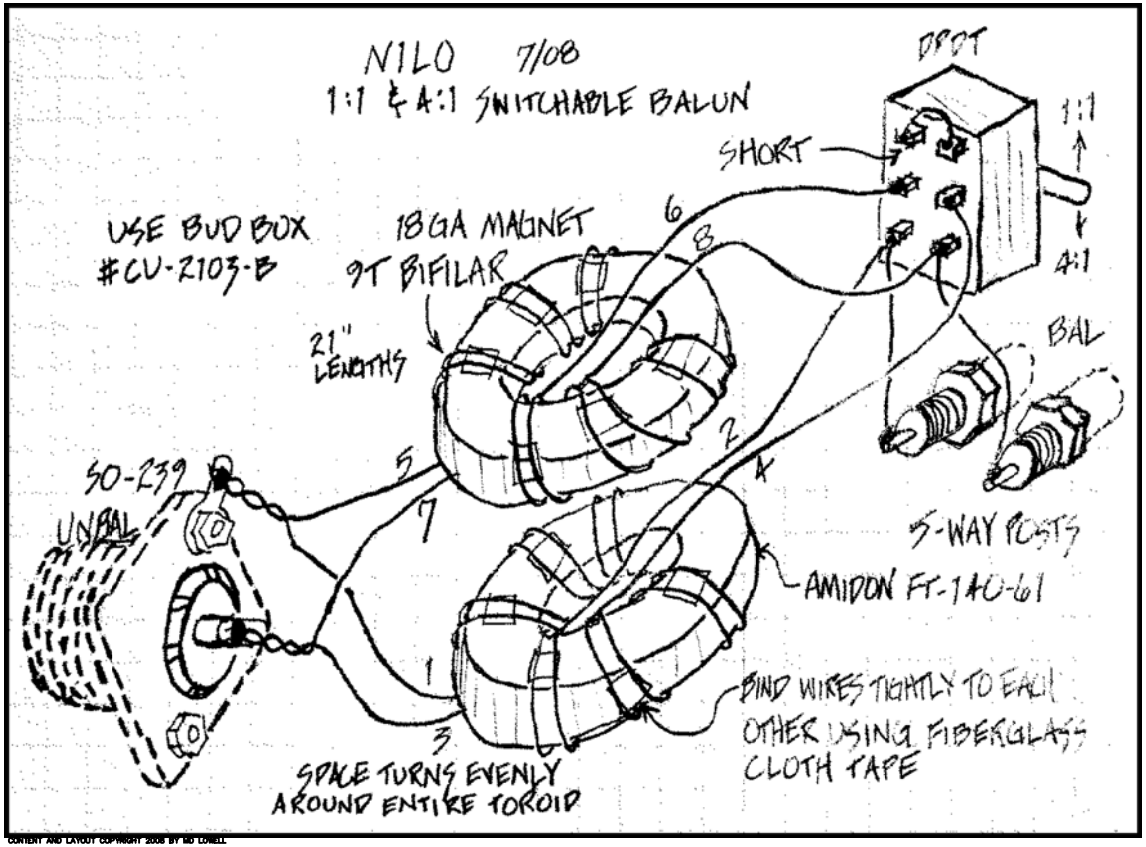


PARTS LIST (AS OF JULY 2008)
TOROIDS – AMIDON FT–140–61 (.75X1.14X.55 OD, u=125)
8' 18 GA THERMALIZE MAGNET WIRE – AMIDON #AWG #18 HAPT
12" FIBERGLASS TAPE (1/2" WIDE) – SCOTCH #27
BUD BOX 2.25X2.25X4" – #CU–2103–B MOUSER #563–CU–2103–B
SO–239 UHF PANEL JACK – MOUSER #523–83–1R
5 WAY BINDING POST –MOUSER #530–111–0107–1
MINIATURE DPDT SW – MOUSER #108–0010–EVX
SCREWS – #4–40 X 3/8"

NOTES (LAST UPDATE 20080719)
This balun is intended for 100W into multiband antennas fed with parallel line. Switch impedances as needed for the best/easiest match with your tuner, or change the feedline length a few feet (optimal electrical length is odd multiples of 1/8 wavelength). Using either 50 (@1:1) or 200 (@4:1) ohm resistors, I measured an SWR below 1.3:1 on 160–10m.

Use the template to mark the hole positions and a punch or step drill to make them. Drill the screw holes after placing the jack in the 5/8" hole. Put some ventilation holes in the sides to help you detect excess heat in the case of a poor match.

The two toroids are wound identically. Each is a Guanella 1:1 current balun by itself. Use 3/8" lengths for each tape wrap and space them 3/8" apart. Avoid twists and space the windings evenly around the entire toroid. Follow the schematic and use tic marks to number the wires. Using a torch, followed by scotchbrite or sandpaper, will minimize the scraping necessary to remove the wire's enamel insulation.

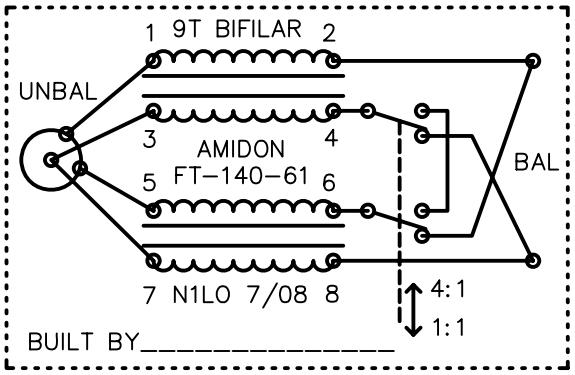
––...MARK_N1LO...––

←——PRINT THIS ACTUAL SIZE ON 8.5X11 PAPER. THIS LENGTH MUST BE 10.0" AFTER PRINTING FOR THE TEMPLATE TO MATCH THE BOX!——→

N1LO BALUN
BOX TEMPLATE
FOR BUD BOX
#CU–2103–B

Ø5/8

CUT N PASTE INSIDE LID



ALIGN WITH BOTTOM OF SIDE–>

Ø5/16

Ø1/4

Ø5/16