



MODEL 730

SPARTAN™ NOISE DOSIMETER

- Truly wireless – with wireless charging and Bluetooth low-energy 4.1 communication
- Full control and live monitoring via LD Atlas app
- Download and view measurements, generate reports, and share annotated data from the app
- Automatically connect and download data via G4 LD Utility software
- Built-in bump and motion detection
- Automatic calibration of your dosimeter
- Optional Event Sound Recording (730-ESR)
- Optional 1/1 Octave filters (730-OB1)

TYPICAL APPLICATIONS

- Worker noise exposure measurements
- Task-based noise measurements
- Compliance to OSHA, MSHA, ACGIH, and ISO 9612
- EU Directive 2003/10/EC compliance

WIRELESS WORKER NOISE MEASUREMENTS

The Spartan™ Model 730 Noise Dosimeter is designed to make worker noise dose measurements easy and fast. With Spartan, control test setup and measurements directly from the Larson Davis Atlas™ mobile app. All essential tasks can be completed from your iOS™ or Android™ device.

LD Atlas offers interference-free monitoring using low-energy Bluetooth, ensuring that you get the valuable data you need the first time. When a test is complete, Spartan communicates with LD Atlas to download the data, which is viewable directly from a phone or tablet. Generate reports, including the full data file, from the mobile interface before sharing via email.

To begin testing, simply remove the dosimeters from their rugged case and attach them to workers. After a shift, place the dosimeters back in the case where they will charge wirelessly and the data files can be downloaded. Built-in measurement of motion and bumps, combined with optional event audio recordings and 1/1 octave frequency analysis, provide additional data to help you understand what caused the noise.

The G4 LD Utility software offers another option for control of your testing. With all the functionality of the LD Atlas mobile app, G4 LD Utility adds the ability to complete “what-if” analysis to model potential changes and determine the impact of different data selections.

| SPECIFICATIONS | |
|---|--|
| Performance | |
| Standards | ANSI S1.25-1991 (R2017), IEC 61252 Ed. 1.2 |
| Linear Operating Range | 52 – 140 dB rms A-weighted |
| Dynamic Range | 94 dB |
| Peak Range | 78 – 143 dB Peak, C-weighted |
| Peak Weightings | A, C, Z |
| RMS Weightings | A, C, Z |
| Time Weightings | Slow, Fast, Impulse |
| Frequency Range | 20 Hz to 10 kHz |
| Data Logging | 1 second samples |
| Logged data | L_{Aeq} , L_{Ceq} , L_{Cpeak} , L_{Zpeak} , L_{ASmax} , L_{AFmax} , TWA3, TWA5, Motion |
| Memory | 32 GB internal |
| Communications | Bluetooth Low Energy 4.1 USB 2.0 (Micro-B connector) |
| Battery | Rechargeable Lithium Ion |
| Run Time | 40 hours typical |
| Charge Time | 3 hours from full discharge |
| Charger | Qi-compliant wireless or USB |
| Compliance | CE, ROHS, WEEE |
| Motion | Overall motion percentage and bump |
| Languages | English, Spanish, Italian, French, Portuguese, German |
| Virtual Dosimeter | |
| Virtual Dosimeters | 4 independent with configurable LED indication |
| Exchange Rate | 3, 4, 5, 6 |
| Criterion Level | 70.0 to 100.0 dB |
| Threshold | 70.0 to 100.0 dB |
| Shift Time | 1 to 24 hours |
| Alarms | 2 independent with configurable indication |
| Measurement Results | Dose; ProjDose; L_{AVG} ; TWA(8); Proj TWA(8); Lex,8h; Lep,d; Proj Lep,d |
| Summary Measured Values (Common to all virtual dosimeters) | |
| $L_{\omega T}$ (SPL), $L_{\omega eq}$ (Leq), $L_{\omega pk}$ (Lpeak), $L_{\omega TMax}$ (Lmax), $L_{\omega TMin}$ (Lmin) where $\omega = A, C, \text{ or } Z$ frequency weighting T = F, S, or I time weighting Lpeak, Lmax, & Lmin including time of occurrence L_{C-A} Exposure (Pa ² s & Pa ² h), Motion Exceedance count and time for 2 rms and 3 peak thresholds Overload count, duration, and percentage | |
| Mechanical | |
| Display | Color LCD 176 x 176 pixels, always on with low light sensor and front light |
| Ingress Protection | IP65 |
| Keys | Four buttons |
| Weight | 112 g (4.2 oz.) including clips and windscreen |
| Dimensions | 85 x 54 x 39 mm (3.35 x 2.13 x 1.54 in.) dosimeter only |

