

Digital Sound Level Meter Operation Manual



MASTECH®

CONTENTS

I. Preface.....	2
II. Safety Instructions.....	2
III. Functions & Features.....	3
IV. Specifications.....	4
V. Preparation Before Using.....	5
VI. The Method Of Usage.....	5
VII. Record And Storage Of Measurement Data.....	6
VIII. Installing Operation Software In A Computer.....	7
IX. Linking And Communication Between The Meter And a Computer.....	7
X. Set time And Date.....	8
XI. Calibrating Sound level Meter.....	8
XII. Cautious.....	8

MASTECH®



I. Preface:

Thank you for selecting our production.
Please read the following information carefully
before using the meter. The Sound Level Meter
has been designed to measure sound level for
various environments, It is used to detect noise,
music level or sound engineerings.

II. Safety Instructions:

Please use it according to the following usage.
Environment conditions:
• Altitude: less than 2000 meters.
• Relatively humidity 80% max
• Operation temperature 0~40°C
Maintenance & save:
Do not clear the meter using alcohol and impregnant.
if you do not use it for a long time, please take out the
battery and place the instrument in a dry surrounding.

Safety symbols:

-  Meter is protected by double insulation
-  Comply with European Union's 93/68/EEC

MASTECH®




III. Functions & Features

- The meter has been designed according to the
IEC651 Type 2, ANSI S1.4 Type 2.
- Measurement range is from 30dB to 130dB and
automatic ranging.
- With two equivalent weighted sound pressure
levels, A and C.
- Corresponsive rate select: FAST/SLOW
- Maximum value locked.
- Record data in memory:16000 data, extended up
to 128000 data according to user's demand.
- Infrared interface for connecting with computer.
- Computer software for data displaying and data
recording on a computer.
- Clock and calendar function.
- AC and DC analog signals output, which can be
linked to frequency analyzer or X-Y axis recorder.
- Background light for working in the night. to save
power, the background light shines for 5 seconds,
then closes automatically.
- Secondary plasticizing meter shell.
- Good circuit designed to save power, the battery
can be used for a long time.

MASTECH®

IV. Specifications

Accuracy: $\pm 1.5\text{dB}$
Response frequency: 31.5Hz—8kHz
Dynamic range: 50dB
Frequency weighting: A/C
Time weighting: FAST 125ms, SLOW 1sec
Microphone: Electret Condenser microphone
Digital display: 4 digitals, resolution 0.1dB,
sampling rate 2 times/s
Analog bar display: Each analog bar is as 1dB,
sampling rate 20 times/s
Measurement ranges:30—80dB, 40—90dB,
50—100dB,60—110dB, 70—120dB,80—130dB.
Total of 6 ranges
Auto-range: Micro-computer can choose the best
measurement ranges
Over range indicator: UNDER(less than range)
and OVER (over range)
AC signal output:0.707 Vrms at FS (Auto-range
mode isn't included) Output impedance
approx. 600Ω
DC signal output:10mV/dB Output impedance
approx.100Ω
Power supply: Four LR03 AM4 1.5V SIZE AAA
alkaline cell
Power life: About >35hrs(alkaline cells)
Continuous operation
AC adapter: Voltage 9vDC
Voltage ripple <100mVpp
Supply Current >100mADC
Socket: pin Ground
Casing positive
External Diameter 3.5mm

