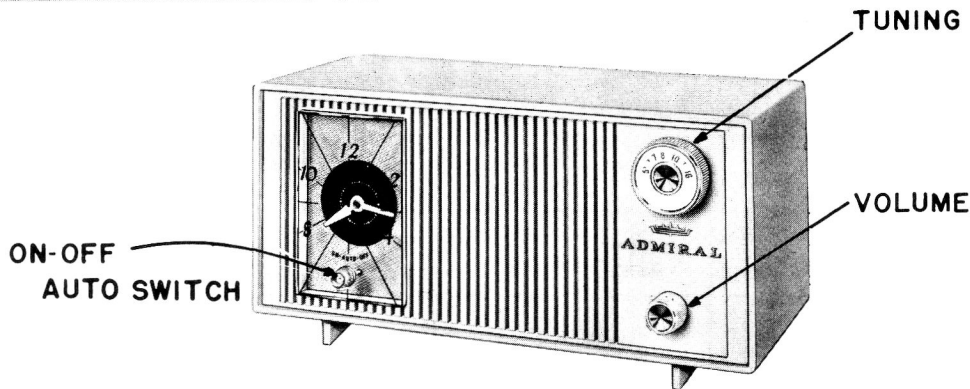


ADMIRAL

RADIO 4P3AX CHASSIS



Model Y3037X—Beige and white

SPECIFICATIONS

ANTENNA: Aeroscope®. Built-in loop type.

CIRCUIT: Superheterodyne using four miniature type tubes. One 12AU6 (converter), one 12AV6 (Detector), one 50C5 (output) and one 35C3 (Rectifier)

FREQUENCY RANGE: Standard broadcast band; 550-1600 KC.

INTERMEDIATE FREQUENCY: 455 KC.

POWER SUPPLY: 105-120 volts 60 cycle AC **ONLY**

POWER CONSUMPTION: 30 watts.

SPEAKER: 4" PM with Alnico V magnet. Voice coil impedance 3.2 ohms.

GENERAL

The 4P3AX chassis is a completely new design in the small, compact, but very efficient AM radio line. The size and relative sensitivity is made possible only by the use of an etched "Satellite" type circuit board.

REMOVING CHASSIS FROM CABINET

Remove the knobs from the front of the cabinet. Remove the screw outside from under the Tuning knob and the screws inside that hold the Volume control bracket to the cabinet.

COMPONENT REPLACEMENT

Defective resistors and capacitors should be removed by clipping leads as close to the unit as possible, then the new part neatly soldered to the old leads. If any resistor or capacitor is found inconvenient to replace on the top side of board, it is permissible to solder component on the rear of the board.

If a unit such as the oscillator coil or IF transformer is to be replaced, first remove old part by heating the mounting lugs with a pencil type soldering tool (35 watts or less) and straighten with pick and long nose pliers. Brush away any loose solder with a stiff glue brush. Before inserting new unit, make certain all lug holes are free of solder, to prevent damage to wiring or component or both.

