Benetech GT1355A

Benetech GT1355A Decibel Meter User Manual

Model: GT1355A

Introduction

The Benetech GT1355A Decibel Meter is a precision instrument designed for measuring sound and noise levels. It features a wide measurement range, A/C weighting, visual alarm capabilities, and data recording functions, making it suitable for various environments including homes, classrooms, and industrial settings. This manual provides detailed instructions for the proper use, maintenance, and troubleshooting of your decibel meter.

Image: The Benetech GT1355A Decibel Meter, showcasing its compact design with a microphone at the top, an LCD screen displaying readings, and control buttons below.

Product Features

- **A/C Weighted Measurement:** Measures sound levels from 30 to 130 dB (A) and 35 to 130 dB (C) with an accuracy of ±1.5 dB, covering frequencies from 31.5 Hz to 8,500 Hz.
- **Clear LCD Display:** Features a backlit LCD screen that visually displays noise data changes, including Max value. Allows switching between fast/slow time weighting and freezing current readings.
- **Visual Alarm System:** Indicator light and screen change color to alert users when the volume exceeds set alarm values.
- **Data Recording & Analysis:** Capable of storing up to 43,000 sets of data. Data can be imported to a PC via USB for real-time sampling, analysis, downloading, printing charts, and deletion.
- **User-Friendly Settings:** Includes options to set date, configure automatic shutdown time, and a low battery indicator.
- **Portable Design:** Lightweight at 4.23 ounces with a non-slip rubber grip, making it easy to carry. Includes 1/4-inch

mounting threads for tripod attachment.

- **Rechargeable Battery:** Offers up to 8 hours of standby mode after a 1.5-hour charge.

Package Contents

Upon opening the package, please verify that all items are present and in good condition:

- 1x Benetech GT1355A Decibel Meter
- 1x USB Cable (for charging and data transfer)
- 1x User Manual (this document)

