MITECH MODEL INSTRUMENTS

❖ **Mitech Portable Leeb Hardness Tester**
- ☺ MH310 Portable Leeb Hardness Tester
- ☺ MH320 Portable Leeb Hardness Tester
- ☺ MH180 Portable Leeb Hardness Tester
- ☺ HL200 Portbale Leeb Hardness Tester
- ☺ MH210 Portable Leeb hardness Tester
- ☺ MH100 Pen-type Hardness Tester
- ☺ MH600 High Brightness Display Leeb Hardness Tester

❖ **Mitech Ultrasonic Thickness Gauges**
- ☺ MT200 Ultrasonic Thickness Gauges
- ☺ MT160 Ultrasonic Thickness Gauges
- ☺ MT 150 Ultrasonic Thickness Gauges
- ☺ MT180/190 Multi-Model Ultrasonic Thickness Gauges
- ☺ MT600 High Brightness Dispaly Multi-Model Ultrasonic Thickness Gauges

Mitech Ultrasonic Flaw Detector
- ☺ MFD350B Ultrasonic Flaw Detectors
- ☺ MFD500B Ultrasonic Flaw Detectors
- ☺ MFD620C Ultrasonic Flaw Detectors
- ☺ MFD650C Ultrasonic Flaw Detectors
- ☺ MFD800C Ultrasonic Flaw Detectors

MH310 Portable Hardness Tester

MH310 LEEB HARDNESS TESTER
Test time:08/26/2008
Probe no:D
Direction:
Time:03
Material: C-V Steel

NO.003
393   395   400
AVE=396

MITECH

HL 393

MTL   H D   ☀   ⏻
STR   DIR   💾   ▲
PRT   FEED   TIME   ▼

MH310
LEEB HARDNESS
TESTER

Main Applications:

Die cavity of molds
Bearings and other parts
Failure analysis of pressure vessels
Steam generators and other equipment
Heavy work pieces
Installed machinery and permanently assembled parts
Testing surface of a small hollow space
Material identification in the warehouse of metallic materials
Rapid testing in large range
Multi-area measurement for large-scale work pieces

MH310 Portable Hardness Tester

FEATURES:

- ❖ Wide measuring range. It can measure the hardness of all metallic materials. Direct display of hardness scales HRB, HRC, HV, HB, HS, HL and three types of strength values immediately.
- ❖ Large screen LCD, showing all functions and parameters with EL background light.
- ❖ Seven impact devices are available for special applications. Automatically identify the type of impact devices, and with the user calibration function.
- ❖ Test at any angle, even upside down.
- ❖ Large memory could store 100 groups (Relative to average times 32～1) of information including single measured value, mean value, impact direction, impact times, material and hardness scale etc.
- ❖ Battery information showing the remaining capacity of the battery and the charge status.
- ❖ Original high speed thermal printer supports the immediate printing function. It can save data permanently.
- ❖ NI-MH rechargeable battery as the power source. Charge circuit integrated inside the instrument. Continuous working period of no less than 150 hours (EL off and no printing).
- ❖ Auto power off to save energy.
- ❖ Excellent after-sale service system for high quality products--two years' guarantee and lifetime maintenance. Easy to buy and to use.