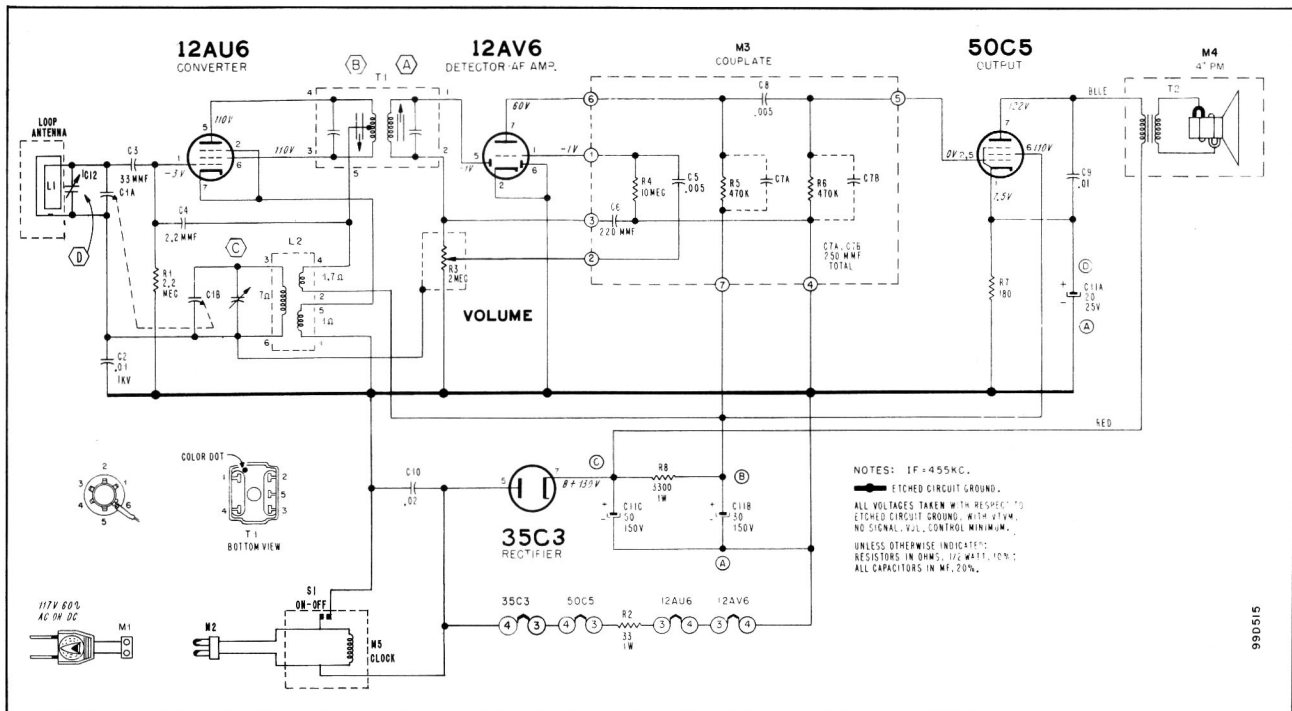
An open or damaged section of the etched wiring may be repaired by soldering a short jumper wire across the break.

It is seldom necessary to replace complete tube sockets. Tube socket lugs may be replaced individually. Tube socket lugs may be ordered under part number 87D35-2. NOTE: If a complete socket is replaced, make certain that the center "shield" connection is securely soldered to the etched board, to prevent possibility of hum or oscillation developing.

ALIGNMENT PROCEDURE

- a. Use an isolation transformer or connect a .1 mf. capacitor in series with low side of signal generator.
CAUTION: DO NOT CONNECT AN EARTH GROUND WIRE DIRECTLY TO CHASSIS.
- b. Set Volume control full on.
- c. Connect output meter across output secondary.
Disconnect speaker, use 3.2 ohm load.
- d. Use lowest setting of signal generator capable of producing adequate indication on lowest scale of output meter.
- e. By using alignment tool (Part No. 98A30-7) both IF transformer slugs can be aligned from front or rear.
- f. Repeat adjustments to insure good results.

Step	Connection of Signal Generator	Signal Gen. Frequency	Receiver Gang Setting	Adjustment Description	Adjustment
1.	Through a .1 mf capacitor to pin 1 of the 12AU6 (Converter) tube.	455 KC	Gang fully open	IF Primary IF Secondary	Ⓐ and Ⓑ for maximum output
2	Same as "STEP 1".	1620 KC	Gang fully open	Oscillator Trimmer	Ⓒ for maximum output
3	Radiated Signal. Loop of several turns of wire, or place generator lead close to receiver loop for adequate signal pickup.	1400 KC	Tune in generator signal	Antenna Trimmer	Ⓓ for maximum output (Rock gang for optimum results)



