

## FG-01 1-60Mhz Antenna SWR analyzer operating manual

The FG-01 Antenna SWR analyzer is a compact unit designed for Indoor, portable or mobile use. It's small and light enough to take to the top of the tower. The design uses the latest SMT technology and contains a color graphic display for ease of use.

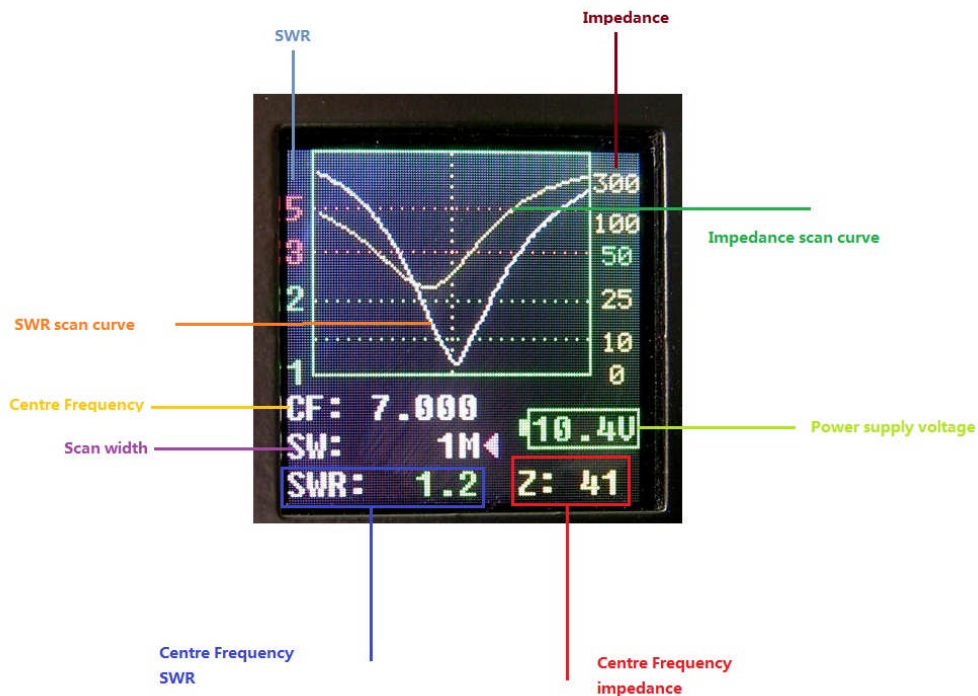


The FG-01 antenna analyzer can be powered by an optional internal battery **TEN-TEC part number R9411**: consisting of a 18650 Lithium battery pack with a built in protection circuit, the standard charging voltage is 11.1Vdc. If powered from an external supply you must use a stable DC power supply with 10-12.8Vdc, @ 500ma. **Do not use a power supply greater than 12.8Vdc**

**CAUTION**, The optional battery pack must be charged with the lithium battery charger provided with the unit.

There is a battery status icon on the right hand lower corner of LCD display providing full time battery monitoring.

**Note:** If powered by an internal lithium battery, the battery charge jack can only be connected to a dedicated lithium battery charger,



#### Specifications:

Power consumption: about 400mA

Frequency range 1-60MHz

Output: 15dbm

**(CF) Center Frequency** step, 1K, 10K, 100K, 1MHz

**(SW) Scan Width** of the display, 10K, 20K, 50K, 100K, 200K, 500K, 1M, 2M, 5M, 10M, 20M, 50M

Operating power: 10-12.8Vdc @ 500ma

Dimension: 97mm x 58mm x 37mm. (3.8" X 2.3" X 1.5") Weight: 240g or 8.5 oz (380g or 13.5 oz with battery)

#### Included with the FG-01

Wall charger/power supply

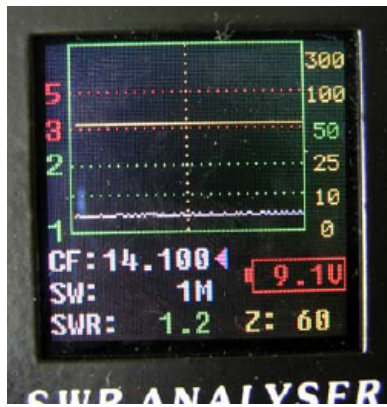
Battery holder for powering the unit with 3 cells of 3.6 volt Lithium battery model 14500.

**Warning:** Do not install alkaline batteries in the holder provided.

#### Optional Accessories available from TEN-TEC

**R9411** Optional 18650 Lithium battery pack with a built in protection circuit, the standard charging voltage is 11.1Vdc and can be charged from the charger provided with the unit.

**R3409** UHF to BNC adapter to connect the FG-01 to PL 259 equipped coax cable.



Battery indicator turns **red** when the battery voltage is lower than 9.5Vdc, you must charge the battery immediately or damage to the battery will occur!

