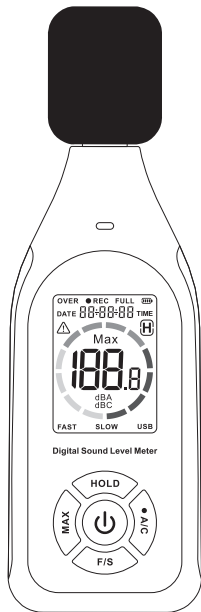


DIGITAL SOUND LEVEL METER

USER MANUAL



SCAN THE QR CODE

to download the
USER MANUAL
in different languages
and **SOFTWARE**



TUTORIAL VIDEO ON HOW TO USE



Need more help? CONTACT US.



www.cd50.net/442

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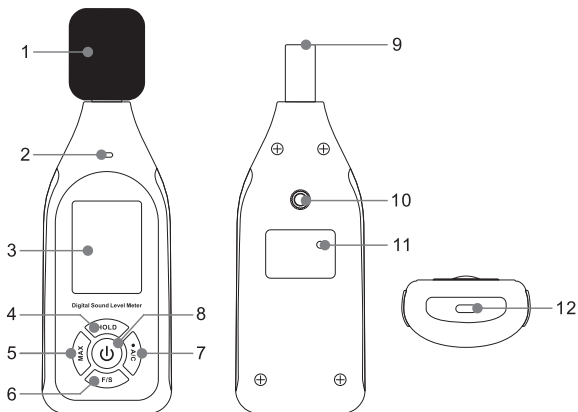
INTRODUCTION






This Sound Level Meter has been designed to meet the measurement requirement of noise engineers, noise quality control and health prevention in various environments, such as noise measurement in factory, office, traffic road, family and all other noise measurement applications.

FEATURES

1. Real-time measurement of various environmental noises
2. A/C frequency weighting option
3. Fast/Slow time weighting option
4. Three-color light alarm
5. MAX/HOLD Function
6. Data storage capacity: 31,000 data records
7. Data Read (only on PC) and Delete
8. Automatic shutdown after about 10 minutes without button operation
9. Display date and time
10. USB charging and PC communication: Connect with the PC through USB, provides data record download, real-time data sampling analysis, and printing graph & data functions.
11. This Sound Level Meter was designed according to the following standards:
 - a. International Electrotechnical Commission standard:
IEC PUB 651 TYPE 2
 - b. US National Standard: ANSI S1.4 TYPE 2

COMPONENT NAME AND BUTTON FUNCTION




1. Sponge ball (When used outdoors, please attach it to prevent wind noise from affecting the unit's readings)
2. Alarm indicator
3. LCD display
4.  HOLD button
5.  MAX button
6.  F/S button
7.  A/C button
8.  Power button
9. Capacitance microphone
10. Tripod fixed screw aperture
11. Calibration knob
12. Type-C interface

SPECIFICATIONS

Calibration sound source	±94dB@1KHz
Measurement range	30 ~ 130 dB(A), 35 ~ 130dB(C)
Accuracy	±1.5dB (Reference sound pressure standard, 94dB@1KHz)
Resolution	0.1dB
Frequency weighting	A/C
Frequency response	31.5Hz ~ 8500Hz
Time weighting	FAST/SLOW
Sampling rate	FAST: 8 times/second SLOW: 1 times/second
Rated current	70mA
Standby current	5uA
Power supply	3.7V lithium battery /1000mAh
Charging time	1.5h
Duration of service	8h
Data storage	31,000
Microphone	1/2-inch polarization capacitance microphone
Operating temperature	0 ~ 50°C
Operating humidity	10 ~ 80%RH
Dimension	160*56*31mm (Excluding sponge ball)
Weight	Approx 126g (Excluding sponge ball)


OPERATION INSTRUCTIONS

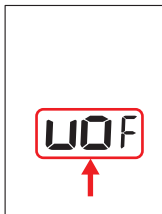
1. Power on/off

Press the  button to turn the meter on/off.

Note: The meter is defaulted to automatically shut down after 10 minutes of inactivity. To disable the automatic shutdown function, please follow the instructions below:







2. Disable the automatic shutdown function.

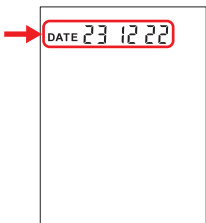
When the meter is off, press and hold the  button until “UOF” is displayed, indicating that the automatic shutdown function is disabled. The automatic shutdown function will be re-enabled when the meter is restarted.



