

# Ultraman-2170

## Ultrasonic Pulse Velocity Tester

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The velocity of ultrasonic wave in concrete is affected by elastic property or strength.

Ultraman-2170 applies high voltage and sends it to transit transducer to generate ultrasonic wave. This ultrasonic wave reaches to the receive transducer through concrete. When elastic property or strength of concrete is high, the transit time is short. On the other hand, when the materials are contrary, the velocity is low.

Ultraman-2170 measures the ultrasonic transit time accurately so it makes possible to evaluate a material or find an elastic properties non-destructively to investigate uniformity, cavities, cracks, fire/frost damage, delamination, deterioration and strength.

## Features

- The ultrasonic transducer is oscillated with high voltage to measure the propagation time of ultrasonic waves within the test object. Ultrasound progress time displayed in km/sec
- A receiver with a high-power pulser that generates strong ultrasonic energy and high reception sensitivity. The combination of high-efficiency ultrasonic transducers designed to transmit ultrasonic waves most efficiently in concrete shows excellent performance even in thick materials or materials with severe attenuation.
- Compact design for convenient use in the field and laboratory
- Sends/receives signals to an oscilloscope or PC through the RF output terminal
- Software that can send measured data to a laptop to create a report and a program that can analyze the transmitted waveform (optional)
- Screen for viewing ultrasonic transmission/reception status and battery level

## Composition



**Ultraman-2170**



**CT-1020**



**BCX-9 cable**



**Carrying pouch**



**Instrument stand**



**Reference block**



**Silicone couplant**



**Vaseline**



**Cotton glove**



**Towel**



**Instrument towel**



**Test certificate**



**USB manual**



**AL bag**



**Charger**



**Wood stick**

**Optional items**



**BCB-9 cable**



**CT-1018**



**CT-1017-ST**



**CT-1018-ST**



**CT-1078-ST Scout**

## Specifications

- Ultrasonic transmission rate measuring range: 1,000 ~ 9,999 meter/sec
- Display: 320 X 240 TFT Color LCD
- Frequency range: 10kHz ~ 1,000kHz
- Measurement period: 5Hz, 10Hz, 20Hz
- Display cycle: 2Hz
- Receiver sensitivity: 250 $\mu$ V
- Connector: BNC/XTR-9
- Operating temperature: -10 ~ 50°C
- Power: 2 x 18650 rechargeable Li-Ion batteries (7.4V, 3,350mA)
- Battery life: 10 hours at 1,200V continuous use
- Dimensions: 105(H) $\times$ 172(W) $\times$ 68mm(D)
- Weight: 1,060g (body with battery)
- Warranty: 1 year



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