

FM Micro Power Radio Guide

interference with commercial stations. The micro-power movement stresses careful consideration when selecting a broadcast frequency, along with care to use only equipment producing "clean" signals.

ROLL YOUR OWN RADIO

Radio can be better with micro-power radio stations that serve a community, not a 200-mile region. Get involved! Here's a brief explanation of what you'll need to start your own micro-power radio station:

- ◆ A group of committed people who get along well and have plenty of time and energy.
- ◆ A format (presuming you have something worth saying).
- ◆ A site to transmit from.
- ◆ A Frequency that is on an open FM channel.
- ◆ A transmitter built from kits (or sometimes surplus parts).
- ◆ An antenna built or modified from amateur radio suppliers.
- ◆ Odds and ends.

One person could operate a micro-power station alone--but the time and effort to produce a show, setup the equipment, and do the actual broadcast requires lots of work. Having a small group of like-minded people greatly enhances the operation of the station, offering more ideas for programming and more hands for equipment setup/teardown. Also, the team effort required to put together a radio show is one of the reasons that chaos doesn't break out on the airwaves!

Find a site. If you're broadcasting a powerful signal (or worry the politicians in your area won't appreciate your denouncing them as fascists), you may want to select a place that offers a fast getaway. A dormitory roof or any other high location works great for micro stations, but even antennas mounted to wooden poles jammed outside of a window have been known to work. A broadcast site must offer convenience, central location to your listenership--and protection from the FCC, if necessary.

Before your first broadcast, find an open space on the airwaves. On the FM band, channels are spaced every 200kHz, from 87.9 MHz to 107.9 MHz. (You'll notice on most digital tuners that the frequency changes by jumps of 200kHz. For example : 87.9 MHz will become 88.1 MHz when the 'up' button is pressed.) Care must be taken not to broadcast above 108MHz; this space is used by aircraft, and you could cause a safety risk if you interfere with aircraft communication. In the best of worlds, you would want at least one clear channel between the frequency you choose and the next station. In most urban centers, this is impossible. Best bets are the channels that lie between 87.9 and 92.1 Mhz--but be careful not to broadcast over faint, low power commercial or public stations.

Hardest to find will be the transmitter. Although it's possible to buy an old FM transmitter from the pre-1980 legal micro-power days, you'll probably have to build your own.* Don't worry: it's not as hard as it sounds. Several companies produce kits based on the BA1404