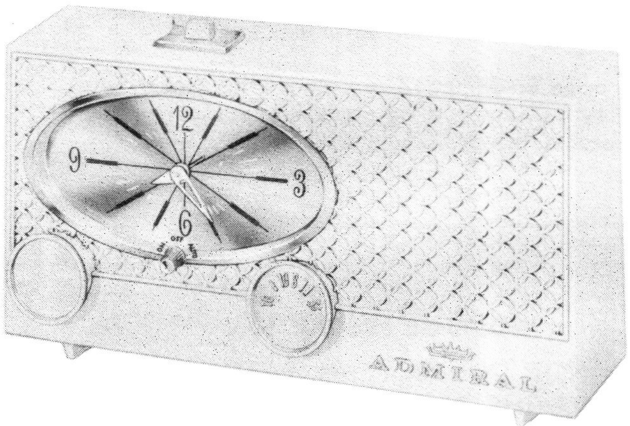
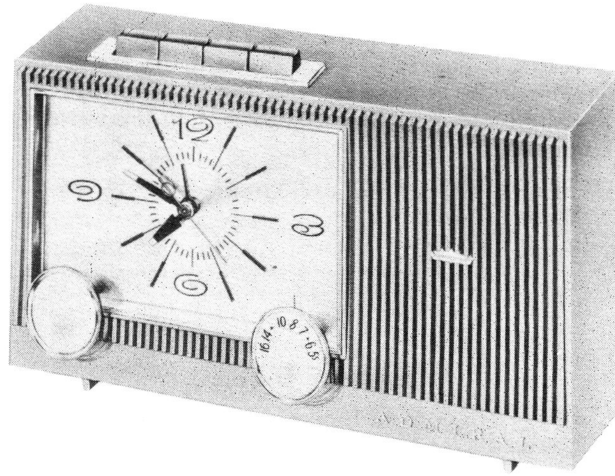
ADMIRAL

CLOCK RADIO



Front View of: Y3353X Model



Front View of : Y3376X, Y3377X, Models

SPECIFICATIONS

ANTENNA: Built-in loop.

CIRCUIT: Superheterodyne using 5 miniature tubes.

FREQUENCY RANGE: Standard broadcast band: 535 KC to 1620 KC.

INTERMEDIATE FREQUENCY: 455 KC.

POWER SUPPLY: 117 volts, 60 cycles, AC

POWER CONSUMPTION: 30 watts.

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

GENERAL

All components, except the speaker (with output transformer) and the antenna loop are mounted on an etched circuit board. The use of etched circuitry provides an efficient, compact and practically trouble free receiver.

CLOCK RADIO

MODEL	COLOR	CHASSIS
Y3353X	White	5D6AHX
Y3376X	Yellow	
Y3377X	Beige	

Service Manual T1151

CHASSIS REMOVAL

One chassis mounting screw is accessible only after removing the tuning knob. The other is accessible after removing the cabinet back.

The cabinet back is held in four slots in the cabinet so is easily removed without the use of tools.

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 bottom 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.

SERVICE HINTS

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

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

VOLTAGE DATA

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

VOLTAGE PRECAUTION

DO NOT CONNECT AN EARTH GROUND WIRE TO THE RECEIVER.

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

ALIGNMENT PROCEDURE

Use an isolation transformer if available; otherwise, connect a .1 mfd. capacitor in series with low side of signal generator and connect to etched circuit ground.

Set volume control full on.

Connect output meter across output secondary.

For best results disconnect voice coil and use a 3.2 ohm load.

Use lowest setting of signal generator capable of producing adequate indication on lowest scale of output meter.

