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(International) For service, please contact the NADY AUDIO distributor in your country through the dealer from whom you purchased this product.

DO NOT ATTEMPT TO SERVICE THIS UNIT YOURSELF AS IT CAN BE DANGEROUS AND WILL ALSO VOID THE WARRANTY.



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OWNER'S MANUAL



DSM-1
Digital Sound
Level Meter

Introduction

Congratulations for purchasing the DSM-1 Digital Sound Level Meter. To ensure that you get the most from your unit, we recommend that you read and follow the manual carefully before use.

This unit conforms to the IEC651 type 2, ANSI S1.4 type 2 for Sound Level Meters.

The DSM-1 has been designed to meet the measurement requirements of Safety Engineers, Health, Industrial safety offices and sound quality control in various environments.

- Highly accurate SPL meter with 2 level ranges measuring between 30dB and 130dB @ 32Hz - 8KHz
- Full professional features include easy-to-read 4-digit LCD display with selectable permanent backlight; selectable A or C weighting and Fast or Slow response; maximum Hold selector with Hold button to capture input at any time; alarm indicating the input is above range; internal battery tester; built-in calibrated, linear omnidirectional 1/2" electret condenser microphone; and threaded insert to attach to optional SMT-3 tripod or standard camera tripod
- Uses 9VDC alkaline battery with up to 50 hours battery life
- Foam windscreen, sturdy vinyl carrying case, and battery included

Contents

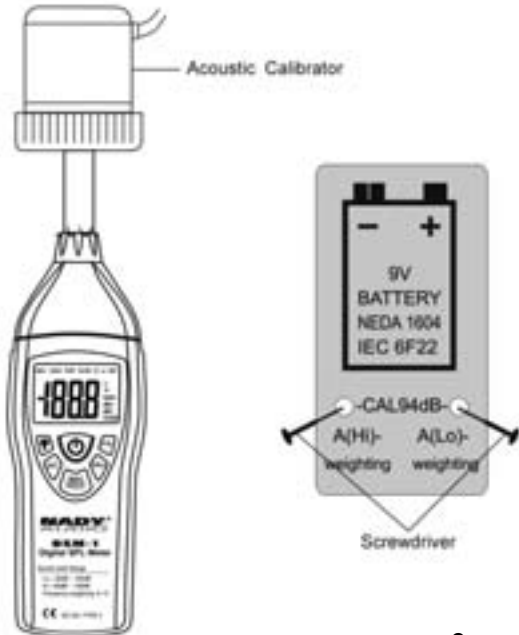
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Specifications

Standard applied	IEC651 type 2, ANSI S1.4 type 2
Frequency range	31.5Hz~8KHz
Measuring level range	30~130dB
Frequency weighting	A/C
Microphone	1/2 inch electret condenser microphone
Calibration	Electrical calibration with the internal oscillator (1kHz sine wave)
Display	LCD
Digital display	4 digits
Resolution	0.1dB
Display Up data	0.5 sec.
Time weighting	FAST(125mS), SLOW(1 sec.)
Level ranges	Lo: 30-100dB; Hi: 60-130dB
Accuracy	+ 1.5dB (under reference conditions)
Alarm function	"OVER" is show when input is out of range
Maximum hold	Hold readings the Maximum Value, with decay < 1dB/3minutes.
Auto power off	Meter automatically shuts down after approx. 15 minutes of inactivity.
Power supply	One 9V battery, 006P or IEC 6F22 or NEDA 1604.
Power life	About 50hrs(alkaline Battery)
Operation temperature	0 to 40 Ohms (32 to 104 °F)
Operation humidity	10 to 90%RH
Storage temperature	-10 to 60 °C (14 to 140 °F)
Storage humidity	10 to 75%RH
Dimensions	8.3" x 2.2" x 1.3" (210 x 55 x 32 mm)
Weight	8.01 oz (230g) (including battery)

- (4) Hold the instrument comfortably in your hand or fix on tripod and point the microphone at the suspected noise source. The sound pressure level will be displayed.
- (5) When MAX (maximum hold) mode is chosen. The instrument captures and holds the maximum noise level for a long period using any of the time weightings and ranges.
- (6) When HOLD (data hold) mode is chosen. The hold function freezes the reading in the display. Press the HOLD button momentarily to activate or to exit the HOLD function
- (7) Turn OFF the instrument and remove battery when not in use.

