

**Pack 91**  
**Crystal Radio Project**  
**MARCH 2003**

Instructions

Step 1 – Coil Winding

1. Wind coils as indicated.
2. Holes for each coil **start** have been made.
3. Wire ends should be **inside** the tube and extend 4-5" past **top** of tube.
4. You may make holes while winding the coil threading the wire will help the coil lay flat on the tube.
5. Label wires with colored dots as indicated on drawing.
6. Provided wire is sufficient for both coils with some left over.
7. Masking tape may be used to hold wire in place while winding.

Step 2 – Clips & Labels

1. Holes for clips have been made including one clip assembled.
2. Assemble and attach the 3 remaining clips per example.
3. Apply clip labels as indicated.
4. Pull ID label for bottom end cap. Insert bottom end cap in tube.

Step 3 – Solder

1. Solder each connection as indicated. Use extra wire for Pink and Yellow2 wire sections.
2. Trim wire as needed.
3. Use sandpaper at wire tip for a good connection.
4. Screw grounding block to tuning capacitor **before** soldering block connections.
5. Twist wire on connection then solder, a **round** solder joint is best.

Step 4 – Assembly and Test

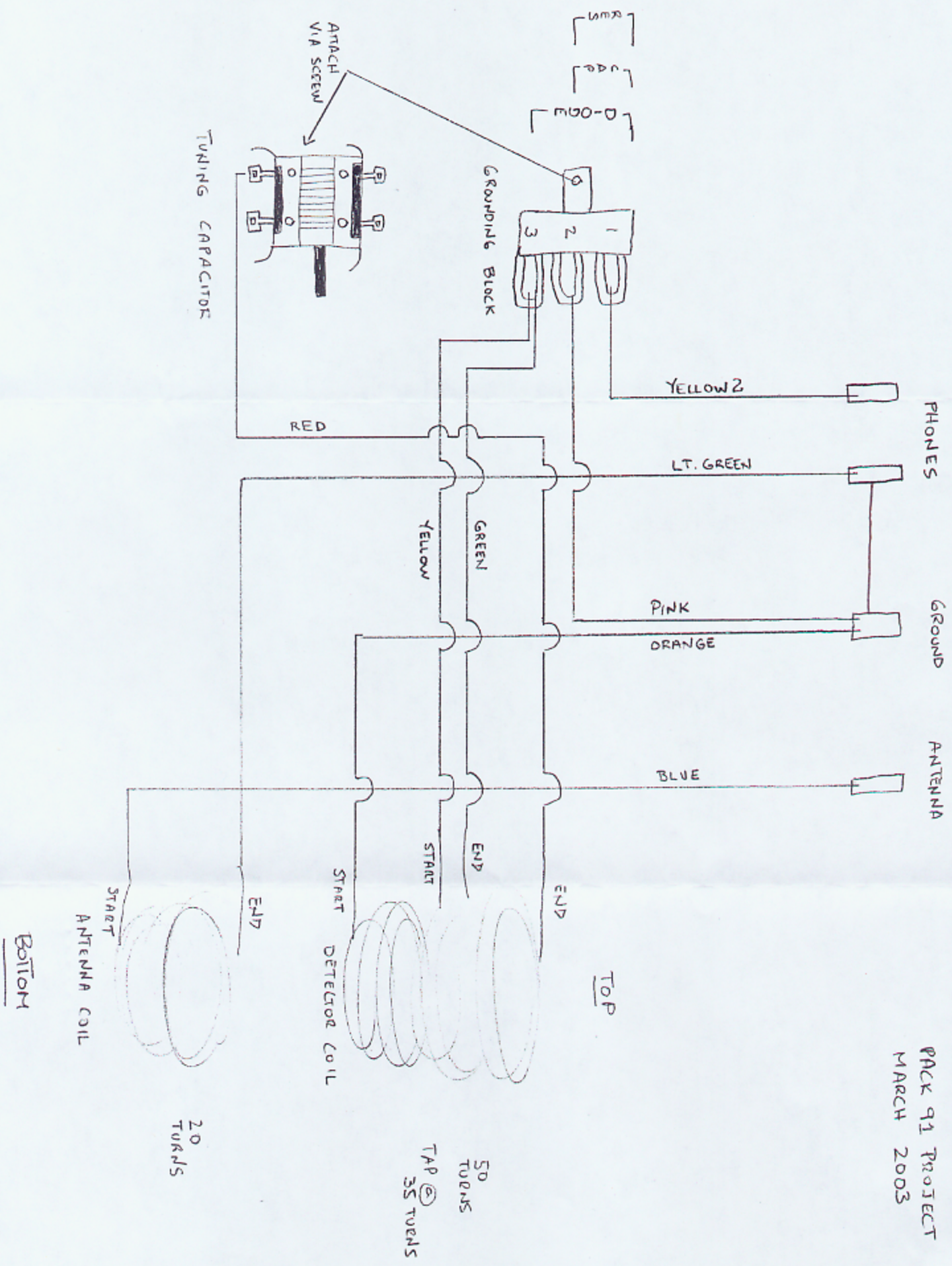
1. Attach top end cap to tuning capacitor using two screws.
2. Apply dial label and tuning knob to top end cap. You will need small screwdriver.
3. Connect ground, antenna and phones at test station.
4. Verify radio performance.

YOU ARE DONE!



CLIPS

MAIL TUBE  
CRYSTAL RADIO  
PACK 91 PROJECT  
MARCH 2003



TOP

BOTTOM

50  
TURNS

TAP @  
35 TURNS

20  
TURNS

START  
DETECTOR COIL

START

END

END

END

START

ANTENNA COIL

PHONES

GROUND

ANTENNA

YELLOW 2

LT. GREEN

PINK

ORANGE

BLUE

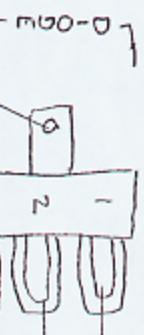
GROUNDING BLOCK

TUNING CAPACITOR

RED

YELLOW

GREEN



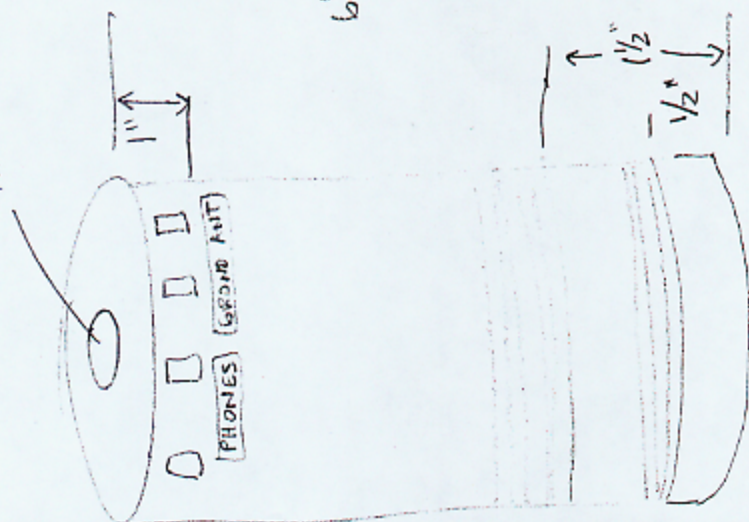
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ATTACH  
VIA SCREW



TOP

KNDB



DETECTOR  
COIL

ANTENNA  
COIL

BOTTOM