

# OPERATION MANUAL

## DIGITAL SOUND LEVEL METER



**Model:8925**





## INTRODUCTION

Your sound level meter provides automatic or manual ranging 4 measurement ranges from 40 to 130 dB , and features 0.1dB resolution.

The meter allows you to select between fast and slow response times as well as A and C weighting.

A maximum hold function is provided. Jacks on the meter provide AC analog output.

## BUTTON DESCRIPTION

① : Power on or power off the meter.

**RNG:** Auto range/ Manual range select key.

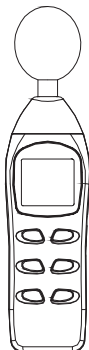
**REC:** Record Maximum and Minimum sound level measurement.

**A/C:**  
A weighting and C weighting select key.

**F/S:**  
Response select key.

**MAX HOLD:**  
Freeze Maximum sound level reading.


**BA:** N/A



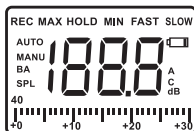
## MEASURING SOUND LEVELS

Sound levels are displayed both digitally and in a bar graph.

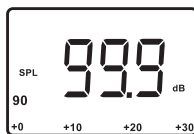
The digital display is updated every 160ms, while the bar graph is updated every 40ms.

1. Press the  key to turn the meter on. The unit will first display the full screen and "188.8" then count down from 99.9 to zero. The meter will now begin measuring the current sound levels. **SPL** (Sound Pressure Levels) appears on the left side. "A", "dB" on the right side of screen. Point the microphone toward the source of the sound to be measured.

*Diagram A* →



*Diagram B* →

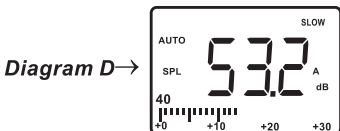
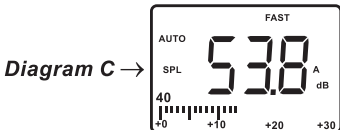


## SELECTING THE RESPONSE TIME

You can select fast or slow response time to suit different applications and standards.

For example, most OSHA-related testing is done using slow response time and A weighting.

When you turn the meter on, it will be in fast response mode. Press the **F/S** key to toggle between fast and slow response.



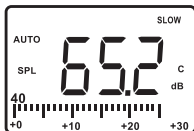
A small icon **FAST** or **SLOW** will be displayed on the top of the screen to indicate the current mode.

### **SELECTING A AND C WEIGHTING**

When you turn the meter on, it will be in A weighting mode.

A weighting enables the meter to respond in the same manner as the human ear, which increases and decreases amplitude over the frequency spectrum. Applications for A weighting include OSHA regulatory testing, and the environmental measurement, workplace design, and low enforcement.

Diagram E →



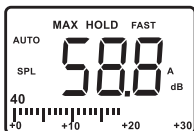
C weighting is suitable for flat response measurements with no increase or decrease of amplitude over the frequency spectrum. Applications for C weighting include the sound level analysis of engines and machinery.

Press the "**A/C**" key to select between A and C weighting. A small **A** or **C** icon will be displayed on the right side of the screen to indicate the current mode.

### **FREEZING THE MAXIMUM SOUND LEVEL READING**

1. Press the **ⓘ** key to turn the meter on.
2. When measuring sound levels, press the **MAX HOLD** key to freeze the maximum reading. **MAX HOLD** will be displayed. The digital display will remain unchanged until a higher reading is detected. Note that the bar graph will continue to record the current reading.
3. Press the **MAX HOLD** key again to exit maximum hold mode.

Diagram F →



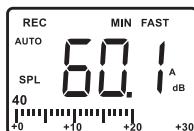
## RECORDING THE MAXIMUM AND MINIMUM MEASUREMENTS

1. Press **ⓘ** button to turn the meter on.
2. Press the **REC** key. **REC** icon will be displayed on the up the corner of the screen. The meter will begin tracking the maximum and minimum sound level measurements.
3. Press the **REC** key again. **MIN** icon will appear on the middle up of screen and the minimum sound level measurement will be displayed. The unit is not recording at this time, but the bar graph will continue to show the current reading.

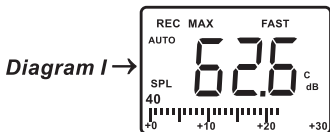
Diagram G →



Diagram H →



4. Press the **REC** key again. **MAX** will appear on screen side by the "**REC**" and the maximum sound level measurement will be displayed. The unit is not recording at this time, but the bar graph will continue to show the current reading.



5. Press the **REC** key again to resume recording and repeat the process.
6. Press and hold the **REC** key until the **REC** indicator disappears to exit recording mode.

## SELECTING AUTOMATIC AND MANUAL RANGING

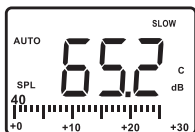
The meter features 4 measurement ranges in 10dB steps:  
40~70dB, 60~90dB, 80dB~110dB,  
100dB~130dB.

