

Admiral

Model: 7T10

Chassis:

Year: Pre 1952

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

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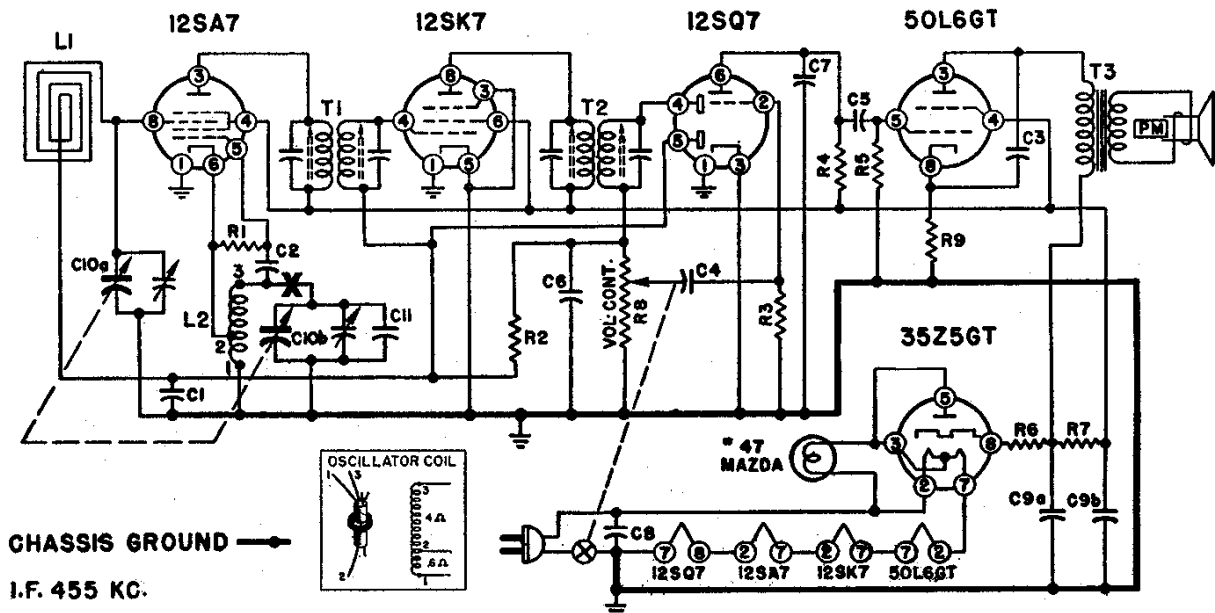
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ADMIRAL CORPORATION

MODELS 7T10, 7T14,
7T15, Chassis 5K1,
UL5K1



UL5K1 Chassis has circuit changes as described. It uses Speaker 78B 26-2.

1. .05 mfd. condenser added at point "X" in oscillator circuit.
2. B minus is isolated from chassis by 150,000 ohm resistor and .18 mfd. condenser in parallel.
3. Gang condenser grounded to chassis and not connected to B minus as in above circuit.

REPLACEMENT PARTS

RESISTORS		
Symbol	Description	Part No.
R1	22,000 Ohms, 1/2 Watt	60B 8-223
R2	1 Megohm, 1/2 Watt	60B 8-105
R3	4.7 Megohms, 1/2 Watt	60B 8-475
R4	470,000 Ohms, 1/2 Watt	60B 8-474
R5	470,000 Ohms, 1/2 Watt	60B 8-474
R6	33 Ohms, 1 Watt	60B 28-3
R7	1000 Ohms, 1 Watt	60B 28-2
R8	1 Megohm Volume Control and Switch	75B 1-16
R9	150 Ohms, 1/2 Watt	60B 8-151

CONDENSERS		
Symbol	Description	Part No.
C1	.1 mfd., 200 Volts, Paper	64B 1-30
C2	.50 mmfd., ±20%, Ceramic	65B 6-4
C3	.02 mfd., 400 Volts, Paper	64B 1-24
C4	.01 mfd., 400 Volts, Paper	64B 1-25
C5	.01 mfd., 400 Volts, Paper	64B 1-25
C6	.250 mmfd., ±20%, Ceramic	65B 6-5
C7	.500 mmfd., ±20%, Ceramic	65B 6-6
C8	.05 mfd., 400 Volts, Paper	64B 1-22
C9a	.50 mmfd., 150 Volts	67A 10
C9b	.30 mmfd., 150 Volts	
C10a	Gang, 8 to 420 mmfd.	A1460
C10b	Gang, 0 to 162 mmfd.	
	(Spot welded to drum)	
C11	.20 mmfd., ±20%, Ceramic	65B 6-26