Product Overview

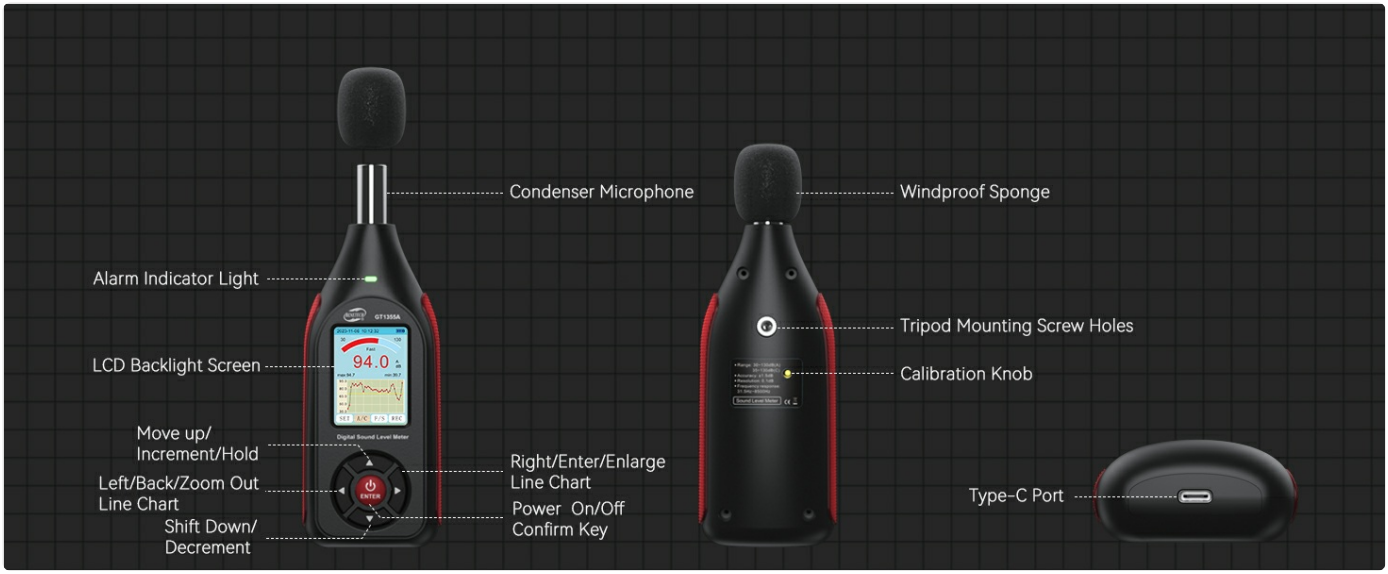


Image: A detailed diagram illustrating the various components of the Benetech GT1355A Decibel Meter, including the condenser microphone, windproof sponge, alarm indicator light, LCD backlight screen, control buttons (Move up/Increment/Hold, Left/Back/Zoom Out, Shift Down/Decrement, Right/Enter/Enlarge, Power On/Off/Confirm Key), tripod mounting screw holes, calibration knob, and Type-C Port.

Key Components:

- **Condenser Microphone:** Captures sound waves for measurement.
- **Windproof Sponge:** Reduces wind noise interference for more accurate readings.
- **Alarm Indicator Light:** Illuminates to indicate alarm conditions.
- **LCD Backlight Screen:** Displays measurement data, settings, and graphs.
- **Control Buttons:**
  - Up/Down Arrows: Navigate menus, adjust values.
  - Left/Right Arrows: Navigate menus, adjust graph display.
  - Power/Enter Button: Turns the device on/off, confirms selections.
- **Tripod Mounting Screw Holes:** Allows attachment to a standard tripod for stable, continuous monitoring.
- **Calibration Knob:** Used for fine-tuning the meter's calibration.
- **Type-C Port:** For charging the device and connecting to a PC for data transfer.

Setup

1. Charging the Device

Before first use, fully charge the decibel meter. Connect the supplied USB cable to the Type-C port on the device and the other end to a USB power adapter (not included) or a computer's USB port.

Image: An illustration showing the Benetech GT1355A Decibel Meter connected via its USB-C port to a laptop for charging, with indicators showing 100% charge in 1 hour 15 minutes and a maximum standby time of 480 minutes (8 hours).

- A full charge takes approximately 1.5 hours.
- The battery indicator on the LCD screen will show charging status.
- The device can operate for up to 8 hours on standby after a full charge.

2. Initial Power On and Basic Settings

Press and hold the **Power/Enter** button to turn the device on. Upon first power-on or after a reset, you may need to configure basic settings.