Standard Configuration

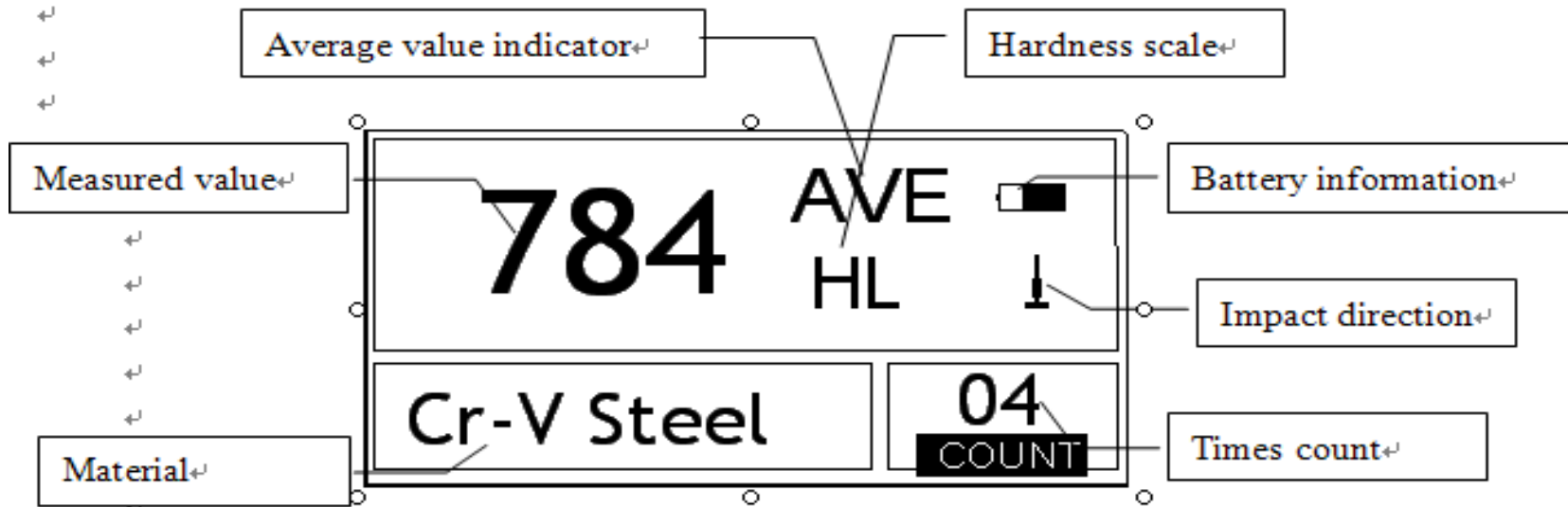|	No.	Item	Quantity	Remarks
Standard Configuration	1	Main unit	1	
	2	D type impact device	1	With cable
	3	Standard test block	1	
	4	Cleaning brush (I)	1	
	5	Small support ring	1	
	6	Battery Charger	1	9V 500mA
	7	Paper for printing	1	
	8	Manual	1	
	9	Instrument package case	1	
Optional Configuration	11	Cleaning brush (II)	1	For use with G type impact device
	12	Other type of impact devices and support rings		Refer to Table 3 and Table 4 in the appendix.
	13	DataPro software	1	
	14	Communication cable	1	
	15			
	16			

MH320 Portable Hardness Tester

Features of of MH310

- ❖ **Large memory (500 groups)**
- ❖ **Dot-matrix LCD**
- ❖ **Auto-indentification**
- ❖ **Menu arrangement**
- ❖ **Upper/lower limits setting and alarm**
- ❖ **Power charging circuit**

Main Display Interface of MH320

Average value indicator

Hardness scale

Measured value

Battery information

784 AVE
HL

Impact direction

Cr-V Steel

04
COUNT

Times count

Material

MH320 Technical Specifications

❖ **Measuring range：HLD（170～960）HLD**

❖ **Measuring direction：360°**

❖ **Hardness Scale：HL, HB, HRB, HRC, HRA, HV, HS**

❖ **Display：dot matrix LCD，128×64 dots**

❖ **Data memory:500 groups max.（relative to impact times 32～1）**

❖ **Printing paper: Width is （57.5±0.5）mm, diameter is 30mm**

❖ **Battery pack: 6V NI-MH**

❖ **Battery charger: 9V/500mA**

❖ **Continuous working period：about 150 hours（With backlight off, no printing）**

❖ **Communication interface：USB1.1**

❖ **Outer dimensions：212mm×80mm×32mm**

Package of MH320

MH180 Portable Hardness Tester

Economical!

MH180 Portable Hardness Tester

Features:

❖ **Compact plastic case，suitable for use under poor working conditions. Test at any angle, even upside down.**

❖ **Wide measuring range. It can measure the hardness of all metallic materials. Direct display of hardness scales HRB, HRC, HV, HB, HS, HL**

❖ **Large screen (segmented LCD), showing all functions and parameters. With EL background light.**

❖ **Large capacity memory could store 100 groups information.**

❖ **Datapro Software to connect with PC via RS232 port. Micro printer support**

❖ **Software calibration function.**

HL200/MH210 Portable hardness tester

HL-200

MH-210

HL200/MH210 Portable hardness tester

Product information:

Model MH210 hardness tester is develop model of HL200, its in durable metal case, hardness scales are convertible among hardness units: HRB, HRC, HV, HB, HS, HL; attachable thermal mini-printer, fast on-site printing; software data and upper/lower limits setting and sound alarm; large storage capacity.

Key Features:

❖ Compact metal case，suitable for use under poor working conditions. Test at any angle, even upside down.
❖ Wide measuring range. It can measure the hardness of all metallic materials. Direct display of hardness scales HRB, HRC, HV, HB, HS, HL
❖ Large screen (128×64 dot matrix LCD), showing all functions and parameters. With EL background light.
❖ Software calibration function.
❖ Software to connect with PC via RS232 port. Micro printer support.

