

# Ultracon-150 Ultrasonic Concrete Tester



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

Ultracon-150 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.

Ultracon-150 measures ultrasonic transit time accurately so it makes possible to evaluate a material or find an elastic property non-destructively to investigate uniformity, cavities, cracks, fire/frost damage, delamination, deterioration and strength in concrete.

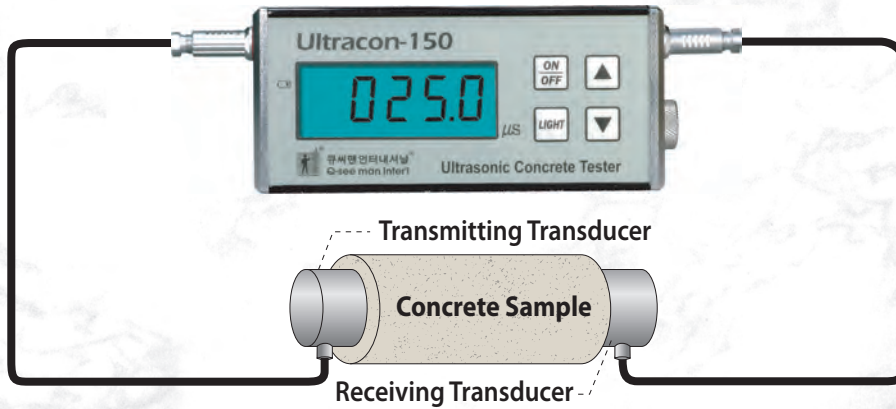
Ultracon-150 uses 52 kHz concrete transducers manufactured by Q-see man which was designed to send and receive ultrasonic signal effectively in highly attenuative materials, including concrete, wood, stone and plastic. The instrument uses XTR connectors to prevent a damage by mistake and with simple design, it can be used in laboratory, work-site conveniently. This instrument was developed by cooperative research with Korea Research Institute of Standard & Science, subsidized from the national coffers of Ministry of Science & Technology. This is the 3rd generation.

## Features

- Direct read-out of transit time of ultrasonic in concrete with ultrasonic transducers, which is pulsed by high voltage.
- With the combination of high-energy pulser, high sensitivity receiver and high efficiency transducers, it is excellent in thick and attenuative materials.
- Compact design makes it easy to operate in work-site or laboratory.
- EL back-lit enables to read the LCD clearly even in dark places.
- Displays the transit time in 0.1 $\mu$ s unit.
- Conforms to BS1881 part 203.
- The XTR™ connectors in main body protect the instrument from damage by connection mistake.
- Rugged Aluminium case & Low Battery status display.

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## Measuring Principle of Ultracon-150



## Ultracon-150 KIT

- Ultracon-150 main body
- 52 kHz Ultrasonic Transducers (2ea)
- RG 58 cable with XTR/BNC connector
- Carrying bag
- Instruction manual
- AL carrying bag
- Reference block
- Ultrasonic couplant



### Ultrasonic Transducer

- Norminal frequency: 52 kHz
- Element Diameter: 38 mm
- Case Diameter: 48 mm
- Operating Temp.: -20~50°C



### Reference Block

- Material: Acril
- Velocity: 2,740 m/sec
- Length: 83 mm
- Transit Time: 30±0.5 μs

## Specifications

- Measuring range of ultrasonic transit time : 0.1μ ~ 1999.9μs
- Display : 4 1/2 digit
- Connector : BNC/XTR
- Operating Temperature: -10 ~ 50°C
- Power : 2 x AA Alkaline Battery
- Battery Life : 8 hours, 6 hours with back-lit
- Size : 136(H) x 63(W) x 33mm(D)
- Weight : 350g (main body with battery)
- Warranty : 1 year



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