



Pundit Lab⁺ adds Site Functionality to the leading ultrasonic Test Instrument for Concrete

Now featuring compressive strength estimation, integrated waveform, real time stamp and an extended range of transducers

Unbeatable Pundit[®] Lab Features

Measurement performance; Optimized pulse shaping, automated transmission settings for optimum performance and a range of new, more powerful transducers ensure accurate, stable measurements.

Integrated waveform display; Allows analysis of the received signal and manual triggering directly on the instrument.

On-line data acquisition; Full remote control of all transmission parameters, data logging function and functionality that turns your PC into an oscilloscope.

USB interface and data analysis software; Data analysis and export to third party programs.

Open interface; Control Pundit Lab using third party software such as LabVIEW.

New features in Pundit[®] Lab⁺

Integrated gain stage; Removes the need for an external amplifier when using exponential transducers and long cables.

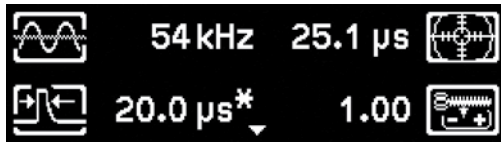
Compressive strength measurement; Conversion curves for strength estimation can be created in the software and uploaded to the instrument to give instant strength estimations on site.

Combined estimates with rebound hammer; SONREB curves may also be uploaded onto the instrument for improved compressive strength estimates in combination with rebound hammer measurements.

Time stamp; A real time clock has been integrated to provide a time stamp to every measurement recorded.

Review list; Saved measurements may be reviewed directly on site without the need for a PC connection.

Simple Entry of System Parameters



Tx frequency, calibration, pulse width, temperature correction



Rx gain, units, receiver gain, transmission mode

Display of Transmission Time and calculated Parameters

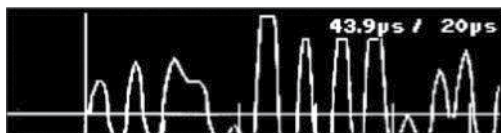


Measuring pulse velocity



Measuring compressive strength (Pundit Lab+)

Measurement Aids



Waveform display for manual triggering



Data review list (Pundit Lab+)

An extended Range of Transducers

A complete range from 24 kHz up to 500 kHz for various applications including:

Improved 54kHz and 150kHz transducers; A new design with improved performance to increase range and stability.

Improved 54kHz exponential transducers; A new design with improved performance. When used in combination with Pundit Lab+ no external amplifier is required.

250kHz shear wave transducers; For use in combination with standard P-wave transducers to measure the dynamic elastic modulus of the material under test.

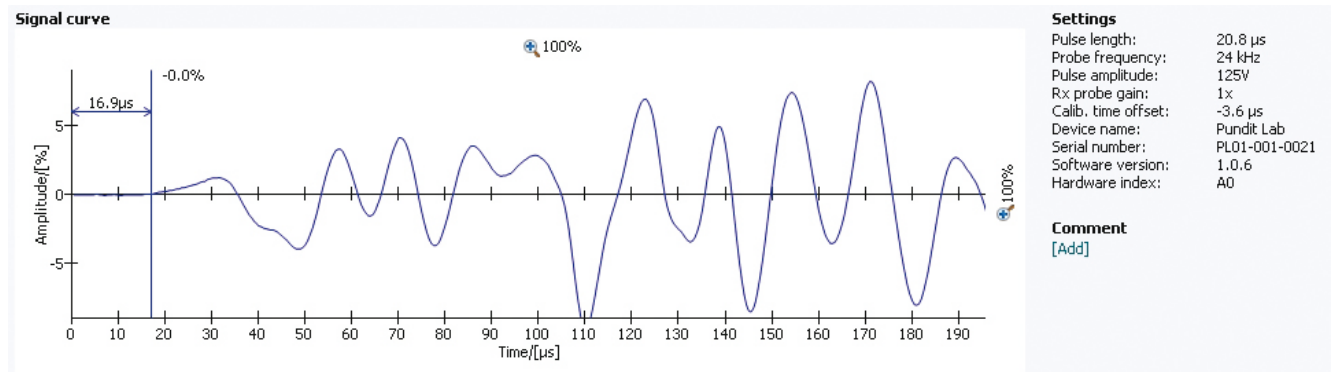
Transducer Holder; Particularly useful for compound measurements such as surface velocity or crack depth. Individual transducer holders are detachable for standard measurements.