<div data-bbox="71 69 293 106">MASTECH®</div> <div data-bbox="109 152 662 389"><p>Data recording: 16000 data(extended to 128000 data) Operating temperature: 0 ~ +40 °C Operating humidity: 10 ~ 80%RH Storage temperature: -10 ~ +60 °C Storage humiditiy: 10 to 70%RH Dimensions: 245(L)×80(W)×35(H)mm Weight : Approx.350g(including battery) Accessories: Earphone plug, Operation manual, Battery, Windscreen, computer RS-232 cable, software for windows.</p></div> <div data-bbox="109 400 450 425">V. Preparation Before Using</div> <div data-bbox="109 438 662 626"><ol style="list-style-type: none">1. Remove the battery cover on the back and put in six 1.5V 7 # alkalесcent battery.2. Close the battery cover.3. When the battery voltage drops below the operating voltage, mark “” appears and flashes. It must bedone to replace all batteries with new one.4. When the DC adapter is used, insert the plug of the adapter into the DC9V connector on the side panel.</div> <div data-bbox="109 640 409 666">VI. The Method Of Usage</div> <div data-bbox="109 675 662 936"><ol style="list-style-type: none">1. Press the power switch, LCD displays the default range(40~90dB). and displays the sound level of a spot. If the display appears “UNDER” or “OVER” symbol, it indicates the sound level less than or more than 40~90dB, measurement is invalid. you need to set the meter's range to a correct position.2. Set range: Press LEVEL ▲ or ▼, choosethe proper range, measure the sound level of the spot. When LCD appears “UNDER” symbol, it indicates that the range is high, you need to press LEVEL ▼ to set</div> <div data-bbox="355 983 386 1004">05</div>	<div data-bbox="741 69 963 106">MASTECH®</div> <div data-bbox="765 152 1318 555"><p>lower range until no “UNDER” symbol. When LCD appears “OVER” symbol, it indicates that the range is low, you need to press LEVEL▲ to set higher range until no “OVER” symbol.</p><ol style="list-style-type: none">3. Choose weighting mode: when you measure a general noise sound level, you could choose 'A' weighting bypressing A/C button. To measure a acoustic sound level , choose “C”.4. When you want to get a real-time sound level, choose FAST by pressing FAST/SLOW button. To get average sound level, choose “SLOW”.5. When you want to get the maximum value of a sound level, you can press “MAX” button.6. When you want to measure in the night, you can open the background light by pressing “LIGHT” button.</div> <div data-bbox="765 567 1294 592">VII. Record And Storage Of Measurement Data</div> <div data-bbox="765 601 1318 908"><ol style="list-style-type: none">1. To save real-time data in the meter, by pressing the “FAST/SLOW (RECORD)” button for 2 seconds, “RECORD” symbol displays on the LCD screen. At the same time, the meter starts to record real-time data until it's memory is full. LCD screen displays “full” symbol, it indicates that the meter cann't save data continually.2. To Delete data in Sound Level Meter's memory, by pressing the “LEVEL▲” button for 2 second, LCD displays “CEL” symbol, then press LEVEL▼ button for 2 second, “CEL” symbol flashes, after a few seconds, it returns to normal display, it indicates that the data have been deleted.</div> <div data-bbox="1024 983 1055 1004">06</div>	<div data-bbox="1410 69 1632 106">MASTECH®</div> <div data-bbox="1424 152 2001 177">VIII. Installing Operation Software In A Computer</div> <div data-bbox="1424 189 2001 330"><p>insert the accessory CD to the CD-ROM driver of a computer, click “setup. EXE” to install the software in the hard disk. When installation finishes, click “MS6701 DIDITAL SOUND LEVELMETER” in the program menu, then the operation window shows on the computer...</p></div> <div data-bbox="1424 341 2001 390">IX. Linking And Communication Between The Meter And A Computer</div> <div data-bbox="1424 402 2001 904"><ol style="list-style-type: none">1. Connect the infrared output socket of Sound Level Meter and RS232 interface of a computer with the accessory cable.2. Run “MS6701 DIGITAL SOUND LEVEL METER ”, click “START” to receive and display data.3. By pressing “SENDING” button for 2 second on the meter, real-time sound level data are trnsmitted to computer. “SENDING” symbol displays on LCD screen. Press “SENDING” button for 2 seconds again, transmission stops.4. By pressing “A/C” button for 2 seconds, the memory data of the meter are transmitted to computer. Symbol “SENDING MEMO” display on LCD screen. During transmission computer displays “Downloding Please Wait...”. When transmission is complete, it open a dialog box, you need to enter a filename, then save the data in your computer.5. To open a saved file in the computer, run the software of sound level meter, click “FILE”, then click “OPEN” on the menu. Select and open corresponsive filename in the dialog box. It is all right.</div> <div data-bbox="1694 983 1725 1004">07</div>	<div data-bbox="2080 69 2302 106">MASTECH®</div> <div data-bbox="2114 152 2360 177">X. Set Time And Date</div> <div data-bbox="2114 189 2664 352"><p>Press “MAX” button then turn on the meter, LCD display time(hour, minute, second), the second digitals are flashing, press LEVEL▲ or LEVEL▼ to increase or decrease time;Press MAX button to set the time and date with the order of Minute-Hour-Year-Month-Day.After setting,please shut down the meter and reboot to enter the testing status.</p></div> <div data-bbox="2114 362 2503 388">XI. Calibrating Sound level Meter</div> <div data-bbox="2114 393 2664 508"><p>When Sound Level Meter is used for a long time, it's accuracy may reduce, we need to check and calibrate it, normally a time for each year. Calibration needs a standard sound source, please contact with us about the method.</p></div> <div data-bbox="2114 519 2264 544">XII. Cautious</div> <div data-bbox="2114 553 2664 860"><ol style="list-style-type: none">1. Do not use the meter in a high temperature or wet place.2. When you do not use for a long time, please take out battery to avoid damaging the meter by electrolyte.3. Auto-range (30-130dB) is unfit for measuring a instantaneous and impactive noises.4. To measure sound level in a windy environment, please put windscreen on the microphone to avoid noises from wind.5. If mark “  ”is on the screen, it indicates the voltage is low, you must replace battery, we advise you to use alkalесcent battery.</div> <div data-bbox="2360 983 2391 1004">08</div>	<div data-bbox="3197 876 3248 955"></div> <div data-bbox="3163 983 3340 1004">R-00-05-0669</div>
--	---	--	--	--