User Manual

Tekneka

450 Mini Sound Level Meter

Bluetooth® Connectivity with the Meterbox Pro Mobile App

Table of Content

Safety Information ⚠️

Read the following safety information carefully before attempting to operate or service the meter, and please use the meter as specified in this manual

»Environmental Conditions
1. Attitude below 2000 meters
2. Relatively humidity 90%max
3. Operation Ambient 0 - 40°C

»Maintenance & Cleaning
1. Repairs or servicing not covered in this manual should only be performed by qualified personnel.
2. Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this instruments.

General Description

Tekneka 450 mini sound level meter has multiple measuring ranges from 35~80dB, 50~100dB, and 80~130dB. Easy to switch A/C weighting to assess the frequency level in the environment. It has a 2-inch display screen with bigger digital values comfortable to read the values. 400 series has Bluetooth connectivity to record monitor and export data through the mobile application "Meterbox Pro". Tekneka 450 has multiple functions like HOLD, LCD backlight, MIN/MAX, and Bluetooth. Users can do live monitoring in graphical representation and store each project on their mobile phones.
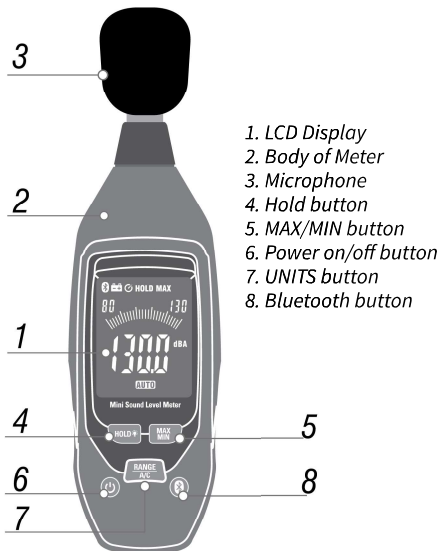
Widely used to measure and manage noise from a variety of sources like industrial plants, military, vehicle inspections, construction work, heavy machinery, urban environmental noise, building inspection, auditoriums, theaters, testing laboratories, and animal acoustics.

Display Layout

🅱: Bluetooth symbol
🔋: Low battery indicate
⏲: Timing power off symbol
MAX: Maximum hold
MIN: Minimum hold
UNDER : Under range
OVER: over range
dBA, dBC: A-weighting, C-weighting
AUTO: Auto range selection
HOLD: Data hold function
Measurement data: Middle of the display
Minimum range: Upper left
Maximum range: Upper right

Meter Description

1. LCD Display
2. Body of Meter
3. Microphone
4. Hold button
5. MAX/MIN button
6. Power on/off button
7. UNITS button
8. Bluetooth button

Button Description

Power "ON/OFF"	Switch "ON": Short press button to turn "ON" the device with the system default auto power off settings Switch "OFF": Short press power button to Turn "OFF" NOTE: Long press to enable/disable auto power off function.
Auto-Power OFF	Auto-power off signal displays in the left corner of LCD and the instrument will auto-power off in 10 minutes of no button operations.If press the power on/off button for over 1 minutes, it will be recognized as faulty operation and the instrument will auto power off.
Range, (A/C)	RANGE /(A/C)button: Short press to switch range gear; Long press to switch unit.
Bluetooth	Bluetooth: Long press to active or deactive Bluetooth
HOLD/Backlight	HOLD/button: Short press to hold the current data; Long press to activate or deactivate backlight.
MAX/MIN	Press to record Maximum, Minimum Note: MAX/MIN button, range button and A/C button will be deactivated when hold the current readings and the instrument will MAX/MIN recording function when switch range gear.

Measurement Operation

• Turn on the instrument by pressing " " button.
• Short press button and select suitable measurement range 35~80dB, 50~100dB, 80~130dB and 35~130dB
• Press and hold Select "dBA" for general noise measurement and "dBC" for measuring Industrial standard equipments
• Hold the instrument in hand or fix it on tripod, take measure at a distance of 1 ~ 1.5 meters between microphone and source.

