

Ham 23 – VHF/UHF Base/Mobile
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1. For consistent, always on communications a base radio becomes the next instrument in the ham tool-kit. Generally, the base radio is called a mobile. Why? Mobile radios use a design for 12 VDC. With a power supply, they operate from 120 VAC power. With a battery, they can operate in an emergency.
2. The first base/mobile radio is typically a hand-held unit connected to a fixed antenna. These perform well with close, powerful repeaters. What are you looking for? With our terrain and distances, at least 50-Watts are needed for dependable simplex to use when things go south. Another option includes GPS tracking for mobile units during emergency or ARES, but the GPS must be turned-off to stop tracking and for fixed operations.
3. A VHF/UHF, dual band is most common, since it can hit most repeaters. Single 2-meter radios are less expensive, but limited. Adding a 220 MHz band is a nice upgrade, but uncommon. Combining with HF makes a compact station, but runs the entrance cost up and restricts use to one band.
4. The cost does not have to be stratospheric. The technology has progressed such that the Japan radios were available first and have developed more mature, excellent rigs. The less-expensive units tend to derive from mainland China. The country of origin is significant since that determines some of the connectors and manufacturing issues. Little innovation has occurred for 8-years, because copies by China have forced prices down, making research investment prohibitive.
5. Top-notch Icom or Yaesu units are available for about \$250 - \$400, while less expensive alternatives start around \$125. Much more can be spent.
6. The first photo is the premier Icom ID-5100 with touch screen and 50-Watt power output, having all the digital bells and whistles, including the kitchen sink. It can locate the nearest repeater and talk around the world through reflectors. As an illustration of mature technology, this is still Icom's premium unit after eight-years of production. On sale, the rig costs about \$375.
7. Yaesu FT-2980 is a compact but powerful 80-Watt VHF only radio. This is a straight-forward ultra-rugged rig with no cooling fan but massive heat sinks, making it very quiet. The unit is very cost competitive at \$160 and on sale at \$149.
8. Icom IC-2730 is a very practical plug & play analog rig. It has the same 50-Watt power, but operates as simply as a handheld. The front panel has a duplicate, two-of- everything set of controls, since the radio operates as two separate receivers. The unit becomes a cross-band repeater for local events. The price drops to about \$250 on sale. This is the unit that many knock-off vendors attempt to copy for multiple reasons.
9. Kenwood, the other big-three Japanese manufacturer, has a 50-Watt TM-V71 that supports Echolink sysops at a price over \$450. They now focus on hand-held and HF.
10. Anytone is one of the more common labels on China radios. Their units are made by different factories, but are marketed on one label. Be careful of knock-offs from other factories using the same name.
11. Anytone AT-778 wins on price-point of \$125. The dual band, compact radio fits the kiss-principle. Coming in at 25-Watts, it is low power. While good on repeaters, its simplex effectiveness is more limited.
12. Anytone AT-5558UV is a 50-Watt rig, which looks cosmetically different, but appears to have copied the Icom 2730 functionality. Interestingly, their prices are very similar. The Anytone Mini AT-779 is a small, very low power 20-Watt unit.
13. TYT TH-7900 is another 50-Watt unit which appears to have copied Icom 2730 functionality, packaging, and cosmetic features. The price is marginally lower than the Icom on sale. Again, different factories create knockoffs.
14. When looking at radio products on Amazon, *caveat emptor*. Commonly, knock-offs are offered without product support. The manufacturer brands identified for the Anytone and TYT are not common to us, so imposters can sneak in.
15. Reliable vendors include HRO, DX Engineering, R&L Electronics, GigaParts, and Main Trading Company.



Icom ID-5100, digital



Yaesu FT-2980



Icom IC-2730, my favorite



Anytone AT-778



TYT TH-7900

