



# 831 Sound Level Meter and NMS

## SECTION 1:

This shipment contains \_\_\_\_\_ 831 kits.  
Each kit includes one of each item in this section unless noted.

Job # \_\_\_\_\_ Customer \_\_\_\_\_

First Rental Period † \_\_\_\_\_

† Rental period starts the calendar date after shipment, and ends on date returned.  
Rentals can be kept beyond the initial period, and are extended at the same period and rate.  
Rentals returned in an extension period are billed at a net prorated basis based on return date.  
Let us know if your company requires a new PO or payment method for extension charges.

### Microphone(s)

377B02 ships unless otherwise requested. Model 831 can apply a digital correction factor to measure Random Incidence with a Freefield Microphone (and the reverse). Units ship with case, o-ring to mate between preamplifier and mic in outdoor use, desiccant, and microphone guideline sheet.



Quantity	Microphone Model	Size	Type	Noise Floor (dBA)	Low Range Indicator (dBA)	Overload (dBpk)
	377B02	1/2"	Freefield	17.1	26.2	143.5
	377C20	1/2"	Random	15.3	24.4	143.5
	377C01*	1/4"	Freefield	35.7	44.8	172.3
	377C10*	1/4"	Pressure	36.3	45.5	178.8
	377A12*	1/4"	Pressure	37.5	48.6	192.8

\*Includes ADP043 1/4 inch microphone to 1/2 inch preamp adaptor

## 831 (Firmware revision 2.314 or higher)

### Meter Options and Special Notes:

	<b>831-LOG</b> Time History Logging (multi parameter, increments from 20ms to 24hr)
	<b>831-ELA</b> Measurement History Logging: exceedance/events, intervals, and daily
	<b>831-OB3</b> Selectable real time 1/1 and/or 1/3 octave filter set
	<b>831-IH</b> Industrial Hygiene: selectable standard doses (OSHA, ACGIH, NIOSH, IEC)
	<b>831-SR</b> Sound Recording: level and dynamic based event recording and more
	<b>831-FST</b> Fast time history logging 2.5, 5 and 10ms speeds (requires LOG and OB3)
	<b>831-FFT</b> 400 to 6400 line FFT with selectable span 100Hz-20kHz with windowing
	<b>831-RT</b> Reverberation Time room acoustics ( ISO 3382-2:2008 and ASTM E2235-04)
	<b>831-LOWN</b> Low noise configuration (include LOWN FAQ)
	<b>Preload Meter Setup:</b> preload user specified measurement set up onto meter(s) prior to shipment from The Modal Shop
	<b>Data Download</b> from meter(s) upon return to The Modal Shop and electronically send data to the following recipient(s):
	<b>Other:</b>

- \_\_\_\_\_ **079A06** 1/2" Mic Windscreen, 3.5" diameter or
- \_\_\_\_\_ **079A07** 1/4" Mic Windscreen, 3.5" diameter



**Microphone** (see table on right)

- \_\_\_\_\_ **PRM831** Preamps ship in a protective case.

- \_\_\_\_\_ **EXC010** **EXC series cable**, 5 pin Switchcraft extension cable, used as optional
- \_\_\_\_\_ **EXC020** extender between meter and preamp.
- \_\_\_\_\_ **EXC050** 10, 20 and 50 ft lengths available.



**NOTE:** Preamplifier release button



- \_\_\_\_\_ **CBL138** USB Cable USB A to Mini USB, connects meter to computer or power.



- \_\_\_\_\_ **PSA029** AC Power Adaptor.



- \_\_\_\_\_ **Batteries** (4) AA rechargeable batteries. Batteries may be installed in meter.



## SECTION 2:

One accessory kit included for each family of meter rented unless otherwise specified.

\_\_\_\_\_ **CAL200** Calibrator with adapters (if necessary), manual or instruction sheet. Chapter 17 of the 831 Manual is short (<10 pages!) and covers calibration, including meter screenshots.



