

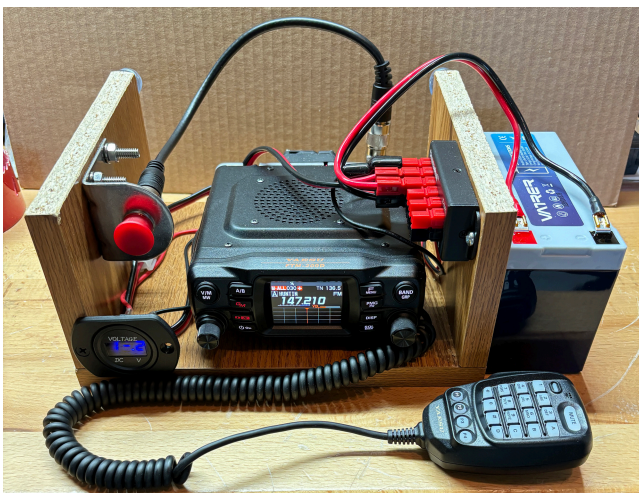
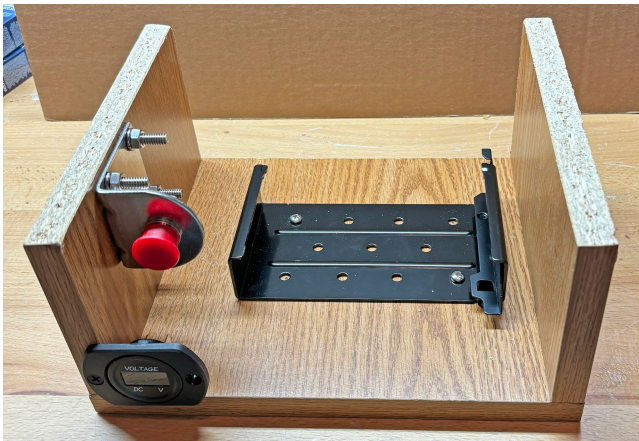
Mobile / Portable Self-Contained VHF/UHF System

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Introduction

This system is completely self-contained. It can be used anywhere. This system has its own battery, charger, and shoulder case. Simply put it down and connect the antenna. In a vehicle, put it on the seat and use the magnetic mount antenna on the roof or use the mobile whip antenna connected directly to the system while walking. If the mobile whip antenna is connected directly to the radio, use low power. Any combination of radio, battery, and antenna can be used. This is just one. If the RTS software is used, the display must be in dual mode.

A camera bag was chosen because it is light weight and has a shoulder strap. There are probably less expensive camera bags available. The entire system weighs 11.5 pounds including the charger, which is stored inside the case outer pocket. The cigarette light plug can be used to charge the battery from a car. An on-off switch was added for the voltmeter after the photos were taken.



Parts List

Yaesu FTM-200DR 50W C4FM-FM Dual Band Digital Transceiver

Transceiver, Mobile, Dual Band, 144/440MHz, Digital, C4FM/FM, 50W, 2 in. High-Res Full-Color Display, DTMF Microphone, USB Cable Incl., 13.8 VDC, Each
\$400

RT Systems Radio Programming Software

Programming Software and USB-77 Cable for Yaesu FTM-200, Software Download Code Inside Shipped Package, Windows, MacOS
\$49

Tenba Skyline Messenger 13 Bag

Exterior Dimensions 14 in. W x 11.5 in. H x 6 in. D
Interior Dimensions 13 in. W x 11 in. H x 5 in. D
Weight: 1.5 lb

\$90 at B&H

https://www.bhphotovideo.com/c/product/1715168-REG/tenba_637_613_skyline_messenger_13_bag.html

Magnetic Mount Car Rooftop Antenna

Diamond MR77 144/440 Mobile Mag Antenna UHF Connector

DIAMOND 146/446 MHz Mini Dual-Band Mobile Antenna w/ Mini Magnet Mount & Cable RG-58/U Length Approx. 13ft , Black, Gain: 2.15 / 3.4 dBi, Connector: PL-259, Antenna Length: 20", Max Watts: 70, Magnet Diameter 2.6" UHF Connector

\$55 at Amazon

https://www.amazon.com/Diamond-MR77-Mobile-Antenna-Connector/dp/B00M8MLSJ0/ref=sr_1_1?crid=3ISCF5DX32DE2&keywords=diamond+mr-77+antenna&qid=1699030214&srefix=diamond+mr-77+antenna.aps.62&sr=8-1&ufe=app_do:amzn1.fos.006c50ae-5d4c-4777-9bc0-4513d670b6bc

Or

Bingfu Ham Radio Vehicle Car Mobile Radio Antenna Dual Band VHF UHF 136-174MHz 400-520MHz Magnetic Base PL259 Male Antenna for BTECH ICOM Kenwood Midland Yaesu TYT AnyTone Amateur Radio Two Way Radio

\$25 at Amazon

https://www.amazon.com/gp/product/B07HQ8SJ5P/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&th=1

