



MODELS NMS044 & NMS045

**PORTABLE & PERMANENT SYSTEMS**

# SOUNDADVISOR™ NOISE MONITORING SOLUTIONS

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.

## TYPICAL APPLICATIONS

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

- **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.

**Optional Features Available** – Octave bands, scheduling, sound recording, and more – for details, visit

[www.larsondavis.com/soundadvisorfirmware](http://www.larsondavis.com/soundadvisorfirmware)

# 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 <sup>[1]</sup>                          | Batteries   | Portable Solar Panel |
| NMS044-SLA60   | 35 Ah SLA battery<br>(lower cost)                       | 60 W                 |
| NMS044-SLA100  |   | 100 W                |
| NMS044-LFP60   | 45 Ah LiFePo <sup>[2]</sup> battery<br>(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 <ul style="list-style-type: none"> <li>• 45 Ah LiFePo (BAT019-045)</li> <li>• 35 Ah SLA (BAT020-045)</li> </ul> |
| Mounting             | Tilt-down pole (TR019), wooden pole, or wall  |
| Communication        | 4G LTE gateway, Ethernet or WiFi  |
| Weather sensor       | Optional wind or full meteorological sensor   |



Complete multi-point factory calibrations

| NMS044 - PORTABLE NOISE MONITOR           |  |
|---|--|
| <b>Dimensions</b>                         |  |
| EPS044                                    | 24 x 14 x 7 inches (61 x 36 x 18 cm)   |
| SLP001 (Folded)                           | 26 x 14 x 3 inches (66 x 36 x 8 cm)  |
| SLP002 (Folded)                           | 20 x 27 x 3 inches (50 x 69 x 8 cm)  |
| <b>Weight</b>                             |  |
| 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)  |
| <b>Operational Time (Typical @ 20 °C)</b> |  |
| 831C only                                 | 14 days with 45 Ah LiFePo (BAT019)<br>11 days with 35 Ah SLA (BAT020)  |
| 831C with 4G                              | 6 days with 45 Ah LiFePo (BAT019)<br>4 days with 35 Ah SLA (BAT020)  |
| 831C with WiFi                            | 10 days with 45 Ah LiFePo (BAT019)<br>7 days with 35 Ah SLA (BAT020)   |
| 831C with Ethernet                        | 10 days with 45 Ah LiFePo (BAT019)<br>7 days with 35 Ah SLA (BAT020)   |
| NMS044 with Solar Panel                   | Indefinite with adequate sunlight  |
| <b>Miscellaneous</b>                      |  |
| Humidity – outside enclosure              | 0% to 100% RH  |
| <b>Portable Systems</b>                   |  |
| <b>NMS044-LFP60*</b>                      | 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/m <sup>2</sup> /day             |
| <b>NMS044-LFP100*</b>                     | 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/m <sup>2</sup> /day             |
| <b>NMS044-SLA60*</b>                      | 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/m <sup>2</sup> /day             |
| <b>NMS044-SLA100*</b>                     | 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/m <sup>2</sup> /day             |
| <b>NMS044-KIT1-U</b>                      | 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             |   |
|--|---|
| <b>Mechanical</b>                            |   |
| 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   |
| <b>Permanent System Components – Base</b>    |   |
| <b>831C-045-AC</b>                           | 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                  |
| <b>831C-045-S</b>                            | 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 |
| <b>EPS045-AC</b>                             | NMS045 fiberglass instrument enclosure for AC powered systems. Includes surge suppressor & hardware for mounting to TRP019 tilt-down pole.  |
| <b>EPS045-AC-OPT1</b>                        | 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.                 |
| <b>EPS045-S</b>                              | NMS045 fiberglass instrument enclosure for solar powered systems. Includes PSA038 & hardware for mounting to TRP019 tilt-down pole.   |
| <b>EPS045-S-OPT1</b>                         | 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.                        |
| <b>Permanent System Components – Battery</b> |   |
| <b>BAT019-045</b>                            | 45 Ah 12 V LiFePo battery for NMS045. Includes CBL225-01 & CBL232-02 (requires hazardous materials shipping license to ship by common carrier)  |
| <b>BAT020-045</b>                            | 35 Ah 12 V SLA battery for NMS045. Includes CBL225-01 & CBL232-02.  |
| <b>Permanent System Components – Modem</b>   |   |
| <b>COM-RV50X-045*</b>                        | Sierra Wireless RV50X cellular 4G (XLTE) universal gateway, uses customer-supplied SIM card   |
| <b>Permanent System Components – Weather</b> |   |
| <b>SEN031-045</b>                            | NMS045 meteorological sensor with ultrasonic wind speed & direction, temperature, humidity, barometric pressure & rainfall. Includes CBL229-20, DVX008A and ADP101 for installation on TRP019.    |
| <b>SEN032-045</b>                            | NMS045 ultrasonic wind speed and direction sensor. Includes CBL229-20, DVX008A and ADP101 for installation on TRP019.   |
| <b>Permanent System Components – Solar</b>   |   |
| <b>SLP003</b>                                | 100 W solar panel with bracket & U-bolts for mounting to TRP019.  |
| <b>Permanent System Components – Tripod</b>  |   |
| <b>TRP019-B</b>                              | NMS045 tilt-down aluminum pole for AC power. Includes pole, 426A12-NPT, ADP100, lock and accessories  |
| <b>TRP019-S</b>                              | NMS045 tilt-down aluminum pole with holes for solar power. Includes pole, 426A12-NPT, ADP100, lock and accessories  |
| <b>TRP019-W</b>                              | NMS045 tilt-down aluminum pole for AC power with holes for TRP012 weather sensor mount. Includes pole, TRP012, 426A12-NPT, ADP100, lock and accessories   |
| <b>TRP019-WS</b>                             | 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"



3425 Walden Avenue, Depew, NY 14043 USA

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