- \_\_\_\_\_ **ADP109** 1/4 in adaptor \_\_\_\_\_

### Information including:

- |       |                          |   |
|-------|--------------------------|---|
| Paper | <input type="checkbox"/> | • This sheet as a reference                                       |
| USB   | <input type="checkbox"/> | • <b>831 Operation Manual</b>                                     |
| Email | <input type="checkbox"/> | • <b>G4 Utility software *Note*</b>                               |
| Omit  | <input type="checkbox"/> | • <b>SLM Utility – G4 Operation Manual</b>                        |
|       | <input type="checkbox"/> | • Calibration certs for each meter and microphone, and calibrator |
|       | <input type="checkbox"/> | • Rental Tracking Sheet, includes serial numbers of units shipped |

Please note that USB's are used as a default, but G4 Utility software and 831 Manual are also available for download from [www.larsondavis.com](http://www.larsondavis.com) in the "Support" section.

**Feel free to call us if you have any questions! +1 513-351-9919**

Videos are available showing calibration and other helpful hints at - <http://www.modalshop.com/rental/learn/acoustics/sound-level-meter-831>

### \*Note\*:

G4 LD Utility software is compatible with all 32 bit and 64 bit versions of Windows 7 and 8.1, and 10. The administrator of the PC must install G4 for successful installation. Rental laptops are available with G4 software preloaded. Meter setup and data download services are also available.



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## SECTION 3: Meter Case Options



**CCS001-831** Hard shell case for Model 831 Sound Level Meter

*Standard method. Each unit ships in individual case. Useful if meters are being divided up at test location.*

*Typical Box size and weight: 22"x16"x10", 15 lb*

**CCS001-831-4** Rugged case holds up to (4) 831 or LxT units with preamplifiers and microphones, and (1) CAL200 calibrator.

*Lower shipping costs by eliminating standard cases that ship with each meter.*

*Typical Box size and weight: 20"x16"x14", 25 lb*



## SECTION 4: Outdoor components for 831-based NMS kits.

### Microphone Environmental Protection Kit



**EPS2116** Environmental protection for 1/2 in preamplifiers (PRMLXT or PRM831), with windscreen & bird spike. Mounting options for 1/4-20 thread (TRP001), 1.5 in. pipe (TRP003) and 3/4 in. NPT pipe included

*Please see the following video for EPS2116 set up details: [www.modalshop.com/rental/learn/acoustics/eps2116-setup](http://www.modalshop.com/rental/learn/acoustics/eps2116-setup)*

**No Environmental Protection Kit** Use your own EPS system or an alternate mounting as noted below.

**EPS2106-2** Environmental protection for 1/2" ICP® preamplifiers (PRMLXT or PRM831), includes windscreen, bird spikes, desiccants and threaded for 3/4" standard solid-wall PVC conduit thread (FEM)

**EPS2108-2** Environmental protection for 1/2 in preamplifiers (PRMLXT or PRM831), with windscreen, bird spikes, desiccants, 1/4-20 thread (FEM) for use with tripods.

### Tripod Options



**ADP034** Larson Davis adaptor used to connect the EPS2116 to the TRP003 tripod

**TRP003** Ultimate support tripod, max height 8ft, used in portable NMS systems  
*Tripod for unattended monitoring. Ship weight 14 lb for 1, 25 lb for 2, box 64"x 8"x 8"*

**TRP001** Larson Davis Instrumentation tripod with ADP032 preamp to tripod interface  
*Lightweight tripod, height adjusts from 21" to 56". Not recommended for long term monitoring or in heavy wind. Includes 1/4 – 20 mount*

**No Tripod** Use your own tripod option. Use any tripod with a 1/4-20 male mounting thread (typical camera thread). Can be used with the 079A11 or EPS2116.



