LARSON DAVIS
A PCB DIVISION

SOUNDADVISOR™ NOISE MONITORING SOLUTIONS

TYPICAL APPLICATIONS

- Airports
- Communities
- Construction
- Industrial Plants
- Mining Operations
- Motorsports
- Performance Venues
- Railways
- Stadiums
- Traffic
- Wind Farms

Optional Features Available – Octave bands, scheduling, sound recording, and more – for details, visit
www.larsondavis.com/soundadvisorfirmware

PORTABLE & PERMANENT SYSTEMS

Larson Davis Noise Monitoring Systems offer you access to measurements and event alerts from any Internet connected device, allowing you to spend time in the office rather than traveling to remote locations. For the life of your system, as part of our Total Customer Satisfaction commitment, we offer free firmware upgrades to keep your system up-to-date as well as support from our team of trained application engineers. We know what it takes to make your measurements. We are here to support you.

- **24/7 Network Access** – Log in from your computer, smartphone, or other mobile device to engage directly with the meter at your remote location. Make updates, receive alerts, change test parameters, check microphone calibration, and download data with ease.

- **Remote Power** – Either solar panel or line power offers continuous, sustainable means to keep your measurements running

- **Accurate Timing** – Each system automatically syncs with Internet-based time sources, keeping your data accurate with time zone or Daylight Savings Time changes

- **Real-Time Alerts** – Receive email or texts with data and sound recordings when set noise limits are exceeded. Allows quick response to compliance concerns and listening to sounds for source identification.

- **Data and Measurement Security** – User accounts with login requirements prevent unwanted access and tampering with the system. Data transmits securely with an encrypted connection.

- **A Complete Solution** – In addition to noise monitoring, measure ground vibration and air quality via compatible add-ons.

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PORTABLE NOISE MONITORING

MODEL NMS044

The SoundAdvisor™ Portable Noise Monitoring System Model NMS044 is a completely wireless solution designed to run indefinitely on solar power, allowing you to both take measurements and view them 24 hours a day, seven days a week. A rugged, portable Pelican® case houses the Model 831C sound level meter, 12 V battery, power supply, and gateway (modem) as well as a pole supporting your microphone. Built-in GPS information is saved to data files to identify where a measurement was taken. Wherever remote noise monitoring takes you, Model NMS044 offers a range of capabilities in a portable package.

With decades of experience in creating outdoor noise monitoring solutions, Larson Davis has created the NMS044 as a system for applications such as:

- **Consultancy Projects** – The portability of NMS044 offers an ideal solution for consultants performing noise studies for different customers in different locations on a regular basis

- **Short-Term Airport Noise Monitoring** – Airport noise is frequently a complaint for those living nearby and in landing patterns. The NMS044 allows airports to monitor noise issues as they arise in specific locations.

- **Short-Term Construction Noise Monitoring** – Monitoring during a building period is often of a short-term commitment that recurs with each new project. When one job is complete, pack up the NMS044 and move to the next location.

NMS044 INCLUDES	
SoundAdvisor 831C	Sound level meter, class 1
831C-LOG	Data logging firmware option
831C-ELA	Event processing option
831C-SW	USB driver for gateway
EPS044	Weatherproof outdoor hard case
COM-RV50X	4G LTE gateway
PRM2103-FF	Outdoor preamplifier with calibration check
EPS2116	Outdoor microphone and preamplifier protection
SLP001 or SLP002	60 W or 100 W solar panel
BAT019 or BAT020	45 Ah LiFePro battery or 35 Ah SLA battery
PSA039	AC power supply
Misc	Cables and accessories
Communication	4G LTE and optional WiFi or Ethernet
Software	G4 LD Utility

OPTIONS DETAIL BATTERY AND SOLAR PANEL POWER CHOICES		
Model Number [1]	**Batteries**	**Portable Solar Panel**
NMS044-SLA60	35 Ah SLA battery (lower cost)	60 W
NMS044-SLA100		100 W
NMS044-LFP60	45 Ah LiFePo [2] battery (lighter weight)	60 W
NMS044-LFP100		100 W
NMS044-KIT1-U	Not Included	Not Included

[1] For use in North America add "-U" to model, for Rest of World add "-E" to model
[2] LiFePo battery cannot be shipped by common carrier without a hazardous material shipping license

PERMANENT, LONG-TERM NOISE MONITORING

MODEL NMS045

The SoundAdvisor Permanent Noise Monitoring System Model NMS045 is available in a variety of configurations to meet your long-term monitoring needs. Model NMS045 shares many of the same benefits as the Model NMS044, from 24/7 connectivity to continuous power capabilities, designed to simplify your testing. Now, the key elements of the portable system are available in a permanent setup, encased in a fiberglass enclosure mounted to a permanently placed pole. When you need to monitor the same location long-term, the NMS045 is the right choice for you.

