

# ULTRASONIC/LEEB HARDNESS TESTER CODE ISHU-340

DATA  
OUTPUT



main unit  
(included)

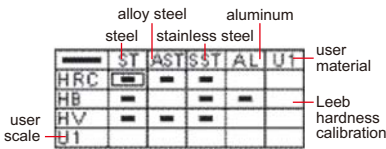
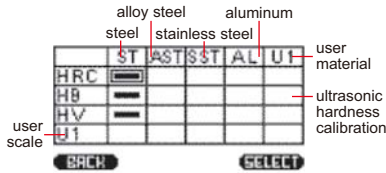


ultrasonic probe A  
(included)



Leeb probe type D  
(included)

- Automatic detect the ultrasonic probe or Leeb probe type D
- Average and statistics test modes
- Memory of 1024 test results for browsing and output
- Automatic power off
- Anti-dust and waterproof



select the material and scale, use the corresponding standard hardness blocks or workpieces for calibration ("■" means the calibration is already made, calibration is needed before using other materials and scales)



software (included), output data, make and print reports



Ultrasonic hardness tester

Application and features:

1. For steel, non-ferrous metal and alloy
2. Test surface hardening layers (carburized, nitriding, high frequency hardened, etc.) and plating (like chrome plating)
3. Suitable for thin wall or edge of workpieces
4. Suitable for small areas like arc, conical surface and other complex shapes
5. Suitable for small or light workpieces
6. Suitable for narrow spaces, like grooves and blind holes
7. Test large workpieces at any direction
8. Suitable for rough surfaces
9. Small test indentation
10. Test force and time are not affected by the operator
11. Quick test, only 2 seconds



Leeb hardness tester

Application and features:

1. Suitable for large and heavy workpieces, such as casting parts, molds, machine guides, etc.
2. For steel, non-ferrous metal and alloy
3. Based on Leeb (HLD), converted to Rockwell (HRC), Vickers (HV), Brinell (HB) and strength (Mpa)
4. Impact direction is adjustable
5. According to ASTM A956



ultrasonic probe to test flat surfaces (with the cover)



ultrasonic probe to test cylinder surfaces (use V-groove on the cover)



ultrasonic probe to test narrow areas (remove the cover)

## APPLICATION OF ULTRASONIC HARDNESS TESTER AND LEEB HARDNESS TESTER

Application	Ultrasonic	Leeb
Solid parts, molds, etc.	well suited	especially suited
Coarse grain materials, cast iron parts, etc.	not recommended	especially suited
Steel and aluminum cast alloys	suited sometimes	especially suited
HAZ with welds	especially suited	not recommended
Tubes: wall thickness > 10 mm	especially suited	especially suited
Tubes: wall thickness < 10 mm	especially suited	not recommended
Rough surfaces	not recommended	well suited
Thin workpieces	especially suited	not recommended
Difficult to access positions, like turbine blades, gears, etc.	especially suited	well suited

## SPECIFICATION OF MAIN UNIT

Hardness scale	HV, HB, HRC, HL, Mpa	
Resolution	1HV, 1HB, 0.1HRC, 1HL, 1Mpa	
Accuracy of ultrasonic test	HB	±10HB
	HV	±15HV
	HRC	±2HRC
Accuracy of Leeb test	HL	±6HL
Data output	USB	
Operating temperature	-20°C ~ +40°C	
Power supply	built-in rechargeable battery	
Dimension of main unit	120×60×25mm	
Weight of main unit	200g	

## STANDARD DELIVERY

Main unit	1pc
Ultrasonic probe A	1pc
Leeb probe type D	1pc
Hardness test block D	1pc
Rechargeable battery	2pcs
Charger	1pc
USB cable and software	1pc

## OPTIONAL ACCESSORY

Ultrasonic probe B	ISHU-460-B
Leeb support rings	see details
Couplant	ISH-COULPLANT

## SPECIFICATION OF PROBE

Type	ultrasonic A (standard)	ultrasonic B (optional)	Leeb type D (standard)
Test force	50N	10N (small force)	-
Application	general use	plating	large and heavy workpieces
Maximum roughness of workpiece (Ra)	2.5µm	1.5µm	1.6µm
Minimum weight of workpiece (direct measurement)	0.1kg*	0.1kg*	5kg*
Minimum thickness of workpiece (direct measurement)	1mm*	1mm*	5mm*
Minimum radius of workpiece	5mm	5mm	30mm
Minimum thickness of surface hardening layer or plating	0.1mm	0.03mm	-
Minimum test area	Ø1mm	Ø1mm	Ø20mm
Dimension and weight of probe	140×Ø37mm, 271g	145×Ø37mm, 271g	148×Ø20mm, 100g

\* If the weight or thickness of workpiece is less than required, the workpiece should be fixed or coupled on solid support.