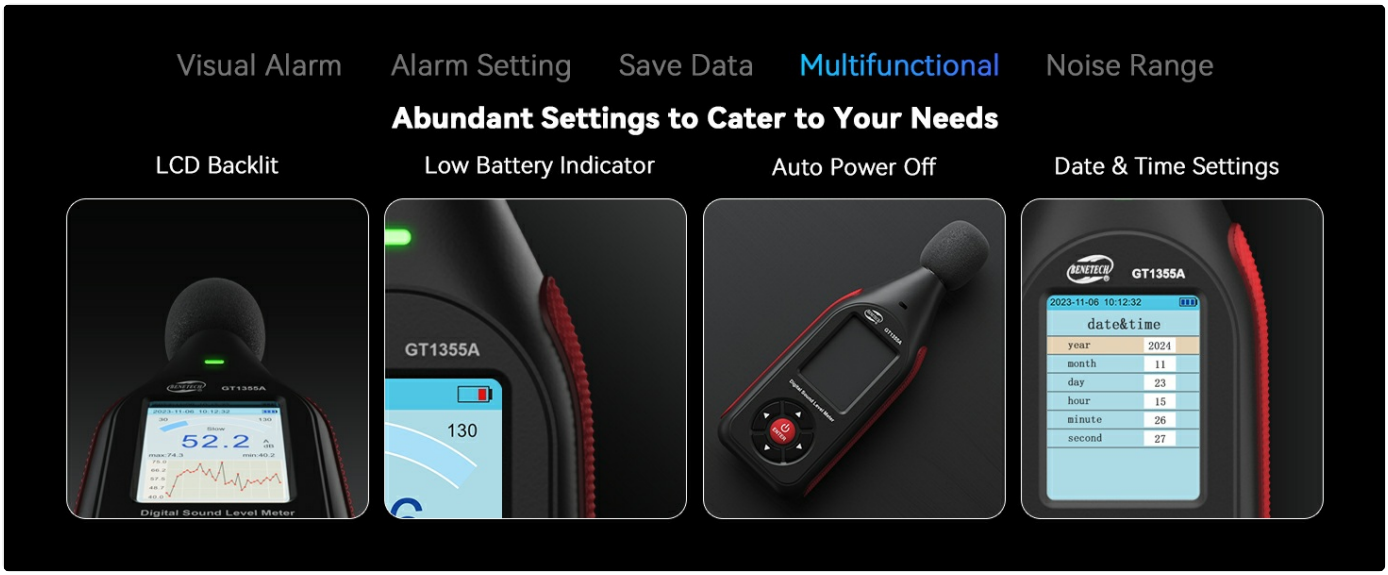


Image: A composite image showing various settings available on the decibel meter: LCD Backlight, Low Battery Indicator, Auto Power Off, and Date & Time settings, demonstrating the device's customizable features.

- **Date & Time:** Navigate to the Date & Time settings using the arrow keys and confirm with the Power/Enter button. Adjust year, month, day, hour, minute, and second.
- **Auto Power Off:** Set the desired time for automatic shutdown to conserve battery.
- **LCD Backlight:** Adjust backlight brightness or enable/disable it.

- **Low Battery Indicator:** The device will display an indicator when the battery level is low, prompting a recharge.

Operating Instructions

1. Understanding the Display

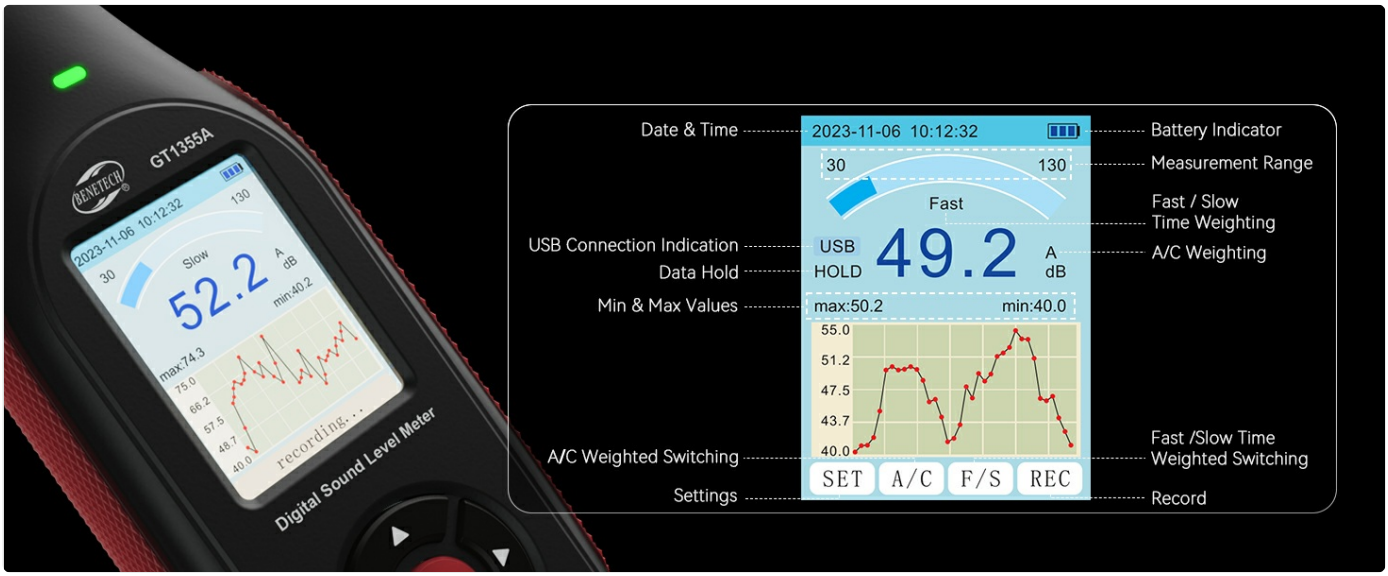


Image: A detailed breakdown of the Benetech GT1355A Decibel Meter's LCD screen, highlighting elements such as Date & Time, Battery Indicator, Measurement Range, Fast/Slow Time Weighting, A/C Weighting, USB Connection Indication, Data Hold, Min & Max Values, and controls for Settings, A/C, F/S (Fast/Slow), and REC (Record).

