

# HOW TO GET STARTED IN AMATEUR RADIO

Okay, you've passed the Amateur Radio license exam and received your new call sign.  
**Now what?** We recommend several things first off:

Obtain a VHF/UHF ham radio and start listening.

Join the ARRL and explore their website for all kinds of information about the hobby.

Join a local Amateur Radio Club where you can learn and ask questions.

Learn about the local repeaters and nets that are regularly on the air - [and join in.](#)

## Choosing a Ham Radio

Once you get your Technician class license getting on the air is fairly inexpensive with a handheld VHF/UHF transceiver. "Handie Talkies" can be purchased for under \$50 dollars and work well as an introduction to on-air operation and radio programming procedures. Most radios use computer software which makes programming easier and allows the setup file to be saved. One widely used computer program is CHIRP. It allows you to choose your radio from a list of supported radio models. It makes programming much simpler. Manual programming is more difficult and each radio will have different instructions for programming. The procedures can be very confusing but once you understand the information your radio needs it becomes easier.



When you are ready to upgrade it is a good idea to ask other hams about equipment you are considering. A local ham club is a great resource for any questions you may have.

## Repeaters

Repeaters are special radios that receive on one frequency and transmit on a different frequency. They are placed on high points such as buildings, hills, and towers. This allows radios to communicate over greater distances. To use a repeater you must program some information into your radio. You can get the information you will need from various apps or books. "Repeater Book" is one such app.

To program your radio for use on a repeater you first need to know the frequency of the repeater. Let's use 145.110 MHz, this is the frequency your radio will listen on. Next you will need to program the *offset*. For this repeater the offset is -0.6 MHz which means when you transmit your radio frequency will change to 144.51 MHz ( $145.110 - 0.6 = 144.51$ ). This is the frequency the repeater is listening on. The final piece of information you will program into your radio is the CTCSS Tone also called PL Tone. This is a subaudible tone your radio will send that tells the repeater to send your signal. Without the tone the repeater will just ignore your signal. Once your radio is set up the repeater will send your message out on 145.110 MHz for everyone to hear.

Before you send a call on a repeater make sure it is not already in use by listening for a few moments. Once you are ready to send out your call sign you can say for example – "(*your call*) monitoring". You might say it a couple of times to give anyone listening a chance to catch your call sign.

Finally, be sure and leave a few seconds between transmissions. This not only gives other operators a chance to join in a conversation but also gives the repeater a chance to stop transmitting. After a certain period of continuous transmission, a repeater will "time out" and stop transmitting.