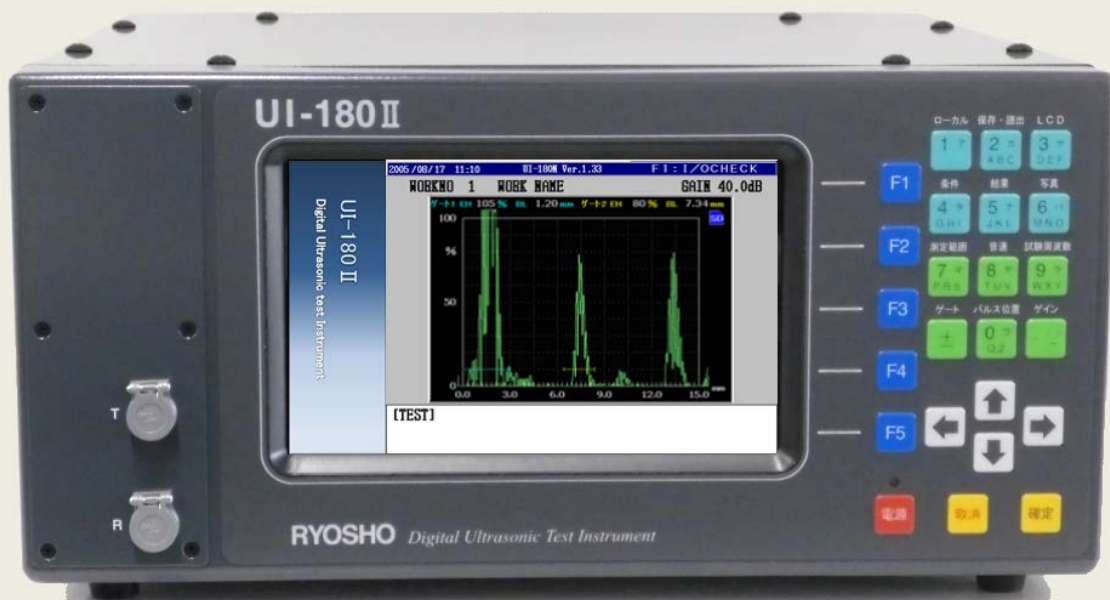


**Digital Ultrasonic Test Instrument**  
(Ultrasonic Flaw Detector)

**UI-180 II · UI-180 II T**

**High performance Ultrasonic flaw detector  
enables stable Ultrasonic Flaw Detection.**



**Feature:**

- Inspection can be started / stopped from external signal.
- Built-in 5-axis encoder input function.
- Up to 4 channels can be expanded by switching probes.
- Achieve high noise immunity and high durability by the built-in AC power supply.
- Adopted 7 "VGA TFT color LCD with high visibility.
- Prepared the rich external interface.

**Note:**

UI-180II is the built-in sales to small-scale inspection system.

No single item sales products.

# UI-180 II DIGITAL ULTRASONIC INSTRUMENT

## ● Display

Screen size: 7.0"VGA Wide LED TFT  
Display area: 152.4(W) X 91.44(H)  
Pixels : 800(W) X 480(H)  
Color: 262,144 colors

## ● Size (mm) • Weight (kg)

330(W) X155(H) X350(D) Approx10kg

## ● Case (IP41 Drip-proof)

Metal

## ● Transmitter section

Output impedance: 50Ω or less  
P.R.F.: 100 - 6,000Hz(in step of 1.28 μ s)  
Pulse rise up time: Less than 10ns  
Wave form: Square wave pulse  
Voltage: L:100V / M:200V / H:300V(±4%)  
Pulse width: 20 -1500ns  
Damping: 50 / 300Ω

## ● Receiver section

Gain: 0 -110dB (in step of 0.1dB)  
Sensitivity: 80dB at 5MHz narrow band  
Input impedance: 50Ω±15% / 300Ω±15%  
Receiver amplification center frequency:  
0.25/ 0.5/ 1/ 2/ 3/ 4/ 5/ 10/ 15/ 25MHz  
Amplifier linearity: ±3% Max