COILS, TRANSFORMERS, ETC.		
Symbol	Description	Part No.
L1	Antenna, Loop	69C 19
L2	Coil, Oscillator	69A 20
T1	Transformer, 1st I.F.	72B 31
	Above I.F. transformer is slug-tuned. Trimmer-tuned I.F. transformer, part number 72B33, also used and is interchangeable with 72B31.	
T2	Transformer, 2nd I.F.	72B 32
	Above I. F. transformer is slug-tuned. Trimmer-tuned I.F. transformer, part number 72B34, also used and is interchangeable with 72B32.	
T3	Transformer, Output	98A 4
	Speaker (5" PM) and Output Transformer	78B 26-1

MISCELLANEOUS	
Description	Part No.
Cabinet, Plastic (Black)	34D 14-1
Cabinet, Plastic (Black with Ivory Louvre)	34D 14-4
Cabinet, Plastic (Ivory)	34D 14-3

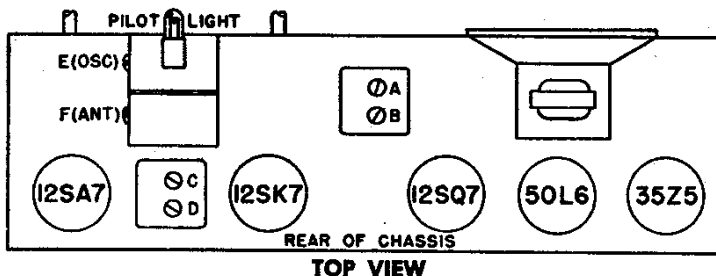
MISCELLANEOUS	
Description	Part No.
Cabinet, Plastic (Ivory with Black Louvre)	34D 14-5
Cabinet, Plastic (Mahogany)	34D 14-2
*Cabinet, Wood (7T14)	35D 61
*Cabinet, Wood (7T15)	35D 60
Dial Background	15B 180
Dial Cord	50A 1-3
Dial Crystal	24A 4
Dial Drum	See C10
Dial Light (#47 Mazda)	81A 1-8
Dial Light Socket and Leads	82A 3-2
Dial Scale	21B 39
Knob, Plastic (Black)	33A 18-6
Knob, Plastic (Ivory)	33A 18-5
Knob, Wood (Walnut)	33A 18-4
Pointer	25A 26
Shaft, Tuning	28A 11-3
Snap, Buttons (For dial scale)	13A 1-3-47
Snap Ring (For pointer)	18A 5-3
Socket, Tube	87A 10-2
Spring, Tension	19B 1-2
Washer, "C" (for tuning shaft)	4A 4-1
Washer, Felt (for knobs)	5A 4-3
Washer, Fibre	5A 2-1
Washer, Spring (for tuning shaft)	4A 6-3-0

*Supplied only if old cabinet cannot be repaired. When ordering, describe condition of old cabinet in detail.

MODELS 7T10, 7T14,
7T15

ADMIRAL CORPORATION

TUBE AND TRIMMER LOCATION



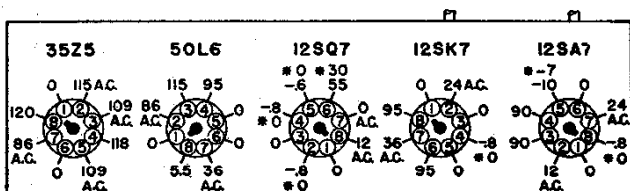
ALIGNMENT PROCEDURE

1. Check pointer setting: With gang closed, the pointer should be horizontal.
2. Connect Output Meter across Voice Coil.
3. Turn Receiver Volume Control full on.
4. Use lowest Output setting of Signal Generator capable of producing adequate Output Meter indication and then proceed as outlined in chart below.
5. Repeat adjustments to insure good results.

