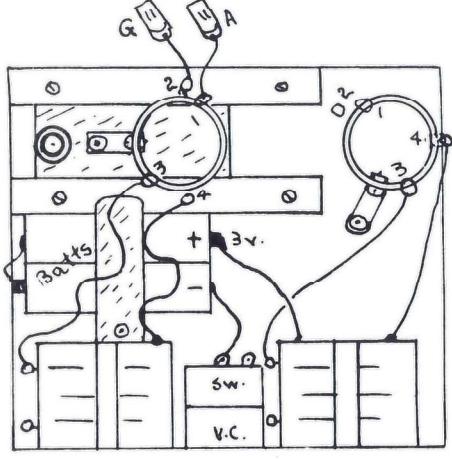
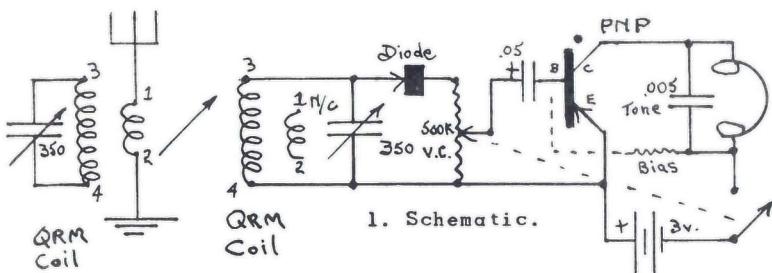
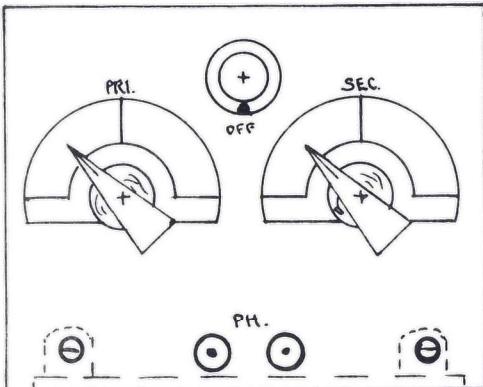


# MRL QRM COIL TRANSISTOR SET.



2. Base & RF Connections.



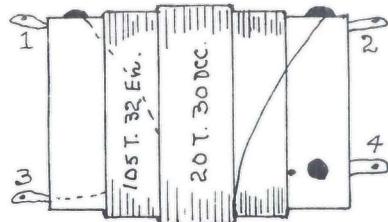
3. Panel.  $\frac{1}{2}$ " - 1".

## PARTS LIST

- 2 .00035 variable condensers.
- 1 .05 x 200; .005 mica cond.
- 2 MRL QRM Coils, or make.
- 1 Crystal Diode; PNP Transistor.
- 1 500K volume control and switch
- 2 Phone tip jacks; 2 Fahnstocks.
- 1  $\frac{1}{4}$ " bar knobs & scales; Knob.
- 1 Compo. panel 4x5; base 4x4 $\frac{1}{2}$ .
- 2  $\frac{1}{2}$ x $\frac{1}{2}$  and (2) 2XM brackets.
- 2 Pen cells and clip holder.
- 1 Mounting for Antenna coil.
- 1 Bias resistor, if needed.
- 1 Ft. loop wire for Ant-cond.
- Hardware, wire, etc.

Without a doubt, this is one of the most selective Xtal sets we ever rigged up. By pulling out the Antenna coil and bringing up the TRX volume - you can pick up almost any local station without QRM from another. Around here (24 stations) we hooked stations we never heard on any Xtal set before. Good tone, too.