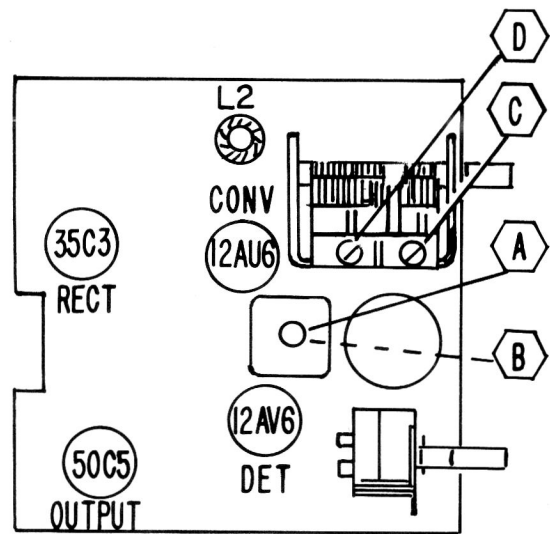
VOLTAGE PRECAUTION

The etched circuit common ground of this receiver is connected directly to one side of the power line. To prevent damage to etched wiring, do not place chassis directly on a metal bench, or other metal objects.

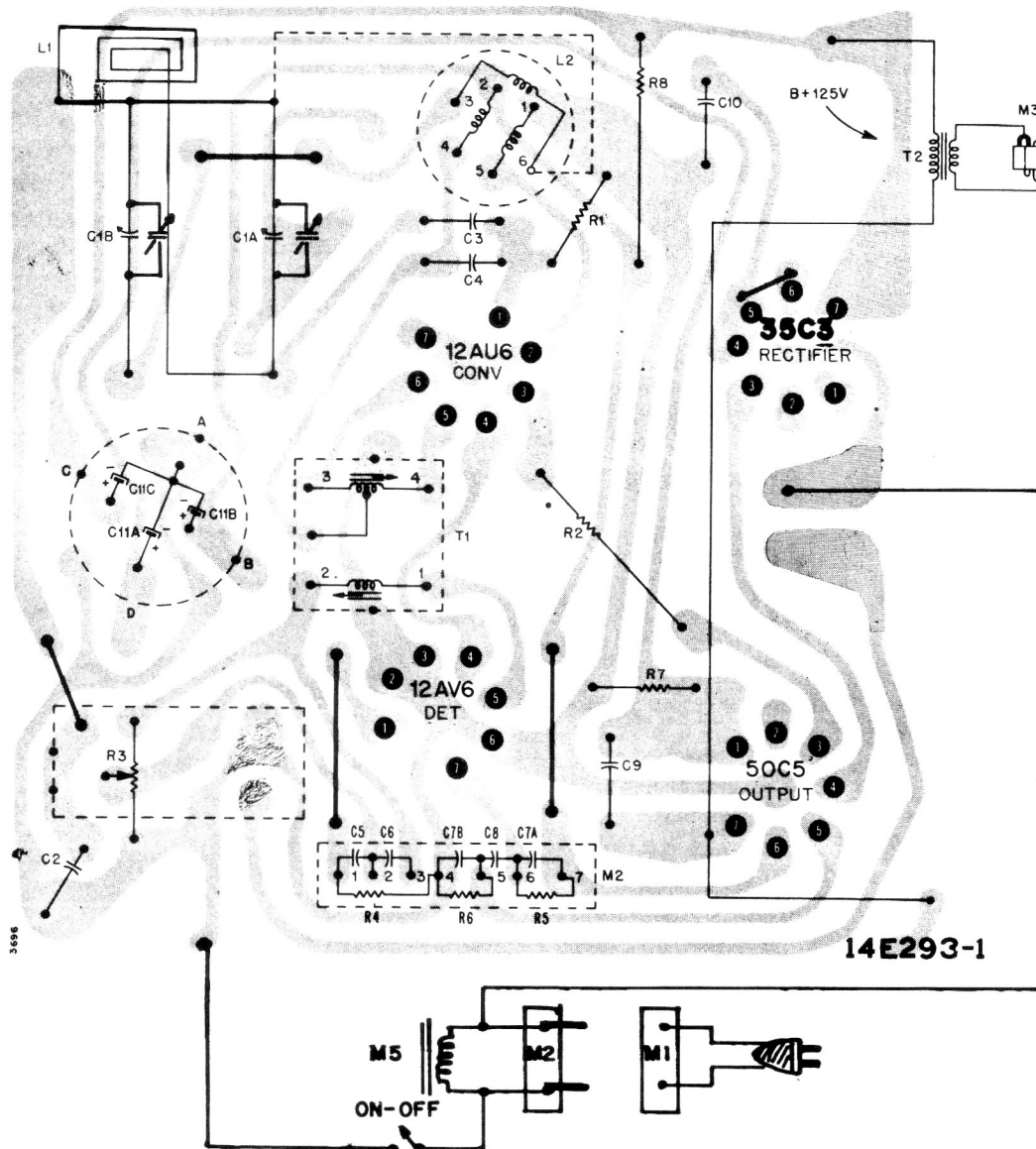
When taking voltage or resistance measurements, use test prods with needle points to avoid short circuits between sections of the circuit wiring.