| SPECIFICATIONS (CONTINUED) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------|------------------------|--------------------|---------------------|------|----|---|--------|------------|--------|----|---|--------|------------|--------|----|---|--------|------------|--------|----|----|--------|------------|--------|
| Microphone | ¼-inch Model 375A03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | -10 to +50 °C (14 to 122 °F) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Humidity | Up to 90% RH, non-condensing | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1 Octave Filters (optional) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standards | ANSI/ASA S1.11-2014; IEC 61260-1:2014 Class 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Filters | 31.5 Hz to 8 kHz | | | | | | | | | | | | | | | | | | | | | | | | | |
| Linear Operating Range | 42 to 140 dB @ 1 kHz | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measured Results | L_{Zeq} (Leq), L_{ZTMax} (Lmax), L_{ZTMin} (Lmin) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Event Audio Recording (optional) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Format | 16-bit .wav | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Rate | 8 kHz | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recording Time | Fixed: 2 s pre-trigger and 10 s post-trigger | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trigger Source | L_{AS} , L_{AF} , L_{CS} , L_{CF} , $L_{Aeq,1s}$, $L_{Ceq,1s}$ | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trigger Level | 40 – 140 dB, selectable | | | | | | | | | | | | | | | | | | | | | | | | | |
| ORDERING INFORMATION | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 730 | Spartan 730 noise dosimeter with one windscreen and two clips. Includes calibration certificate | | | | | | | | | | | | | | | | | | | | | | | | | |
| 730-PKxx-EU 730-PKxx-UK 730-PKxx-US | Complete Spartan 730 noise dosimeter kit that includes quantity 'xx' dosimeters and one USB to Bluetooth dongle. Each dosimeter includes one windscreen, two clips, and a calibration certificate. Versions without CAL150 calibrator available. | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>'xx'</th> <th>Spartan 730 Dosimeters</th> <th>Calibrator (qty 1)</th> <th>Calibration Adapter</th> <th>Case</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>1</td> <td>CAL150</td> <td>1 x ADP109</td> <td>CCS056</td> </tr> <tr> <td>03</td> <td>3</td> <td>CAL150</td> <td>2 x ADP109</td> <td>CCS057</td> </tr> <tr> <td>05</td> <td>5</td> <td>CAL150</td> <td>2 x ADP109</td> <td>CCS058</td> </tr> <tr> <td>10</td> <td>10</td> <td>CAL150</td> <td>2 x ADP109</td> <td>CCS059</td> </tr> </tbody> </table> | 'xx' | Spartan 730 Dosimeters | Calibrator (qty 1) | Calibration Adapter | Case | 01 | 1 | CAL150 | 1 x ADP109 | CCS056 | 03 | 3 | CAL150 | 2 x ADP109 | CCS057 | 05 | 5 | CAL150 | 2 x ADP109 | CCS058 | 10 | 10 | CAL150 | 2 x ADP109 | CCS059 |
| 'xx' | Spartan 730 Dosimeters | Calibrator (qty 1) | Calibration Adapter | Case | | | | | | | | | | | | | | | | | | | | | | |
| 01 | 1 | CAL150 | 1 x ADP109 | CCS056 | | | | | | | | | | | | | | | | | | | | | | |
| 03 | 3 | CAL150 | 2 x ADP109 | CCS057 | | | | | | | | | | | | | | | | | | | | | | |
| 05 | 5 | CAL150 | 2 x ADP109 | CCS058 | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 10 | CAL150 | 2 x ADP109 | CCS059 | | | | | | | | | | | | | | | | | | | | | | |
| | <ul style="list-style-type: none"> - EU includes a Type C power plug for use in Europe - UK includes a Type G power plug for use in the UK - US includes a Type A power plug for use in North America | | | | | | | | | | | | | | | | | | | | | | | | | |
| 730-ESR | Spartan 730 option to add event sound recording | | | | | | | | | | | | | | | | | | | | | | | | | |
| 730-OB1 | Spartan 730 option to add 1/1 octave filters | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accessories | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAL150 | Class 2 calibrator, with user-selectable output 94 or 114 dB at 1 kHz, ½ in. opening with ¼ in. adaptor (ADP109) and calibration certificate included | | | | | | | | | | | | | | | | | | | | | | | | | |
| WS012-XX | Replacement windscreen for Spartan 730. Available in 1, 3, 5, 10, or 25 packs where XX is the number of windscreens | | | | | | | | | | | | | | | | | | | | | | | | | |
| 730-CLIPS | Replacement clip for Spartan 730, quantity 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CER-730 | ISO 17025 factory calibration and certification of Spartan 730 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADP109 | Calibrator adaptor for ½ in. to ¼ in. opening. Used with Spartan 730 | | | | | | | | | | | | | | | | | | | | | | | | | |
| DVX016 | USB to Bluetooth dongle used with Spartan 730 | | | | | | | | | | | | | | | | | | | | | | | | | |



3425 Walden Avenue, Depew, NY 14043 USA

larsondavis.com | sales@larsondavis.com | 888 258 3222 | +1 716 926 8243

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