When you turn the meter on, it will be in automatic range mode and a small **AUTO** will be displayed on the left side of the screen. In this mode, the meter will adjust the measurement range automatically for accuracy.

The two digit number to the left of the bar graph on the LCD will show the low end of the current range.

You can also set the range manually.

*Diagram J* →



*Diagram K* →



The meter will be able to take readings more quickly, because the unit does not need to first establish the range before displaying the measurement. This is helpful when you know the measurement range in advance.

To adjust the range manually:

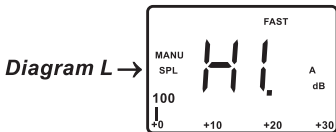
1. When measuring sound levels, press the **RNG** keys as needed to adjust the measurement range. **MANU** will appear on the display. Note that the two digit numbers to the left of the bar graph will change to reflect the low of the newly selected range.
2. Press **RNG** key to switch back to automatic ranging.



If the meter is operating in manual range and "LO" is displayed, the sound is too low or the range.

If "HI" is displayed, the sound is too loud.



In either case, you must adjust the measurement range or your readings will be inaccurate.




## AUTOMATIC SHUTOFF

The meter will turn off automatically after 20 minutes to preserve the battery.

To override this feature:

1. Make sure the unit is turned off.
2. Press the  and **MAX HOLD** buttons simultaneously.
3. When the full display appears, release the  button, "□" icon will appear on the screen, now release the **MAX HOLD** button, "□" will be replaced with full display.

4. The meter will remain on until the  button is pressed again.

The automatic shutoff feature will resume the next time the meter is turned on.


*Diagram N* →




## CALIBRATION

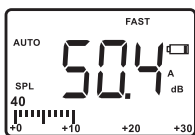
Using a standard Acoustic Calibrator (Recommend B&K type 4231 model) which generate "94dB" output.

- 1) Set whichever time weighting :  
Fast or Slow.
- 2) Set sound level range at: 80~110 dB.
- 3) Select weighting A or C .
- 4) Max.Hold function measurement mode unenabled.
- 5) Better to calibrate under 60dB sound environment.

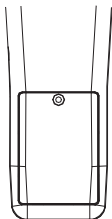
Insert the microphone into the hole of the calibrator . Press calibrator  key to power on, and adjust the **CAL** potentiometer of the unit, the level display will indicate the desired level. While selecting C weighting , display +/-0.3dB deviation is reasonable.

## REPLACING THE BATTERY

When the icon of "  " is appeared, the 9V battery has fallen to a critically low voltage level and should be replaced as soon as possible. Use a screwdriver to unscrew the back battery compartment cover. Insert 4 fresh AAA batteries and screw the cover.



*Diagram O* ↑

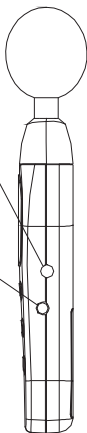


## 1. Calibration Adjustment (side)

By using a "+" screw driver to adjust the calibration (Follow the calibration instruction).

## 2. Analog output jack (side)

Connect to external test instrument or to a datalogger, chart recorder, ...for logging purposes.



### 3. Tripod mount

Mount the meter to a camera tripod for increased stability and accuracy , further eliminate hand or any sound reflected from the user .

*Diagram P→*



## **RETURN AUTHORIZATION**

Authorization must be obtained from the supplier before returning items for any reason. When requiring a RA ( Return Authorization), please include data regarding the defective reason, the meters are to be returned along with good packing to prevent any damage in shipment and insured against possible damage or loss .

## **CE CERTIFICATION**

The meter conforms to the following standards:

EN 50081-1/1992 : EN 55022

EN 50082-1/1997 :

(EN 61000-4-2/-3/-8, ENV 50204)

The meter complies with the essential protection requirements of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

## **WARRANTY**

The meter is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase.

This warranty covers normal operation and does not cover batteries, misuse, abuse, alteration, tampering, neglect, improper maintenance, or damage resulting from leaking batteries.

Proof of purchase is required for warranty repairs.

## **Accuracy, the Zenith of Measuring / Testing Instruments !**

- ▲ Hygrometer/Psychrometer
- ▲ Thermometer
- ▲ Anemometer
- ▲ Sound Level Meter
- ▲ Air Flow meter
- ▲ Infrared Thermometer
- ▲ K type Thermometer
- ▲ K.J.T. type Thermometer
- ▲ K.J.T.R.S.E. type Thermometer
- ▲ pH Meter
- ▲ Conductivity Meter
- ▲ T.D.S. Meter
- ▲ D.O. Meter
- ▲ Saccharimeter
- ▲ Manometer
- ▲ Tacho Meter
- ▲ Lux / Light Meter
- ▲ Moisture Meter
- ▲ Data logger
- ▲ Temp./RH transmitter
- ▲ Wireless Transmitter .....

**More products available !**

2003/01,1000