Leeb Hardness Testers' Main Applications

- **Die cavity of molds**

- **Bearings and other parts**

- **Failure analysis of pressure vessel, steam generator and other equipment**

- **Heavy work pieces**

- **Installed machinery and permanently assembled parts.**

- **Testing surfaces of a small hollow spaces**

- **Material identification in the warehouse of metallic materials**

- **Rapid testing in large range and multi-area measurement for large-scale work piece**

All TYPES OF IMPACT DEVICE:

D   DC   DL   C   D+15   E   G

All types of support rings:

Material	Method	Impact device					
		D/DC	D+15	C	G	E	DL
Steel and cast steel	HRC	20~68.5	19.3~67.9	20.0~69.5		22.4~70.7	20.6~68.2
	HRB	38.4~99.6			47.7~99.9		37.0~99.9
	HRA	59.1~85.8				61.7~88.0	
	HB	127~651	80~638	80~683	90~646	83~663	81~646
	HV	83~976	80~937	80~996		84~1042	80~950
	HS	32.2~99.5	33.3~99.3	31.8~102.1		35.8~102.6	30.6~96.8
Cold work tool steel	HRC	20.4~67.1	19.8~68.2	20.7~68.2		22.6~70.2	
	HV	80~898	80~935	100~941		82~1009	
Stainless steel	HRB	46.5~101.7					
	HB	85~655					
	HV	85~802					
Grey cast iron	HRC						
	HB	93~334			92~326		
	HV						
Nodular cast iron	HRC						
	HB	131~387			127~364		
	HV						
Cast aluminum alloys	HB	19~164		23~210	32~168		
	HRB	23.8~84.6		22.7~85.0	23.8~85.5		
BRASS(copper-zinc alloys)	HB	40~173					
	HRB	13.5~95.3					
BRONZE(copper-aluminum/tin alloys)	HB	60~290					
Wrought copper alloys	HB	45~315					

MT 200 Ultrasonic Thickness Gauges

Product information:

Ultrasonic Thickness Gauges are designed to improve safety and ensure reliability of material subject to corrosion or erosion.

Corrosion gauges with their dual-element transducers are the primary inspection tools used to measure the remaining walls of components such as pipelines, pressure vessels, storage tanks, and numerous other applications.

Precision gauges use single-element transducers to provide the thinnest range and highest degree of accuracy possible. Common applications include metals and a variety of non-metals (i.e. glass, ceramic, plastic, etc.).

MT 200 Ultrasonic Thickness Gauges

	No	Item	Quantity	Note
Standard Configuration	1	Main body	1	
	2	Transducer	1	Model: N05/90°
	3	Couplant	1	
	4	Instrument Case	1	
	5	Operating Manual	1	
	6	Screwdriver	1	
	7	Alkaline battery	2	AA size
	8			
Optional Configuration	9	Transducer: N02		See Table3-1
	10	Transducer: N07		
	11	Transducer: HT5		
	12	Mini thermal printer	1	
	13	Print cable	1	
	14	DataPro for Thickness Gauge	1	For use on the PC
	15	Communication Cable	1	

MT 200 Ultrasonic Thickness Gauges' Specifications

❖ **Display：128×64 dot matrix LCD with EL backlight.**
❖ **Measuring Range：0.75～300mm (in Steel).**
❖ **Sound Velocity Range: 1000~9999 m/s.**
❖ **Resolution：0.1/0.01mm（selectable）.**
❖ **Accuracy： ±（0.5%Thickness+0.04）mm**
❖ **Units: Metric/English unit selectable.**
❖ **Four measurement readings per second for single point measurement, and ten per second for Scan Mode.**
❖ **Memory for 20 files (up to 99 values for each file) of stored values.**
❖ **Upper and lower limit can be pre-set. It will alarm automatically when the resulting value exceeds the limit.**
❖ **Power Supply：Two "AA" size, 1.5 volt alkaline batteries. 100 hours typical operating time (EL backlight off).**
❖ **Communication：RS232 serial port.**
❖ **Case：Extruded aluminum body suitable for use under poor working conditions.**
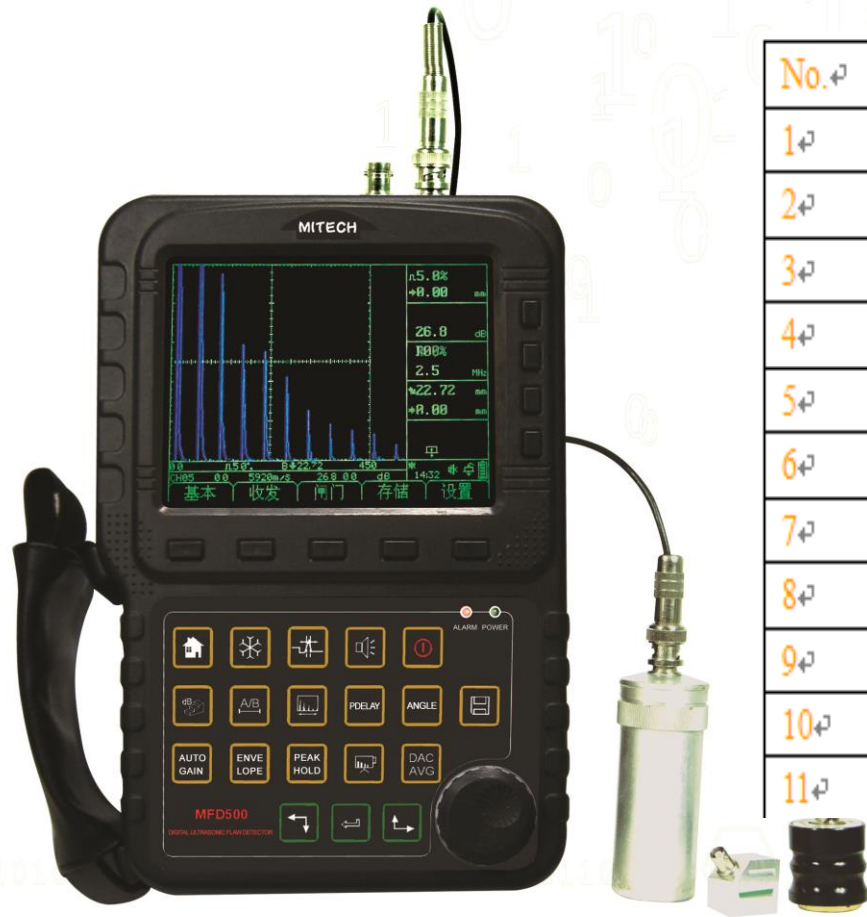❖ **Outline dimensions：132H X 76.2W mm.**
❖ **Weight：345g**