Portable Antenna

Comet Original SBB-2 146/446 MHz Dual Band Mobile Antenna 18" PL-259

\$50 at Amazon

https://www.amazon.com/Comet-Original-SBB-2-Mobile-Antenna/dp/B00SJRK0CE/ref=sr_1_3?crid=3QUDS3YMXV33J&keywords=Comet+Mobile+VHF/UHF+Vertical+Antennas+SS-460SB&qid=1698848229&srefix=comet+mobile+vhf/uhf+vertical+antennas+ss-460sb,aps,92&sr=8-3

Or

Bingfu Vehicle Dual Band Ham Radio Mobile Radio Antenna PL259 VHF UHF 136-174MHz 400-470MHz Amateur Mobile Transceiver Car Antenna for BTECH ICOM Kenwood Midland Yaesu TYT AnyTone Radioddity Cobra

\$30 at Amazon

https://www.amazon.com/gp/product/B097R8TLLV/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1

VATRER POWER 12V 7AH LiFePO4 Battery Deep Cycle Lithium Battery

Built-in 12A BMS, 5000+ Cycles Rechargeable Battery

Nominal Voltage: 12.8V

Charge Voltage: 14.2V -14.6V

Weight: 1.98LB /0.9KG

Energy: 89.6Wh

Max Continuous Charging Current: 7A

Max Continuous Discharging Current: 7A

Recommend Charge Current: 1.4A (0.2C)

Max Load / Inverter: 89.6W

Operating temperatures: Charge 0°C~50°C(32°F~122°F), Discharge

-20°C~60°C(-4°F~140°F), Storage -10°C~50°C(-14°F~122°F)

\$28 at Amazon

https://www.amazon.com/dp/B0B64XSGNV?ref=ppx_yo2ov_dt_b_product_details&th=1

ULTRAPOWER 4-Amp 14.6 Volt LiFePO4 Battery Charger

12.8 Volt LiPO Lithium Battery Charger,4- Stages Smart Battery Charger for

Cars,Motocycles,Golf Carts,UAV,Fishing Boat,Automatically Active BMS

\$29 at Amazon

https://www.amazon.com/dp/B08MPX414R?psc=1&ref=ppx_yo2ov_dt_b_product_details

DaierTek Battery Voltage Meter

Waterproof DC 12V 24V LED Voltmeter Panel 12 Volt 24 Volt 36 Volt Battery Monitor with Blue Light Round Digital Voltage Display for Marine Boat Car Automotive Motorcycle

\$10 at Amazon

https://www.amazon.com/dp/B0CF22LR2X?ref=ppx_yo2ov_dt_b_product_details&th=1

Jtron Car DIY Switches Water Drop Shape Push Button Switches Off/ON DC 12V AC 250V/6A 125V/10A 12v Surface Mount Switch for Fog Lights,DRL,LED Light

Bar,etc(Cable:19.6"in)

\$8 from Amazon

https://www.amazon.com/dp/B074V5WHSX?ref=ppx_yo2ov_dt_b_product_details&th=1

Valley Enterprises Two-Way Radio OEM-T Power Connector with Anderson Powerpole Connectors

Length 18 Inches, Compatible with Most Icom, Yaesu, Alinco, Kenwood, ADI, BTECH, and Other Chinese Radios

\$20 at Amazon

https://www.amazon.com/gp/product/B07GHD9Z7W/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

Tram Stainless Steel So-239 to So-239 Antenna Mirror Mount (3270)

\$16 at Amazon

https://www.amazon.com/gp/product/B01EXIFYCI/ref=ox_sc_act_title_1?smid=ATVPDKIKX0DER&psc=1

RFAdapter RG8X Coax Cable, 1ft 12inch Short PL259 Jumper CB Antenna Cable UHF Male Connector 50 ohm Low Loss for Ham Radio, Antenna Analyzer and SWR Meter

\$9 at Amazon

https://www.amazon.com/gp/product/B087BLHMHF/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&th=1

UHF Male PL-259 to UHF Female SO-239 L Shape Right Angle 90 Degree RF Coax Coaxial Adapter Connector (Pack of 4)

\$15 at Amazon

https://www.amazon.com/dp/B07RND7HC4/?coliid=I3SVOYMF05MUCP&colid=1YOLJO65R88Q0&psc=1&ref=list_c_wl_lv_ov_lig_dp_it

Chunzehui F-1011 6-Position 45A Power Pole Distribution Block Module, Connector Power Splitter Distributor Source Strip.

\$33 at Amazon

https://www.amazon.com/dp/B07KQD9V3G?psc=1&ref=ppx_yo2ov_dt_b_product_details

Halokny Car Cigarette Lighter Plug, 14AWG Cigarette Lighter 45A Extension Cable Adapter Connector, with Internal 15A Fuse, Compatible with Anderson PowerPole Port - 1M/3Ft

\$14 at Amazon

https://www.amazon.com/dp/B09YY6GYP1?psc=1&ref=ppx_yo2ov_dt_b_product_details

Wood for frame: one 8" x 10" and two 8" x 4"

Miscellaneous bumpers

Miscellaneous powerpole connectors