

# Introducing the 36DL PLUS

The New Wave in Ultrasonic Thickness Gaging

**Standard Measurement Mode:**

Time interval from a precision delay after the excitation pulse to the first echo.

**Thru-Paint Echo-to-Echo Mode:**

Time interval between two successive backwall echoes for elimination of paint or coating using dual or single element transducers. Manual Mode or Automatic Mode.

**Thickness Measurement Range:**

0.020 - 20 inches (0.5 - 500mm).

**Material Velocity Range:**

0.0300 - 0.5511 inch/ $\mu$ S.  
(0.762-13.999mm/ $\mu$ S).

**Battery:**

6V Rechargeable NiCad battery pack, or field-replaceable alkaline AA batteries.

**Fast-Charger:**

Two-hour Fast Charger with universal voltage.

**Receiver Bandwidth:**

1-15MHz (-3dB).

**Resolution:**

0.001" (0.01mm) STANDARD.  
0.01" (0.1mm) LOW. Selectable from keypad.

**Operating Temperature:**

-10°C to +50°C (-5° to 112°F).

**Keypad:**

Sealed color-coded keypad with tactile and audible feedback.

**Size:**

9.375 x 5.45 x 1.5" (238 x 138 x 38mm).

**Weight:**

2.1 lbs. (0.95Kg).

**Case:**

Water-resistant, gasketed Lexan case with sealed connectors.

**Min/Max Mode:**

Works in conjunction with FAST Mode for rapid location of minimum or maximum thickness reading and associated waveform.

**MinFinder:**

Display visually assists in locating the held Minimum reading.

**Auto Sensitivity Gain Optimization:**

Allows the normal measurement sensitivity to be automatically increased or decreased depending on the transducer and material noise level.

**Manual Gain Adjust:**

Allows the gain to be manually increased or decreased in 1dB steps.

**Automatic Probe Recognition:**

The 36DL PLUS automatically adjusts internal parameters and corrects for V-path.

**Zero Compensation Mode:**

Provides zero offset compensation for temperature variations in the transducer material, and for transducer wear.

**Alarm Mode:**

Programmable Hi-Low Alarm setpoints with audible and visual indicators.

**INTERNAL DATALOGGER**

**Datalogger and RS-232:**

The 36DL PLUS identifies, stores, recalls, clears, and transmits thickness readings, waveform images, and gage setup information via the RS-232 Serial Port. Baud Rate, Word Length, Stop Bits, and Parity are adjustable from the keypad.

**Maximum # of Stored Values:**

Up to 95,000 thickness readings and/or 4000 waveforms, or combination of both.

**Stored Data Documentation:**

Each saved thickness reading or waveform is fully documented with measurement status flags and a setup number which identifies parameters such as velocity, transducer gain, etc.

**Location Codes:**

8-character file name plus 16-character alphanumeric location code input. Multiple Comments per location.

**File Structures:**

Data can be stored in 8 standard or custom application-specific file structures.

**Reports:**

On-gage reporting of: Summary with statistics, Min/Max with locations, and File Comparison. On-screen comparison of current and previous readings.

**Interface Program:**

16-bit or 32-bit Windows Interface Program compatible with Windows 3.x, 95 and NT.

**DISPLAY**

**Display:**

Liquid Crystal Display with Electroluminescent backlight. Contrast keypad adjustable. Display area 4.0 x 3.39 inch (102 x 86mm).

**Backlight:**

Backlit electroluminescent display with Power Save feature.

**Zoom Mode:**

Expands the horizontal span of the waveform to the minimum range associated with each transducer and automatically centers the measured echo.

**Freeze Mode:**

Measurement adjustments on frozen A-Scan for post-processing of information.

**Rectification:**

RF, half wave positive or negative, and full wave.

**Waveform Display Range Control:**

The horizontal span of the waveform is set at selected intervals depending on transducer frequency.

**Extended Blanking:**

An adjustable blanking zone prevents selected echoes or noise from being measured.