MT150/MT160 Ultrasonic Thickness Gauges

MT150/MT160 Ultrasonic Thickness Gauges

	MT150	MT160
Display	4.5 digits LDS with EL backlight	
Measuring Range	0.75-300mm (in steel)	
Sound Velocity	1000-9999m/s	
Resolution	0.1mm	0.01/0.1mm
Tolerance	± (1%Thickness+0.1) mm	± (0.5%Thickness+0.04) mm
Testing Frequency	Four measurements readings per second for single point measurement, and ten per second for Scan Mode.	
Calibration	4.0mm steel base plate integrated	
Save Capacity	Up to 20 files (up to 99 values for each file) of stored values	
Mode	Single point mode and scan mode	
Interface	N/A	RS232, mini-printer
Units	Metric/Inch	
Working Voltage	3 V (two alkaline batteries)	
Battery life	Over 100 hours (backlight off)	
Dimensions	150*74*32mm	
Weight	245g	

MFD500 Ultrasonic Flaw Detector

No.	Item	Quality
1	Main Body	1
2	Straight Beam Probe	1
3	Angle Probe	1
4	Machine-probe Cable (Q9-Q9)	1
5	Battery Module	1
6	Power Adapter (Charger)	1
7	Support Pillar	1
8	Manual	1
9	Instrument Case	1
10	Datapro Software	1
11	USB communication Cable	1

KEY FEATURES:

MFD500 Portable Ultrasonic Flaw Detector with hi-resolution color TFT LCD display. The background color and the wave color can be selectable according to the environment.
LCD brightness can be manually set. Continue working over 8 hours with high performance lithium-ion battery module (with large capacity lithium-ion battery option), easy to be dismantled and the battery module can be charged independently offline. It is light and portable, easily to be taken by one hand; easy operation; superior reliability assures long life.

FUNCTIONS

Peak Hold:
Automatically searching the peak wave inside the gate and holding it on the display.
Equivalent diameter calculation: find out the peak echo and calculate its equivalent diameter.
Continuous Recording: Record the display continuously and save it to the memory inside the instrument.
Defect Localization: Localize the defect position, including the distance, the depth and its plane projection distance.
Defect Sizing: Calculate the defect size
Defect Evaluation: Evaluate the defect by echo envelope.
DAC: Distance Amplitude Correction
AVG: Distance Gain Size curve function
Crack Measure: Measure and calculate the crack depth
B-SCAN: Display the cross-section of the test block.

SPECIFICATIONS:

Range: (0 ~ 9999) mm
Bandwidth: (0.5 ~ 15) MHz
Material Velocity: (1000 ~ 9999) m/s
Dynamic Range: ≥ 32dB
Vertical linear error: ≤ 3%
Horizontal linear error: ≤ 0.2%
Resolution:> 40dB (5P14)
Sensitivity Leavings: 60dB (flat-bottomed deep hole 200mmΦ2)
Rejection: (0 to 80)% Linear
Noise level: ≤ 10%
Power supply: DC 9V; lithium batteries work for 4 to 8 hours or more
Ambient temperature: (-20 ~ 50) ℃
Relative Humidity: (20 ~ 95)% RH
Overall dimensions: 263 × 170 × 61 (mm)

To ask questions or to order, please contact us:

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