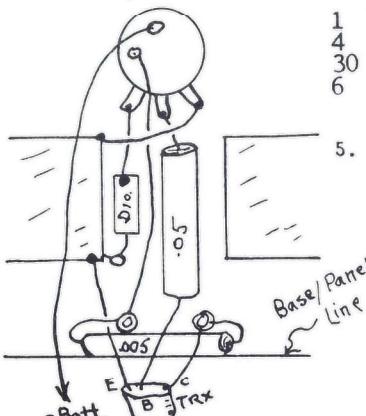
This is an old principle - but we haven't seen it used for many years. It does require an Aerial



PARTS FOR MRL QRM COIL

- 1 Fibre form 1" dia. x 1-9/16".
- 4 G-eyelet lugs or fasteners.
- 30 ft. #32 enameled wire.
- 6 ft. #30 DCC wire.
- Light coil cement.

5. MRL QRM Coil. Full size.



4. Cutaway showing Rear Panel Wiring of the Small parts.

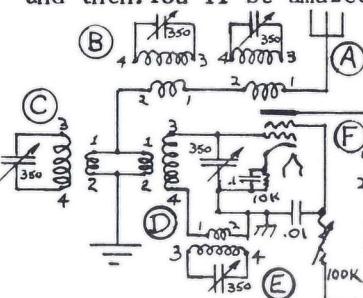
and ground, or good substitutes. We get locals when Ant. coil is pulled clear away from secondary coil. If in the far country, the Ant. and ground may be hooked to 1-2 on the secondary coil. Due to its construction, it should work well in the city or country with any size of Aerial.

Due to limited space, we have drawn most details for building it. You can fashion the slide mountings from strips of wood or cigar box. In our kits, we will do a wooden strip in one pc.

Almost any Diode or PNP Transistor will work. If using an NPN - reverse battery. It will work on one pencell, but figure 2 would be better, as they last a long time. For lower tone - increase size of the .005.

Some TRX require bias voltage. Put a 5K resistor in series with a 500K vol. control. Adjust to best volume and measure - then substitute fixed resistor. Bias with our TRX seemed to make it tune broader - but we don't know why this happens. Try it out.

This set should last for years - just replace the batts. now and then. You'll be amazed at it.



5. MRL QRM Coil. Full size.

Fasten eyelet lugs at end as shown. Wind on 105 Ts. 32 enamel and paint with coil cement. Over this, wind 20 Ts. 30 DCC and run to lugs, and paint. We find fibre tubing easier to work and it also works better when tuning a series trap, for some reason.

Fig. 6 shows many uses for QRM coil. (A-B-E) are series traps. Tune each coil to unwanted station and leave it. Then go ahead and tune balance of set. It will cut them down or out. One or more may be hooked in series.

(C) is a booster for pushing in a station and damping out the other unwanted stations.

(D) is QRM used as TRF Antenna coil for RF stage. The big primary gives lots of gain.

(F) is a coupling, or detector coil from RF. The big primary gives more impedance to plate.

(G) is for adding regeneration to any set detector. Helps make set more sensitive with more DX. Higher cap. - more regeneration.

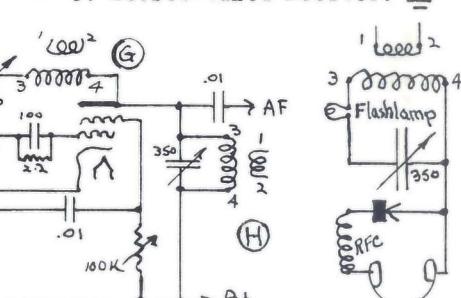
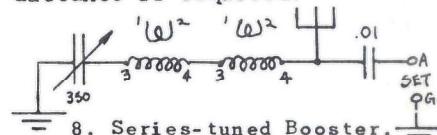
(H) is a tuned plate booster as often used in transmitters.

We have sold hundreds of these coils. Operation is almost uncanny at times.

Fig. 7 shows use as wavemeter. Hold it close to incoming signal and note reading on scale.

Fig. 8 is a series-tuned circuit that helps to "push" in the signals. Should be about right 4 the broadcast band.

In fact, the MRL QRM Coil may be used anywhere a BC band inductance is required.



7. As a Wavemeter.