The LCD screen provides real-time information about sound levels and device status:

- **Date & Time:** Current date and time.
- **Battery Indicator:** Shows remaining battery life.
- **Measurement Range:** Indicates the active decibel range (e.g., 30-130 dB).
- **Fast / Slow Time Weighting:** Displays the selected time weighting mode.
- **A/C Weighting:** Shows whether A-weighting or C-weighting is active.
- **USB Connection Indication:** Appears when connected to a PC.
- **Data Hold:** Indicates if the current reading is frozen.
- **Min & Max Values:** Displays the minimum and maximum sound levels recorded during the current session.
- **Real-time Graph:** A dynamic graph showing sound level changes over time.

2. Selecting Weighting and Time Response

The meter offers A and C weighting, and Fast/Slow time response settings to suit different measurement needs.

Image: An illustration explaining A-weighted and C-weighted sound measurement. A-weighting (30-130dB) assesses human ear perceived noise, while C-weighting (35-130dB) measures equipment noise, showing the decibel meter's capability to measure sound closer to human ear perception.

- **A-Weighting (A):** Simulates the human ear's response to sound, commonly used for environmental noise measurements.
- **C-Weighting (C):** Provides a flatter response, suitable for measuring the true sound level of machinery or peak noise.
- To switch between A/C weighting, press the**A/C** button.

Image: An illustration demonstrating the Fast and Slow Time Weighted switching options on the decibel meter. Fast time weighting is for measuring fluctuating unsteady noise, while Slow time weighting is for measuring steady state noise.

- **Fast (F):** For measuring rapidly changing or impulsive noise.
- **Slow (S):** For measuring steady or slowly changing noise levels.
- To switch between Fast/Slow time weighting, press the**F/S** button.

3. Setting Visual Alarms

The GT1355A features a three-color visual alarm system to indicate noise levels relative to set thresholds.