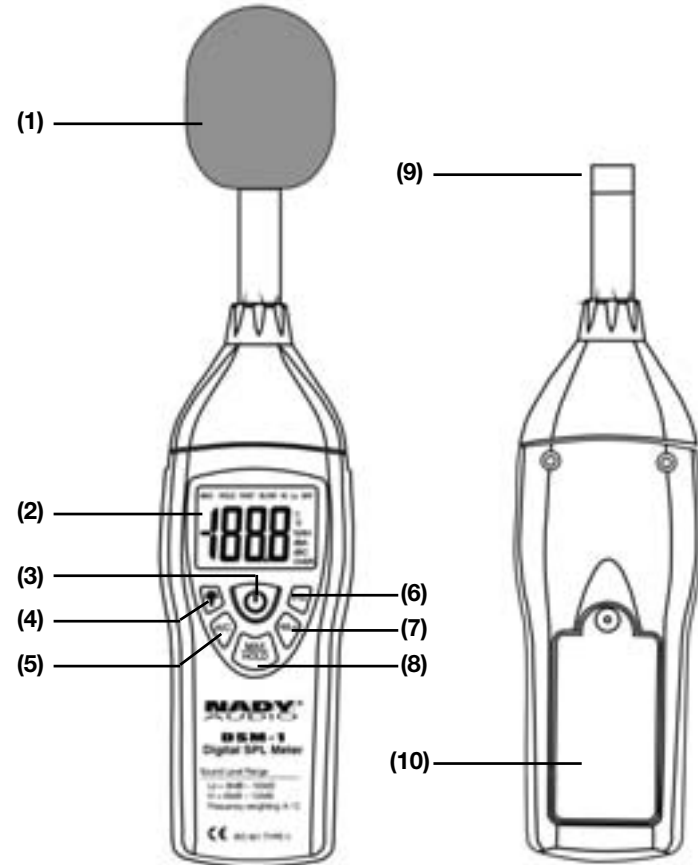
Calibration Procedures



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- (1) Make the following function switch settings.
 Display: dB, A, Hi or Lo, F
 Function: A-Weighting
 Response Time: FAST
 Level range: 30 to 100dB(Lo) or 60 to 130dB(Hi)
 Measurement mode: MAX Hold and Data Hold Mode function disable.
- (2) Insert the microphone housing carefully into the insertion hole of the calibrator.
- (3) Open battery cover and remove the battery to adjust the CAL94dB potentiometer of the unit. The level display will indicate the desired level. Our products are all well calibrated before shipment. Recommended Recalibration cycle: 1 year.

Controls



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Controls

(1) WINDSCREEN

If you operate at wind speed over 10m/sec, please put protective accessories in front of the microphone.

(2) DISPLAY LCD

LCD readout for all information

(3) POWER ON/OFF BUTTON

Turn the meter power ON/OFF

(4) BACKLIGHT BUTTON

Turn the meter backlight ON/OFF

(5) A-WEIGHTING / C-WEIGHTING SELECT BUTTON

A — Weighting: For general sound level measurements.

C — Weighting: For checking the low-frequency content of noise.

(NOTE: if the C-Weighting level is much higher than the A-Weighting level, then there is a large amount of low-frequency noise)

(6) TIME WEIGHTING SELECT BUTTON

F — (Fast Response): For normal measurements (fast varying noise)

S — (Slow Response): For checking average level of fluctuating noise

(7) LEVEL RANGE SELECT BUTTON

Lo — 30~100dB; Hi — 60~130dB

When "OVER" is indicated, the ranges switch to another range of measurement.

(8) MAX / DATA HOLD BUTTON

MAX — Hold position is used to measure the maximum level of sounds. The maximum measured level is updated continuously. Pressing the button once again will release the hold and allow a further measurement.

Data Hold — Press and hold the button for over 2 second to turn on or off data hold function.

The hold function freezes the reading in the display.

(9) MICROPHONE

1/2" Electret Condenser microphone

(10) BATTERY COMPARTMENT

Battery Replacement

Battery Loading

Remove the battery cover on the back to install one 9V Battery.

Battery Replacement

When the battery voltage drops below the operating voltage, the "BAT" icon appears on the LCD display. If it appears, the battery should be replaced with a new one.

Operating Precautions

(A) Wind blowing across the microphone will bring additional extraneous noise.

When using the instrument in the presence of wind, make sure to mount the windscreen.

(B) Calibrate the instrument before operation if the instrument was not in use for a long time.

(C) Do not store or operate the instrument at high temperatures or a high humidity environment.

(D) Keep microphone dry and avoid severe vibration.

(E) Please remove the battery when not in use.

Measurement

(1) Install a fresh 9-volt battery in the battery compartment.

(2) Turn on power and select the desired response time and weighting. If the sound source consists of short bursts or you are only catching sound peaks, set the response to FAST. To measure average sound, use the slow setting.

Select A-weighting for general noise sound level and C-weighting for measuring sound level of acoustic material.

(3) Select desired Level Range