

SW-102 Digital VHF/UHF 125-525MHz Power & S.W.R. Meter



USER'S MANUAL

UP to V2.02

Key Specifications/Special Features:

Detect S.W.R.
Measurement Power
Measurement Frequency counter

Specifications:

Model:	SW-102
Max Power:	120W
VSWR:	1.00-19.99
Frequency Range:	Cover:125MHz-525MHz
Power in:	5V (micro usb)
Frequency counter:	+ - 0.1KHz (+ 5%)
Li-ion Battery :	3.7V Li-ion Battery
In /Out Impedance :	50 Ω
Size without Socket :	70*75*35 mm
(in and out) Interface:	N(SL16) / SO239
Net Weight :	220g
Package	
1x	SW-102 meter
1x	English Instructions
1x	USB charger Cable
1x	USB power Supply



How to Connect Radio :

TX : Connect to RADIO RF Output
ANT : Connect to ANTENNA or 50 OHM Dummy Load

How to charger :

Connect external USB 5V source (e.g. USB charger) to micro USB input
When display is showing 'E', it means the unit is powered by USB.
When display is showing 'B', it means the unit is powered by internal battery.

How to check the S.W.R. of your Antenna :

Connect to "TX" on Radio output and Antenna to "ANT". Proper adaptor/cable is required if your device has different type of connectors.

- 1)Measurement V.S.W.R. :
- 2)SW-102 TX connect Radio RF out
- 3)Radio TX , SW-102 with display S.W.R. measure data.

*Do not affect the test in the following cases, there are objects nearby and placed horizontally.

How to check the output Watt of your transceiver :

Connect to "TX" on Radio output and dummy Load to "ANT". Proper adaptor/cable is required if your device has different type of connectors.

- 1)Measurement Power:
- 2)SW-102 TX connect Radio RF out
- 3)SW-102 ANT connect 50 ohm Dummy Load
- 4)Push Radio TX , SW-102 display is Power measure data.

*(SW-102 is not for DMR system)

Push [Blue botton] for MENU

1	LCD DIM (Back Light Time)	0-9	1	"0" is OFF, 1 min to 9 mins
2	POWER OFF	0-9	3	"0" is ON, 1 min to 9 mins
3	Adjustment frequency counter	-99 to +99	0	1=0.1KHz · -1=-0.1KHz
4	Adjust VHF power offset	-99 to +99	0	"1" is up to 1%,"-1" is down to 1%
5	Adjust UHF power offset	-99 to +99	0	"1" is up to 1%,"-1" is down to 1%
6	Adjust VHF low Power offset	-99 to +99	0	"1" is up to 1%,"-1" is down to 1%
7	Adjust UHF lowPower offset	-99 to +99	0	"1" is up to 1%,"-1" is down to 1%

* Supplier, the product will add functionality without having to give notice

Set & SAVE:

1. Press MENU [Blue botton]
2. Press F1 [Red botton](Select 1-7 Function)
3. Press [Blue botton] (-), [Yellow botton] (+)
4. Press the [Red botton]for 2 seconds
5. Press the [Red botton] 2 second and relest ,show the save and exit page
6. [Blue botton] for save , [Yellow botton] not save and exit

Trouble shooting

1. No Operation?

- Please charge with USB cable +5V , or come with PSU .
- Push and hold on the "RED" botton .
- Replacement battery when battery dead. (below Ver 5.1 use by 14500battery,V1.X use by li-ion polymer battery.
- There are still problems with steps 1. and 2.and 3., please contact service center.

2.Watt /SWR read data is not hold on ?

- Some Radio problem when end of TX
- .Radio output TX is not stabilizing.

3.Read the watt data is not accurate ?

- SW-102 is not for DMR system
- Don't not use the antenna get the watt data.
- Please use the correct power dummy load to measure (must be 50 OHM)
- The data read error when not read the frequency from radio
- The TX input is weak , Input Watt below 0.5W

4.Read the S.W.R. data is not accurate?

- SW-102 is not for DMR system
- Do not affect the test in the following cases, there are objects nearby
- Do not affect the test in the following cases,placed horizontally.

5. Read the Frequency counter is not display or read frequency not accurate?

- e.g. Radio is 145.000 , read 145.003, SW-102 is not for DMR system
- Input below 0.5W
- Please use menu mode and fine tune the frequency offset.

6.Display have problem ? e.g.BLack or Garbled or no Display

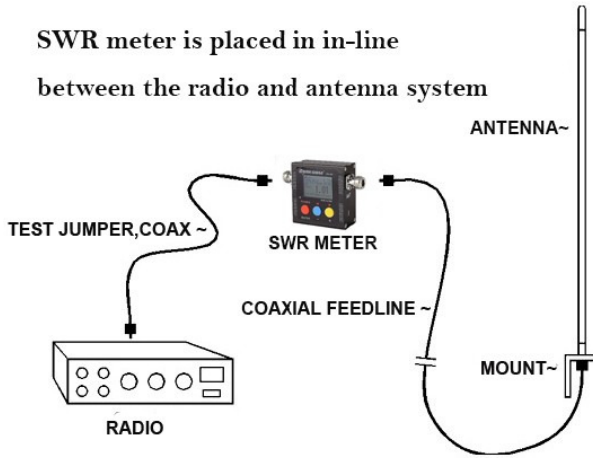
- Restart the SW-102, Remove the inside battery.
- There are still problems with steps 1. and 2., please contact service center.