Data Holding

Press hold button to freeze the readings and "HOLD" icon displays on the LCD. Press button again to return normal measurement screen.

MAX/MIN Reading

• Press button once to enable "MAX" values, press again to enable "MIN" Values and once again press same button to exit function
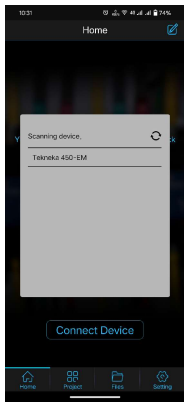
Bluetooth Communication

Long press ![icon] button to activate Bluetooth function in the device, open "Meterbox Pro" mobile app to link with the listed measuring device. Through this mobile app users can do live monitoring, record the data, graphical analysis, store the projects and easy to export recorded values.
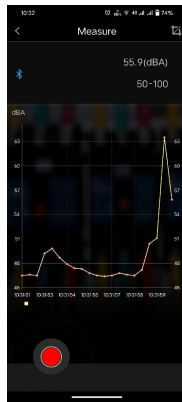
Mobile Application Guide

Scan to download **"Meterbox Pro App" and** turn ON ![icon] bluetooth in your mobile

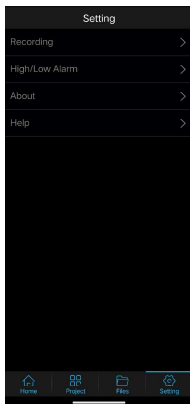1. Press Connect device and select the Model
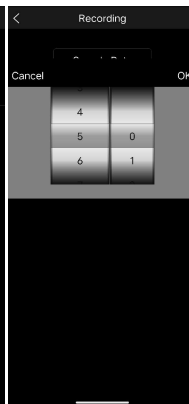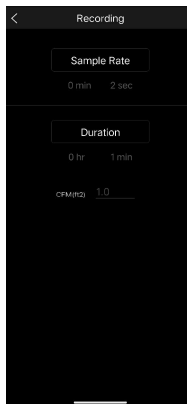
2. Real-Time Measurement

Recording and exporting Data
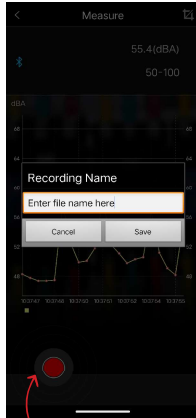
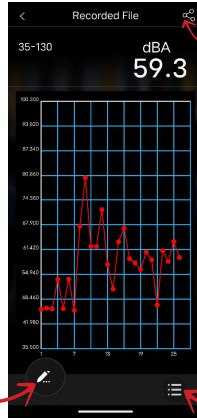1. Settings > "Recording"

2. Customize > Sample rate

Recording and exporting Data

A. Press Rec Button and
  rename the file

B. View Recorded file &
  Export in CSV format

Share

Edit File,
Add Note

List View

REC

Specification

Description	Ranges
Measuring Range	35 to 135dB
Accuracy	±3dB (under reference conditions:94 dB, 1 kHz)
Frequency range	31.5Hz to 8kHz
Display Resolution	0.1dB
Frequency weighting	A/C
Microphone	½ inch (electret condenser microphone)
Measuring Rate	2 times per second
Datalogging	Via Bluetooth
Logging interval	1sec to 10min 59sec
Log Duration	1min to 10hr 59min
Memory Range	39,540 data points
Battery Type	1x9V battery
Operating temperature	0 to 50°C
Dimension	185x54x36mm
Weight	184g

Notice

• Do not store or operate the instrument at high temperature and high humidity environment

• When device not in use for long time, please remove the battery to avoid battery liquid lekage and cautery on the instrument

• When using in outdoors, please mount the wind screen on the microphone in order to avoid pickingup of undesirabel signals

• Keep micrphone dry and avoid severe vibration.