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› [ANYSECU SF-103 / A-SF103 Portable Frequency Counter User Manual](#)

## ANYSECU SF-103

# ANYSECU SF-103 / A-SF103 Portable Frequency Counter User Manual

Model: SF-103 / A-SF103

For Two-Way Radio Frequency Measurement

## 1. INTRODUCTION

The ANYSECU SF-103 / A-SF103 is a versatile and compact portable frequency counter, an upgraded version of the SF401, specifically designed for measuring the frequency of continuous carrier signals from two-way radios. It provides essential information such as frequency and signal strength, making it an invaluable tool for radio enthusiasts, technicians, and maintenance personnel. Its intuitive four-button interface and portable design ensure ease of use and convenience in various settings.

## 2. SAFETY INFORMATION

- Do not expose the device to extreme temperatures, direct sunlight, or high humidity.
- Avoid dropping or subjecting the device to strong impacts.
- Keep the device away from water and liquids. While portable, it is not designed to be waterproof.
- Use only the provided USB cable and charger for powering and charging the device.
- Do not attempt to disassemble or repair the device yourself. Refer to qualified service personnel.
- Ensure proper ventilation when charging.

## 3. PACKAGE CONTENTS

Please check the box for the following items:

- ANYSECU SF-103 / A-SF103 Frequency Counter
- Antenna
- USB Charging Cable
- USB Charger (Power Adapter)
- Belt Clip
- User Manual (this document)

## Standard Package



Figure 3.1: Standard Package Contents. Includes the frequency counter, antenna, USB cable, belt clip, and USB charger.

## 4. PRODUCT OVERVIEW

The SF-103 / A-SF103 features a clear display and intuitive button layout for easy operation.

### A-SF103 Details





## Specification

Frequency: 2-200MHz 27-2800MHz

Frequency mode:Digital/analog

Dimension: 70\*30\*90mm

Battery:3.7V 1500mAh

Weight: 113g

Recommend for :scientific research; education

Figure 4.1: Front view of the SF-103 / A-SF103 with key components labeled. This includes the display, function buttons (F1-F4), power button, and antenna port.

### 4.1. Components and Functions

- **Display Screen:** Shows measured frequency, signal strength, CTCSS/DCS codes, and other operational parameters.
- **Antenna Port:** Connects the included antenna for signal reception.
- **USB Charger Port:** Used for charging the device's internal battery.
- **F1 (Power On/Off):** Press and hold to power the device on or off.
- **F2 (Stop):** Stops the current frequency measurement.
- **F3 (Menu/Down):** Accesses the menu or navigates down in menu options.
- **F4 (About/Up):** Displays device information or navigates up in menu options.



Figure 4.2: The ANYSECU SF-103 / A-SF103 Portable Frequency Counter, showcasing its compact design and clear display.



Figure 4.3: Dimensions of the SF-103 / A-SF103, illustrating its compact and portable size.

## 5. SETUP

### 5.1. Charging the Device

1. Connect the small end of the provided USB charging cable to the USB Charger Port on the side of the frequency counter.
2. Connect the standard USB end of the cable to the provided USB charger (power adapter).
3. Plug the USB charger into a standard wall outlet.
4. The device will indicate charging status on its display. A full charge typically takes approximately 3-4 hours.

## 5.2. Attaching the Antenna

1. Locate the antenna port on the top of the frequency counter.
2. Gently screw the provided antenna clockwise into the antenna port until it is finger-tight. Do not overtighten.

## 5.3. Powering On/Off

- To power on: Press and hold the **F1 (Power)** button until the display illuminates.
- To power off: Press and hold the **F1 (Power)** button until the display turns off.

# 6. OPERATING INSTRUCTIONS

## 6.1. Basic Frequency Measurement

1. Ensure the device is powered on and the antenna is attached.
2. Place the frequency counter near the two-way radio or signal source you wish to measure. For best results, position the counter's antenna close to the radio's antenna.
3. Activate the transmission on the two-way radio (e.g., press the PTT button).
4. The frequency counter will automatically detect and display the frequency of the transmitted signal. The display will show the frequency in MHz, along with a signal strength indicator.
5. To stop the measurement and hold the current reading, press the **F2 (Stop)** button. Press F2 again to resume continuous measurement.

## 6.2. CTCSS/DCS Measurement

The SF-103 / A-SF103 is capable of measuring CTCSS (Continuous Tone-Coded Squelch System) and DCS (Digital Coded Squelch) codes, which are used to filter out unwanted transmissions on a radio channel.

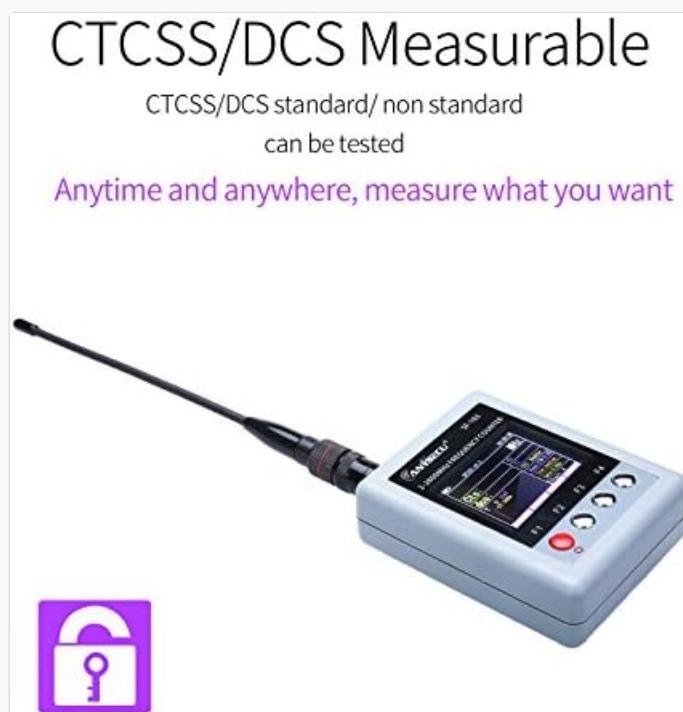


Figure 6.1: The SF-103 / A-SF103 displaying its CTCSS/DCS measurement capability, allowing for testing of standard and non-standard codes.

