



Advanced Test Equipment Corp.
www.atecorp.com 800-404-ATEC (2832)



Personal Noise dosimeter Spartan models 730 & 730IS

What customers asked for

- **Wireless dosimeter**
- **Excellent supporting software**
- **Rugged & durable**
- **Easy to use**



Spartan 730 key Features

- **Truly wireless!**
 - Wireless Qi charger
 - Bluetooth Low Energy 4.1
 - No mic cable
- Free app for iOS and Android
- No expensive docking station
- 32 GB flash memory
- Rechargeable battery
- PC Software, G4, included
- Motion detection

Cost Options

- 730-OB1 for 1/1 octave filters
- 730-ESR for Event Sound Recording

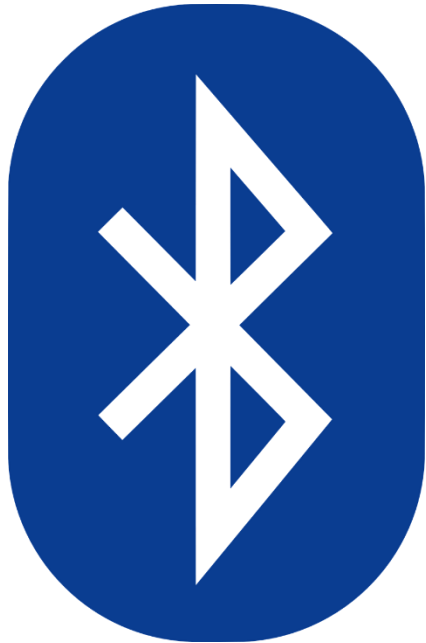


Wireless charger

- Charge using Qi or USB
- Qi wireless built into kits
 - Simple & Reliable
 - Works in dirty environments
 - No pins, cables, docks
 - Low cost
 - Readily available



Wireless communication



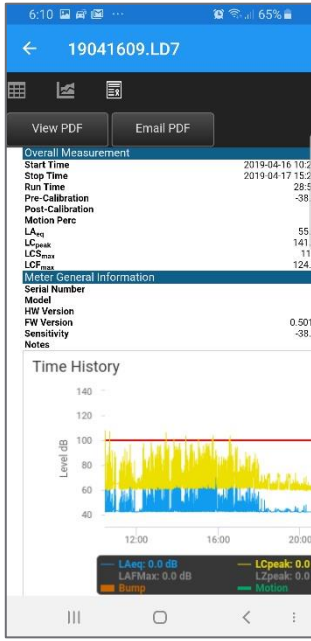
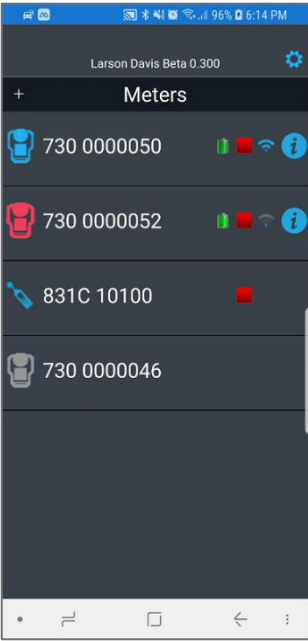
- Bluetooth Low Energy 4.1
- Bluetooth same as USB
- Up to 255 devices
- Native support in Windows 10





Full featured app - Atlas

- Apple & Android
- No pairing required
- Real-time monitoring +
 - Configure meter
 - Download files
 - View data files
 - Produce reports
 - Share data files & reports



Meters



Files



Report

G4 LD utility software



- Free to download
- Automatically connect
 - USB or Bluetooth
- Automatically download
- Setup, control, view real-time results, download, report and share data
- Supports other LD products like 831C, LxT & HVM200



Spartan 730 display

- **Color E-Paper technology**
- **Extremely low power**
 - **Can remain on all the time**
- **Front light for indoor viewing**
- **Excellent outdoor readability**



