INSTRUCTION MANUAL

MT975

SOUND LEVEL METER

Contents

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1. ⚠ SAFETY INFORMATION

Read the following safety information carefully before attempting to operate the meter. Use the meter only as specified in this manual:

- Environment conditions
  1. Altitude lower than 2000 meters
  2. Relative humidity ≤90%RH
  3. Operation Ambient 0 ~ 40°C
- Maintenance & Cleaning
  1. Repair and servicing not covered in this manual and should be performed by a qualified technician.
  2. Regularly wipe the case with a dry cloth. Do not use solvents or chemicals to clean this instrument.
- ⧈ Safety symbols

  CE Comply with EMC

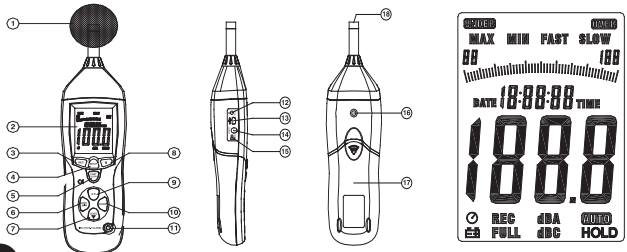
2. DESCRIPTION AND FEATURES

The MT975 Sound Level Meter measures sound pressure levels, commonly used in noise pollution studies for the quantification of different kinds of noise, especially for industrial, environmental, schools, traffic, factory and office noise. The MT975 features A and C level Weighting for checking in compliance with Safety Regulations IEC61672-1 Class 2.

OTHER FEATURES:

- Level weighting 30dB to 130dB
- Min/Max measurements
- Background noise absorber
- 1.4dB accuracy
- Fast/slow response
- Analogue AC I DC outputs
- Datalogger function
- Memory for 32 700 reading

3. NAME AND FUNCTIONS



1 - Wind absorber

2 - LCD:

Symbol	Function
LCD	4 digits
MAX	Maximum hold
MIN	Minimum hold
OVER	Over range
UNDER	Under range
FAST	Fast response
SLOW	Slow response
dBA	A-Weighting (response to human sense)
dBC	C-Weighting (response to machine monitor)
30-130	Range indicate
REC	Recording data into computer
AUTO	Auto level range selection
FULL	Memory full
HOLD	Data hold function
⏲	Auto power of Press the "SETUP" button to disable power off
🔋	Low battery indicator

3 - REC button

3.1. Datalogger Function

Press "REC" button once the power has been switched on. The display will show "REC" to start Data Recordings. Press the button again to exit the record mode.

(Note: In order to avoid data error, please don't switch the unit off in REC mode).

3.2. Adjusting Datalogger response

Press the button ⏺ continuously before switching the unit on, then press ⏻ . The following instruction will be displayed:

- Press 'LEVEL' button to adjust the memory and time.
- Press 'HOLD' button to save the setup.

3.3. Data zero function

Select the button continuously before switching the power on and release the button when the display is showing 'CLR'. This will indicate that the data in Datalogger has been deleted.

4 - SETUP button

4.1. The Time Chip Adjustment

Press 'SETUP' button and switch the power on. When the meter displays the 'TIME' symbol select the 'SETUP' function. The meter will be in time adjustment mode. The display will show the date as follows:

Select the 'SETUP' button for a second time; the "hour" adjustment mode will be displayed:

Press 'LEVEL' to save the adjustment. Press the 'HOLD' function to save the setup; Press the 'SETUP' button for a third time, the "hour" adjustment mode will be displayed:

Press (h-P=P.M,h-A=A.M) 'LEVEL' to save the adjustment. Press 'HOLD' to save the setup: Press the 'SETUP' button for a fourth time; the "date" adjustment mode will be displayed:

Press 'LEVEL' to change the adjustment. Press 'HOLD' to save the setup; Press the 'SETUP' button for a fifth time, the "month" adjustment mode will be displayed:

Press 'LEVEL' to change the adjustment. Press 'HOLD' to save the setup; Press the 'SETUP' button for a sixth time, the "year" adjustment mode will be displayed:

Press 'LEVEL' to change the adjustment. Press 'HOLD' to save the setup; Press the 'SETUP' button for a seventh time, the "time" adjustment mode will be displayed:

Press 'HOLD' to save the setup. The time and date will return to the factory setup once the battery is flat or has to be replaced.