## ● Time-base section

Test range:  
5.9 to 1,900 mm at sound velocity 5980 m/s  
(In step of 0.1mm)  
Adjustable delay: full scale to 3,000 μ s ±5%  
Display time-base linearity: ±1% Max

## ● Gate section

Delay range:  
0 to full scale time range on the display  
Gate marker width:  
0 to full scale time range on the display  
Number of gate: 4  
(With S, B Echo tracking function)

## ● Standard accessories

1, AC power cable: 1  
2, SD memory card: 1  
3, I/O cable: 2  
4, Terminal block for I/O: 2  
5, Manual, Test certificate, Warranty: 1set

## ● Frequency analysis function

Center frequency: 0.25 to 25MHz adjustable  
Display range: 200MHz max

## ● Temperature

Ambient temperature: 0 to 40°C (operation)  
-20 to 60°C (storage)

## ● Standard functionality

Measurement methods:  
single probe / dual probe / transmission technique  
Wave form selections: DC / DC+ / DC- / RF  
Beam path measurement methods:  
Peak / Up / First echo / Zero crossing / Peak up  
Echo height accuracy: 12 bits (0-4095)  
Data sampling speed: 1 data/PRF  
Auto readable work number: 256 max  
Language: English / Japanese

## ● Power section

AC input: 100 to 240V±10% 50/60Hz±3Hz

## ● Interfaces

VGA monitor: 1ch  
Analog outputs: 8ch (12-bit resolution)  
EH / Event / Path length  
Card slot: SDHC/SD memory card  
Connectors: USB: 2: For KBD/Mouse/RS232C  
LAN: 1: ETHERNET  
PI/O: 16 in / 16 out (In: 5-24V/Out: 24V)  
I/O: 8 in / out (+5V)  
Sync signal: 1 in/1 out (3.3-5V PRF sync)  
Encoder Inputs: 5 Axis (Two-phase clock)  
0-24V / 20 KHz max

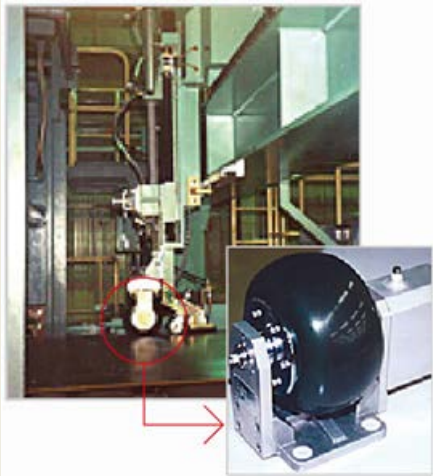
# RYOSHO

RYODEN SHONAN ELECTRONICS CORPORATION

YAMAZAKI 25, KAMAKURA-CITY, KANAGAWA  
247-0066 JAPAN

## UI-180 II T Application Examples

### Thin plate inspection system



#### 【Specifications Summary】

1. Test plate : Thickness : 0.5 - 6.6mm / Width : 600 - 1650mm
  2. Line Spec :
    - Speed : 100 - 450m/min
    - Skew : Less than  $\pm 150$ mm
    - Vertical movement : Less than  $\pm 1$ mm
  3. Detection capability :  $\phi 1$  -  $\phi 3$  Drilled hole  
(Depend on the line speed.)
  4. Wheel probe : Lamb wave 1MHz / 2.25MHz
- 

## UI-180 II Application Examples

### Car parts inspection system



#### 【Specifications Summary】

1. Inspection method: Full Immersion technique
2. Inspection target parts: EBW car parts
  - Gear / Wheel / Ring / Shaft etc
3. Number of Channels: 1CH-2CH
4. Scan method : Work rotation scanning type
5. Work in-out:
  - Automatic work in-out and automatic setting.
  - Automatic carry-out of NG or OK material.