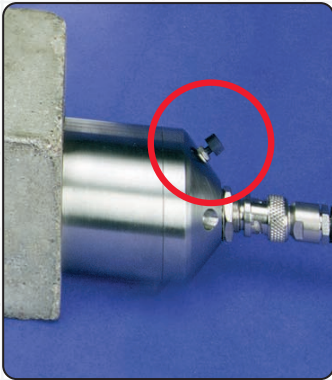


# PUNDIT<sup>plus</sup>

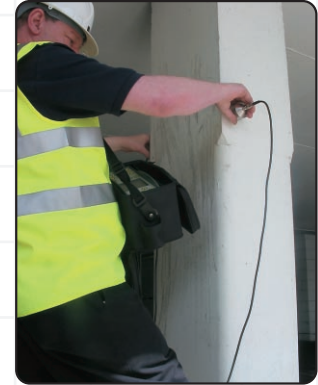
## Ultrasonic non-destructive integrity testing made easy



Transducer mounted switch simplifies the recording of readings

An essential tool for investigating the structural integrity of a wide range of materials:

- Concrete
- Ceramics and refractories
- Timber
- And many others



PUNDIT<sup>plus</sup> can be used in the laboratory or on site to investigate uniformity; cavities; cracks; fire/frost damage; delamination; deterioration and strength.

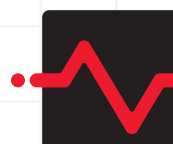
PUNDIT<sup>plus</sup> is one of the PUNDIT family of instruments which are widely accepted as the world standard for ultrasonic pulse velocity testing, in terms of accuracy and reliability.

### KEY BENEFITS

- Auto memory for storing multiple reading.
- Large, highly visible (day or night) LCD display.
- Light, portable and simple to operate.
- Ruggedly built for on-site reliability.
- Largest range of transit time measurements (0 to 9999 $\mu$ s) and transducer options (24kHz to 1MHz) to suit all applications.
- Transducer mounted switch makes it easy to record readings.

### KEY FEATURES

- Programmable trigger rate (enables use with a wide range of materials).
- Integral RS 232 interface.
- Wide pulse repetition frequency range (1 to 100/sec).
- Three transmitter voltage options.
- Measures velocity, transit time and modulus of elasticity.
- Mains supply **and** rechargeable batteries.
- Long cables included (3.7m).
- Oscilloscope connection facility.



## SPECIFICATION

### Measurement Ranges

- Frequency range: 24kHz to 1MHz.

Mode:	Velocity	Transit time	Elastic Modulus
Range:	1 to 9999	0.1 to 9999 $\mu$ s	up to 999.9
Units:	m/s or ft/s	2 ranges 0.1 or 1 $\mu$ s	GN/m <sup>2</sup>
Accuracy:	$\pm$ 1m/s or ft/s	$\pm$ 0.1 $\mu$ s	$\pm$ 0.1GN/m <sup>2</sup>
Over Range:	Indicated by over range message		
Lost Signal:	Indicated by lost signal message		

### Logging

Flexible logging and pulse modes to cover all applications.

- Pulse rate: 1 to 100 per second, adjustable.
- Pulse modes: 3 pulse modes (continuous/delay/one-shot).
- Memory: 100 readings.
- Output: RS232C (9 pin serial connector).
- Data: easily imported into MS Excel for analysis and graph plotting.

### Transmitter

- Energising pulse: Nominal 1.2kV, 500V or 250V. 1.5 $\mu$ s duration.

### Receiver

- Bandwidth: 20kHz to 1MHz.
- Sensitivity: 250 $\mu$ v.

### Oscilloscope Output

- Synchronisation pulse: 3.5V positive, rise time 2 $\mu$ s.
- Signal: True facsimile of receiving transducer output for outputs up to 0.4V.

### Display

- 128 x 128 dot LCD with backlight.

### Power Supply

- Mains: 100/240V AC input 50/60Hz. 20V DC output.
- Battery: Internal rechargeable NiMH Batteries 8 x 1.2V / 1.8Ah.

### Environmental

- Operating Temperature Range: 0°C to 40°C
- Dimensions: 250 x 160 x 100mm
- Weight: 2.3kg (electronics unit only)  
5.0kg (complete kit)

## PUNDIT<sup>plus</sup> KIT:

The PUNDIT<sup>plus</sup> is supplied with:

### Standard Kit:

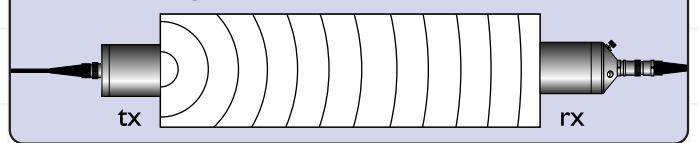
- PUNDIT<sup>plus</sup> in carrying bag for easy use on site.
- Mains lead (and power supply).
- Two 54kHz transducers (transmitter and receiver).
- Two 3.7m cables.
- Ultrasound couplant (250ml bottle).
- Operating manual.
- Data conversion software for downloading readings into Excel.

### Optional Extras:

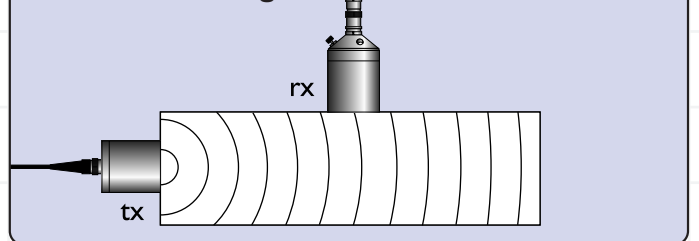
Transducers ranging from 24kHz to 1MHz in frequency, amplifiers, attenuators, leads and couplants are available to enable testing in a large range of applications.

## TEST OPTIONS:

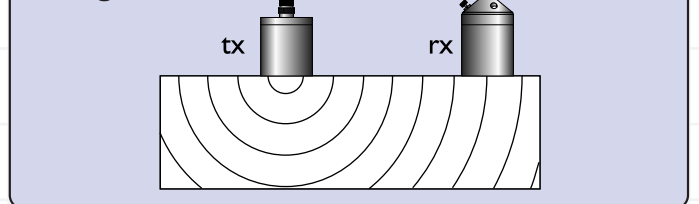
### Direct Testing



### Semi-Direct Testing



### Indirect/Surface Testing



## INTERNATIONAL STANDARDS

EN12504-4 and ASTM C597

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