4.2. USB communications setting:
Turn the meter on and connect the unit to the computer. Select software COM3 {COM4). Press 'SETUP' and ⏲ display will disappear to disable the auto power off function. The USB data will start transmitting.

5 - FAST/ SLOW button:
Time weighting selection
FAST: fast sampling measurement, 1 time per 125mS.
SLOW: slow sampling measurement, 1 time per second.

6 - MAX/MIN button:
Select the Maximum and Minimum hold button once to enter the MAX/MIN measurement. 'MAX' will be displayed on the LCD screen. Maximum sound level will be captured and held until a higher sound level is captured. Press the button again, 'MIN' will be displayed on the LCD screen and the minimum sound level will be captured and held until a lower sound level is captured. Press the button one more time to exit MAX/MIN measurement.

7 - LEVEL button: Level range selection
Every time you press the "LEVEL" button, the range of levels will change between 'Lo' level, 'Med' level, 'Hi' level and 'Auto' level in that sequence.

8 - 💡 Backlight button
8.1. Turn the backlight switch on/off
8.2. DATALOGGER response setting:

Press the button continuously until the 'INT' symbol appears. Press 'LEVEL' to set up the data memory response and press 'HOLD' to save the setting.

9 - Frequency weighting select button
A: A-Weighting
C: C-Weighting

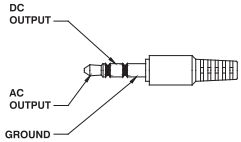
10 - HOLD button: Press "HOLD" button, The hold function freezes the reading in the display.

11 - Power button: Turn the meter power ON/OFF

12 - External DC 9V power supply terminal
1 x DC 9V battery
Aperture size: external diameter: 3.5mm
internal diameter: 1.35mm

13 - USB interface: USB signal output is a 9600 bps serial interface.

14 - AC/DC signal output earphone outlet



AC: Output voltage: 1 Vrms equivalent to every range step.
Output impedance: 1000
DC: Output voltage: 10mV/dB
Output impedance: 1kΩ

15 - Calibration potentiometer: Select (CALL) function for external standard level calibration adjustments.

16 - Tripod mounting screw

17 - Battery cover

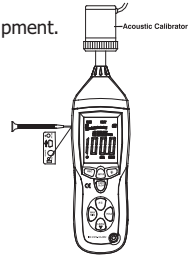
18 - Microphone: 1/2 inch Electret Condenser microphone

4. CALIBRATION PROCEDURES
1. Make the following switch settings:
Frequency weighting: A-weighting
Time weighting: FAST

Level range: 50 ~ 100dB

2. Insert the microphone housing carefully into the 1/2 inch insertion hole of the calibrator (94dB@ 1kHZ) .
3. Turn on the calibrator switch and adjust the CALL potentiometer of the unit when 94.0dB is displayed.

NOTE: All products are well calibrated before shipment.
Recommended recalibration cycle: 1 year.



5. MEASUREMENT PREPARATION

1. Remove the battery cover on the back and insert one 9V battery.
2. Replace the back cover.
3. The symbol will appear on the LCD screen when the battery voltage drops below the operating voltage or when the battery has aged. Replace the 9V battery.
4. When the AC adapter is used, insert the plug of the adapter (3.5φ) into the DC 9V connector on the side panel.

