

Wireless Fence Transmitter Model WF-020
Summary of Changes

1. The case has been completely redesigned.
2. The printed circuit board layout has been changed due to the new case design, and also to incorporate design changes as noted below.
3. The size of the transmitter magnetic field coil (L4) has been increased, yielding approximately a 5dB increase in magnetic field strength at 16.529 kHz.
4. A trimmer capacitor (C24) has been added to allow for the optimization of magnetic field strength. This has alleviated the requirement for tight tolerance parts in this portion of the circuit.
5. To extend the battery life, the 27.145 MHz oscillator bias current has been reduced.. This was achieved by increasing the value of R1 from 75 ohm to 150 ohm. The RF output power has been reduced by 3 dB as a result of this change.
6. The trimmer capacitor (C1), used to tune the 27 MHz antenna, has been replaced with a fixed value of 30pF.
7. The solar cell/battery management portion of the circuit has been modified to improve the efficiency and battery life.
8. Due to the shortage of Tantalum capacitors, three 6.8uF capacitors (C20, C21, C23) have been replaced with 4.7 uF Aluminum Electrolytic devices.