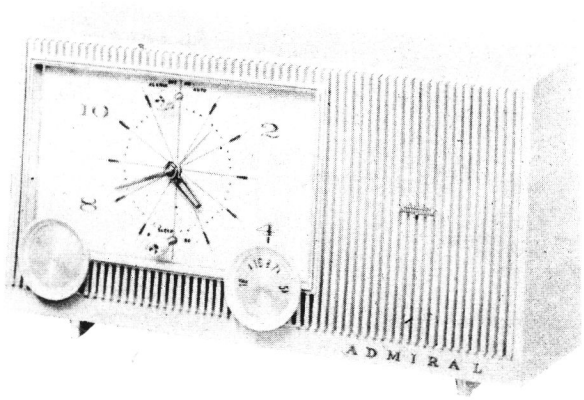
ADMIRAL®

CLOCK RADIO



Front View of Y3146BX, Y3147BX and Y3149BX 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 impedence, 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.

Note: Refer to Admiral Service Manual No. S559 for service information on etched circuit wiring.

CLOCK RADIO

MODEL	COLOR	CHASSIS
Y3146BX	*Sun Gold*	*5D6BX*
Y3147BX	*Beige*	
Y3149BX	*Blue*	

T 1118

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.

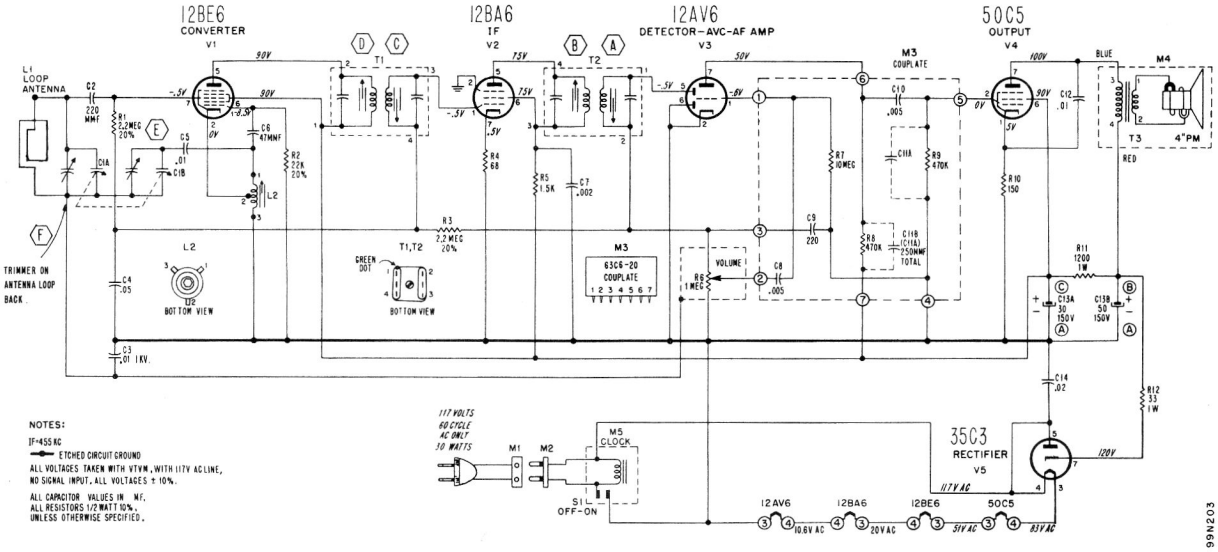
Repeat adjustments to insure good results.

