Noise Watch Monitoring Station
Soft dB Monitoring Services

Noise Watch Monitoring Station Is Compact, Rugged and Packed with Powerful Features

Professional Grade Acoustical Measurements:

- Complies to IEC 61672/ANSI S1.4 Class 1
- Leq, Lmax, Lmin, Lpeak, and SEL in A, C, and Z weightings
- 7 Percentiles (LN%) for selected weighting (A, C or Z)
- 1/1 Octave, 1/3 Octave and FFT
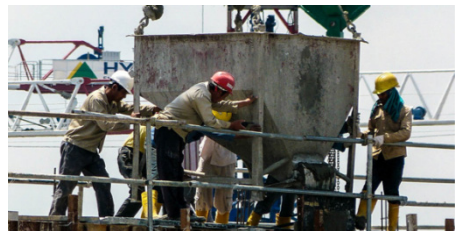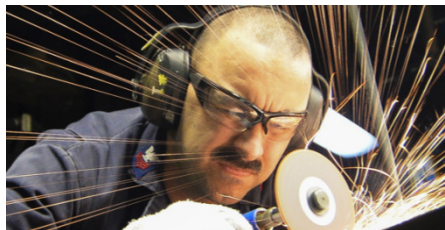
Embedded Power Solution:

- Large battery providing 5-days run-time
- Optional solar kit providing unlimited power
- Optional main power-supply for permanent installations

Impressive Data Storage Capacity:

- All parameters recorded (Leq, Lmax, Lmin, Lpeak, SEL, LN%, LAFTM5, 1/1 Oct., 1/3 Oct. and FFT)
- Memory buffer holding up to 80,000 records and up to 10 minutes of audio recording
- Auto-store period from 1s to 1h, aligned on clock
- Soft dB Monitoring Service allows for unlimited record storage

Compatible with Soft dB Monitoring Solution:
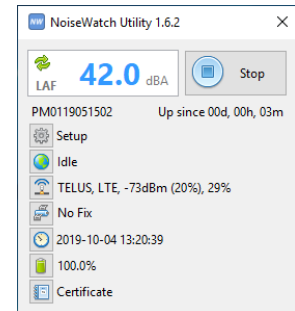
- Embedded 4G LTE module for data transfer, status, mail and SMS alerts
- Embedded GPS for accurate positioning and time synchronisation

Soft dB

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Simple Deployment

Management Software

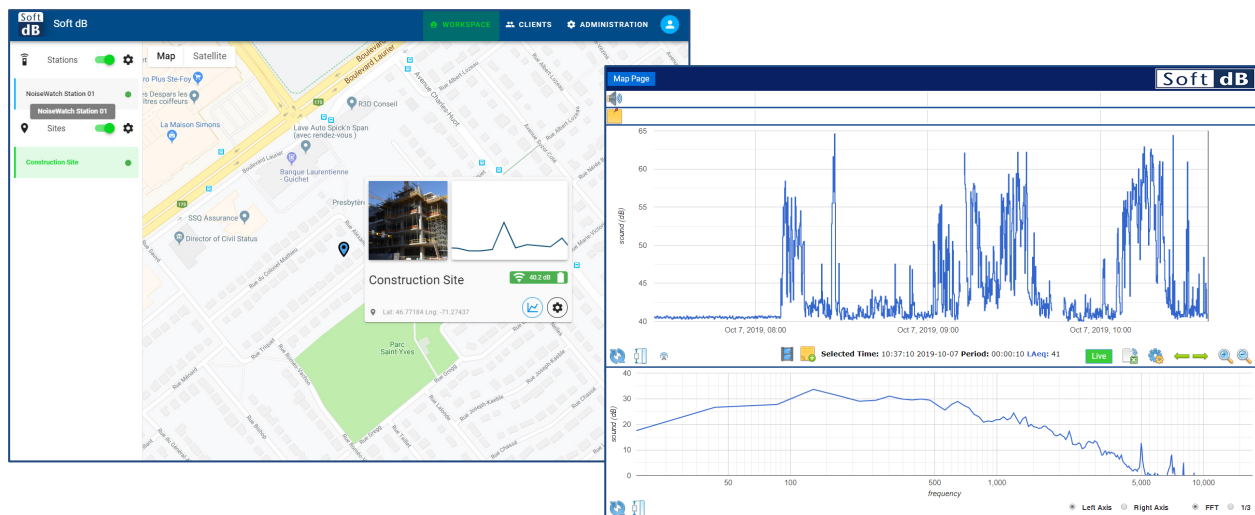The Noise Watch Utility Software is a simple tool to setup the Noise Watch Station.