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## The Panametrics 36DL PLUS... innovative, powerful, easy-to-use

*With the introduction of the new 36DL PLUS you will have a thickness gage that increases your inspection performance and makes data management an easy and flexible task.*

*The 36DL PLUS is the result of Panametrics' many years of accumulated knowledge and experience designing ultrasonic testing equipment. We carefully listened to suggestions and comments from the thousands of customers who bought the 26DL PLUS, a gage considered the industry standard since its introduction in 1991. Several ideas were implemented with the goal of making the 36DL PLUS even better than its highly regarded predecessor. See for yourself why the 36DL PLUS Ultrasonic Thickness Gage is today's most powerful, versatile and easy-to-use tool for measuring remaining wall thickness. This new PLUS can step up the productivity of anyone who needs accurate, handheld inspection of pipes, tanks, or other critical areas subject to corrosion or erosion.*

### Familiar user operation

Anyone familiar with the 26DL PLUS will be comfortable using the new 36DL PLUS. Both units have a similar operational look and feel, and it will take just a short time to learn the 36DL PLUS's many new and enhanced features.

### Data compatibility

Historical inspection data, including data from the 26DL Plus, can be transferred from your computer to the 36DL Plus, and vice versa. Current readings and historical data can be compared on-screen.

### Transducer compatibility

The 36DL PLUS is compatible with the same transducers that you have used with all other Panametrics' 26 series gages. In addition, Automatic Probe recognition provides maximum performance with each selected transducer.



## Step up to the next level of ultrasonic thickness gaging!

### Powerful Standard Measurement Features

- ❖ Thru-Paint Echo-to-Echo Measurements with dual and single element transducers
- ❖ Wide Thickness Range from 0.020 to 20 inches (0.5 to 500mm)
- ❖ Fast Minimum Capture Mode
- ❖ Exclusive MinFinder bar visually assists in locating the held Minimum thickness
- ❖ RE, half wave positive or negative, and full wave rectification
- ❖ Measurement adjustments on frozen A-Scan for post-processing of information

### All-in-One, High-Resolution Backlit Display

- ❖ Both A-Scan waveform and thickness reading in one large Liquid Crystal Display
- ❖ Unsurpassed A-Scan resolution ensures precise waveform trace
- ❖ Large, bold thickness readout
- ❖ Bright LCD with adjustable contrast for various lighting conditions
- ❖ Electroluminescent backlight with Power Save feature
- ❖ Selectable Filled or Outline waveform trace

### Intuitive Operation with On-Screen Messages

- ❖ Instant text messages guide users when changing parameters
- ❖ On-screen programmable clock with date and time stamp
- ❖ Color-coded groupings of strategically located keys
- ❖ Direct-access keypad minimizes time-consuming slewing

### New, Flexible File-Based Datalogger

- ❖ Up to 95,000 thickness readings and/or 4000 waveforms, all fully documented, can be stored, recalled, and transmitted
- ❖ Data can be stored in 8 standard or custom application-specific file structures
- ❖ 8-character file name plus 16-character alphanumeric location code input
- ❖ On-gage reporting of: Summary with statistics, Min/Max with locations, and File Comparison
- ❖ Multiple Comments per location
- ❖ On-screen comparison of current versus previous readings

### New WinPLUS 16-bit or 32-bit Windows® Interface Program

- ❖ Fully compatible, bi-directional data transfer between 26DL PLUS and 36DL PLUS
- ❖ Import/export of 26DL PLUS format data files
- ❖ Project-based environment for better file management
- ❖ Advanced ODBC database compatibility
- ❖ Enhanced OLE features
- ❖ Compatible with Windows 3.x, 95, and NT®

### Superior, Field-rugged Design

- ❖ Ergonomic designed case with hand strap provides well-balanced, one-hand operation
- ❖ Water-resistant, gasketed case with sealed connectors keeps out moisture, dust, and couplant
- ❖ Durable Lexan® case withstands the rigors of heavy field use
- ❖ Operator interchangeable Nicad or AA alkaline batteries
- ❖ Two-hour Fast Charger with universal voltage

Panametrics