

My Radio and Battery in a Box

I had a nice box and a spare radio looking for a project; so, I decided to build a portable kit. The radio I had was a Yaesu FT-8900R, which is technically a quad-band radio (10, 6, 2 & 70); however, I chose this radio because it supports cross-band repeat which I find extremely helpful.

One of the first things I did was take the box to Batteries Plus and see what batteries would fit. The salesman pointed out a nice lead-acid battery that fit in my case perfectly. After lugging this around for a while, I replaced the battery with a Lithium-ion battery. My kit is now 19 pounds lighter!

Installation was simple. I used a quick release mobile mounting bracket to mount the radio. The battery is sitting on double-sticky-back tape and its weight keeps it from moving around.

At the other end of the case, I drilled holes for an antenna jack, a powerpole connector and a data connector. The data connector is wired to the data connector on the back of the radio which gives me easy access for programming the radio and connecting it to a TNC for digital operations. There was just enough room in the case to slip in a TNC next to the battery.

The Yaesu radio does report battery voltage on powerup; however, I did add a DC voltmeter.

Final construction included adding a microphone clip to the side of the box and connecting the Powerpole connector, battery and radio together using ATC fuse connectors and inserting the fuses.

Item	Vendor	Price
Fluke C1600 gear box	Amazon	\$71
Yaesu FT-8900R Radio	HRO	\$320
Bioenno BLF-1220AS Battery	Powerwerx	\$205
Larsen NMO2/70 Antenna	HRO	\$70
Kantronics KPC-3+ TNC	HRO	\$200
Dual Powerpole connectors	Amazon	\$24
Mini-DIN socket	American Radio	\$1.50
Mini-DIN Plug and cable	HRO	\$10
DC Voltmeter	Powerwerx	\$20

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22	FIRE7A	444.2800	Fire/Rescue - Marysville, Snohomish County
23	EMER7L	247.1800	Sno County - Marysville, Everett, WA 7/24M
24	EMER7A	444.5750	Sno County - Marysville, Everett, WA 7/24M
25	4425MP	442.5750	Marysville SMP
26	EMTQEW	442.5750	Everett Office of Emergency Agency
27	BIDE7T	442.5250	Beacon - Boeing - Lynnwood, WA 7/24M
28	DARRING	442.5750	Darrington
29	BARLOW	442.8000	Barlow Pass
30	PCSIC	146.2800	Ref Cross-Simplex
31	PCSIA	441.3500	Ref Cross-Simplex
32	PCSIB	445.4500	Ref Cross-Simplex
33	PCSIBB		

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