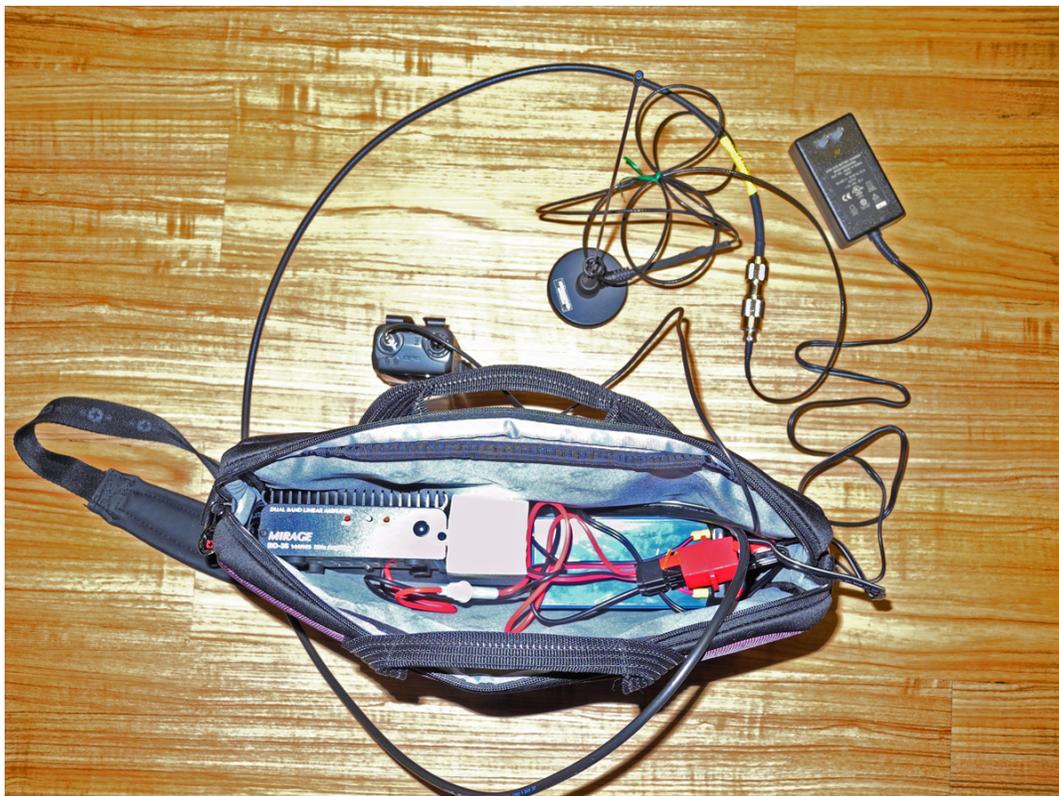
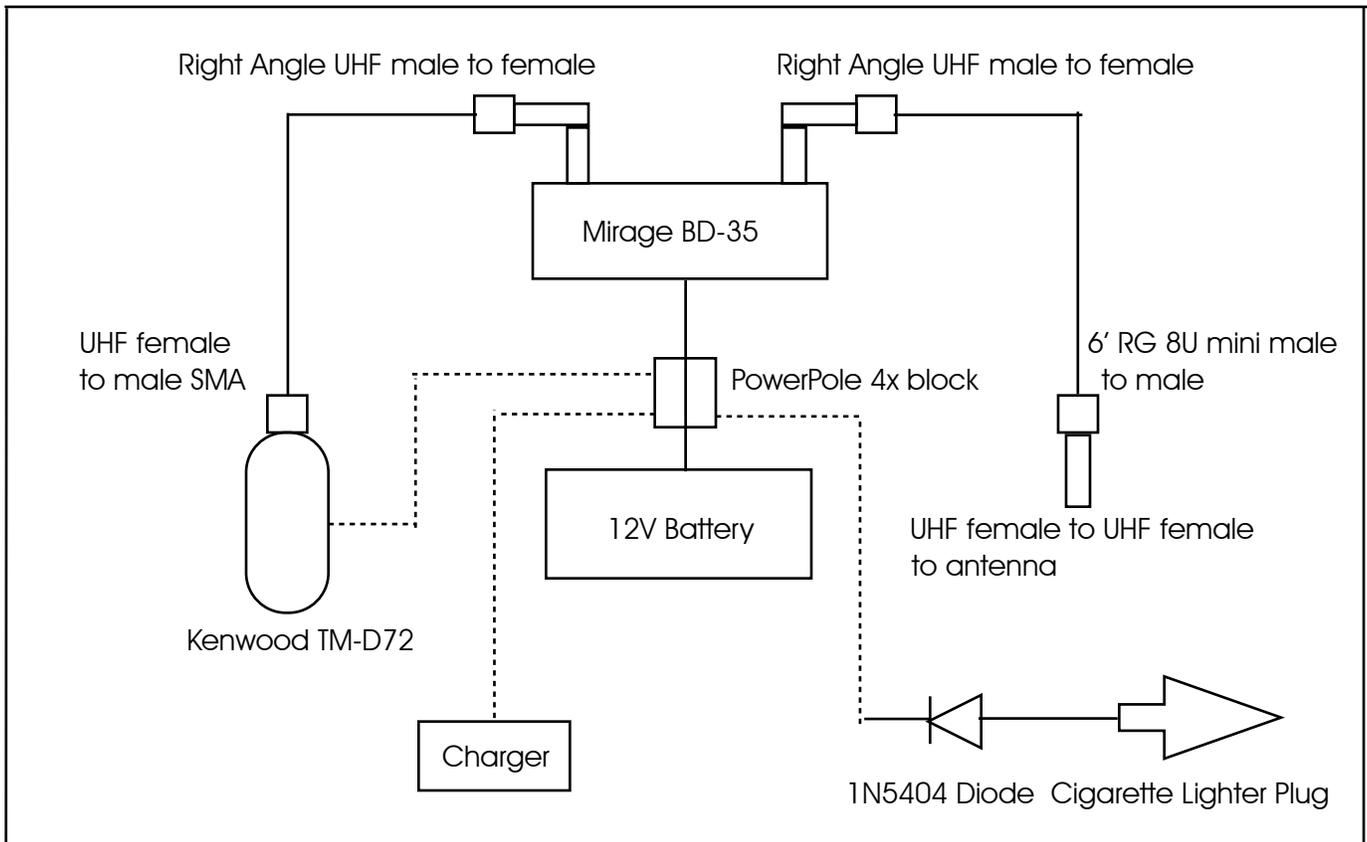