Operating:

The Impedance curve can be turned on or off by pushing and holding the knob while power is being turned on.

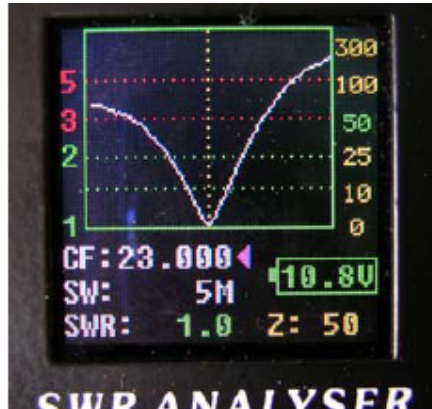
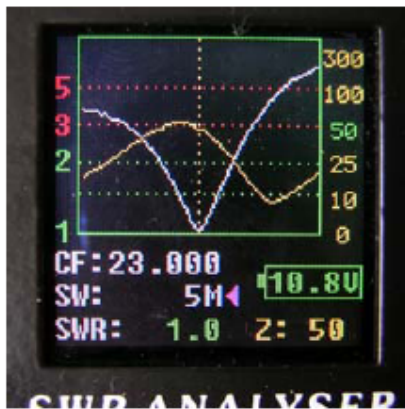


The impedance of center frequency value will be indicated on the screen even if the curve is turned off.

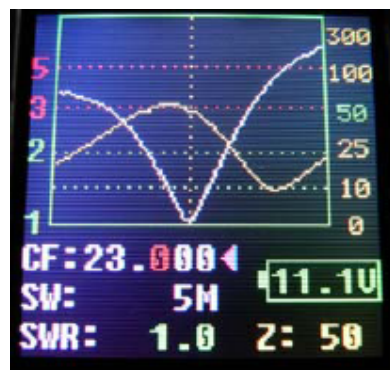
### Important notice:

1. Allow one to three seconds after the power switch has been turned on and the SWR/Impedance screen appears for the FG-01 to power up properly.
1. Quickly moving the power switch between off and on can cause erratic and unpredictable operation.
2. This unit is designed for short term use and not intended to be left on for long periods of time

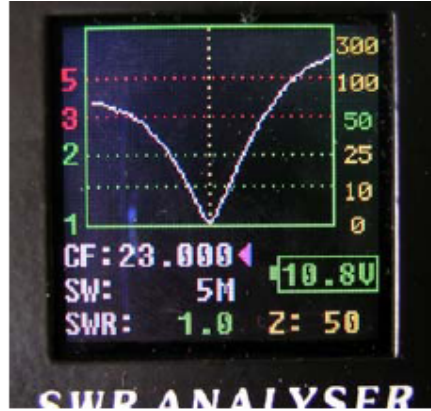
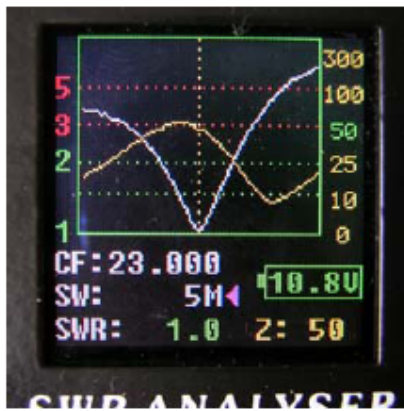
1. Power on: the factory default or last saved condition will be displayed.
2. A slight push of the knob changes between CF (Center Frequency) and SW (Scan Width), indicated by the purple triangle on the LED screen. See below.



3. Select CF (Center Frequency); indicated by the purple triangle. See photo, above. Rotate the knob to change the center frequency. To change the frequency steps, Push and continue to hold in the knob for greater than one second, a digit will start to flash. While the knob is held down rotate the knob to change the frequency steps indicated by the red flashing color digit. Release the knob. In three seconds, the new step size will be saved. See photo below.



3. Select SW, (Scan Width). Indicated by the Purple Triangle.
4. Rotate the knob to change the SW (Scan Width). See below.



5. Push and hold knob for 1 second to save. FG01 will memorize this setup in next power on.



CF or (Center frequency), the center vertical line on the display. This is typically the center frequency of the antenna you are wishing to analyze.

SW or (Scan Width). This is the bandwidth of the display and if broad enough will show you the curve representing the 2 to 1 or 3 to 1 SWR points of the antenna.

You can also move the center frequency to the 2 to 1 or 3 to 1 frequency to determine the band edge of the antenna.

#### Reset:

1. Turn power off
2. Press and continue to hold the knob for >5 seconds after turning on the power. Reset will be displayed, release the knob after OK is displayed.

#### Important notice:

1. Allow one to three seconds after the power switch has been turned on and the SWR/Impedance screen appears for the FG-01 to power up properly.
2. Quickly moving the power switch between off and on can cause erratic and unpredictable operation.
3. This unit is designed for short-term use and not intended to be left on for long periods of time.