

GO-KIT for EMCOMM and Portable use

A GO-Kit is simply “A shack in a box” that is self-contained and can be transported at any time to set up a portable radio station in a desired location. This solution can benefit those with non-voluntary operating restrictions where operating from your residence is not allowed. Go-Kits are very popular with EMCOMM as well as portable operating events such as Parks on the Air, Islands on the Air, and of course, ARRL Field Day.

Go-Kits come in all shapes and sizes, and although most are home brew where the ham can express their creativity, there are some commercially available as a package. Things to be considered are HF/VHF/UHF or VHF/UHF only, power level, power distribution system, self-contained and/or external power via battery with consideration for solar and AC input for Generator, antenna tuner, grounding, provision for digital modes and perhaps externally facing speakers.



Above are photos of my Go-Kit, mostly with older radios, but HF/VHF/UHF/APRS is covered. For further information, go to www.QRZ.com/db/n2zz

There are multiple YouTube videos on putting together a Go-Kit for yourself, but here are a few pointers: For UHF/VHF you will most likely be able to use a mobile whip for an antenna. For HF, though, the antenna lengths are much longer, and to achieve a resonant antenna may be difficult. Most tuners built into radios have a very narrow range in matching the antenna to the radio. Most can handle <math><3:1</math> SWR, but that may not be sufficient. Be sure your antenna tuner can match up to 10:1 SWR, although in most cases it will not have to do so. For Transceivers, QRP may not fill the bill, particularly for EMCOMM. Look for a 100-watt radio, and just turn down the power if you desire QRP. For this purpose, also look for a radio that can be powered with 12 Volts. For grounding, I found a grounding strip from an AC home service panel, mounted it on the back and have all the radios connected to that ground. Set up in the field is to just drive down a ground rod and connect it to the grounding strip.

Power connections are via PowerPoles.

My unit is enclosed in a GATOR Box, the unit used by many road musicians for their electronics. Rack mount panels with bases were used to mount the radios.

The radios above are shown being powered by AC mains. In the design is a PWRgate PG40s. I can connect an AGM 12 V battery to the battery terminal of that unit. While I have AC power, the battery is being charged. Once AC is lost, the Go-Kit goes to battery power at the speed of electrons. With solar panel(s) and a solar charge controller, the battery can be charged in that manner also.



REAR VIEW

The pouches on the sides are to hold the microphones when stored.

If this is your first read on Go-Kits, I hope it was not overwhelming. All of this is doable, and the sky is the limit with innovation! Go out there **AND GET ON THE AIR!**