
Resolving power	>32dB
Sensitivity leavings	>54dB
Suppression	0~80%
Noise	≤10%
Probe selection	single crystal probe, dual crystal probe, penetrating probe, climbing probe
Pulse energy	100V, 200V, 250V, 300V, 350V, 400V, 450V, 500V (selectable)
Probe damping	50Ω, 150Ω, 250Ω, 500Ω (selectable)
Rectification	Positive half wave, negative half wave, full wave, RF
Gates	Two independent gates controllable over entire sweep range
Trigger	Peak trigger, edge trigger
Alarms	Threshold positive/negative with LED flash
Interface	USB 2.0
Operating temperature	-10~50°C
Relative humidity	20~95%RH
Power	build-in rechargeable battery
Size	230×157×52mm
Weight	1.13kg

## STANDARD DELIVERY

Main unit	1 pc
Single-element straight probe UFD-T40	1 pc
Single-element angle probe UFD-T41	1 pc
USB cable	1 pc
Couplant	1 bottle
Probe connecting cable	2 pcs
USB disk	1 pc
Power adapter	1 pc

## SPECIFICATION OF PROBE

Code	Frequency	Size	Probe type	Transducer sensor Angle
UFD-T40 (included)	2.5MHz	Ø20mm	Single-element straight probe	90°
UFD-T41 (included)	4.0MHz	8x9mm	Single-element angle probe	60°
UFD-T42 (optional)	5.0MHz	Ø10mm	Dual-element straight probe	90°
UFD-T43 (optional)	5.0MHz	Ø10mm	Single-element straight probe	90°
UFD-T44 (optional)	4.0MHz	8x9mm	Single-element angle probe	45°
UFD-T45 (optional)	4.0MHz	8x9mm	Single-element angle probe	70°

Note: Other probes can be customized according to customer requirements