

SF-103 HAND-HELD FREQUENCY COUNTER



Ver4.3

USER'S MANUAL

Feature & Specification:

- Frequency range : 2MHz-2800MHz•Cover for : VHF/UHF
- CTCSS/DCS Decoder
- DMR Frequency counter
- Digital select digi 0.000 or 0.0000 or. 0.00000
- Work by TCXO (crystal)
- Auto power off 1-9minutes
- Frequency Response time: 0.1,0.25,0.5,1.0S,
- Color Display 240x320 Pixels, LCD Dim level setting
- Build-in 3.7V Li-ion battery
- Net Weight: 113g
- 4 button for all funtion control
- Charging battery LED indicator
- 2 Ch. Select:(A. 27-2.8GHz, B. 2MHz-200MHz)

Congratulations on your purchase of Frequency Counter.

Before Operating the frequency counter, please read this manual ,thoroughly .

Make sure that the following accessories are supplied,with your frequency counter:

UNPACKING AND CHECKING EQUIPMENTS:

•SF-103 (1), Antenna suit for VHF/UHF (1) ,AC Power Adapter (1),USB Charger ,Cable(1),User Manual (1)

Please contact the sales agent in case of accessory missing.

Product introduction

The frequency meter capable of measuring the parameters of the frequency of the continuous carrier signal walkie- talkie ,with signal strength indicator. it is the tool of choice for maintenance personnel, test frequency and signal strength of wireless enthusiasts. This portable frequency counter is designed for counting continuous wave signal comes from Two-way Radio. There are easy ranges for you to choose. The ranges cover most of the frequency of the two-ways-radios you want to measure. Its four-button control is easy to use and its small size allows you to carry it anywhere you like.Work by TCXO(Temperature Compensate X'tal (crystal) Oscillator) ,In the range of -25 °C ~ 55 °C .

1.1 Power On/Off:

Power on ,press and Hold down the [Red key] by 3 second

Power off ,press and Hold down the [Red key] by 3 second of number count down to 0

1.2 Charging the battery :

Plug the power cord into adaptor , micro usb connect SF103

The Led indicating: *The RED light Charging * The Green light is Full

1.3 Setup the frequency Range :

Press[F2.stop] button ,[F3 -->] select function to "Rang"

Press the [F4 Ent] Select 27M-2.8G(27MHz-2800MHz) /<=200MHz (below 200MHz) , and then press[F2] to Run

1.4 Setup the time Gate :

Press[F2.stop] button ,[F3 -->] select Function to "Gate"

Press the [F4 Ent] select : 0.1s / 0.25s / 0.5s / 1.0s ,and then press [F2] to Run

1.5 Setup the Frequency counter digi :

Press [F2] button , [F3 -->] select Function to "Gate"

Press [F4 Ent] Select : 3 / 4 / 5 / 6 , and then press [F2] to Run

! 27MHz-2.8GHz for 3 / 4 only , 2-200MHz for 3 / 4 / 5 / 6 , Detail Please see Table 1:

1.6 How to check Frequency of Digital DMR Radio

Press [F2] button , [F3 -->] select Function to " type " : Press [F4] select Analog / Digital (DMR) , and then Press [F2] to Run

! Note. Digital mode have 3 Decimal only.

1.7 How to ADJ. the Frequency mode of 27MHz -2.8GHz: (See PIC.2)

Press, [F3 MENU] , [F3 Down] / [F4 Up] to select the Gate to (0.1s/0.25s/0.5s/1.0s)

Press, [F2 Edit] / [F3 -] and [F4 +] to select the +/- 99

Press, [F1. Main] exit , and then press [F4 save] for save the setting . ([F1] not save for

1.8 How to fine tune the Frequency mode of 2-200MHz: (See PIC.1)

Tune the PCB VR1 (Variable resistance)

(The factory has been set accurate, such as non-technical staff do not tune)

1.9 How to use [F3 menu] mode: (see PIC2)

Press, [F3 -] / [F4 +] select the function , and then press [F2 edit] for edit mode ,

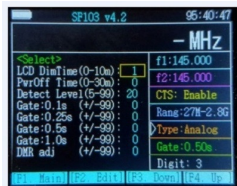
Press, [F3 -] / [F4 +] select for change the data .

Press, [F1. Main] exit , and then press [F4 save] for save the setting .

! ([F1] not save for exit)



PIC.1



PIC.2

Caution:

- 1) Max. direct input signal 5Vp-p
- 2) Prohibit direct access to the radio antenna output, resulting in damage to the frequency meter

Frequency Display Resolution / CTCSS .DCS Decode frequency range

SELECT	Gate Time select (seconds)	Sample Display (100MHz)				CTCSS/DCS select A	
		Digi					
		3	4	5	6		
A	27MHz-2.8GHz	0.10 s	100.000	100.0000		Decode Range 132-173MHz 200-260MHz 400-519MHz	
		0.25 s	100.000	100.0000			
		0.50 s	100.000	100.0000			
		1.00 s	100.000	100.0000			
SELECT	Gate Time select (seconds)	Sample Display (100MHz)				CTCSS/DCS select B	
		Digi					
		3	4	5	6		
B	2MHz-200MHz	0.10 s	100.000	100.0000		Disable	
		0.25 s	100.000	100.0000			
		0.5 s	100.000	100.0000	100.00000		100.000000
		1.00 s	100.000	100.0000	100.00000		100.000000