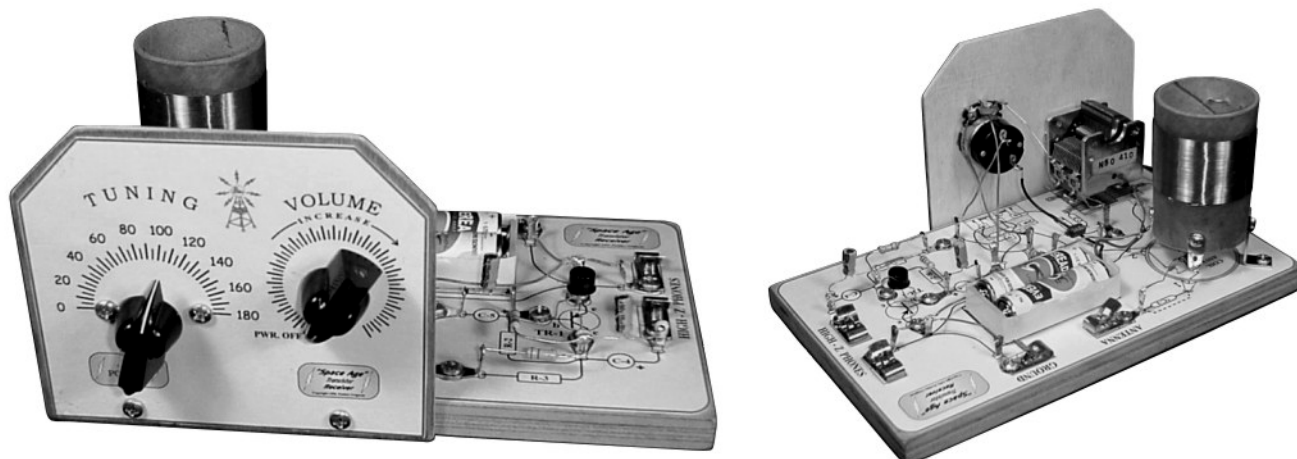


PO-1956, "Brand New-Space Age" Germanium 1-Transistor Radio Kit
"Space-age design": Germanium Diode detector, with a Germanium Transistor amplifier.



When transistors were just introduced in the middle '50s, I couldn't wait to build a receiver with them. My first was a 1-transistor set with a CK722, and it was a kit I got for my birthday. With much anticipation I put the thing together, broke the transistor, my Dad got another and it was a 2N107...the guy said it would work just as well. The thing worked, had a lot of fun with it, and would love to have that same kit in my collection today. Maybe eBay will have one show-up someday...my collection will then be, almost complete. Boy, do I treasure those CK722's and 2N107's now!

Decided to make this set "breadboard" style with templates, as that was very common in the '50s kits and magazine articles. The set is basically a high-performance crystal radio detector, with one stage of transistor amplification and volume control. Provided are a few optional parts, with instructions that enable to get maximum sensitivity and selectivity, with your particular antenna/ground situation.

Ceramic style earplugs and/or high impedance dynamic headphones will work the best on this set. Also included is an earpiece, but set will match most headsets of higher impedances, and will drive a small amplifier very ideally.

The transistor that is included in this kit, being Germanium, is a much-improved unit over what was available in 1956. In fact, this transistor is some of the later generations of the Germanium transistor, before being replaced with Silicon units. . . I still like the Germanium types, and seldom build sets using Silicon transistors. I love the '50s feel, and looks!

This kit is a newly modified, "third generation", of the original article that appeared in a newsletter article I wrote, several years ago. This one is far the best in performance, looks, and ease of assembly. "Third times a charm"!

See schematic, pictures, layouts and part's list...you will see that it is quite straightforward in its construction. The "Coil Detail" is actually a full-size template for drilling and winding the coil, properly, and you'll find all the coil details there. The "Coil-Form Bracket" is also included. Front Panel, and Part's Layout Template are also full-sized, full color, and layout is very easy to assemble and wire.

The parts for the set are all included, with a ceramic-type earphone. You just add two "AA" batteries, and be certain to get the cheaper/smaller ones, so the retro-style jackets will fit them, nicely.

When operating the set, you will find that the shortest antenna that will pull-in the stations, to be best in the set's performance. The set features differing antenna input alternatives. See notations on schematic and part's list. The ground clip is not usually needed for most moderately populated rural areas, so you may not need to use an "earth" ground on the set. Experiment with alternative antenna inputs, with or without earth ground, to see what works best for you, and your location. Enjoy!