Larson Davis knows permanent noise monitoring requirements vary. We have made the NMS045 highly flexible yet still easy to use. It is ideal for applications such as:

■ **Permanent Airport Noise Monitoring** – NMS045 allows airports to meet their requirements for long term noise monitoring, delivering a broad scope of measurement data continuously

■ **Long-Term Construction Noise Monitoring** – When construction will be a long term long project, NMS045 is a permanent monitoring solution offering durability and protection against vandalism and damage, so your measurements can continue uninterrupted

■ **Permanent City Noise Monitoring** – Whether you are monitoring near a bridge, busy street, factory, or nightclub, NMS045 helps you continuously measure noise levels, providing the data to create a more pleasant and ordinance-compliant community

NMS045 INCLUDES	
SoundAdvisor 831C	Sound level meter, class 1
831C-LOG	Data logging firmware option
831C-ELA	Event processing option
831C-SW	USB driver for gateway
EPS045	Weatherproof outdoor hard case
PRM2103-FF	Outdoor preamplifier with calibration check
EPS2116	Outdoor microphone and preamplifier protection
Misc	Cables and accessories
Communication	4G LTE and optional WiFi or Ethernet
Software	G4 LD Utility

CONFIGURABLE OPTIONS	
Power	Weather sensor
Battery	1 or 2 batteries (12 V) can be either • 45 Ah LiFePo (BAT019-045) • 35 Ah SLA (BAT020-045)
Mounting	Tilt-down pole (TR019), wooden pole, or wall
Communication	4G LTE gateway, Ethernet or WiFi
Weather sensor	Optional wind or full meteorological sensor

CAL✛PLUS

Complete multi-point factory calibrations

NMS044 - PORTABLE NOISE MONITOR

Dimensions

EPS044	24 × 14 × 7 inches (61 × 36 × 18 cm)
SLP001 (Folded)	26 × 14 × 3 inches (66 × 36 × 8 cm)
SLP002 (Folded)	20 × 27 × 3 inches (50 × 69 × 8 cm)

Weight

NMS044 Only	18 lb (8.2 kg) – without battery and solar panel
SLP001 (60 W panel)	20 lb (9 kg)
SLP002 (100 W panel)	27 lb (12.3 kg)
BAT019 (45 Ah LiFePo)	13 lb (5.8 kg)
BAT020 (35 Ah SLA)	25 lb (11.2 kg)
NMS044-LFP60	50 lb (23 kg)

Operational Time (Typical @ 20 °C)

831C only	14 days with 45 Ah LiFePo (BAT019) 11 days with 35 Ah SLA (BAT020)
831C with 4G	6 days with 45 Ah LiFePo (BAT019) 4 days with 35 Ah SLA (BAT020)
831C with WiFi	10 days with 45 Ah LiFePo (BAT019) 7 days with 35 Ah SLA (BAT020)
831C with Ethernet	10 days with 45 Ah LiFePo (BAT019) 7 days with 35 Ah SLA (BAT020)
NMS044 with Solar Panel	Indefinite with adequate sunlight

