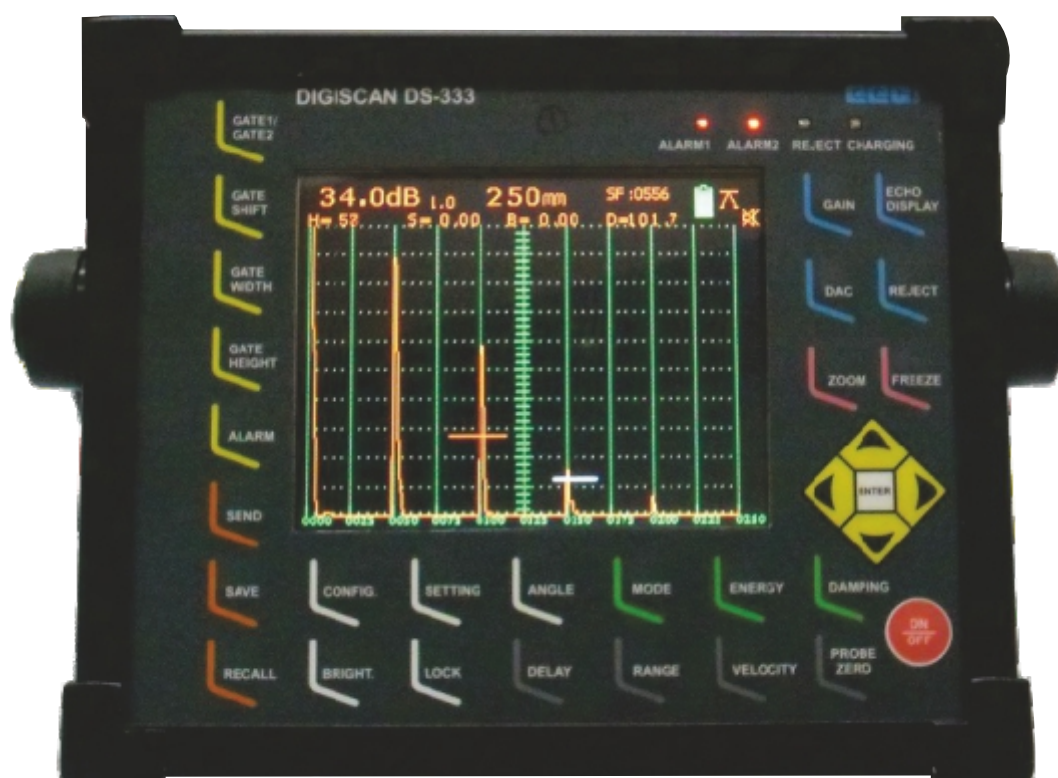


# DIGITAL ULTRASONIC AXLE TESTER (RDSO APPROVED)

Digital Ultrasonic Flaw Detector

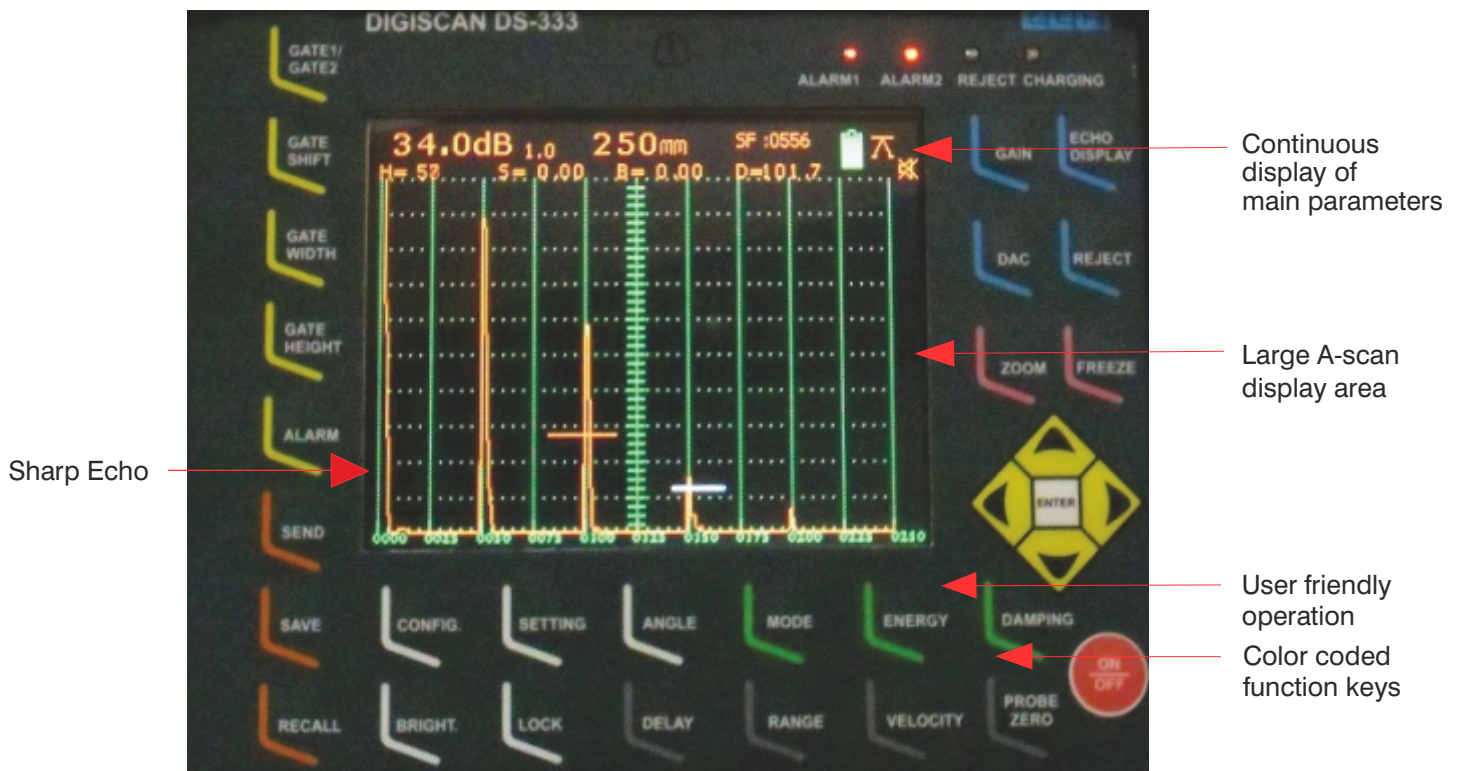
## DIGISCAN DS-333 with colour TFT display



### FEATURES

- Operation with Li-Ion Battery
- TFT type LCD with LED back light, pixel density of 320 X 240
- 3 Kg weight with batteries
- Receiver Bandwidth range from 1MHz to 6MHZ
- Measuring range from 5mm to 5mtrs in steel
- Selectable transducer modes: single, dual and angle beam
- Dual gate for accurate thickness measurement
- Built in trigonometric function for precise flaw detection
- Internal triggering
- Gated zoom facility to view expanded portion of the defect
- Selectable logic for both gates
- Background reference echo pattern for easy comparison of the defect
- 10000 'A' scan memories
- 100 calibration sets
- USB interface for data logging

## KEYPAD OPERATION



The latest DIGISCAN DS-333 is built tough and easy to use. Full size access to all the functions. The large, high resolution display has a wide viewing angle and good key board ensures direct visibility in any light conditions.

The TFT colored display has the ability to display small echoes which are very relevant to demanding UT operators, it does not miss any information. The DAC is offered in accordance to demanding customers needs.