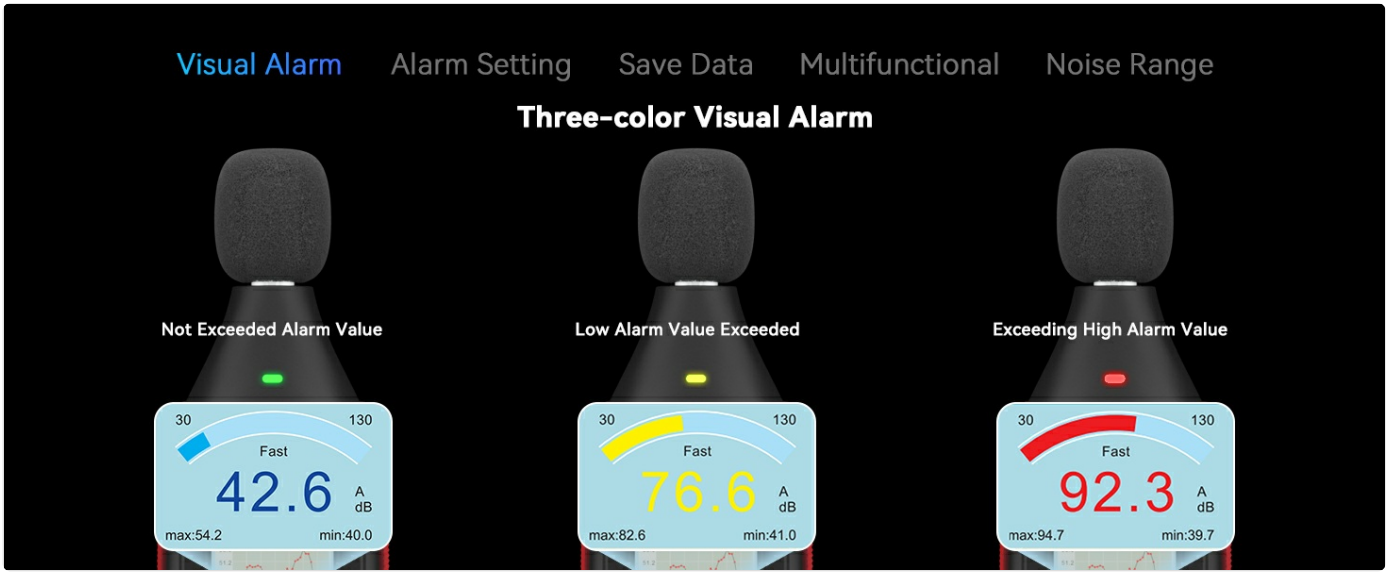


Image: A visual representation of the decibel meter's three-color visual alarm system. It shows the device's indicator light and screen changing color based on noise levels: blue for "Not Exceeded Alarm Value," yellow for "Low Alarm Value Exceeded," and red for "Exceeding High Alarm Value."

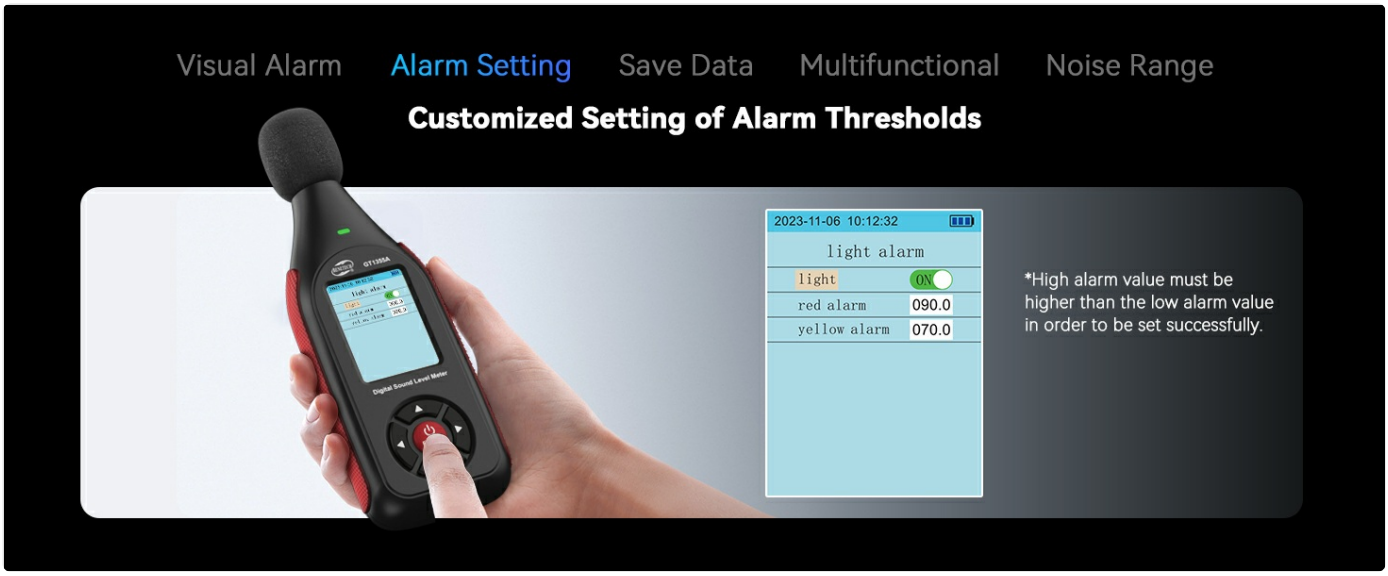


Image: A close-up of the decibel meter's screen showing the menu for customizing alarm thresholds. It displays options to set "red alarm" and "yellow alarm" values, with a note that the high alarm value must be higher than the low alarm value for successful setting.

- Access the alarm settings through the menu.
- Set a "yellow alarm" threshold for a lower warning level.
- Set a "red alarm" threshold for a higher critical level.
- Ensure the red alarm value is higher than the yellow alarm value.
- The alarm setting range is 30 to 130dB.