PO-1956, "Brand New-Space Age" Germanium 1-Transistor Radio Kit Assembly Notes:

See "Coil Details & Template" on page #3. The template is to be cut-out, and wrapped around the Coil-Form. This template is used for punching all the holes, mounting the solder lugs, and bracket. Follow the instructions on the template, and wind the coil, scraping/tinning the ends to solder to the proper solder lugs as shown. The finished coil may be sprayed with clear acrylic, or coated lightly with melted canning wax, for securing the windings.

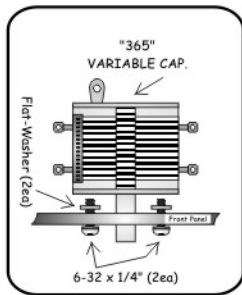
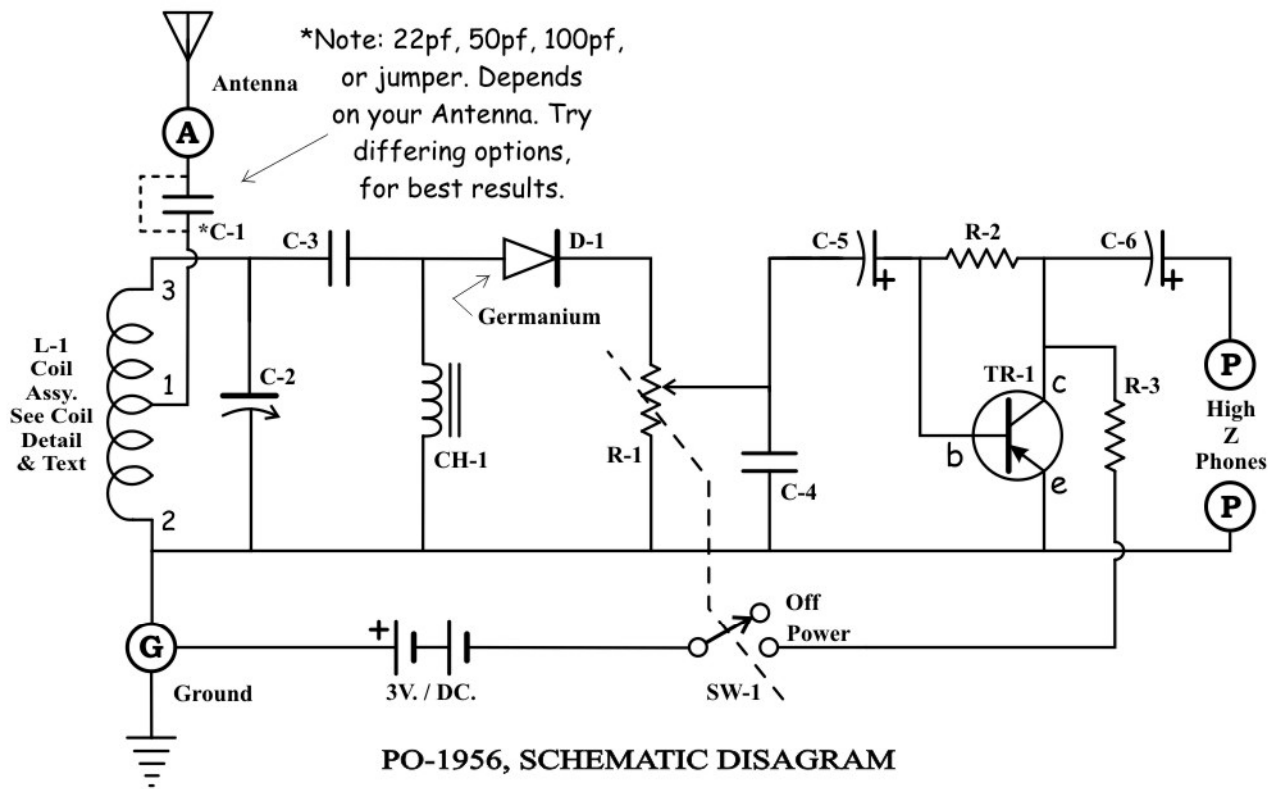
Cut-out the full-sized templates for Front-Panel, and Part's Layout, on page #4. Use "Stick-Glue" to secure these templates to the Front Panel, and Base-Board, centering them to each panel. Mount Front Panel to Baseboard, as shown in pictures, etc.