DIGISCAN DS-333 is a complete instrument suitable for most applications where Ultrasonic Testing is carried out. It's simplicity to use, versatile features and ability to display high fidelity Ultrasonic signals, makes it an ideal choice for Axle Testing.

## USER SPECIFICATIONS.

### 1. LCD DISPLAY

1.1	Display	TFT color LCD with LED back light, 300 X 200 pixel, 120mm (W) X 90mm (H) Pixel density 320 X R.G.B (H) X 240 (V).
1.2	Display Freeze	Current display frozen.
1.3	Active Freeze	Display accumulation, active freeze echo to be saved.
1.4	Reference Echo Pattern	Reference pattern can be displayed at the background from selected location
1.5	Display Pattern	Unfilled or Filled.

### 2. PULSER / RECEIVER

2.1	Receiver Bandwidth	1MHZ to 6MHZ by broad band amplifier
2.2	Gain	Total gain 120dB, 0–80dB operatable, 0.1,0.5,1,2,6,12dB selectable
2.3	Rejection	Linear (0 – 99%)
2.4	Operating Mode	Single probe T+R, double probe T/R.
2.5	Test Mode	Pulse reflection or pulse Transmission
2.6	Energy	NOR/LOW selectable.
2.7	Probe Zero	99.99us in step of 0.1mm
2.8	Vertical Linearity	Within $\pm 3\%$ on all ranges
2.9	Probe Connector	BNC type
2.10	Echo Display	Full wave rectified.