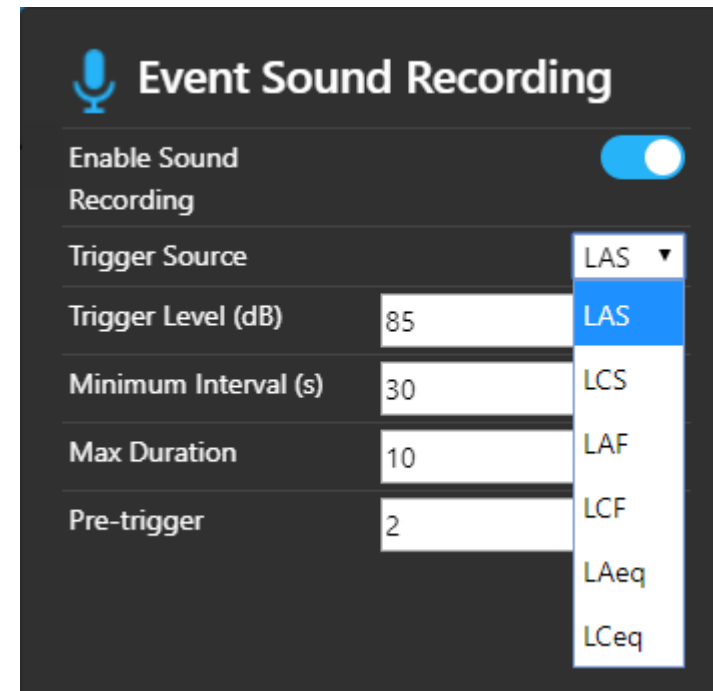
Spartan 730 Motion detection

- **Validate measurement**
- **Detect when not being worn**
- **Report overall motion %**
- **Determine when not moving**
- **Simple removal of “bump” data**



Spartan 730 audio recordings

- Identify source of loud noise
- Detect tampering
- Purchased option (831-ESR)
- Fixed @ 8 kHz, 16-bit
- Simple setup

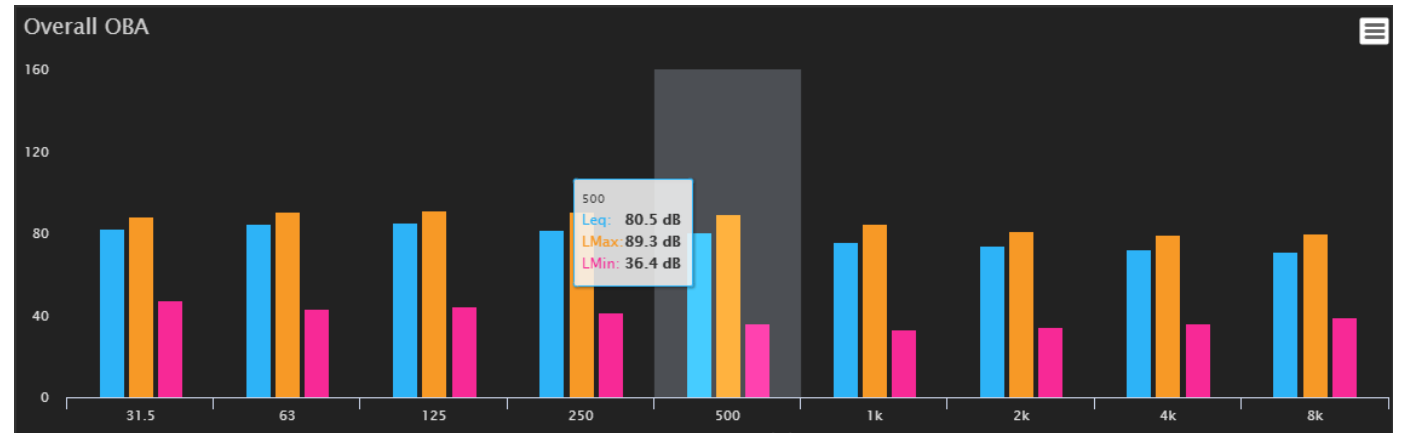


The screenshot shows the 'Event Sound Recording' configuration screen. It features a microphone icon and a title 'Event Sound Recording'. Below the title, there is a toggle switch for 'Enable Sound Recording' which is turned on. The screen lists several settings: 'Trigger Source' (set to LAS), 'Trigger Level (dB)' (set to 85), 'Minimum Interval (s)' (set to 30), 'Max Duration' (set to 10), and 'Pre-trigger' (set to 2). A dropdown menu is open next to the 'Trigger Source' field, showing a list of options: LAS, LCS, LAF, LCF, LAeq, and LCeq. The 'LAS' option is currently selected and highlighted in blue.