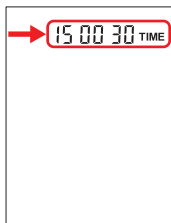
3. Date and Time Configuration

1). Time and Date Settings

- Long press the  button to enter the DATE/TIME setting mode.
- Short press the  or  button to switch between year/month/day/hour/minute/second/exit setting mode.
- While the value blinks, press the  or  button to adjust it, or press and hold the button for rapid adjustments.
- Press the  button to proceed to the next step.



DATE Setting



TIME Setting

2). Toggle Display between Date and Time

Long press the  button to switch the DATE/TIME display.





DATE Display

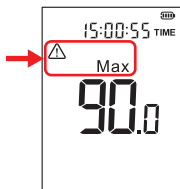




TIME Display

4. Setting High/Low Alarm Values

1). High/low alarm value setting:



a. Long press  button to enter Hi alarm value setting, displaying Max & .



b. Press the  or  button to adjust it, or press and hold the button for rapid adjustments.

c. Short press  button to switch to low alarm value setting.



d. Press the  or  button to adjust it, or press and hold the button for rapid adjustments.

e. Press the  button to turn on/off the alarm indicator.

f. Long press the  button again to exit the alarm setting.

2). Measurement Display:



Low Alarm

Screen displays \triangle and yellow light when noise value meets or exceeds low alarm value (yellow light only if indicator function is on).



High Alarm

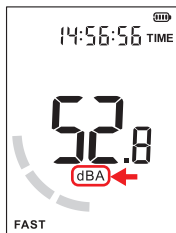
Screen displays \triangle and red light when noise value meets or exceeds high alarm value (red light only if indicator function is on).

5. A/C Frequency Weighting Selection

On the normal measurement mode, press the $\left(\begin{smallmatrix} \text{A} \\ \text{C} \end{smallmatrix}\right)$ button to switch between A/C weighting.




A - Weighting for general sound level measurements.



C - Weighting for checking the low-frequency content of sounds

6. FAST/SLOW Time Weighting Selection

On the normal measurement mode, press the  button to switch between FAST/SLOW.








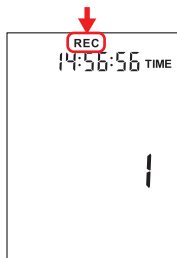
FAST mode is used to capture the current reading quickly.



SLOW mode is used to capture the average reading within 1 second.

7. Data record on meter


- Press and hold the  button to enter the setting with the "REC" symbol shown at the top of the screen.
- Press the  or  button to adjust the recording interval (unit: seconds), or press and hold the buttons for rapid adjustments. Adjustable range: 1 to 99 seconds.
- Press the  button to start the recording. The screen will display "REC" and blink ●.
- Press and hold the  button to stop the recording.





Data record setting



Start recording

Note: When recording, the meter will not automatically shut down, press and hold the  button to shut down.




8. Delete Data

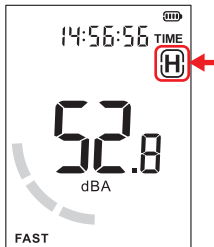
- In the normal measurement mode, press the  button to enter Maximum mode.
- Press and hold the  button until the “CLR” symbol appears, then release the button.
- After approximately 5 seconds, it will revert back to the normal measurement mode without displaying the **Max** symbol. All recorded data has been cleared.





Delete records

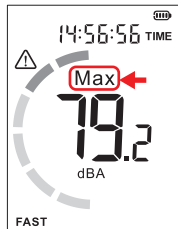
9. Data Hold

- On the normal measurement mode, press the  button to display  for data lock. Press the  button again to release the data lock and continue measuring.



10. Maximum mode

- Press the  button in normal mode to switch to maximum mode, displaying **Max**. The shown value remains the highest recorded until a higher one is detected.
- Press the  button again to return to real-time measurement without **Max** shown.



1. Requirements of Computer Configuration

- ①. CPU: Pentium III 600MHZ or above
- ②. One free available USB connecting interface
- ③. The lowest screen resolution of monitor is 800*600 (or much higher), true color
- ④. At least 8MB available memory
- ⑤. At least 50MB available disk memory
- ⑥. Operation system: Windows 7, Windows 10, and Windows 11

2. Install the software

Please download and install the “SoundLab” software from the QR code or URL below.