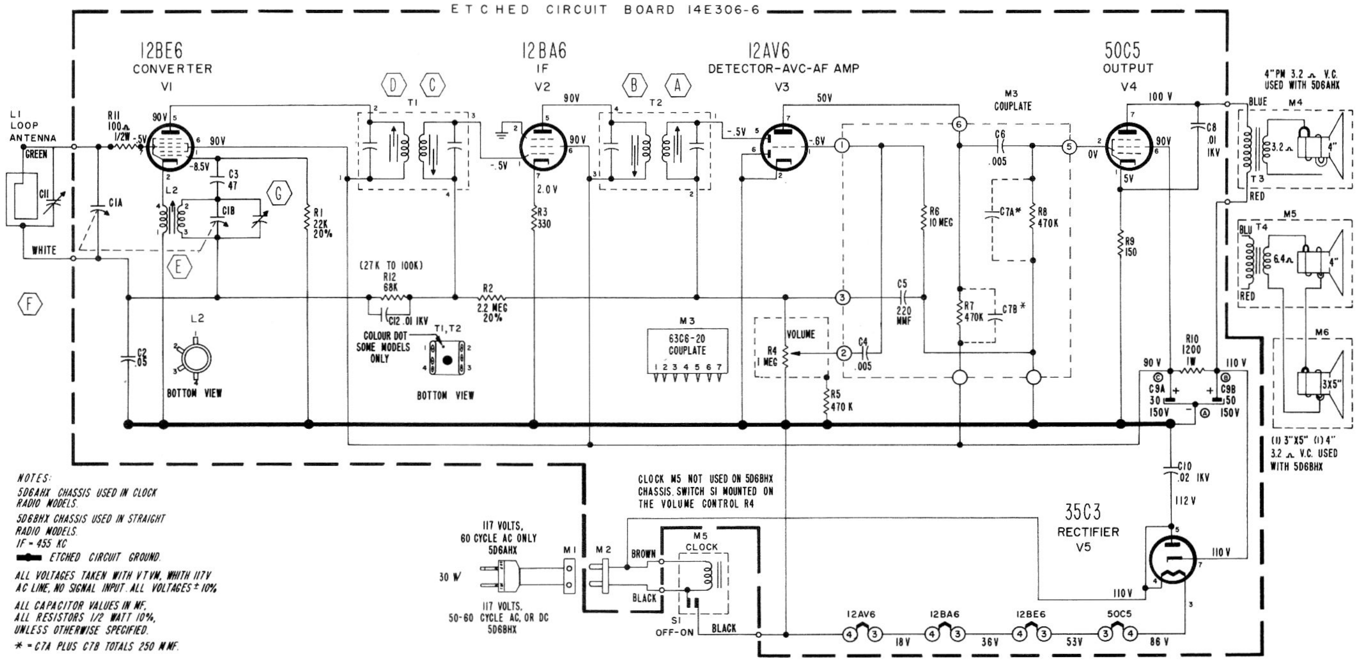
Repeat adjustments to insure good results.

Use a non-metallic alignment tool, number 98A30-12 (hex) or 98A30-19 (blade).

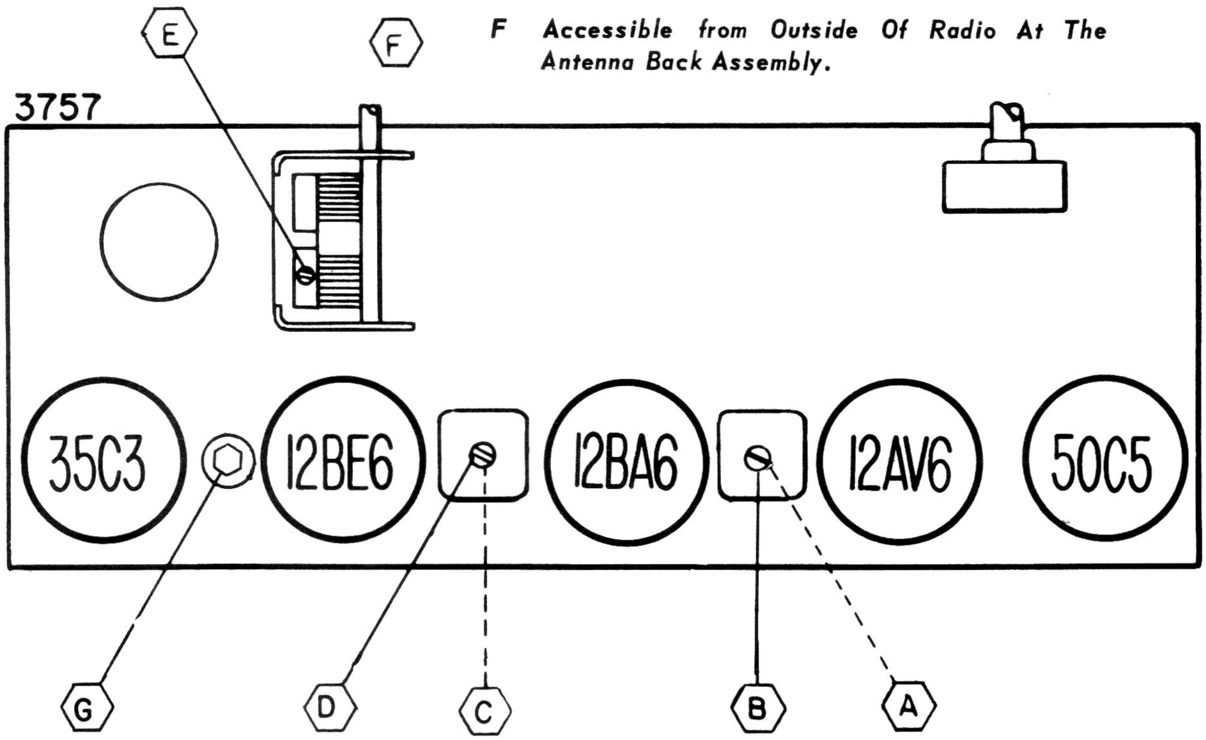
STEP	CONNECTION OF SIGNAL GENERATOR	SIGNAL GENERATOR FREQUENCY	RECEIVER	ADJUSTMENT
1.	Through a .1 mf capacitor to stator, Antenna section of gang tuning capacitor	455 KC	Gang fully open	*A, B, *C and D for maximum output
2.	Same as "Step 1"	1620 KC	Gang fully open	E for maximum output
3.	Use a radiated signal Loop of several turns of wire, or place generator Lead close to receiver loop for adequate signal pickup	1400 KC	Tune in on generator signal	** F for maximum output
4.	Repeat "Step 2 & 3" several times until there is no further increase in the output.			
5.	Same as "Step 1"	535 KC	Gang fully closed	G for maximum output
6.	Repeat "Step 2 & 3," then repeat "Step 5" until oscillator covers required range.			