Acquaint yourself with all the parts as per Part's List on page #5, and Layouts and Notes on page's #3 & #4. Mount all the parts as per Layouts and Notes on page's #3 & #4. Wire the parts as shown, noting proper polarity designations on the Diode and C-5 & C-6. C-5 & C-6 have the "-" side marked on the side of the Capacitor, so the "+" side would be the opposite side, and the "+" lead is also the longest. Be certain Battery Polarity is correct from battery holder, and Batteries are properly inserted, as the Transistor may be damaged if the Batteries are wired, or installed improperly. Denote as per Part's List, which Resistor is R-2, and which is R-3. The Part's List shows the color-coding of each Resistor.

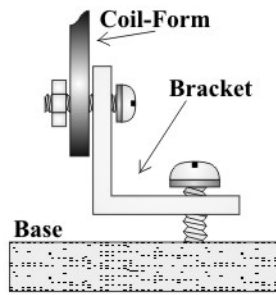
Make certain the Transistor is wired correctly, as per note on Page #3, and Chassis Layout. This is very important, as the Transistor may be damaged if wired incorrectly.

Install Batteries, after wrapping them with the "period-battery-jackets", making certain they are installed correctly. Connect the earphone, and temporarily install a jumper from "Antenna" to "L-1, #1". If stations are too loud, and too close together, then you may need to use a capacitor in place of the jumper. The "22" (22-pf) will give you maximum separation (selectivity), and the "101" (100-pf) will give you maximum loudness (sensitivity), and the "50" (50-pf) will be a "happy-medium". Choose the combination of the aforementioned, and "Earth Ground", for best performance in your area and Ant/Gnd situations. You may not need, or want to use "Earth Ground".

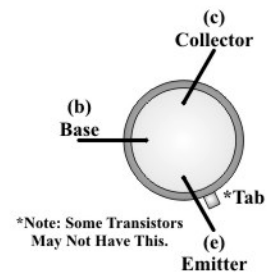
If unit does not work, then be certain to carefully re-check all your work. These sets are tested and re-tested, on my work-bench, and highly proven to work, and work very well. As a last resort, you may contact me at: <peeblesorigininals@comcast.net> and I will be happy to help. You may need to be prepared to send me high-resolution pictures of your work, as it's about the only way I can determine the correctness of set's assembly and wiring.