# HT Booster System

Dr. John Anthony Allocca, WB2LUA, [www.wb2lua.com](http://www.wb2lua.com), 1/21/12





## Introduction

The Kenwood TH-D72A HT is completely self contained for GPS and APRS operation. However, 5 watts and an HT antenna may not be adequate for most applications. The Mirage BD-354 dual band amplifier will boost the HT power from 5 watts to 35 watts. The system also includes a magnetic mount roof top antenna. A Power Sonic PS-1270, 12 volt 7 ah, 5.7 pounds, sealed gel cell battery with F1 terminals was used. All components were placed into a laptop computer case. Foam was placed on the bottom of the case and in between the Mirage amplifier and battery to protect the components. The mirage amplifier uses a mechanical switch, which doesn't draw current in the off position. Disassemble the cigarette lighter plug and install the diode in the direction shown above. Use PowerPole connectors on all 12 volt cables.

## Anderson Power Poles



Anderson Power Poles are universal connectors that are often used so that components can be interchanged with other systems. Soldering these connections works better than crimping. Make sure the polarity is correct - Red on the right and metal pin on top.

## Parts List

Kenwood TH-D72A Dual Band 2m/70cm with Integrated GPS/APRS Handheld Transceiver, \$460

Diamond MR-77 dual band magnet mount antenna, \$45

Kewnwood PG-2W DC power cable, \$21

Mirage BD-35 Dual band HT amplifier, \$200

Power Sonic PS-1270, 12 volt, 7 amp hour sealed acid battery - \$24

Power Sonic PSC-12800A 12 volt, 0.8 amps, automatic batter charger - \$49

Powerworx Anderson Power Poles, model PP30-25, kit of 25 power poles, \$20

Powerworx PS-4, 4 connection power pole splitter, \$18

UHF Male to Male UHF adapter, \$6

UHF Male to Female right angle connectors, \$6x2=\$12

NGC-Comet HS-10, 36 inch SMA to UHF Jumper cable, \$18

Cable Xperts 6 feet RG8X (mini) cable with two PL259 male connectors, \$23

Cigarette light plug with inline fuse

1N5404, 3A Diode

Laptop case with shoulder strap, \$39

F1 push-On connectors

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Total \$935.00

Total without the HT: \$475