Setting	Value	Options
Enable Sound Recording	On	
Trigger Source	LAS	LAS, LCS, LAF, LCF, LAeq, LCeq
Trigger Level (dB)	85	
Minimum Interval (s)	30	
Max Duration	10	
Pre-trigger	2	

Spartan 730 1/1 Octave filters

- For hearing protection selection
- Purchased option (831-OB1)
- 1/1 Octave (31.5 to 8 kHz)
- For complete measurement



Spartan 730 mechanical features

LED alarm

Change display or Menu (hold 3s)

Up/down through displays or menus

Windscreen

Power

Calibration sticker

Removable clips

USB 2.0

Removable mic for calibration

Spartan 730 Dosimeter operation

Multi-purpose button

- Press to cycle through displays
- Press for 3s to enter menu
- In menu, press to select

Up/down Button (toggle)

- Cycle through displays
- In menu, move through items

Power

- Press = on
- Press & hold = off



Spartan 730 key specifications

Specification	Value
Virtual dosimeters	4
Frequency	8 Hz to 12.5 kHz
Microphone	375A03 ¼ inch
Display	Color 176 x 176
Communication	Bluetooth 4.2 & USB 2.0
Memory	8 GB
Size	54 x 85 x 39 mm
Weight	105 g
Battery	40 hours
Charge time	3 hours
Warranty	2 years
Ingress Protection	IP65

Specification	Value
Standards	IEC 61252:2017 & ANSI S1.25
Weightings	A, C & Z
Time Constants	Slow, Fast & Impulse
Exchange Rates	3, 4 & 5
Linear Range	55 dBA to 140 dBA
Dynamic Range	45 dB to 140 dBA
Data logging	1s
1/1 Octave	Optional (730-OB1)
Audio Recording	Optional for events (730-ESR)
Indicator	Multi-color LED

Spartan 730 metrics

Symbol	Exchange Rate	Threshold	Reference Time	Notes
L_{EQ}	3 dB	None	Run time	Short for Level EQuivalent
L_{AVG}	Setting	Setting	Run time	Short for Level AVerage
TWA(8)	Setting	Setting	8 h	Time Weighted Average
Proj TWA(8)	Setting	Setting	8 h	Same as LAVG + q * Log10[(shift time)/8]
Dose	Setting	Setting	8 h	Dose (ANSI S1.24)
P.Dose	Setting	Setting	8 h	Projected Dose
L_{MAX}	3 dB	None		Maximum value of the Fast and Slow time-weighted level
LEP,d	3 dB	None	8 h	Level Exposure Personal, Daily
LEX	3 dB	None	8 h	Level Exposure
E	3 dB	None	1 s	Exposure in Pa ² s or Pa ² h
E8	3 dB	None	8 h	Projected Exposure for 8 hours
E40	3 dB	None	40 h	Projected Exposure for 1 week (40 hours)
Motion				% time in motion and bumps
Lpeak	3 dB	None		Maximum absolute value of instantaneous sound pressure

Note: LEP,d and LEX are computed identically. The name LEX was first defined in ISO 1999:1900 and later reaffirmed in the Physical Agents Directive of 2003 and ISO 1999:2013. The name LEP,d was defined in L108 Noise at Work (HSE 1998)

Spartan 730 kits

Item	Spartan 730	Calibrator (CAL150)	Calibration Adapter	Clips (730-CLIP)	Windscreen (WS012)	Case
Add -EU, -UK or -US to end of item number for plug						
730-PK01	1	None	ADP109	2	1	CCS056
730-PK03	3	Optional	2 x ADP109	6	3	CCS057
730-PK05	5	Optional	2 x ADP109	10	5	CCS058
730-PK10	10	Optional	2 x ADP109	20	10	CCS059

Plug Options

-EU	-UK	-US
		

Spartan 730 cases

One Pack



CCS056

Three Pack



CCS057

Charger pad

Five Pack



CCS058

Ten Pack



CCS059

Wireless Qi charger built-in all kits

Intrinsically safe

Spartan 730IS

- Wireless charger
- Bluetooth Low Energy 4.1
- Motion detection
- Atlas app for iOS and Android
- G4 Desktop software
- 32 GB flash memory



ATEX / IECEx

II 1G Ex ia IIC T165 °C Ga

I 1M Ex ia I Ma

IECEx ETL 19.0045X

ITS20ATEX205538X

-10 °C ≤ TAMB ≤ +50 °C