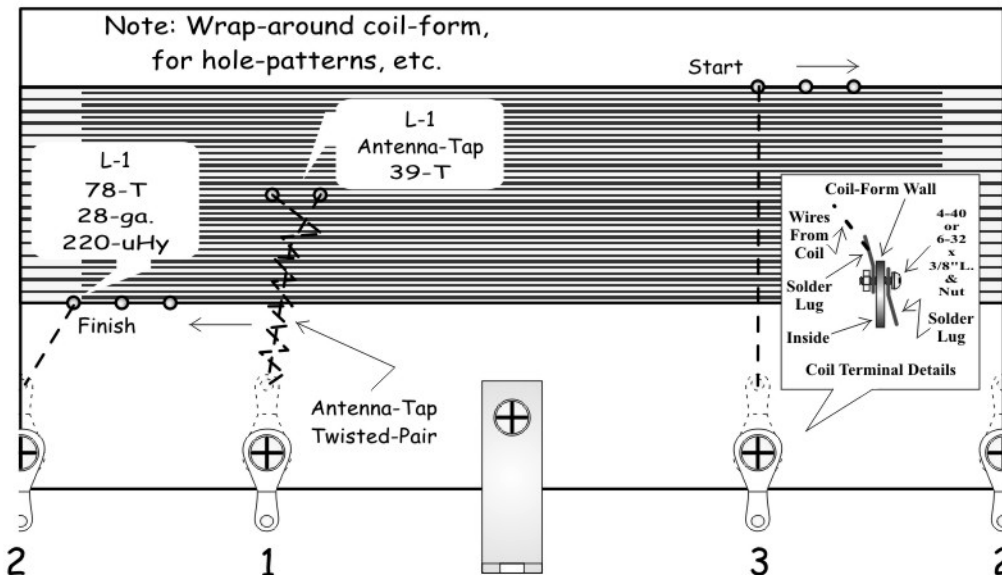
Variable Capacitor, Mounting Details



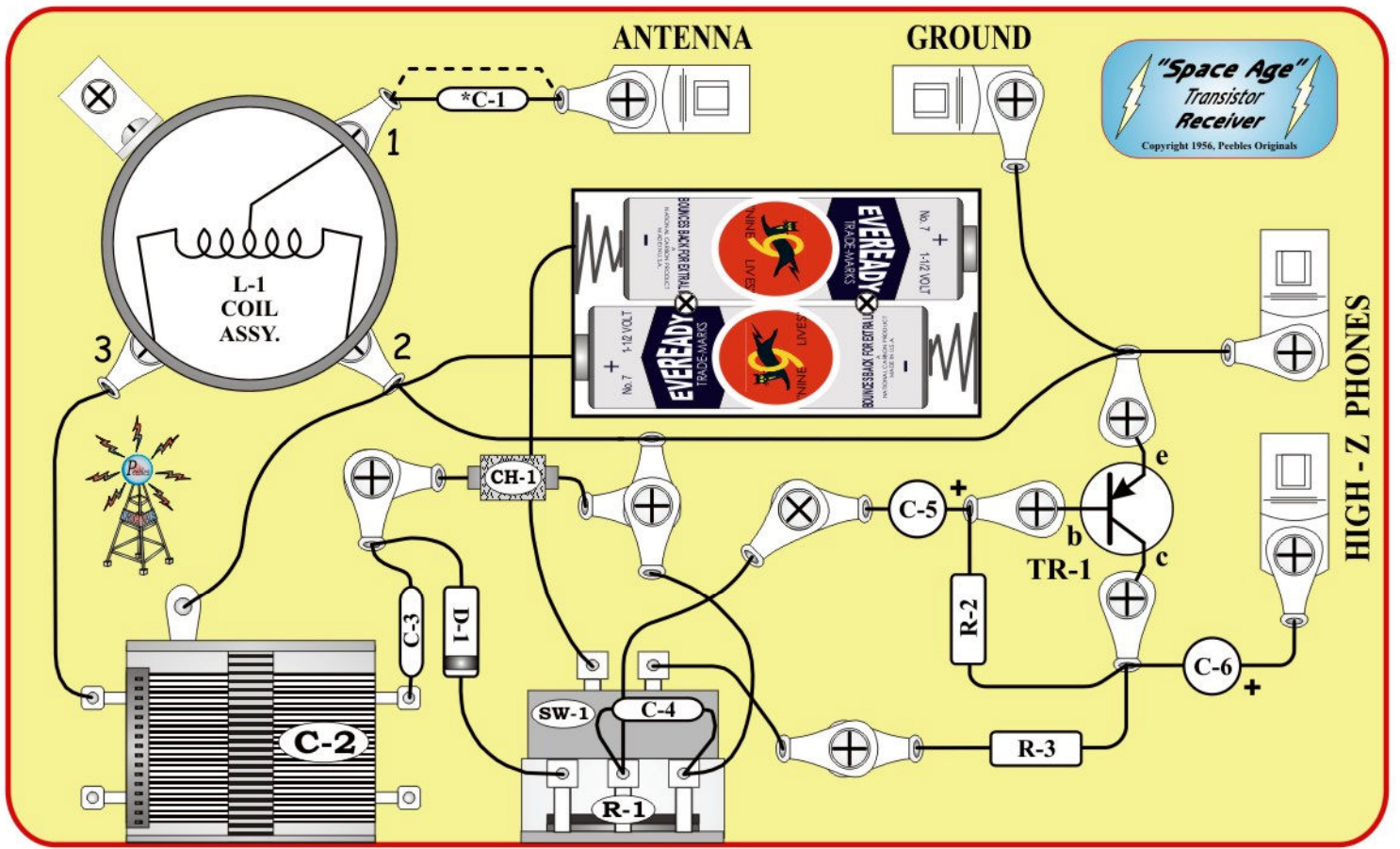
Coil Form Bracket Detail



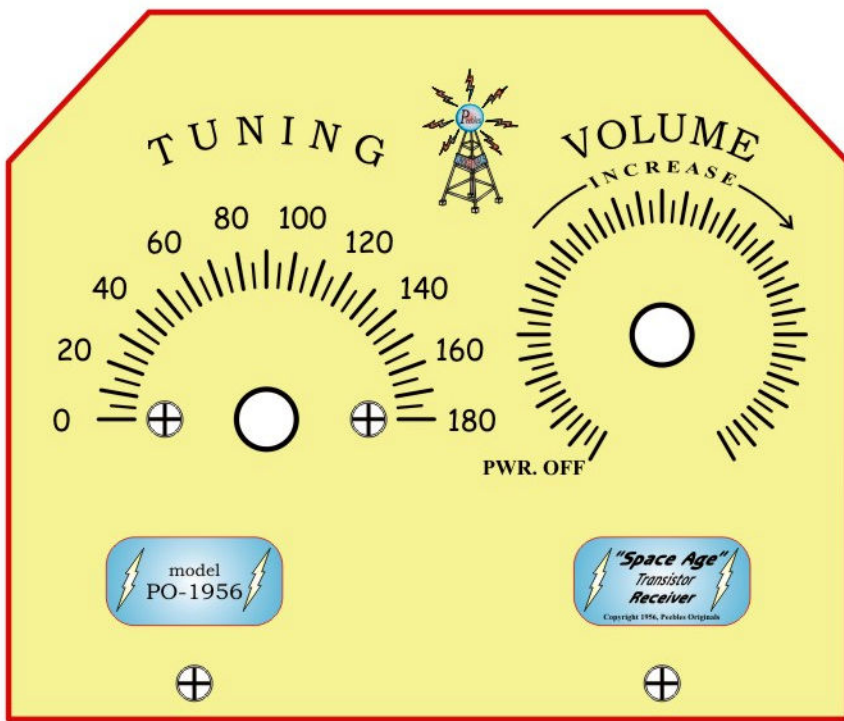
Transistor Pin Designations, Bottom-View