SoundLab



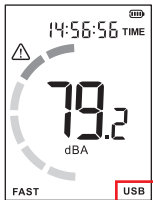
URL

www.cd50.net/442

3. Connect the decibel meter to the computer.

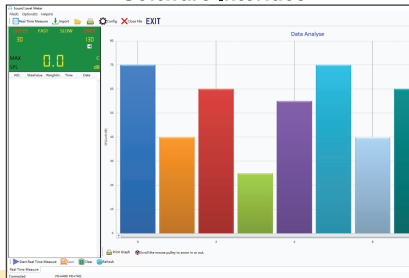
- a. Open the software, turn on the decibel meter, and then connect it to the computer.
- b. Once successfully connected, “**Connected**” appears in the bottom left corner of the software and “**USB**” appears on the lower right corner of the product screen.

Measurement Interface (product screen)



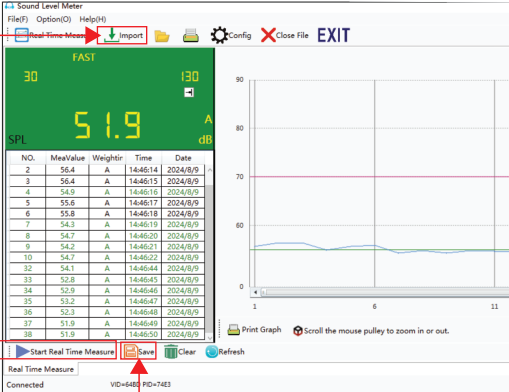
Connected

Software Interface



4. Import the recorded data from the meter to the software

Step 1 →



Step 2 →

Step 3 (Export the recorded data in Excel format)

The screenshot shows the 'Sound Level Meter' software interface. The menu bar includes 'File(F)', 'Option(O)', and 'Help(H)'. The 'Real Time Measure' menu is open, showing options: 'Import', 'Config', 'Close File', and 'EXIT'. The main display area shows 'FAST' mode with a reading of 51.9 A dB. A table of recorded data is visible, and a line graph shows the measurement history. The status bar at the bottom indicates 'Connected' and 'VID=64BD PID=74E3'.

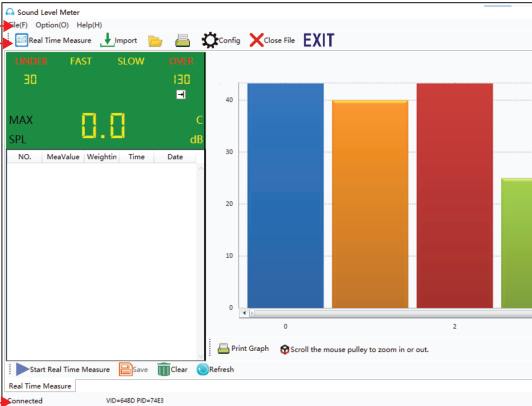
NO.	MeaValue	Weightir	Time	Date
2	56.4	A	14:46:14	2024/8/9
3	56.4	A	14:46:15	2024/8/9
4	54.9	A	14:46:16	2024/8/9
5	55.6	A	14:46:17	2024/8/9
6	55.8	A	14:46:18	2024/8/9
7	54.3	A	14:46:19	2024/8/9
8	54.7	A	14:46:20	2024/8/9
9	54.2	A	14:46:21	2024/8/9
10	54.7	A	14:46:22	2024/8/9
32	54.1	A	14:46:44	2024/8/9
33	52.8	A	14:46:45	2024/8/9
34	52.9	A	14:46:46	2024/8/9
35	53.2	A	14:46:47	2024/8/9
36	52.3	A	14:46:48	2024/8/9
37	51.9	A	14:46:49	2024/8/9
38	51.9	A	14:46:50	2024/8/9

5. PC Software Interface

Menu bar →

Toolbar →

Status →

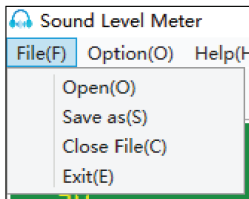


The screenshot shows the 'Sound Level Meter' software interface. The menu bar includes 'File(F)', 'Option(O)', and 'Help(H)'. The 'Real Time Measure' menu is open, showing options: 'Import', 'Config', 'Close File', and 'EXIT'. The main display area shows 'FAST' mode with a reading of 0.0 C dB. A bar chart shows the measurement history. The status bar at the bottom indicates 'Connected' and 'VID=64BD PID=74E3'.