* Adjustments A and C made from underside of chassis.

** See Schematic



F ***Accessible from Outside Of Radio At The Antenna Back Assembly.***



ADJUSTMENTS "A" AND "C" ACCESSIBLE FROM BOTTOM OF CHASSIS

Top View of Chassis Showing Tube and Alignment Points Locations.

PARTS LIST

RESISTORS

Sym.	Description	Part No.
R1	22K, 1/2W, 20%...............	60B8-223
R2	2.2 meg, ½W, 20%............	60B8-225
R3	330 ohm, 1/2W, 10%..........	60B8-331
R5	470K, 1/2W, 20%.............	60B8-474
R9	150 ohm, 1/2W, 10%..........	60B8-151
R10	1.2K, 1W, 10%...............	60B14-122
R11	100 ohm, 1/2W, 10%..........	60B8-101
R12	68K, 1/2W, 20%..............	60B8-683

CAPACITORS

Sym.	Description	Part No.
C1	Gang........................	68C96-2
C2	.05 mf, 50V.................	65C45-32
C3	47 mmfd, 500V, 20%..........	65D10-198
C8	.01, 1KV, GMV...............	65M1-3
C9	Electrolytic................	67B39-1
C10	.02 mfd, 1000V,.............	65D10-239
C12	.01, 1KV, GMV...............	65M1-3
M3	Couplate....................	63D6-20

Description	Part No.
Knob, Tuning, White Y3353X)........	33C465-13
Knob, Volume White (Y3353X)........	33C465-14
Knob, Tuning clear (Y3376X, Y3377X)	33C465-17
Knob, Volume Clear (Y3376X, Y3377X)	33C465-18
Button, Yellow (Y3376X)............	33B537-2
Button, Beige (Y3377X).............	33B537-4
Esc. Push Button (Y3376X, Y3377X)..	33C539-2
Esc. (Y3353X)......................	33B548-1
Button, Doze White (Y3353X)........	33B549-1
Operating Instructions (Y3353X)....	41L15-14
Operating Instructions (Y3376X, Y3377X)...........................	41L15-15
Speaker, 4 in. with Transformer....	78D142-8
Clock (Y3353X).....................	91C54-2
Clock, Push Button (Y3376X, Y3377X)	91C63-1
Trimmer............................	66A33-1
Loop, Antenna and Cabinet Back (Y3376X, Y3377X)..................	69N16-5
Loop, Antenna and Cabinet Back (Y3353X).........................	69N16-2

COILS, TRANSFORMERS, MISCELLANEOUS

Description	Part No.
Coil Oscillator....................	69C292-1
T1 Transformer I.F. (1st)......	72C170-5
T2 Transformer (2nd) I.F. P.C..	72C227-4
Control, 1 meg, 30%................	75C77-3
Socket, Tube, Min. 7 Pin...........	87D34-47
Socket, Tube, Min. 7 Pin (with Gnd. Strap).......................	87D35-49
Shield, Tube, 7 Pin................	87B52-2

CABINET PARTS

Description	Part No.
Cabinet (Ermine White) (Y3353X)....	34E204-2
Cabinet (Ming Yellow) (Y3376X).....	34E184-9
Cabinet (Brighton Beige) (Y3377X)..	34E184-12
Clock Crystal (Y3376X, Y3377X).....	24C45-2
Clock Crystal (Y3353X).............	24C55-1
Support, P.C. Board (Y3353X, Y3376X Y3377X)...........................	33B464-1