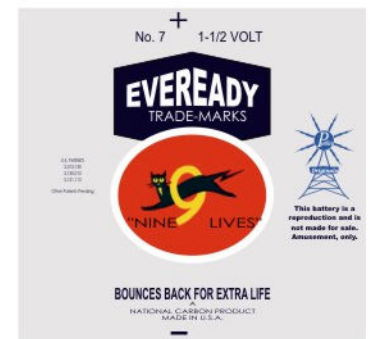
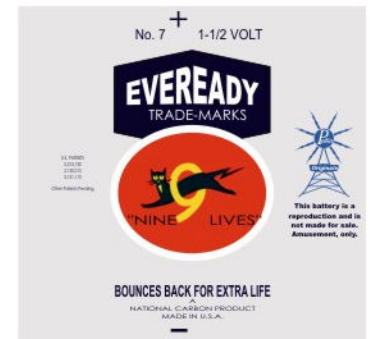
PO-1956, COIL DETAILS & TEMPLATE, FULL SIZE.



PO-1956, PARTS LAYOUT & CHASSIS-BOARD TEMPLATE, FULL SIZE.



PO-1956, FRONT PANEL TEMPLATE, FULL SIZE.



"AA" Battery Jackets

PO-1956, PARTS LAYOUT & CHASSIS-BOARD TEMPLATE, FULL SIZE.

PO-1956, ONE-TRANSISTOR RECEIVER, PARTS LIST:

<u>Qty.</u>	<u>Description</u>	<u>Part</u>
1	Capacitor, Disk Ceramic, 22-100pf, marked: 22, 50 or 101	C-1
1	Variable Capacitor, Single Gang, "365"	C-2
3	Capacitor, Disk Ceramic, 22pf, Marked: 22	C-3
1	Capacitor, Disk Ceramic, .001uf, Marked 102	C-4
2	Capacitor, Electrolytic, 10uf, 50V	C-5,6
1	Choke, 2.5mHy	CH-1
1	Diode, Germanium, 1N34A (Equivalent)	D-1
1	Pot, 50K, w/SPST	R-1/SW-1
1	Resistor, 220K, 1/2 Watt, marked: Rd/Rd/YI/Gld	R-2
1	Resistor, 10K, 1/2 Watt, Marked: Bn/Bk/Or/Gld	R-3
1	Transistor, Germanium, 2N2048 (2N1305)	Q-1
40'	Magnet Wire, 28 Gauge	L-1
2'	Hook-Up Wire, 22 or 24 Gauge	
1	Coil Form, 1-5/8" OD x 2-1/2" L. 1-1/2", Cardboard Mailing Tube	L-1
23	Solder Lugs, #6	
4	Fahnstock Clips, #6	
16	Sheet Metal Screws, #6 x 1/2" L.	
4	Hex-Nuts, 6-32	L-1
1	"L" Bracket,	L-1
4	Machine Screws, #6 x 3/8" L.	L-1
3	Machine Screws, 6-32 x 1/4" L.	C-2
2	Flat Washer, #6	C-1
2	Knob, Pointer/Line,	C-2, R-1, SW-1
1	Battery Holder, 2-"AA" Cells	B-1, 2
2	Batteries, "AA" Penlight (Not supplied i kit)	B-1, 2
1	Baseboard, 4-3/4" x 7-3/4" x 1/2" Thk	
1	Dial Panel, 3-1/2" x 4-1/2" x 1/8" Thk	
1	Earphone, High "Z", Ceramic/Crystal	

Questions. . .Contact, Mike at Peebles Originals,
e-mail: peeblesoriginals@comcast.net

See us at: <http://www.peeblesoriginals.com>