

# **iPortable iP30z V1.0**

## **FIELD ANTENNA SWR ANALYZER**

### ***Description:***

The iP30z iPortable™ Antenna SWR Analyzer is designed for field use. This compact battery powered unit has an easy to read frequency display and measures SWR and impedance in the HF Band. The SWR readings quickly show you the actual VSWR measurement and reads the magnitude of the impedance (Z). This is the easiest way to adjust your portable or base station antenna to be best matched for your radio.

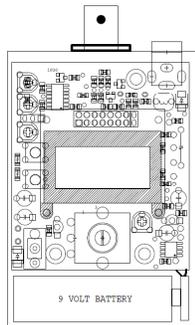
### **Specifications:**

Frequency Range 400kHz-35MHz (Continuous)  
Band Switch: Quickly changes Bands 160M, 80M, 60M, 40M, 30M, 20M, 17M, 15M, 12M, and 10M  
Step Size Switch: 10Hz, 100 Hz, 1kHz, 10kHz and 100kHz  
Source Impedance: 50-Ohms  
RF Output Level: 1.7Vpp (typical)  
Direct Digital Synthesizer (DDS)  
10-Bit A/D converter  
SWR Range: 1.0-9.9  
Impedance Range: 1-650 ohm  
Antenna Connector: BNC  
Compact size: 3.5"(H) x 2.5"(W) x 1.25"(D) (w/o knob, connector)  
Internal Battery: 9V Alkaline Battery (Battery NOT included)  
NOTE: This unit Does NOT charge 9V internal Battery  
External Power: DC 6-14V @150mA Connector 2.1mm center positive (Power Supply NOT included)  
Power Consumption: < 110mA  
Sleep mode draw: 1.7mA  
Made in the U.S.A.

### **Battery Installation**

Remove four screws on side of top cover.  
Remove top cover.  
Install 9-V battery as shown in Figure 1

**Note: Remove the protective display plastic when you have the unit open to install the battery.**



**Figure 1**  
**Inside the iP30z**

### **Connections**

#### **Antenna Measurements**

The antenna is simply connected to the analyzer's Antenna (BNC) connector. Tune the analyzer to the desired frequency. The iP30z instrument shows frequency and measures the SWR and the magnitude or impedance (Z).

#### **Adjust Antenna Tuners**

The iP30z analyzer can be used to adjust an antenna tuner for a perfect match without the need to transmit a strong signal from your radio. The analyzer uses only milliwatts of power lessening the possibility of causing interference.

#### **ALWAYS DISCHARGE LARGE ANTENNAS BEFORE CONNECTING THEM TO THE ANALYZER!**

Do this by shorting the shell and center pin of the coax connector to each other, and then to ground. If using ladder line, short the two wires to each other and then to ground.

#### **External Power Supply**

Voltage must be more than 6 volts and less than 15 volts. The current demand is 130mA Max.  
The iP30z has a 2.1mm power connector and center pin Positive.

#### **WARNING: NEVER APPLY MORE THAN 15 VOLTS, NEVER USE AC OR REVERSE POLARITY (POSITIVE GROUNDED) SUPPLIES**

#### **Power Saving Mode (Sleep Mode) BATTERY ONLY**

Battery life is extended by Auto Sleep Mode. The iP30z goes to sleep after 30sec of not being used. The display shows Zzz... To wake up simply turn the Tune knob. This will wake up unit and display your last setting.  
To Change Sleep mode (Zzz...) time hold "STEP" switch down for 3 sec. LCD Display will change to SLEEP 30 sec. Now press "STEP" switch to change time from 30 sec to 5 Min.  
After selecting sleep time this is saved in memory.

#### **Limitations**

This product, similar to most products of this type is susceptible to strong interference within HF band. If this occurs, then try operating at a different time of day.

**Warranty: One year warranty under normal use. Warranty void if analyzer has been tampered with.**

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