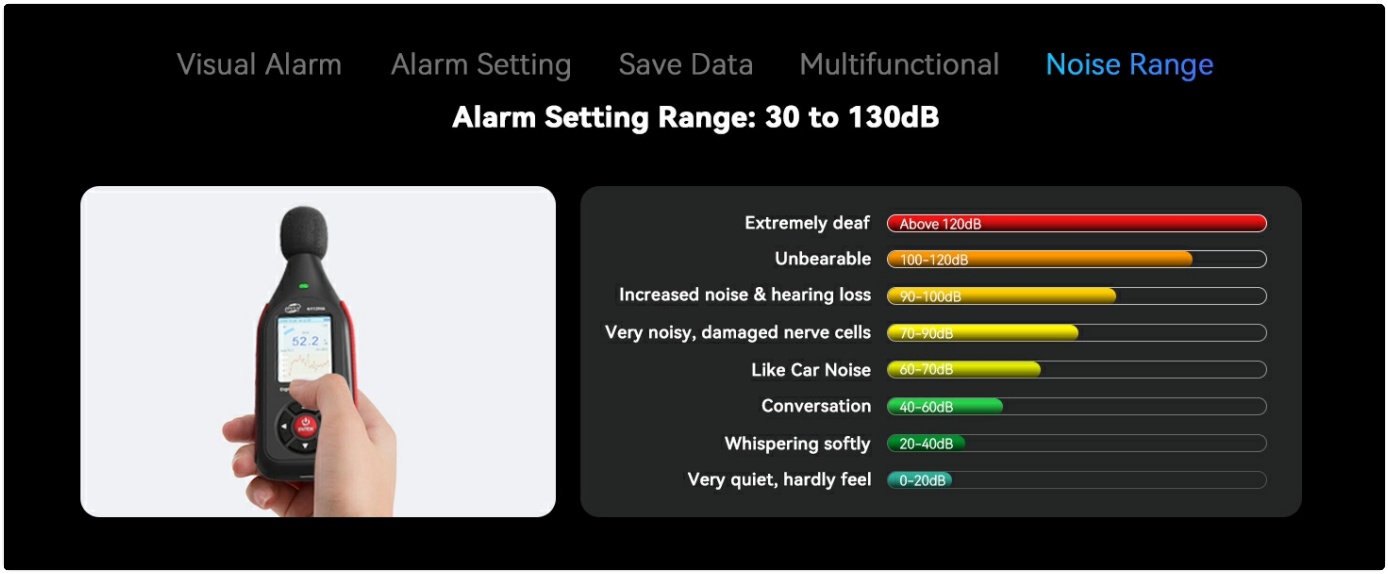


Image: A chart illustrating various noise levels and their corresponding decibel ranges, from "Very quiet, hardly feel" (0-20dB) to "Extremely deaf" (Above 120dB), providing context for the decibel meter's alarm settings.

4. Data Recording and Management

The meter can store a significant amount of data and allows for PC connectivity.

Image: An illustration showing the decibel meter connected to a laptop, with a pop-up menu on the laptop screen displaying options to "Save Data," "Read Data," "Delete Data," and "Reset Default," indicating the ease of recording and saving up to 43,000+ sets of data.

- The device can store up to 43,000 sets of data.
- To initiate recording, press the **REC** button. Press again to stop.
- Connect the meter to a PC using the USB cable.
- Use the provided software (Windows compatible only) to:
  - Perform real-time data sampling.
  - Analyze recorded data.
  - Download data.
  - Print charts and data.
  - Delete stored data.

Image: A screenshot of the decibel meter's PC software interface, showing a graph of sound level data over time, along with icons indicating features like Real Time Measuring, Data Import to PC, Storage of Lab Format Files, Data Save, Save as Excel, and Printing Data. A note indicates compatibility with Windows only, not iOS.

Maintenance

1. Cleaning

- Wipe the device with a soft, dry cloth.
- Do not use abrasive cleaners or solvents.
- Ensure the microphone and screen are free of dust and debris.

2. Storage

- Store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- If storing for extended periods, ensure the battery is partially charged (around 50%) to prolong its lifespan.
- Keep the windproof sponge on the microphone to protect it.