Pundit Link Analysis Software

The Windows based software Pundit Link, developed by Proceq SA, unlocks the full capabilities of the Pundit Lab, providing the user with:

- waveform visualization and analysis turning your PC into an oscilloscope
- interactive adjustment of trigger point
- on-line data acquisition
- full remote control of the instrument instrument including programmable data logging functionality
- export of data to third party applications
- (Pundit Lab⁺ only) creation of conversion curves for compressive strength (exponential, polynomial).
- (Pundit Lab⁺ only) creation of SONREB curves for combined (ultrasonic/rebound value) estimates of compressive strength




Equipment Features Pundit Lab / Pundit Lab⁺


| Common Features | Pundit Lab | Pundit Lab ⁺ |
|---|----------------------------------|--|
| Transit time range | 0.1-9999 µs | 0.1-9999 µs |
| Resolution | 0.1 µs | 0.1 µs |
| Energising pulse | 125 V, 250 V, 350 V, 500 V, AUTO | 125 V, 250 V, 350 V, 500 V, AUTO |
| Tx frequency range | 24-500 kHz | 24-500 kHz |
| Transit time | Yes | Yes |
| Pulse velocity | Yes | Yes |
| Path length | Yes | Yes |
| Surface velocity | Yes | Yes |
| Crack depth | Yes | Yes |
| Memory | > 500 readings | > 500 readings |
| Power supply | Mains/Battery(>20h)/USB | Mains/Battery(>20h)/USB |
| New Features | Pundit Lab | Pundit Lab ⁺ |
| Integrated gain stage | 1x, 10x, 100x | 1x, 2x, 5x, 10x, 20x, 50x, 100x, 200x, 500x, 1000x |
| Compressive strength | - | Yes |
| SONREB method (Ultrasonic plus rebound hammer for compressive strength) | - | Yes |
| Time stamp for measurements | - | Yes |
| Measurement review list on instrument | - | Yes |

Ordering Information


Units

| Part No. | Description | |
|------------|--|--|
| 326 10 001 | Pundit Lab consisting of: Display unit, 2 transducers (54kHz), 2 BNC cables 1.5 m, couplant, calibration rod, battery charger with USB-cable, 4x AA(LR6) batteries, data carrier with software, documentation and carrying case |  |
| 326 20 001 | Pundit Lab ⁺ consisting of: Display unit, 2 transducers (54kHz), 2 BNC cables 1.5 m, couplant, calibration rod, battery charger with USB-cable, 4x AA(LR6) batteries, data carrier with software, documentation and carrying case | |

Transducers

| | | |
|------------|--|--|
| 325 40 026 | Transducer 24 kHz (Two required for operation) |  |
| 325 40 131 | Transducer 54 kHz (Two required for operation) | |
| 325 40 141 | Transducer 150 kHz (Two required for operation) | |
| 325 40 176 | 2 Exponential transducer 54 kHz, including calibration rod | |
| 325 40 177 | Transducer 250 kHz (Two required for operation) | |
| 325 40 175 | Transducer 500 kHz (Two required for operation) | |
| 325 40 049 | 2 Shear wave transducers 250 kHz, including couplant | |

Parts and Accessories

| | | |
|------------|--|---|
| 326 80 211 | Pundit lab carrying bag |  |
| 325 40 021 | Cable with BNC-plug, L=1.5m (5ft) | |
| 711 10 005 | Cable with BNC-plug, L=3.0m (10ft) | |
| 325 40 022 | Cable with BNC-plug, L=10m (33ft) | |
| 325 40 024 | Cable with BNC-plug, L=30m (100ft) | |
| 710 10 031 | Ultrasonic couplant, 250 mL bottle | |
| 710 10 028 | Calibration rod 25 μ s for Pundit | |
| 710 10 029 | Calibration rod 100 μ s for Pundit | |
| 326 01 033 | Demo Block Pundit Lab | |
| 325 40 150 | Transducer Holder complete | |

Service and Warranty Information

Proceq is committed to providing complete support for the Pundit Lab by means of our global service and support facilities. Furthermore, each instrument is backed by the standard Proceq 2-year warranty and extended warranty options.

Standard warranty

- Electronic portion of the instrument: 24 months
- Mechanical portion of the instrument: 6 months

Extended warranty

When acquiring a Pundit Lab, max. 3 additional years of warranty coverage can be purchased (for the electronic portion of the instrument). The additional warranty must be requested at time of purchase or within 90 days of purchase.

Applicable Standards

Pundit Lab complies with the following standards:

EN12504-4, ASTM C 597-02, BS 1881 Part 203, ISO1920-7:2004, IS13311, CECS21

Subject to change without notice. All information contained in this documentation is presented in good faith and believed to be correct. Proceq SA makes no warranties and excludes all liability as to the completeness and/or accuracy of the information. For the use and application of any product manufactured and/or sold by Proceq SA explicit reference is made to the particular applicable operating instructions.

Head Office

Proceq SA
 Ringstrasse 2
 CH-8603 Schwerzenbach
 Switzerland
 Phone: +41 (0)43 355 38 00
 Fax: +41 (0)43 355 38 12
 info@proceq.com
 www.proceq.com