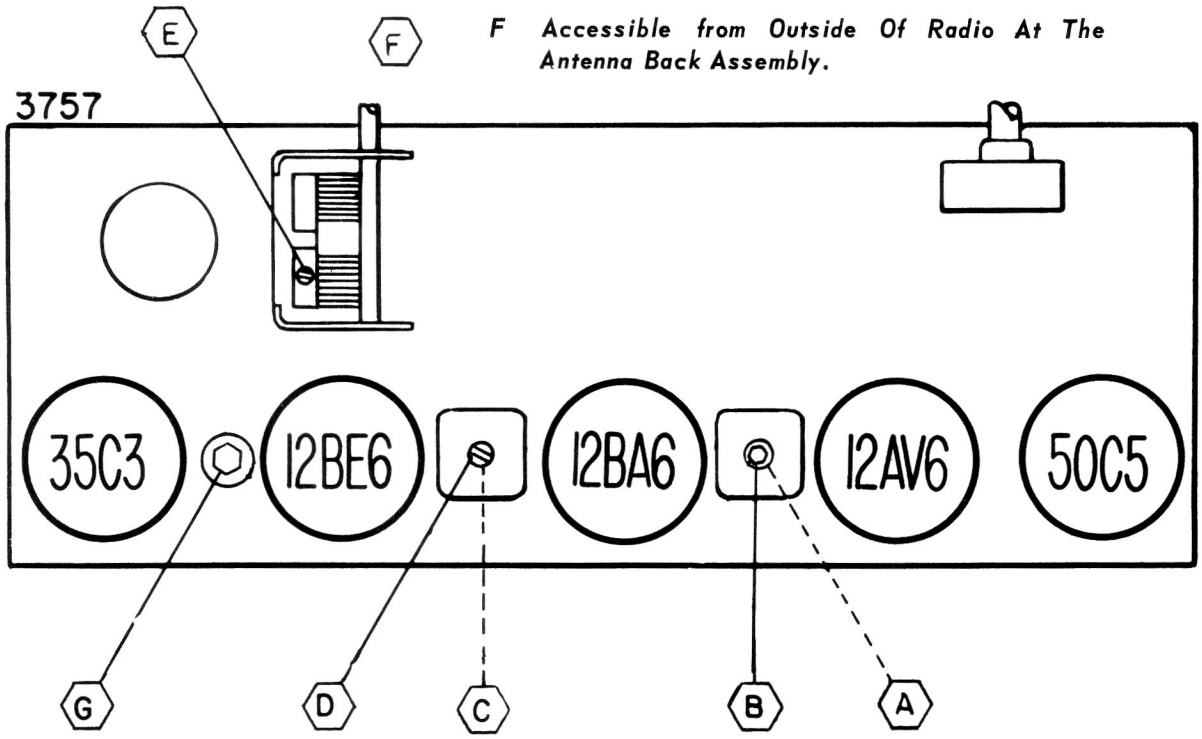
Use a non-metallic alignment tool, number 98A30-12 (hex) or 98A30-19 (blade).

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	2.2 meg ohms, ½ watt	60B8-225
R2	22,000 ohms, ½ watt	60B8-223
R3	2.2 meg ohms, ½ watt	60B8-225
R4	68 ohms, ½ watt	60B8-680
R5	1500 ohms, ½ watt	60B8-152
R6	Volume Control, 1 meg	75C77-3
R7	10 megohms	Part of
R8	470K ohms	63C6-20
R9	470K ohms	couplate
R10	150 ohms, ½ watt	60B8-151
R11	1,200 ohms, 1 watt	60B14-122
R12	33 ohms, 1 watt	60B14-330

CAPACITORS

C1A C1B	Gang	68C86-1
C2	220 mmf, 500 volts, cer. disc	65D10-83
C4	.05 mf, 50 volts	65B45-32
C3	.01 mf, 1KV, GMV	65M1-3
C5	.01 mf, 500 volts, cer. disc	65D10-41
C6	47 mmf, 500 volts, cer. disc	65D10-198
C7	.002 mf, 500 volts, cer. disc	65D10-7
C8	.005 mf	
C9	220 mmf	Part of
C10	.005 mf	63C6-20
C11A C11B	250 mmf total	couplate
C12	.01 mf, 500 volts, cer. disc	65D10-41
C13A	Electrolytic 30 mf, 150 volts	
C13B	50 mf, 150 volts	67C39-1
C14	.02 mf, 1,000 volts, cer. disc	65D10-239

COILS, TRANSFORMERS AND MISCELLANEOUS

L1	Antenna Loop	69N13-3
L2	Coil, Osc	69C263-4
T1	Transformer, 1st I.F.	72C170-5
T2	Transformer, 2nd I.F.	72C170-4
T3	Transformer, Output	Part of M4
M1	A.C. line cord with interlock plug	89C62-4
M2	Interlock on E.C. Board	9B42-2
M3	Couplate	63C6-20
M4	Speaker (includes T3)	78B142-7
	Shield, Tube (12AV6)	87B52-2
	Socket, Tube (all except 12AV6)	87D35-47
	Socket, Tube (12AV6)	87D35-49

CABINET PARTS

Description		Part No.
Cabinet (sun gold)	(Y3146BX)	34E184-1
Cabinet (beige)	(Y3147BX)	34E184-4
Cabinet (blue)	(Y3149BX)	34E184-3
Support, Etched circuit		33B464-1
Crystal, clock		24C45
Clock, Telechron (Y3146BX, Y3147BX, Y3149BX)		91C52-1
Knob, clock (Y3146BX, Y3147BX, Y3149BX)		33A417-2
Knob, tuning (Y3146BX)		33C465-5
Knob, volume (Y3146BX)		33C465-6
Knob, tuning (Y3147BX)		33C465-9
Knob, volume (Y3147BX)		33C465-10
Knob, tuning (Y3149BX)		33C465-7
Knob, volume (Y3149BX)		33C465-8