3. Calibration

The decibel meter is factory calibrated at 94 dB @ 1kHz. For professional applications requiring high precision, periodic re-calibration by a certified laboratory is recommended. The device includes a calibration knob for minor adjustments if needed, but refer to professional guidelines for proper calibration procedures.

Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Charge the device using the USB cable.
Inaccurate readings.	Microphone obstructed or damaged; device needs calibration; environmental interference (wind).	Ensure microphone is clear. Apply windproof sponge. Consider professional calibration if issues persist.

Problem	Possible Cause	Solution
Cannot connect to PC or transfer data.	Incorrect USB cable; driver issues; software incompatibility (e.g., using macOS); software not installed correctly.	Ensure correct USB cable is used. Install necessary drivers and software. Verify operating system compatibility (Windows only). Reinstall software if needed.
Screen display is dim or unresponsive.	Low battery; backlight setting too low; device malfunction.	Charge the device. Adjust backlight settings in the menu. If problem persists, contact customer support.
Alarm not triggering correctly.	Alarm thresholds set incorrectly.	Verify and adjust the yellow and red alarm threshold values in the settings menu. Ensure red alarm value is higher than yellow.

Specifications

Feature	Detail
Model Number	GT1355A
Measurement Range	30-130 dB (A), 35-130 dB (C)
Accuracy	±1.5 dB
Frequency Response	31.5 Hz to 8,500 Hz
Microphone	Condenser Microphone
Data Storage Capacity	Up to 43,000 sets of data
Connectivity	USB Type-C (for charging and PC data transfer)
Battery Type	Lithium Polymer (included)
Charging Time	Approx. 1.5 hours
Standby Time	Up to 8 hours
Product Dimensions	6.1 x 2.16 x 1.18 inches
Item Weight	4.23 ounces (7.76 ounces with packaging)
Manufacturer	Benetech

Warranty and Support

The Benetech GT1355A Decibel Meter comes with a 12-month warranty from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use.

Warranty Exclusions:

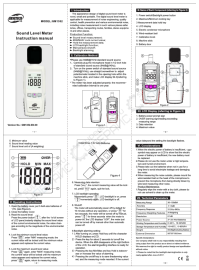
- Damage caused by misuse, abuse, accident, or neglect.
- Unauthorized repairs or modifications.

- Damage from natural disasters or acts of God.
- Normal wear and tear.

Customer Service:

For technical assistance, warranty claims, or any questions regarding your Benetech GT1355A Decibel Meter, please contact our customer support team. We offer friendly 24/7 customer service.
Please refer to the contact information provided on the product packaging or the official Benetech website for the most up-to-date support details.

Related Documents - GT1355A

	Benetech GM1352 Sound Level Meter Instruction Manual Instruction manual for the Benetech GM1352 Sound Level Meter, covering introduction, component identification, LCD display, operating instructions, considerations, and technical parameters.
	BENETECH GT1355 Sound Level Meter Instruction Manual Comprehensive instruction manual for the BENETECH GT1355 Digital Sound Level Meter, covering product introduction, operation, specifications, PC software, and maintenance. Includes details on features, component names, calibration, and software usage.
	Benetech GM1030C Split Type Lux Meter Instruction Manual Instruction manual for the Benetech GM1030C Split Type Lux Meter, covering product introduction, features, operation, performance, and PC/App connectivity.
	BENETECH GM1030 Split Type Lux Meter: Instruction Manual User manual for the BENETECH GM1030 Split Type Lux Meter. This guide details product features, operation, data logging capabilities, and mobile app integration for accurate light intensity and brightness measurements in diverse environments.
	Benetech GT8907 Digital Anemometer Instruction Manual Instruction manual for the Benetech GT8907 Digital Anemometer, covering setup, operation, specifications, PC connection, and troubleshooting.

	[BENETECH GT8913 Digital Anemometer Instruction Manual] Instruction manual for the BENETECH GT8913 Digital Anemometer, covering setup, operation, specifications, troubleshooting, and maintenance. Provides detailed guidance on using the device for measuring wind speed, temperature, humidity, and air volume.