### 3. TIME BASE

3.1	Range	5mm min. –5000mm. Max (@5890M/sec)
3.2	Delay	0-3000mm continuous variable in step of 0.1mm , 0.01mm/step for 10- 100mm, 0.1mm/step for 100mm – 1Mtrs, 1mm/step for 1Mtr – 5Mtr
3.3	PRF	Auto limiting for set parameters, Variable in 10Hz steps from 10Hz to 100Hz,Variable in 100Hz steps from 100Hz to 1000Hz .
3.4	Velocity	2000M/sec – 9999M/sec Transverse mode velocity
3.5	Time Base Linearity	Within $\pm 1.25\%$ on all ranges
3.6	Zoom	Gated portion min. 10mm, (expansion of gated signal within full screen length)
3.7	Triggering	Internal

### 4. MONITOR GATE

4.1	Monitor Gates	2 Gates - Width 1/10 screen to full screen - Height 1/10 screen to 99% - Gate start measured from '0' div - $\pm$ logic selectable
4.2	Monitor Logic Alarm	Common Audio (Audio mute), sound shall be loud, audible to hear in open RED LED for gate1 function GREEN LED for gate2 function. Total of 2 LEDs provided.

### 5. DAC

5.1	DAC	10 points with LED glow & alarm facility
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## 6. GENERAL

6.1	<b>Trigonometric functions</b>	Beam path, flaw depth & projection distance displayed for selected echo within Gate 1 : Angle selection 0-90° : Job thickness selection 0.1 to 999mm
6.2	<b>Measurements</b>	Echo height – $\pm 1.0\%$ tolerance Thickness (initial pulse to Echo) – $\pm 0.1\text{mm}$ or $\pm$ set range/300 whichever ever more with peak & flank option
6.3	<b>Measurement units</b>	Millimeter
6.4	<b>Memory</b>	Minimum 10000 Sets data set-ups along with 'A' scans with calibration Parameters, trigonometric values and Label . - 100 calibration parameter sets . - Recalling the cal- sets, Frame set and labels as and when required
6.5	<b>Interface/outputs</b>	- PC connectivity via USB-A, with Export function opening in MS Words, /PDF - Pen Drive Connectivity via USB-B. - Direct Printer Connectivity-Dot matrix Printer-DB9 Connector
6.6	<b>PC software</b>	EECOWIN PC interface software with Suitable port & transfer software. Can upload "FRAME" from saved set to PC through the USB port and through Pen drive.
6.7	<b>Transfer to web portal</b>	Save data compatible with web portal
6.8	<b>Logging of operator</b>	12 nos operator
6.9	<b>Key Board</b>	Instrument key board will be user friendly with direct access to frequently Used functions. Detachable Alpha Numeric QWERTY key board with back space and space bar for Alpha Numeric Labelling.
6.10	<b>Trace Color</b>	Black and white background. Trace color Green, Blue, Black, Red.
6.11	<b>Graticule</b>	5div(H) X 5div(V), further sub divided , Into 10 small divisions. Two types of selectable graticules viz-Standard and CRT graticules.
6.12	<b>Dimension</b>	260mm x 200mm x 75mm (W X H X D) Max.
6.13	<b>Weight</b>	3 Kg.
6.14	<b>Power Source</b>	Li-ion battery 3.7V max, 20800mAh Rechargeable battery model BAT324I - Operating time 8 Hrs (min) with battery - Battery charger cum mains adaptor 100-240V, 50Hz/60Hz, Model - AD5V5 Full charge in 8 hrs - External charger model CGR322 with automatic cutoff facility to protect battery from over charging.
6.15	<b>Battery Indicator</b>	Battery status indicator on LCD, with auto shut down and color change for Low Battery. Automatic cut-off circuit to be provided built-in to protect against over loading of equipment.
6.16	<b>Operating Temperature</b>	Equipment work up to ambient temperature of 55°C
6.17	<b>Parameter display</b>	Horizontal & vertical graticule, Lock, Battery status, Back ground. Gain, Beam path, surface distance, flaw depth/thickness , zoom, Probe zero, Delay, Range, Reject, Gate1/Gate2 ON/OFF, Gate shift, Gate Width, Gate height, alarm mute, save, recall.
6.18	<b>Accessories</b>	1) N2.5BR2 Probe 2) PKBB-2 Cable 3) 16GB Pen drive
6.19	<b>Lock</b>	Keyboard can be locked.