- Start/Stop the measurement;
- Change measurement setup (Input Range, Duration, FFT Span, etc.);
- Manage Web Service parameters (Records upload, Status upload, etc.);
- Manage records buffer (load records, clear buffer, etc.);
- View 4G modules status;
- View GPS module status;
- View battery status;
- View embedded calibration certificate.

Web-Based Monitoring Platform

Soft dB Monitoring Platform is a self-service web application that brings significant value to both short and long-term unattended noise measurement campaigns:

- Manage all your monitoring stations (registration, GPS coordinates, Battery status, etc.);
- Set alerts for monitoring stations warnings (low battery, offline, etc.);
- Manage exceedance alerts (SMS an emails);
- Real-time records uploads;
- Secure data hosting;
- Manage period durations (10m, 1h, etc.);
- Assign Monitoring stations to measurement sites;
- Create client access pages for specific sites.

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Technical Specifications

Sound Level Meter		
Standards	IEC 61672-1/ ANSI S1.4-1 (2013) Class 1, ANSI S1.43 (2007) Type 1, IEC 60651 (1979), Amd.1(1993-02), Amd.2(2000-10) Type 1	
Averaging	Exponential and Linear	
Time Weightings	Slow or Fast	
Frequency Weightings	A, C and Z	
Sampling Rate	44.1 kHz	
Input Ranges	Low	High
Peak Maximum Level	100 dBZpk	110 dBZpk
Under-Range Level	25 dBA	31 dBA
Electrical Noise Level	15 dBA	23 dBA
Total Noise Level	24 dBA	28 dBA
Microphone Nominal Sensitivity	60 mV/Pa	
Microphone Technology	Electret Condenser	
Measured Metrics	Leq, Lmax, Lmin, Lpeak, SEL, LN% (1%, 2%, 5%, 8%, 10%, 50%, 90%, 95%, 99%)	
Resolution	0.1 dB	
Spectrum		
Standards	IEC 61260-1/ ANSI S1.11-1 (2014) Class 1	
Averaging	Linear (Leq)	
1/1 Octave Spectrum	31.5 Hz to 8 kHz	
1/3 Octave Spectrum	20 Hz to 16 kHz	
FFT Spectrum	400 lines on 6 bandwidths from 17.2 kHz to 539 Hz	
Timing		
Record Duration	1s to 1h	
Record Duration Resolution	1s	
Recording Mode	Continuous auto-store	
Align on Real-Time Clock	Yes	
Recording		
Memory Type	Looping Buffer (older records are overwritten)	
Recording Data	All Global Metrics (A, C and Z), LN% (A, C or Z), 1/1 Octave, 1/3 Octave, FFT (optional)	
Memory Capacity (No Audio)	Without FFT: 81,600 records, With FFT: 16,320 records	
Memory Capacity (With Audio)	Without FFT: 40,800 records, With FFT: 8,160 records	
Audio Events		
Resolution	11.025kHz, 16-bit	
Event Trigger	User defined from 40 to 90 dB (A, C or Z - SPL Slow or Fast)	
Event Pre-Trig Duration	User defined from 0s to 3s	
Event Total Duration	User defined from 5s to 30s	
Memory Capacity for Audio	11m50s	

Technical Specifications (cont.)

Monitoring	
Cellular	4G LTE with HSPA+ fallback, embedded antennas
GPS	56 Channels GPS, SBAS, QZSS, On-Board RTC
Record Upload	Soft dB Monitoring Web Service
Output	
Dynamic Range	0dB to 30dB Gain – Max ±1.5Vpk
Connector	1/8" Jack Mono
Environmental	
Operating Temperature	-20°C to 40°C
Storage Temperature	-30°C to 50°C
Certified to	NEMA Type 4 – IP66
Power	
Power	1.1W
Battery	168 Wh (12V-14Ah)
Battery Life (without solar or power-supply)	132h (5days, 12h)
Physical	
Height	324 mm (12 ¾")
Width	273 mm (10 ¾")
Depth	145 mm (6 5/8")
Weight	8.9kg (19.6lbs)
Accessories	
Windscreen	All Weather Protections
BNC Cable	1.2m (4')
USB Cable	0.9m (3') A to Micro-B
Charger Pack	External Power-Supply, (24VDC, 2A). Uses solar panel connector to feed 24V DC
Calibration Certificate	Tested in accordance with procedures from IEC 61672-3 (2013)
Main Power-Supply (Optional)	Internal Power-Supply, (24VDC, 2A). Replaces solar panel connector with main cable pass-through
Solar Panel (Optional)	30W solar panel (345 x 605mm / 13.5 x 23.8")
Pole-Mount Bracket (Optional)	Accepts pipe straps for pole diameter 3cm to 30cm (1 ¼" to 11")