Portable Systems

NMS044-LFP60*	Complete NMS including Model 831C with 831C-LOG, 831C-ELA, 831C-SW, EPS044-LFP (includes BAT019), COM-RV50X*, 2 ea. COM-ANT-HG, PRM2103-FF, EPS2116, SLP001, PSA039 & necessary cables. For use when solar insolation > 2 kW•h/m²/day
NMS044-LFP100*	Complete NMS including Model 831C with 831C-LOG, 831C-ELA, 831C-SW, EPS044-LFP (includes BAT019), COM-RV50X*, 2 ea. COM-ANT-HG, PRM2103-FF, EPS2116, SLP002, PSA039 & necessary cables. For use when solar insolation > 1 kW•h/m²/day
NMS044-SLA60*	Complete NMS including Model 831C with 831C-LOG, 831C-ELA, 831C-SW, EPS044-SLA (includes BAT020), COM-RV50X*, 2 ea. COM-ANT-HG, PRM2103-FF, EPS2116, SLP001, PSA039 & necessary cables. For use when solar insolation > 2 kW•h/m²/day
NMS044-SLA100*	Complete NMS including Model 831C with 831C-LOG, 831C-ELA, 831C-SW, EPS044-SLA (includes BAT020), COM-RV50X*, 2 ea. COM-ANT-HG, PRM2103-FF, EPS2116, SLP002, PSA039 & necessary cables. For use when solar insolation > 1 kW•h/m²/day
NMS044-KIT1-U	NMS subsystem for use in US including Model 831C with 831C-LOG, 831C-ELA, 831C-OB3, 831C-SR, 831C-SW, EPS044, COM-RV50X-NA/EU, 2 ea. COM-ANT-HG, PRM831, EPS2116, PSA039 & necessary cables. Does not include battery, solar panel or solar charge controller.

NMS045 - PERMANENT NOISE MONITOR

Mechanical

EPS045 Dimensions (H x W x D)	19.7 x 18.2 x 10.4 inches (50 x 47 x 27 cm)
TRP019 Height	Approximately 20 ft (6 m) to microphone

Permanent System Components – Base

831C-045-AC	NMS045 base components for AC powered system. Includes 831C, 831C-ELA, 831C-LOG, 831C-SW, PRM2103-FF, EPS2116, CBL222-XX, PSA040, DVX013, CBL235, 831-MEM32G & mounting hardware
831C-045-S	NMS045 base components for solar powered system. Includes 831C, 831C-ELA, 831C-LOG, 831C-SW, PRM2103-FF, EPS2116, CBL222-XX, CBL226-03, DVX013, CBL235, CBL233-12, 831-MEM32G & mounting hardware
EPS045-AC	NMS045 fiberglass instrument enclosure for AC powered systems. Includes surge suppressor & hardware for mounting to TRP019 tilt-down pole.
EPS045-AC-OPT1	NMS045 fiberglass instrument enclosure for AC powered systems. Includes surge suppressor, ADP100 & hardware for mounting to a wall or wooden pole. Holes for conduit not drilled.
EPS045-S	NMS045 fiberglass instrument enclosure for solar powered systems. Includes PSA038 & hardware for mounting to TRP019 tilt-down pole.
EPS045-S-OPT1	NMS045 fiberglass instrument enclosure for solar powered systems. Includes PSA038, ADP100 & hardware for mounting to a wall or wooden pole. Holes for conduit not drilled.

Permanent System Components – Battery

BAT019-045	45 Ah 12 V LiFePo battery for NMS045. Includes CBL225-01 & CBL232-02 (requires hazardous materials shipping license to ship by common carrier)
BAT020-045	35 Ah 12 V SLA battery for NMS045. Includes CBL225-01 & CBL232-02.

Permanent System Components – Modem

COM-RV50X-045*	Sierra Wireless RV50X cellular 4G (XLTE) universal gateway, uses customer-supplied SIM card

Permanent System Components – Weather

SEN031-045	NMS045 meteorological sensor with ultrasonic wind speed & direction, temperature, humidity, barometric pressure & rainfall. Includes CBL229-20, DVX008A and ADP101 for installation on TRP019.
SEN032-045	NMS045 ultrasonic wind speed and direction sensor. Includes CBL229-20, DVX008A and ADP101 for installation on TRP019.

Permanent System Components – Solar

SLP003	100 W solar panel with bracket & U-bolts for mounting to TRP019.

Permanent System Components – Tripod

TRP019-B	NMS045 tilt-down aluminum pole for AC power. Includes pole, 426A12-NPT, ADP100, lock and accessories
TRP019-S	NMS045 tilt-down aluminum pole with holes for solar power. Includes pole, 426A12-NPT, ADP100, lock and accessories
TRP019-W	NMS045 tilt-down aluminum pole for AC power with holes for TRP012 weather sensor mount. Includes pole, TRP012, 426A12-NPT, ADP100, lock and accessories
TRP019-WS	NMS045 tilt-down aluminum pole with holes for solar power and TRP012 weather sensor mount. Includes pole, TRP012, 426A12-NPT, ADP100, lock and accessories

* For use in North America, Europe, Middle East & Africa add "U" to the model; for rest of world add "E"