User Manual

Digital Sound Level Meter with USB

Part Number: MP780905

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicomp PRO

Page <1>   12/07/22   V1.0

Important Safety Information

Read these instructions carefully before use and retain for future reference.

- Please operate according to this manual, otherwise the protection provided by the device will be impaired or fail.
- Check the condition before using. If you find any cracking, breakage, damage or abnormality, or you consider the device broken, stop using the device immediately
- Do not store or operate the instrument at high temperature and high humidity environment.
- Keep microphone dry and avoid severe vibration.
- Replace the batteries as soon as the low battery indicator appears on the display.
- Remove dead batteries from the meter or if it is not going to be used for a long time.
- Never mix old and new batteries together, or different types of batteries.
- Never dispose of batteries in a fire, or attempt to recharge ordinary batteries.
- Before replacing the battery, turn off the sound level meter.
- To prolong battery life turn off the sound level meter after use.

What's Included

- Sound level meter including battery.
- Foam windshield and case.
- USB cable and PC software.
- Instruction manual.

Features

- This Sound Level Meter has been designed to meet the measurement requirements of safety Engineers, Health, Industrial safety offices and sound quality control in various environments.
- This unit conforms to the IEC61672-1 type 2, ANSI S1 .4 type 2 for Sound Level Meters.
- Ranges from 30dB to 130dB at frequencies between 31.5Hz and 8kHz.
- Display with 0.1 dB steps on a 4-digits LCD.
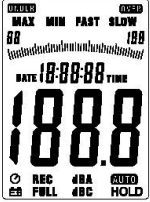- Two equivalent weighted sound pressure levels, A and C.

Functions
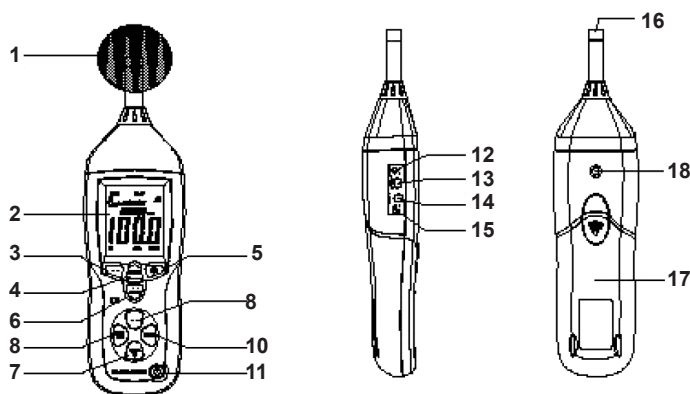
1. Windscreen.

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

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

Page <2>   12/07/22   V1.0

2. LCD display.

3. REC button.

DATALOGGER function:

Press "REC" button after powering on, the display will show "REC" to start data recording. Press the button again to exit the record mode.

Note: In order to avoid data error, please don't power it off under REC condition, when the REC function is inactive then the meter can be powered off.

Adjusting DATALOGGER response:

Press and hold the backlight button and power the meter on. Press 'LEVEL' button to adjust memory time, press 'HOLD' button to hold the setup.

Data zero function:

Press and hold the button and power the meter on, then release the button when the display shows 'CLR', which indicates that the data in DATALOGGER has been deleted.

4. SETUP button.

Press and hold SETUP and power the meter on. When 'TIME' displays on screen release the button. Use the LEVEL button to make adjustments and HOLD to store them and then the SETUP button to move to the next setting.

USB communications setting:

Turn on the meter, connect the meter to the PC via USB lead, choose the software COM port, then press 'SETUP', 'O' disappears from the display to indicate auto power off is disabled and that the USB data is transmitting.

5. FAST/SLOW button.

F (fast response): for normal measurements (fast varying noise). 1 time per 1.25mS

S (slow response): for checking average level of fluctuating noise. 1 time per sec.

6. MAX/MIN button.

The "Max/Hold" position is used to measure the maximum level of sounds. The maximum measured level is up dated continuously. Pressing the button again will release the hold and allow a further measurement.

7. LEVEL button.

Each time you press "LEVEL" button, the level range will change between 'Lo' level, 'Med' level, 'Hi' level and 'Auto' level repeatedly.

8. Backlight / Datalogging response button.

Turns the display back light on or off.

Pressing and holding the button until INT is displayed then press LEVEL to set up the memory response, then press HOLD to keep the setting.

9. A/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-Weighted level is much higher than the A-Weighted level, then there is a large amount of low-frequency noise.
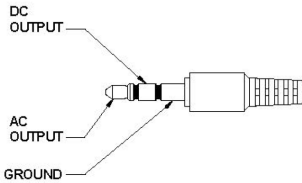
10. HOLD Button.

Press and hold the button for over 2 second to turn the data hold function on or off. The hold function freezes the reading in the display.