VOLTAGE DATA

- All voltage readings made between tube socket terminals and etched circuit common ground.
- Dial set to low frequency end; volume control at minimum.
- Line voltage at 117 volts AC.
- All voltages measured with vacuum-tube-voltmeter.



Top View of Etched Circuit Board Showing Tube and Alignment Point Locations



Rear View of Etched Circuit Board. Gray Area represents etched wiring; black symbols and lines represent components and connections on opposite side.

4P3AX PART LIST

RESISTORS

R1	2.2 megohms, 1/2 watt	60B8-225
R2	33 ohms, 1 watt	60B14-330
R3	2 megohms, Volume Control	75C77-2
R4	10 megohms	Part of M3
R5	470,000 ohms	Part of M3
R6	470,000 ohms	Part of M3
R7	180 ohms, 1/2 watt	60B8-181
R8	3300 ohms, 1 watt	60B14-332

CAPACITORS

C1A	354 mmf max ant	
C1B	89.3 mmf max osc gang	68K2-1
C2	.01 mf, GMV, 1KV	65M1-3
C3	33 mmf, 5 500 volts ceramic disc	65D10-119
C4	2.2 mmf, 500 volts, ceramic disc N750, temp. coeff	65D10-27
C5	.005 mf	Part of M3
C6	220 mmf	Part of M3
C7	250 mmf	Part of M3
C8	.005 mf	Part of M3
C9	.01 mfd, 500 volts, GMV	65D10-3
C10	.02 mf, 500 volts, ceramic disc	65D10-34
C11A	20 mfd, 25V	
C11B	50 mfd electrolytic	67C39-5
C11C	30 mf, 150V	

COILS, TRANSFORMERS AND MISCELLANEOUS CHASSIS PARTS

L1	Loop Antenna	69C242-5
L2	Oscillator Coil (yellow dot)	69K11-1
T1	Transformer I.F. (brown dot)	72K6-1
M2	A.C. Interlock	88W36
M3	Audio Couplate	63C6-20
M4	Speaker 4" P.M.	78B142-6
M5	Clock	91C48-1
S1	Switch, On-Off	Part of M5

MISCELLANEOUS CHASSIS PARTS

Terminal and Connect	9C28-51
Chassis P.C. Board	14E293-1
Bracket, Antenna Mtg	15B1665-1
Bracket, Gang Mtg	15E2041-1
Bracket, Antenna Support	15E2089-2
Insert, Clock	23C373-1
Quick Mask, Pre-Cut	52B5-3
Cord Line and Plug	89B62-4

CABINET PARTS

Cabinet, Beige	34D129-40
Crystal, Clock	24C32-1
Knob, Volume Control	33C395-3
or	
Knob, Volume (Preferred)	33C395-6
Knob, Tuning	33C439-1
K	
or	
Knob, Tuning (Preferred)	33C439-4
Cabinet Front, White	34D151-15
Knob, Clock	91C48-10
Shaft (Clock)	91C48-11
Operating Instructions	41L15-7

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