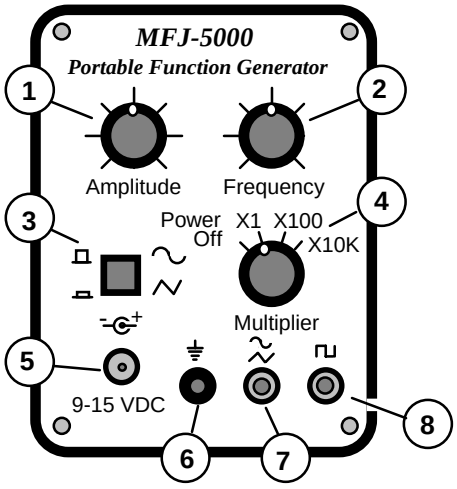
MFJ-5000 Portable Function Generator

Typical Specifications:

Frequency Range	≈1 Hz - >150 kHz in 3 ranges
Amplitude Range	0 to ≈4 Volts p-p (fixed square wave—dependent on power supply voltage)
Waveform Output	Sine, Triangle, or Square
Power Source	Internal (9V battery), External (9-15 Vdc)
Current Drain	10 mA
Size	2.9" x 4.0" x 1.6"
Weight	Approximately 8 oz.

Jack and Controls:



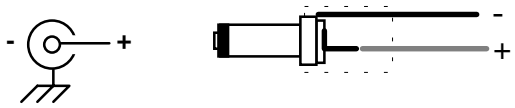
1. **Amplitude Control:** Adjusts sine/triangle waveform output level.
2. **Frequency Control:** Adjusts waveform frequency.
3. **Waveform Switch:** Selects between sine and triangle waveform.
4. **Multiplier Switch:** Turns power on, selects frequency multiplier (X1-X10K).
5. **External Power:** Coaxial power jack accepts 2.1mm plug (9-15 Vdc).
6. **Ground:** Common connection for sine/triangle and square wave outputs.
7. **Sine/Triangle:** Output terminal for sine or triangle waveforms.
8. **Squarewave:** Output terminal for square waveform.

Powering Your Generator:

1. **Battery Installation:** Remove panels screws and gently lift generator from case. Find battery snap-clip and slide plastic sleeve down power lead. Snap battery onto clip and install in carrier. Replace generator in cabinet.

Important Note: *Avoid storing for extended periods with a battery installed. When removing battery, reinstall insulating sleeve on snap-clip.*

2. **External Power source:** Power from any well-filtered 9-15 Vdc source. The external power jack accepts a 5.5-mm x 2.1-mm coaxial plug (extras available--RadioShack 274-1567 or equivalent). Connect (+) voltage to center terminal, and (-) to common:



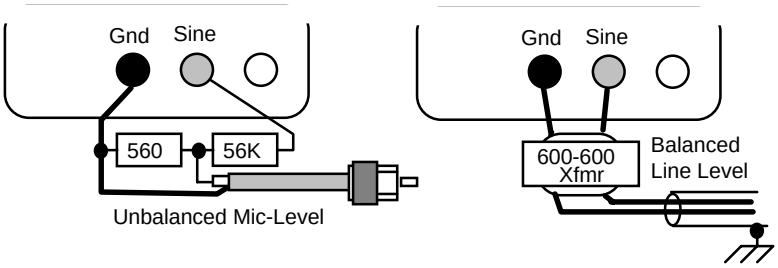
Operating Tips:

1. **Frequency Control:** The *Frequency* control and *Multiplier* switch provide the following coverage:

Multiplier Switch	Frequency Setting	
	Minimum	Maximum
X1	≈1 Hz	130 Hz
X100	45 Hz	6 kHz
X10K	2 kHz	>150 kHz

2. **Waveform Selection:** The *Waveform* switch selects between sine-wave output (switch up) and triangle-wave output (switch depressed). Output level is controlled by the *Amplitude* potentiometer. Maximum output is around 3 volt p-p with a 9-volt power source (greater with higher supply voltage). Square wave output is fixed at approximately the power supply voltage (square-wave function has a separate output terminal).

3. **Audio Lines:** The MFJ-5000 is an unbalanced "line-level" device. For driving mic-level inputs, make a simple attenuator using two fixed-value resistors (this will bring the generator's *Attenuator* control into useful range). For checking high-level balanced lines, use an isolation transformer and float the generator, as shown:



Maintenance:

Your MFJ-5000 is inherently trouble-free, but switches or controls may sustain damage if the unit is dropped or exposed to harsh vibration. Also, avoid exposure to rain, snow, extreme heat, or other severe environmental conditions. If you experience a problem, *always check battery condition first*. If battery replacement fails to resolve the problem, you may contact *MFJ Technical Service* by phone at 662-323-0549; by fax at 662-323-6551; or by email at techinfo@mfjenterprises.com. Be sure to include a complete description of the difficulty.