6. OPERATING PROCEDURE

1. Switch on the meter.
2. Press 'LEVEL' button to select the desired level, based on 'UNDER' or 'OVER' do not appear on LCD.
3. Select 'dBA' for general noise sound level and 'd BC' or measuring sound level of acoustic material.
4. Select 'FAST' for instant sound and 'SLOW for average sound levels.
5. Select 'MAX/MIN' button for measuring maximum and minimum noise levels.
6. Hold the instrument comfortably in your hand or fix it to a tripod and measure sound level at a distance of 1~1.5 meter.

7. NOTICE

1. Do not store or operate the instrument at a high temperature or in a high humidity environment.
2. When meter is not used for a long period of time, remove the battery

to avoid battery liquid leakage and damage to the instrument.

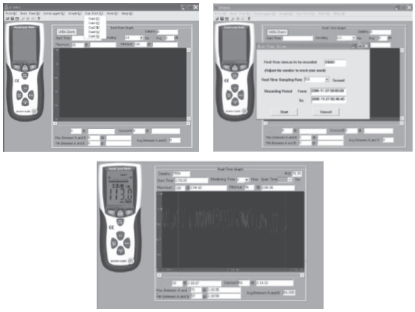
3. When using the instrument in the presence of wind, it's essential to mount the wind absorber to avoid undesirable signals.
4. Keep the microphone dry and avoid severe vibration.

8. SOFTWARE INSTALLATION

1. Start windows
2. Install CP210X drive software:
   Connect the meter with the computer by USB interface, install CP2102 drive software in my computer property:\hardware\facility management\ COM CP21 OX USB.

9. USB DRIVE INSTALLATION

1. Copy the CP210XWIN Drivers to a directory, such as: C:\ usb_driver.
2. Connect the USB to the computer, the Windows system will indicate that it's searching for new hardware. Choose specific directory C:\ usb_driver according to the instruction.
3. After Driver installation, a new COM port will be added to the Ports in the Device Manager. Port number will be ranged following the primary COM ports, such as: COM3 or COM4.
4. Once the drive software is installed, start the application software, connect the meter to the computer with a USB, then search for the COMX port occupied by CP210X, press buttons ' SETUP '. The ⏲ symbol will not appear on the display. This will indicate that the meter is transmitting data to the computer.
5. Enter the menu REAL TIME \'SETUP' to set the monitoring data (data volume, response, monitoring time).
6. Datalogger Menu: The computer reads the memory data in the meter when REC mode does not appear on the display and the connection is in.



10. SPECIFICATIONS

Function	Range
Standard Applied	IEC61672 -1 CLASS2
Accuracy	±1.4dB
Frequency Range	31.5Hz to 8KHz
Dynamic Range	50dB
Memory	32 700 readings
Level Ranges	Low: 30d8 to 80dB Med: 50dB to 100dB HI: 80dB to 130dB Auto:30dB to 130dB
Frequency Weighting	A/C
Time Weighting	FAST (125ms), SLOW (1s)
Microphone	½ Inch electret condenser microphone
Display	4 digits LCD display with a resolution of 0.1dB
Display Update	2 times/sec
MAX Hold	Hold the Maximum reading
MIN Hold	Hold the Minimum reading
HOLD	Hold the readings
Alarm Function	"OVER" is when input is more than upper limit of range "UNDER" is when input is less than lower limit of range
Analogue Output	AC/DC outputs from earphone outlet AC=1Vrms, DC=10mV/dB
Data Output	USB data traffic
Auto Power Off	Automatically shuts down after approx. 15 minutes of inactivity
Power Supply	One 9V battery, 006P or NEDA1604 or IEC 6F22
Power Life	About 30 hours
Operating Temperature and Humidity	0°C to 40°C 10%RH to 90%RH
Storage Temperature and Humidity	-10°C to 60°C 10%RH to 75%RH
Dimensions	278 x 76 x 50mm
Weight	350g
Accessories	Instruction manual, 9V battery, screwdriver, charger, wind absorber, software, USB cable and carrying case.

MAJOR TECH (PTY) LTD

South Africa

www.major-tech.com

sales@major-tech.com

Australia

www.majortech.com.au

info@majortech.com.au