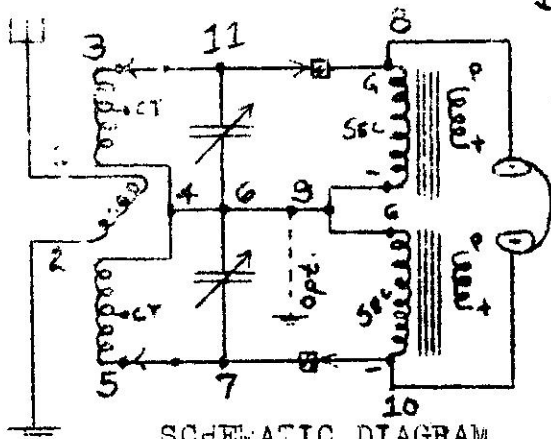


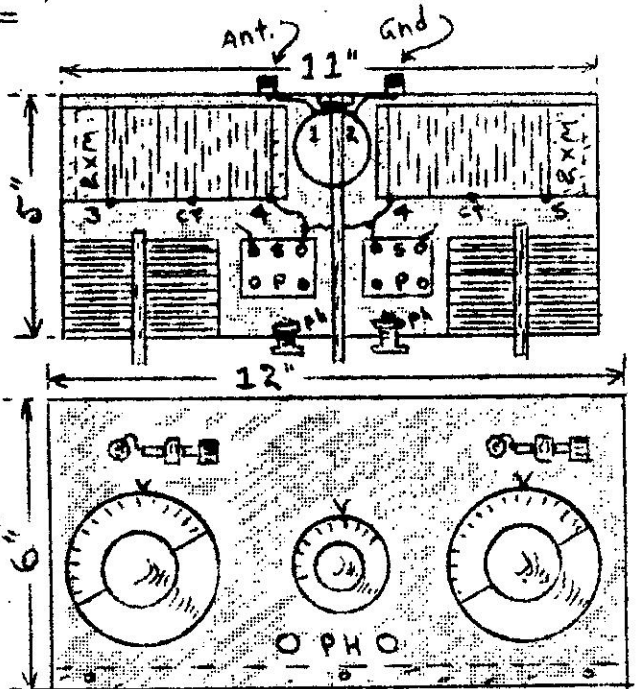
MRL No 5 - DOUBLE CRYSTAL SET

DATA PRINT # 32

(From DP #17)



SCHEMATIC DIAGRAM



BASE & PANEL LAYOUTS
Scale 1/4" = 1"

LIST OF PARTS:

- 2 .00035 or .0005 Var. Cond. (11-6-7)
- 1 #5 Xtal. coils, incl. 2 coils, rotor, brackets, etc. (1.50, 4 Bind. posts)
- 1 Compo. panel 3/16" x 6" x 12"
- 1 Plywood base, 1/4" x 5" x 11"
- 2 Audio transformers (any ratio)
- 2 3" dials (1) 2" dial 2 Xtal. stands
- 2 CT small batt. clips for coils
- 2 MRL Steel Galena crystals & c/w (or)
2-MRL Iron Pyrites Fixed crystals

PARTS FOR COILS:

- 2 MRL 2XM Cell. forms, (or) Bak. or Cardboard 2" dia x 4 1/2" long.
- 1 Pc. Bak. tubing 1 1/2" dia x 1" long (rotor) 1-pc. 1/4" dowel 6" long
- 100 ft. #22 DCC wire (coils & rotor) 1-Bracket for rotor (hole up 2 1/4")

According to reports to us, this set has received across the Atlantic on the Broadcast band. Plenty of volume and pretty good selectivity. If in the country away from stations, the optional ground connection (9) will increase volume. Placing the outer coils closer together will also increase volume in the country. Country reception - use a long aerial.

COILS: Coils (3-4) & (4-5) are identical. Wind 75 Ts #22 DCC wire on a MRL 2XM Cell. form, starting from end with small ring. (Secure 1st wire with tape put under 2nd turn). Make a tap at the 35th turn for Shorter Waves - scrape wire, and twist into a loop. Use clips on these loops for SW adjustment, as police, amateurs, etc. Mount coils a little off base for best results. ROTOR: Drill 2- 1/4" holes opposite each other in the 1 1/2" bak. tubing for shaft to go thru. Wind 15 Ts #22 DCC on this - 7-8 Ts on each side of shaft, and anchor ends good. Use piece of old phone cord or pigtail wire for connections to Aerial & Ground. Also use flexible leads for the clips on coils. (Two switches may be used for taps)

LAYOUT: Simple. Use approximate layout shown on Base & panel layouts, figuring 1/4" to 1". Mount parts on panel first; make coils; mount parts on base; wire up, making leads short as possible. You may use MRL Fixed Iron Pyrites Xtals if desired - in back, or on panel where Xtal stands are shown. Be sure to reverse crystals as shown, or they will buck each other. The secondary (hi-res. side) of transformer's works best.

OPERATION: Easy. Vary coupling knob for broad tuning and adjust Xtals. Then tune condensers for best volume. Adjust rotor if set is too broad. Use at least 2000 ohm phones, altho 20,000 ohms are equal to a tube.

Advise us as to results obtained, so we can pass it along. See latest MRL "RADIO BUILDER" for latest prices. When making inquiries, please enclose stamped envelope. Thanks.

MODERN RADIO LABORATORIES

"Yours for MORE and BETTER distance."