### Power Options



**EPS042** kit for multi-day use. Includes:

- \_\_\_\_\_ Battery quick guide
- \_\_\_\_\_ **BAT015** 8 D-cell battery pack
- \_\_\_\_\_ BAT015 installation guide
- \_\_\_\_\_ BAT015 battery door
- \_\_\_\_\_ D-cell batteries
- \_\_\_\_\_ Power connection to meter

*Powers 831 for 9 days, typically, with appropriate power save settings selected in meter set up. Can also load only 4 batteries into battery pack for half the run time.*



**EPS044-SLA** kit for multi-day use. Includes:

- \_\_\_\_\_ **CCS051** case with foam inserts, brackets, power distribution block, and accessories
- \_\_\_\_\_ **BAT0020** 35 Ah 12 Volt SLA battery \*
- \_\_\_\_\_ **PSA038** Solar Charge Controller \*
- \_\_\_\_\_ **CBL224-02** Charge controller to power block cable \*
- \_\_\_\_\_ **CBL225-01** Fused battery cable \*
- \_\_\_\_\_ **CBL226-02** Solar connectors to solar charger cable \*
- \_\_\_\_\_ **CBL228-03** 831C to power block cable \*
- \_\_\_\_\_ **ACC009** monopole (or alternate as noted in section 4)
- \_\_\_\_\_ **EPS2116-044-CASE** containing power connector removal tool, guy wires, ground stakes, and Phillips #2 and #0 screwdriver

*Typical run time of 11-12 days with power save options activated and no USB peripheral usage.*

\*Denotes pre-installed items



# 831 Sound Level Meter and NMS

## Power Options Continued



\_\_\_\_\_ **SLP002** Portable 100 Watt solar panel with stand and connectors for use with EPS044

*Continually charges battery of EPS044 for extended run time*

## SECTION 5: Weather Sensor Kit

This shipment contains \_\_\_\_\_ weather system kits (includes one of each item in this section unless noted)



\_\_\_\_\_ **SEN031** Combined weather sensor: wind speed and direction, temperature, humidity, pressure, rainfall (includes coupler)

\_\_\_\_\_ **SEN032** Combined wind speed and direction sensor

\_\_\_\_\_ **DVX008A** USB Adaptor for DBM9 interface

\_\_\_\_\_ **CBL229** Cable for SEN031 and SEN032. Serial port for control and data, Anderson Powerpole connectors to power from EPS044. Connects to Model 831 with DVX008A.

### \_\_\_\_\_ Cable Length

\_\_\_\_\_ **TRP003-WTHR** Tripod adaptor for SEN031. Includes 24" horizontal bar, heavy duty clamp and 3/4" X 4" PVC

\_\_\_\_\_ **CBL225-01** Adaptor power cable for battery with spade connectors and Anderson Powerpole connectors. 1 ft. length

## SECTION 6: Building Acoustics Accessories



**BAS001 Omnidirectional Sound Source**

\_\_\_\_\_ **BAS001** Omnidirectional source for Reverberation Time, Room and Building Acoustic Measurements – integrates with 831-RT option to offer easy ISO 3382-2 and ASTM E2235-04 testing

\_\_\_\_\_ **BAS002-U** Power Amplifier for BAS001 and BAS002. Includes signal source files

\_\_\_\_\_ **BAS003** Directional source for the evaluation of the transmission loss index of a façade

\_\_\_\_\_ **TRP023** Tripod for BAS001 and BAS003

\_\_\_\_\_ **BAS004** Tapping machine with battery pack and remote control. For ISO 10140, ISO 140, DIN 52210, B5 5821, ASTM E 492 measurements

\_\_\_\_\_ **BAS006** Impulse generating source for building acoustics designed for wide frequency range

\_\_\_\_\_ **CBL180** AC/DC out to BAS002 input



**BAS006 Impulsive Source**



**BAS003 Directional Sound Source**



**BAS004 Tapping Machine**



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079A11



079A15



### Additional Power Options *See online for additional information*

- \_\_\_\_\_ **BAT011** DC 12V 21Ah External Sealed Lead Acid Battery non-spillable 6" x 9" x 4" 10lb unit, charger included upon request
- \_\_\_\_\_ **CBL143** External Power Cabling for Two External 12 V Batteries
- \_\_\_\_\_ **CBL168** External Power Cabling for One External 12 V Battery
- \_\_\_\_\_ **BAT015** 8 D cell battery holder with fuse with power connection to meter