7. How to RESET the mirco chip

- Off mode ,Hold the Red button and the display show "restore to default "
- There are still problems with steps 1. and 2., please remove the battery.

**All Specifications are subject to change without notice

SWR meter is placed in in-line
between the radio and antenna system



如何连接：

- TX：连接到 对讲机输出
- ANT：连接 天线或 50 OHM虚拟负载

如何充电：连接外部USB 5V电源
(例如USB充电器)连接到微型USB输入
当显示屏显示“E”时，表示本机由USB供电。
当显示屏显示“B”时，表示本机由内部电池供电。

如何检查 天线驻波值 (驻波值 1.00 最好, 19.99 最差)：

将对讲机输出和天线上“TX”连接到“ANT”。如果您的设备具有不同类型的连接器，则需要正确的适配器/电缆。

- 1) 测量V.S.W.R.：
- 2) SW-102 TX连接对讲机射频输出
- 3) 按对讲机PTT，SW102显示器出现 S.W.R.测量数据。

*在附近有物体 和水平放置, 影响测试。(SW-102不适用于DMR系统)

如何检查对讲机的输出功率：
在对讲机输出端连接到“TX”，将负载连接到“ANT”。如果您的设备具有不同类型的连接器，则需要正确的适配器/电缆。

- 1) 测量功率：
- 2) SW-102 TX连接对讲机射频输出
- 3) SW-102 ANT连接50欧姆的虚拟负载
- 4) 按对讲机PTT，SW102显示器是功率测量数据。

*使用天线 不能正确读取功率 (SW-102不适用于DMR系统)

PIC.1

Correctly use the radio to measure S.W.R.
正确使用对讲机测量驻波

If you want the best SWR effect, please use metal sheet.
如果想得到最佳SWR效果请使用 金属片



*Do not affect the test in the following cases,
there are objects nearby and placed horizontally.

*在附近有物体 和水平放置, 影响测试。

PIC.2

功能表顯示

4	背光显示的时间	0-9	1	"0" 常亮, 1分钟 至 9分钟
5	自动关机	0-9	3	"0" 常开 1分钟 至 9分钟
3	频率计调整误差	-99 to +99	0	调整1=0.1KHz, -1=-0.1KHz
1	调整VHF前进波功率	-99 to +99	0	调整百分比
1	调整UHF前进波功率	-99 to +99	0	调整百分比
1	调整VHF low 前进波功率	-99 to +99	0	调整百分比
1	调整VHF low 前进波功率	-99 to +99	0	调整百分比

设置&保存：

- 1.按MENU [蓝色]按钮
- 2.按F1 [红色按钮] (选择1-7功能)
- 3.按[蓝色键盘] (-), [黄色按钮] (+)
- 4.按[红色按钮] 2秒钟
- 5.按[红色按钮] 2秒钟, 并显示保存退出页面
6. [蓝色按钮]保存, [黄色按钮]不保存退出

故障排除

没有操作？

- 用USB电缆+ 5V电源充电, 或带PSU。
- 按住“RED”键。

备用电池电量不足时,在Ver 3.3- 5.1下使用14500电池, V1.9 之後由锂离子聚合物电池使用。

- 步骤1和2.和3.还有问题, 请联系服务中心。

2.Watt / SWR读数据不成立？

- TX的结束时的一些无线电问题, Radio输出TX不稳定。

读取瓦数据不准确？ SW-102不适用于DMR系统

- 不要使用天线获取功率数据。
- 请使用正确的功率虚拟负载进行测量 (必须为50 欧)
- 如果读取频率时的数据读取错误, 读取瓦数据不准确。
- TX 输入弱, 输入功率低于0.5瓦

阅读S.W.R.数据不准确？ SW-102不适用于DMR系统

- 附近有物体情况下影响测试,
- 水平放置情况下影响测试,。

5.读取频率计数器读取频率不准确？

例如收音机为145.000, 读数为145.003, SW-102不适用于DMR系统

- 输入低于0.5W
- 请使用菜单3.模式和微调频偏。

显示有问题吗？例如, 黑色或乱码或无显示

- 1)重新启动SW-102, 2)取出内置电池。
- 步骤1和2仍然存在问题, 请联系服务中心。

7.如何复位微芯片

- 关闭模式, 按住[红色按钮], 当显示屏显示“恢复为默认值
- 步骤1和步骤2仍然存在问题, 请取出电池。

**所有规格如有更改, 恕不另行通知