11. POWER Button.

Turns the meter on or off.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

Page <3>   12/07/22   V1.0

12. External 9V DC power supply connector.

3.5mm socket internal dia 1.35mm +ve connection.

13. USB interface.

USB signal output at 9600bps serial interface.

14. AC/DC signal output earphone socket.

AC: Output voltage: 1Vrms corresponding to each range step.

Output impedance: 100Ω.

DC: Output voltage: 10mV/dB.

Output impedance: 1kΩ.

15. Calibration potentiometer.

For external standard level calibration adjustments.

16. Tripod mounting screw.

17. Battery cover.

18. Microphone.

1/2" electret condenser microphone.

Operation

- To achieve more accurate measurement, use an extension cable to separate the microphone from the main body so that the effect of unexpected sound reflection can be eliminated.
- Calibrate the instrument before operation if the instrument was not in use for a long time or operated in an extreme environment.
- Turn on power and select the desired response time and weighting. If the sound source consists of short bursts or only catching sound peak, set 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.
- Select MAX/MIN for measuring maximum and minimum levels
- Hold the instrument comfortably in hand or fix on tripod and point the microphone at the suspected noise source at a distance of 1 to 1.5metres, the sound pressure level will be displayed.
- 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.
- 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.

Calibration Function

Using a standard Acoustic Calibrator (94dB, 1 kHz Sine wave) make the following buttons and function switch settings.

1. Display: dB, A, Hi or Lo, F.
2. Function: A-Weighting.
3. Response Time: FAST.
4. Level range: 50-100dB.
- Insert the microphone housing carefully into the insertion hole of the calibrator.
- Adjust the CAL94dB potentiometer of the unit.
- The level display will indicate the level being detected.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

Page <4>   12/07/22   V1.0
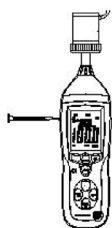
DATALOGGER Function

Installing the software

- Start windows and Insert the CD into the CD-drive.
- Run SETUP.EXE installation program in file DISK1 and install the application software to your preferred directory.
- Reboot Windows then connect the sound level meter to the PC using the supplied USB cable.
- If prompted to install drivers for the device install the CP210XWIN driver.
- The PC will now detect the new hardware and load the driver and create a new COM port.
- Start the application software and search for the new COM port.
- Press SETUP button and the meter is now ready to transfer data to the computer.

- Enter the menu REAL TIME/SETUP to set the monitoring data (data volume, response, monitoring time).
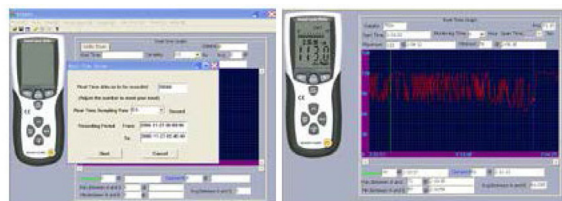
- The computer will read the memory data in the meter.

Specifications

Frequency Range	: 31.5Hz to 8kHz
Measuring Level Range	: 30 to 130dB
Frequency Weighting	: A/C
Microphone	: 1/2 inch electret condenser microphone
Display	: LCD 4 digits
Resolution	: 0.1dB
Display Up data	: 0.5 sec.
Time Weighting	: Fast: 125ms; Slow: 1s
Level Ranges	: Low: 30 ~ 100dB; High: 60 ~ 130dB
Accuracy	: ±1.5dB (under reference conditions)
Alarm Function	: "OVER" is shown when input is out of range

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicomp PRO

Page <5>   12/07/22   V1.0

Auto Power Off	: Auto shut down after approx. 15 minutes of inactivity.
Operating Temperature	: 0°C to 40°C (32°F to 104°F)
Operating Humidity	: 10 to 90% RH
Altitude	: up to 2000 metres
Storage Temperature	: -10°C to 60°C (14°F to 140°F)
Storage Humidity	: 10 to 75% RH
Power Supply	: One 9V battery, 006P or IEC 6F22 or NEDA 1604
Power Life	: About 50hrs (Alkaline Battery)
Dimensions	: 210mm(L) × 55mm(W) × 32mm(H)
Weight	: 230g (8.11oz) (Including Battery)

Maintenance

Changing the battery

To install or change the 9V battery, open the battery compartment. Replace only with the same type of battery.

Cleaning the casing

Wipe using a damp cloth or sponge. Do not use solvents as these may damage the casing. Do not immerse in water.
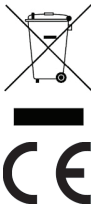
INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT

These symbols indicate that separate collection of Waste Electrical and Electronic Equipment (WEEE) or waste batteries is required. Do not dispose of these items with general household waste. Separate for the treatment, recovery and recycling of the materials used. Waste batteries can be returned to any waste battery recycling point which are provided by most battery retailers. Contact your local authority for details of the battery and WEEE recycling schemes available in your area.

Made in China. PR2 9PP

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicomp PRO

Page <6>   12/07/22   V1.0