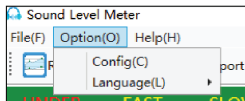
NO.	MeaValue	Weightin	Time	Date
0	45			
1	40			
2	45			
3	25			

Software Interface

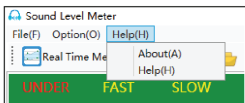
a. Menu bar



Open:	Open the recorded data file in excel format
Save:	Save the recorded data in excel format
Close File:	Close the current page
Exit:	Exit the software



Config:	Adjusting the Sample Speed, A/C Weighting, Real Time Measurement Interval, Low/High dB Alarm, Alarm Sound
Language:	English, Simplified or Traditional Chinese, Japanese options



Help:	Software problem feedback
About:	Software version description

b. Toolbar

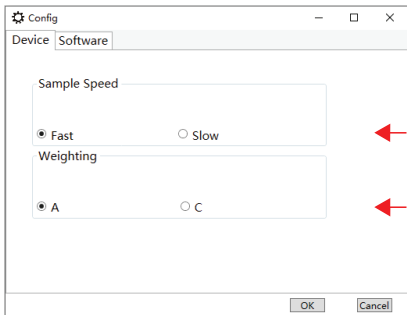


Buttons	Function
Real Time Measure:	Initiate real-time measurement data recording and display on the PC software screen.
Import:	Import the recorded data from the meter to the software for analysis or export.
Open:	Open the recorded data file in excel format
Print:	Print the data sheet
Config:	Adjusting the Sample Speed, A/C Weighting, Real Time Measurement Interval, Low/High dB Alarm, Alarm Sound
Close	Close the current page
EXIT	Exit the software

6. System setup

(1) Common Setting:

Sample Speed, A/C Weighting.

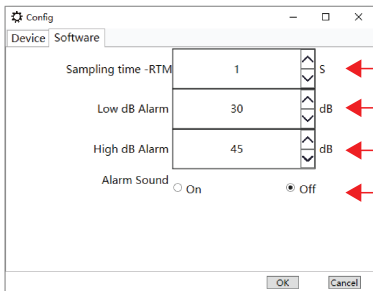


← Sample Speed (Fast/Slow)

← Weighting (A/C)

(2) PC Software Setting:

Sampling time -RTM, Low/High dB Alarm, Alarm Sound switch.



← Sampling time - RTM

← Low dB Alarm

← High dB Alarm

← On/Off Alarm sound

Note:

The "Device" setting can be synced with the meter.

The "Software" setting cannot be synced with the meter.

7. Real-time data logging in the SoundLab software

Step 1 →

Step 2 →

Step 3 (Export the recorded data in Excel format)

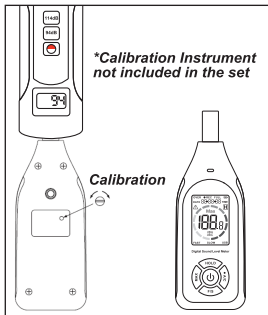
The screenshot shows the Sound Level Meter software interface. At the top, there is a menu bar with "File(F)", "Option(O)", and "Help(H)". Below the menu bar, there are several icons: "Real Time Measure" (highlighted with a red box and arrow), "Import", a folder icon, a printer icon, a gear icon labeled "Config", a red "X" icon labeled "Close File", and "EXIT". The main display area is green and shows "FAST" at the top, "30" on the left, "130" on the right, and a large "51.9" in the center. Below the display, it says "SPL" and "dB". A table with columns "NO.", "Meas/Value", "Weight", "Time", and "Date" is visible. To the right of the table is a bar graph with three bars (blue, orange, red) and a small green bar. At the bottom of the interface, there are buttons for "Start Real Time Measure" (highlighted with a red box and arrow), "Save" (highlighted with a red box and arrow), "Clear", and "Refresh". Below these buttons, it says "Real Time Measure Connected" and "VID=6488 PID=74E3".

Note: It is important to export all measuring data from the software before exiting to prevent any potential data loss

Button	Function
▶ Start Real Time Measure	Click to start Real Time Measure
⏏ Stop Real Time Measure	Click to stop Real Time Measure
📄 Save	Click to store real-time measuring data, input file name in popup window, click to save the document format of excel.
🗑️ Clear	Click to clear all the measuring data
🔄 Refresh	Refresh diagram
🖨️ Print Graph	Click to print curve diagram
🖱️	Scroll the mouse pulley to zoom in or out the diagram

CALIBRATION

1. Please use 94B@1KHZ standard calibration instrument
2. Setting on sound level meter: Frequency weighting is A, Time weighting is FAST
3. Insert the microphone carefully into a 1/2-inch hole in the standard audio source (94dB@1KHz).
4. Turn on the power switch of the standard sound source, adjust the potentiometer at the circular hole in the battery door with slotted screwdriver, and make the LCD display 94.0.



Note:

Our products are all well calibrated before Shipment.

Recommended recalibration cycle: 1 year.