### Additional Tripod Options

- \_\_\_\_\_ **079A10** Holds 1/4" microphone/preamplifier pair via friction fit, and mates to standard camera tripod via 1/4"-20 thread
- \_\_\_\_\_ **079A11** Holds 1/2" microphone/preamplifier pair via friction fit, and mates to standard camera tripod via 1/4"-20 thread
- \_\_\_\_\_ **079A15** Tripod for temporary/attended testing. When used with 079A11 clip, holds mic/preamp pair with windscreen. Not designed to support weight of sound meter

### Continuous Audio Recording accessories

- \_\_\_\_\_ **KR-05** Continuous Sound Recording Kit - includes Roland R-05 wave mp3 recorder with AC and DC power supplies, cable and adaptor to connect to the Larson Davis 831.
  - \_\_\_\_\_ **D Cell Power Supply**
  - \_\_\_\_\_ **3.5 to 2.5mm Connectivity Cable**
  - \_\_\_\_\_ **32 GB SD Card**
  - \_\_\_\_\_ **R-05** Roland Wave mp3 recorder

### Underwater Acoustics

- \_\_\_\_\_ **TC4013** Reson high sensitivity low frequency miniature hydrophone. 1Hz-170kHz, 700m operating depth, cable terminating in LEMO with BNC adaptor. *6m standard cable length, various cable lengths available*
- \_\_\_\_\_ **42AA** Pistonphone Calibrator, 114 dB @ 250 Hz
- \_\_\_\_\_ **RA0043** Pistonphone coupler for TC4013 hydrophone
- \_\_\_\_\_ **ADP005** BNC to 1/2 in microphone thread adaptor, 18 pF with shorting
- \_\_\_\_\_ **TL8013** Protective cage for TC4013 hydrophone

### Additional Accessories

- \_\_\_\_\_ **831-GPS** GPS unit for 831 provides global positioning information to 831 data, connects via auxiliary USB connection
- \_\_\_\_\_ **ACC003** Headset with microphone boom, 2.5mm micro-jack for voice annotation
- \_\_\_\_\_ **ADP074** ICP® interface cable allows connection of a single axis ICP® accelerometer, provides BNC connection
- \_\_\_\_\_ **ADP097** Direct input adaptor BNC for Model 831
- \_\_\_\_\_ **CAL200** Class 1 acoustic calibrator with user selectable output of 94 or 114 dB at 1 kHz. 1/2" opening
- \_\_\_\_\_ **SWW-DNA** Data Navigation and Analysis Software navigate through extensive data with measurement organization, reporting, and data post-processing tools
- \_\_\_\_\_ **EPS036-831** Environmental enclosure kit with (2) BAT011, battery charger, cabling and case mounted tripod. Typically provides 14 days of operation per charge
- \_\_\_\_\_ **EPS037** Large environmental enclosure kit with BAT012, 100 Ah battery, battery charger and cabling. Typically provides 28 days of operation per charge
- \_\_\_\_\_ **CAL250** Class 1 acoustic calibrator with 1 inch opening, output of 114 dB at 251.2 Hz
- \_\_\_\_\_ **ADP019** 1/2" microphone adaptor for CAL250 1" calibrators
- \_\_\_\_\_ **ADP114** 1/4" microphone adaptor for CAL250 1" calibrators
- \_\_\_\_\_ **ACO WS7** 7" Windscreen for 1/2" microphones
- \_\_\_\_\_ **ACO-WS7-80T** 7" Windscreen for 1/2" Microphones (80ppi) Dense-Treated Windscreen

### KR-05 Components

R-05



3.5 to 2.5mm  
Connectivity Cable



32 GB SD Card



D Cell Power Supply

