



## Features:

- Two measuring unit: mm/inch
- Four Rectify Ways: positive half-wave, negative half-wave, full wave and radio frequency
- Two scanning mode: A and B
- Gate alarming function
- 32 detecting channels are available with separated detecting parameters and DAC curve in every channel
- Automatic generation of DAC curve, and 30 points can be recorded at most, adjustable offset curves and gain correction functions are available
- Three detecting modes: single-probe , dual-probe and transmission
- Equipped with high-speed USB port and flash memory device can be used directly on the instrument
- Data and documents are managed under FAT file system, making the management of inspection data more convenient, faster and more reliant
- Super large memory up to 32M, 1000 echo data can be stored in 32 detecting channels
- Brand new digital signal circuit is designed for TUD310, Digital signal processor (DSP) is used for signals analyzing, making circuit noise reduced properly and waveform more stable
- EPSON ink-jet printer can be connected with TUD310 by USB cable
- Real-time waveform display and review

## Technical Specification

Scanning range	2.5 mm ~9999 mm
Scanning resolution	0.1mm (2.5mm~100mm) 1mm (100 mm~5000mm)
Gain range	0dB ~110 dB
D-Delay	-20 $\mu$ s~+3400 $\mu$ s
P-Delay	0 $\mu$ s~99.99 $\mu$ s, resolution 0.01 $\mu$ s
Sound speed	1000 m/s~9999m/s
Bandwidth	0.2MHz~15MHz (Low0.2~1 Mid.0.5~4 High 3~15)
Vertical linearity error	$\leq$ 3%
Horizontal linearity error	$\leq$ 0.2%
Dynamic range	$\geq$ 32dB
Rectification	Positive half wave, negative wave, full wave, and RF
Sensitivity leavings	$\geq$ 60dB
Test mode	Pulse-echo, dual and through transmission
Pulser	Spike excitation pulser
Damping	50ohms, 150ohms and 400ohms
Reject	Linear, 0-80% of full screen, variable in steps of 1%
Unit	mm/inch
Interface	RS232 / USB
Printer	EPSON ink-jet printers
AC requirements	85-264V AC/1.0A,47-63Hz
Temperature	-10 C ~40 C
Humidity	20%~90%RH
Charging time	4~5 hours
Power supply	Li battery 4 $\times$ 3.6V 4000mAh
Overall dimension	243 $\times$ 173 $\times$ 70mm
Weight	1.47kg

## Standard Delivery

- |                      |   |
|----------------------|---|
| • Main unit          | 1 |
| • Power adaptor      | 1 |
| • Neck strap         | 1 |
| • Cable for probe    | 2 |
| • Carrying case      | 1 |
| • Straight probe     | 1 |
| • Angle probe        | 1 |
| • Couplant           | 1 |
| • Flash disk         | 1 |
| • TIME certificate   | 1 |
| • Warranty card      | 1 |
| • Instruction manual | 1 |

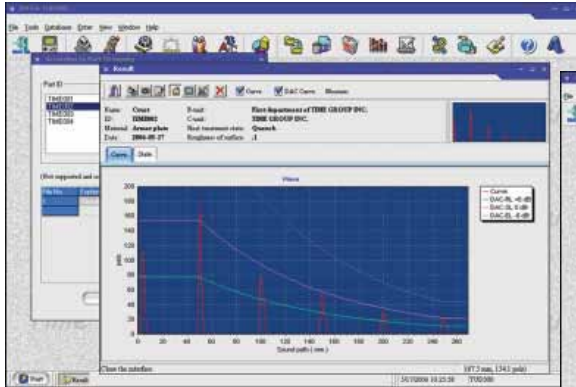
## Optional Accessory

- Dataview software for TUD310
- Various probes (see page 48)
- EPSON ink-jet printer

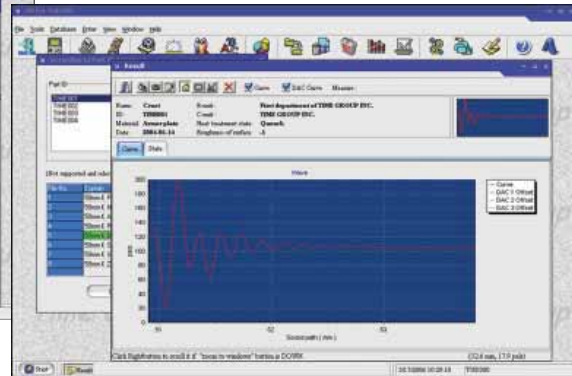
# ULTRASONIC FLAW DETECTOR TUD 310

ISO 9001

- Editing and management of saved data and echoes
- Edit and print of examination report as users' demand
- Dataview for TUD310 and TUD360 is equipped with real-time display of detecting waves on the computer screen



Review of echo



Scroll and review data for examination

TUD300 ULTRASONIC EXAMINATION REPORT			
BASIC	Job number: 20060517	Technician: TUB	B. SENE Head Department of TIME GROUP INC.
	Date: 2006-05-17	Test location:	C. SENE Head Department of TIME GROUP INC.
INSPECTION	Object Name: Crank	Material: Aluminum plate	Heat treatment: Quench
	ID: TUD300	Surface: Roughness: 0.1	
PROBE	TYPE: P18	DEAL: 30	
	SIZE: 20	FREQ: 2.0MP	
	ANGLE: 0 deg		
	S-VALUE: 0.000 mm	P-DEALY: 0 use	
	TYPE: TTD100	GAIN: 12.40	
	RANGE: 220.00 mm	ALG: LOGIC	POC:
	MTLVEL: 1500 m/s	uSTART: 250.00 mm	
	D-DEALY: 0 use	uWIDTH: 20.00 mm	
ADJUSTMENT	DAMPING: 20	T-ADJUST: 40%	
	RECTIFY: POC	uSTART: 70.00 mm	
	REJECT: 3%	uWIDTH: 40.00 mm	
	F-VALUE: 30.00 mm	uWIDTH: 11.1%	
INSPECTION DATA	DAC:		
	REPAIR: 0.40	OFFSET L: 14.40	
	ECHO: 0.40	OFFSET R: 14.40	
	W: 20.00 mm	P: 0.00 mm	
	RETR: 30.1%	SCN: 100%	
	k: 114	l: 20.00 mm	
REMARK			
STANDARD			
RESULT	Principal	Defect	Operator Status Recheck Date

Edit and print of Examination Report

TIME supplies various kinds of ultrasonic probes as customer's requirements