1. While measuring a frequency, if the signal contains a CTCSS or DCS tone, the counter will automatically detect and display it.
2. The detected CTCSS tone will be shown as a frequency (e.g., 88.5 Hz), and DCS will be shown as a three-

digit code (e.g., D023N).

### 6.3. Menu Navigation

Use the **F3 (Menu/Down)** and **F4 (About/Up)** buttons to navigate through the device's menu options. The menu allows for adjustments such as gate time, display settings, and other advanced features. Refer to the on-screen prompts for specific menu functions.

### 6.4. Operational Demonstration Video

Watch this official product video for a demonstration of the SF-103 / A-SF103 in action, including frequency measurement with a two-way radio.

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Video 6.1: Demonstration of the SF-103 Portable Frequency Counter measuring radio frequencies. This video shows the device's real-time frequency detection capabilities.

## 7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Battery Care:** To prolong battery life, avoid fully discharging the battery frequently. If storing for an extended period, charge the battery to about 50% and recharge every few months.
- **Antenna Care:** Handle the antenna carefully. Do not bend or force it, as this can damage the connector.

## 8. TROUBLESHOOTING

- **Device won't turn on:** Ensure the battery is charged. Connect the charger and try again. If the issue persists, contact support.
- **No frequency reading:**
  - Ensure the two-way radio is transmitting.
  - Check that the antenna is securely attached to the frequency counter.
  - Move the frequency counter closer to the transmitting radio.
  - Verify the signal strength of the transmitting radio is sufficient.
- **Incorrect frequency reading:**
  - Ensure there are no other strong interfering signals nearby.
  - Check the frequency range setting in the device's menu (if applicable).
  - Ensure the radio is transmitting on the expected frequency.
- **Display is dim or flickering:** The battery might be low. Recharge the device.

## 9. SPECIFICATIONS

Feature	Description
Model Number	SF-103 / A-SF103
Frequency Range	2MHz - 200MHz / 27MHz - 2800MHz

Battery	1 AA battery required (included) / 3.7V 1500mAh (internal)
Dimensions (approx.)	90mm (H) x 70mm (W) x 26mm (D) (excluding antenna)
Weight (approx.)	3.84 ounces (113g)
Color	Grey
Special Feature	Portable, CTCSS/DCS Measurable

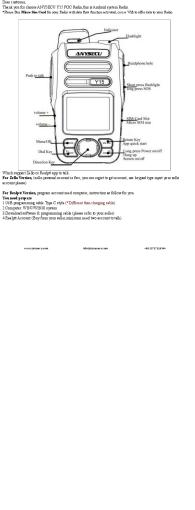
## 10. WARRANTY AND SUPPORT

For warranty information and technical support, please contact your original point of purchase or visit the official ANYSECU website. Please have your product model number (SF-103 / A-SF103) and purchase details ready when contacting support.

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Information in this manual is subject to change without notice.

### Related Documents - SF-103

 <p><b>HANDHELD FM TRANSCEIVER QUICK START GUIDE</b></p>	<p><a href="#"><u>Anysecu GT-12 Handheld FM Transceiver Quick Start Guide</u></a></p> <p>A quick start guide for the Anysecu GT-12 handheld FM transceiver, covering basic operations, LED indicators, product layout, status indications, icon descriptions, and troubleshooting.</p>
 <p><b>ANYSECU Y15 POC Radio Setup Guide</b></p> <p>Comprehensive guide for setting up the ANYSECU Y15 POC Radio with Zello and Realptt apps, including USB driver installation and software configuration.</p>	

	<p><a href="#"><u>Anysecu TK-9900 / WP-9900 Mobile FM Transceiver User Manual</u></a></p> <p>Comprehensive user manual for the Anysecu TK-9900 and WP-9900 series Mobile FM Transceivers, detailing operation, channel management, signaling, menu settings, and FCC compliance.</p>
	<p><a href="#"><u>SURECOM SF-103 Hand-Held Frequency Counter User Manual &amp; Specifications</u></a></p> <p>Comprehensive user manual and specifications for the SURECOM SF-103 Hand-Held Frequency Counter, detailing its features, operation, and technical data for VHF, UHF, and DMR radio frequencies.</p>
	<p><a href="#"><u>Spider Farmer Leaf Bowl Trimmer User Manual</u></a></p> <p>Comprehensive user manual for the Spider Farmer Leaf Bowl Trimmer, detailing product size, accessories, and assembly instructions.</p>
	<p><a href="#"><u>Spider Farmer SF-PHMeter-01 5-in-1 pH Hydroponic Meter User Manual</u></a></p> <p>Comprehensive user manual for the Spider Farmer SF-PHMeter-01 5-in-1 pH Hydroponic Meter Kit. Learn about measurement, calibration, maintenance, and technical specifications for accurate water quality testing.</p>