

EMCOMM box by KI6VVV



I would like to first give credit to a source on the internet for the idea to create this box. The web address to see the original design is <http://ronin.losdos.dyndns.org:8080/>. Please review the article for indepth construction details.

Following is a parts list with suppliers for all the major parts to this unit:

- Enclosure: MTM Case Guard 'Sportsman's Dry Box' Spud7; <http://www.mtmcase-gard.com/>
- Radio: Yaesu 857D HF/VHF/UHF radio; New from HRO or used from QRZ.com, QTH.com etc.
- Power Supply: Samlex SEC-1235; New from HRO or <http://www.samlexamerica.com>
- SWR Meter: LDG FT meter, only needed for the Yaesu 857D: New from HRO
- Super PWRgate PG40S Backup Power System: Allows charging/operating simultaneously. Automatic switching between power sources. ; West Mountain Radio <http://www.westmountainradio.com/SuperPWRgate.htm>
- Battery: 18AH Sealed Lead acid battery: ebay, or other sources Don't pay retail
- Power Distribution Center: Rigrunner 4005H; New from HRO 5 fused circuits protect all equipment
- Power Analyzer: Medusa Research Power Analyzer Pro; <http://www.medusaproducts.com/Power-Analyzers>
- VHF/UHF antenna connector stubs: New from HRO
- Anderson Power Pole Chassis Mount: new from Powerwerx.com; <http://www.powerwerx.com>
- External Speaker: Radio Shack
- Switches: 3-micro switches, 2 regular size switches; Radio Shack
- 12V DC Car Adapter: Radio Shack
- 120V AC shielded plug: Radio Shack, Fry's Electronics or other computer supply store
- Solar Power Controller: Sun Gard 4-12V; <http://www.affordable-solar.com/>
- Anderson Power Poles: 15 amp & 30 amp. New from HRO. Anderson Power Poles have been adopted as the standard power linkage units for ARES/RACES EMMCOMM units. All your connections should be Anderson Power Poles. Soldered is just fine. Just remember " RED RIGHT, TONGUE TOP"
- Solar Panel: 12V 30W rigid solar panel; <http://www.affordable-solar.com/>
- Antenna Cables: SO-239 plugs & COAX parts from HRO. I custom made the lengths myself.
- Wire: 10 Ga. Red/Black zip line; HRO

This unit can be powered by 4 different sources; Onboard 12V 18AH battery, 120V AC House power, 12V 30W solar panel & external 12V car type battery. This unit can be utilized completely 'off the Grid'. For emergency on the go antennas, I use an Elk 2M/440 for VHF/UHF & a Buddistick 10M-40M for HF. Not having a CNC machine to make the panel for the box, I used an old garage shelving unit & scroll saw to accomplish the cutouts. The construction of the items in the box will need to be custom fit based on your choice of radios and accessories.

Respectfully submitted, Douglas Hinckley KI6VVV