

Ham 10A - First radio simplex

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So now you are a Ham. You observed on the FCC database that your license is online. What do you do now?

Mission: *Establish reliable, lowest technical common denominator communications, locally & regionally, in a HOA.*

Which radio you choose depends on your expected use, which will likely change.

Before deciding on a radio, we need to address Simplex and Duplex.

Simplex is just what it sounds like, Simple: It is one radio talking directly to another radio on the same frequency.

Duplex is one radio talking through a repeater system to another radio, using different transmit and receive signals.

Emergency communications must occur regardless of outside circumstances. So, Simplex is the only dependable mode, when disaster or a situation outside your control happens. (Stuff hits the fan, \$htf.) (Keep it simple Sam, Kiss)

Radio: The transceiver category is mobile/base, since it operates from 12 Vdc. One can operate fixed or mobile. The unit should be a minimum of 50-Watts to operate in our urban, hilly terrain. Select both VHF/UHF to communicate with Nets, SuperLink and weather. Icom 2730A is highly reputable. Yaesu has too many tedious menus. Anytone, BTech and TFT have a following. Costs about \$300.



Power: To obtain 12 Vdc, a power supply converts from 120 Vac wall power. Output current should exceed 15 Amp or whatever your radio requires. Variable can destroy a radio. Costs about \$100.

Antenna: To get the signal into the air, use a quality antenna with gain and elevation. If space is limited or you are behind a hill, a Not-Line-Of-Sight (NLOS) Compactenna works fine. J-pole is great on VHF, a dual band J-pole also works UHF. Colinear improves gain. Keep antenna in attic to protect from lightning and HOA. Diamond and Comet make conventional. I use Compactenna 9" and Diamond X-50. Costs about \$120.

Coax connects the antenna to radio. Lower loss is better. Keep length as short as possible. RG-213/U is lower loss and better but larger and stiffer. RG-8X is much smaller and more flexible, suitable for jumper. Cost about \$35.

Emergency power: This depends on your unique needs, desires, and budget. The minimum is a back-up battery like an alarm battery. A charger is highly-desirable. Solar panels are off-the-grid. Generators (Honda EU2200i) provide other support. Costs depend on size of credit card.

Simplex. Plug it in, hook up antenna. Switch to Frequency mode (VFO) and you can talk to most anyone around the county. More power with a specialty, higher antenna can reach over 50 miles. Normal simplex is about 20 miles. National calling simplex frequency for VHF = 146.52 or UHF = 446.0 Mhz. Then move to another such as 146.470. More commonly, we monitor a frequency our network group selects to use.

Hand-held: A handi-talkie is inexpensive, but should not be only radio. It is often the first investment, because of the incredibly low price for Baofeng about \$20. I have a few. They are convenient for a carry radio. The cheapy Baofeng causes no tears if lost or damaged. Their power rating is only 4 – 8 Watts, which is similar to FRS, GMRS, or CB hand-talkies from big-box stores. Their performance improves somewhat by connecting to a better antenna, like the base described above. Caution: Because of low power, they almost require a remote repeater. Even then, communications is not assured. From our group experience, they are not suitable or dependable for an emergency communications radio.

How to talk.

Select appropriate frequency.

If hand-held, hold antenna as vertical as possible to match vertical polarization of others.

Press PTT. Speak in normal voice. Microphone is small 1/16" hole on front. Space next to side of mouth.

I am available to talk to anyone:

My call-sign (NM0D) monitoring.

Calling specific person:

K5CAY this is (de) NM0D.

Answering:

My call-sign, their call-sign (K5CAY), go ahead Fred.

Discussion:

Genteel. Whatever you want, like a good neighbor. No music.

Ending call:

73 (goodbye, best wishes, etc) NM0D. If no answer, just say: NM0D.

Relax:

Just be yourself. If you miss something, so what? Go with the flow.

AVOID:

Anything that sounds like CB, the hangout of unqualified & unskilled.

Welcome to real radio, which works when nothing else does.

