

QUICK SHEET

REED Sound Level Meter (SD-4023)

LOCATION of EQUIPMENT:

Hardware: See lab attendant

INSTRUCTIONS FOR USE:

1. Turn the meter on by pressing the power button. Hold the power button to turn the device off.
2. Select your **function**. The meter's function defaults are set to "Auto Range, "A Frequency Weighting", and Fast Time Weighting". The screen will display "A. Fast Auto".
 - a. Switch between "A" or "C" Frequency Weighting by pressing the "A/C Button".
 - b. Determine proper measuring range by pressing the Range Button. Press the Range Button to scroll through the Four range types. There are three manual ranges (range 1, range 2, range 3) and auto range in this sequence:
 - Range 1: 30 - 80 dB range
 - Range 2: 50 - 100 dB range
 - Range 3: 80 - 130 dB range
 - c. Select the Time Weighting (Fast or Slow) by pressing the Time Weighting Button. The screen will display either "FAST" or "SLOW", depending on your selection
3. **Data Hold:** While taking a measurement, press the Hold Button once and the measured value will hold on the screen, and a HOLD symbol will appear. Press the Hold Button once again will release the data hold function.
4. The **data record** function records the maximum and minimum readings.
 - a. Press the REC Button once, and a "REC. MAX." symbol along with the maximum value will appear on the display. To delete the maximum value, press the Hold Button once and the display will show a "REC." symbol only and execute the memory function continuously.
 - b. Press the REC Button again, and a "REC. MIN." symbol along with the minimum value will appear on the display. To delete the minimum value, press the Hold Button once, and the display will show a "REC." symbol only and execute the memory function continuously.
 - c. To exit the memory record function, press the REC button for 2 seconds. The display will revert to the current reading.
5. **Data Logging** function:
 - a. Insert the optional SD card into the SD card socket.
 - b. *Auto Datalogger* (Set sampling time ≥ 1 second)
 - i. Start Datalogging; press the REC Button, and the "REC" symbol will appear on the LCD screen, then press the Logger Button, the "REC" symbol will flash while the measuring data and time information is being saved in memory. To set the sampling time, and to toggle the beeper sound on or off, refer to the Advanced Settings section of this manual.
 - ii. Pause the Datalogging; while Datalogging, if press the Logger Button once. While paused, the "REC" symbol will stop flashing. Press the Logger Button again to resume Datalogging, and the "REC" symbol will begin to flash again.

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- iii. Stop Datalogging; while the Datalogger function is paused, press the REC Button for 2 seconds. The “REC” symbol will disappear indicating the Datalogging function has stopped.
- c. *Manual Datalogger* (Set sampling time = 0 seconds)
 - i. Set sampling time is to 0 second; Press the REC Button, and the “REC” symbol will appear on the LCD screen. Press the Logger Button, and the “REC” symbol will flash once and one Beep will sound, at the same time the measuring data along the time information will be saved in memory. The lower Display will show the Position (record) number, which is saved as well.
 - ii. To Change the Position Number; press the Down Button and the lower position number will flash on the display. Press the Up or Down Buttons to set the Position Number (1 to 99) to help identify the measurement location. The lower Display will show P x (x = 1 to 99). After the position number is selected, press the Enter button to confirm.
 - iii. Stop Datalogging; press the REC Button for 2 seconds, and the “REC” symbol will disappear indicating the Datalogging function has stopped.

OVERVIEW: This SD series sound level meter has triple range measurement and features user selectable sampling rates from 1 to 3600 seconds. Using an SD card (up to 16Gb) a user can select a desired sampling rate and quickly generate an Excel file with raw data, all without the use of software. Optional accessories include a tripod and AC adapter for continuous long-term monitoring and PC software that allows a user to tracking live measurements.

SUGGESTED APPLICATIONS:

- Investigating the acoustics of a room in order to determine whether or not they are beneficial or detrimental to the inhabitant program
- Measuring noise levels of specific areas as a means to determine whether or not they meet DEQ or OSHA standards of proper noise levels and exposure

RELEVANT TOPICS:

Post-Occupancy Studies, Performance of Buildings in Eliminating Exterior Sound (Types of Construction)