Connect Signal Generator to—	Dummy Antenna Between Radio and Generator	Set Generator Frequency to—	Set Receiver Dial Frequency to—	Adjust Following Trimmers	Type of Adjustment
Tuning Condenser Antenna Stator	250 mmfd. Condenser	455 K.C.	High frequency end of Dial	A-B—2nd I. F. C-D—1st I. F. (See note below)	Adjust to maximum Output
Tuning Condenser Antenna Stator	250 mmfd. Condenser	1630 K.C.	High frequency end of Dial	E—Osc.	Adjust to maximum Output
Loop radiator (or place lead from generator close to loop of set to obtain adequate signal).	No actual connection between set and generator.	1400 K.C.	Tune in generator signal	F—Ant.	Adjust to maximum Output

Note: In some sets, the B and D adjustments must be made from the underside of the chassis.

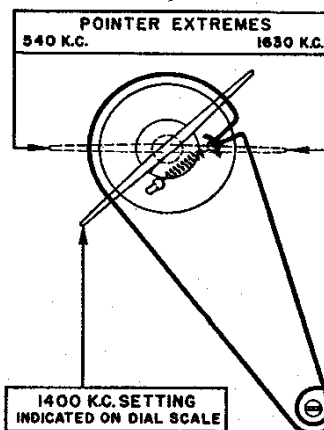
VOLTAGE CHART



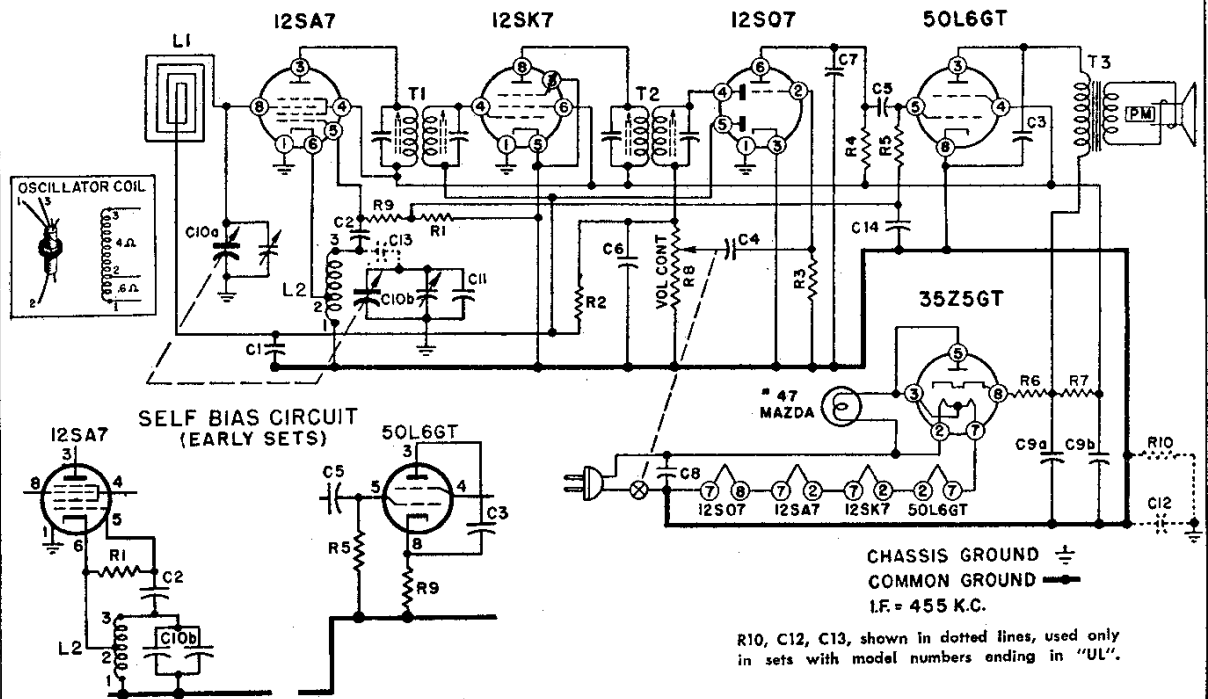
*Indicates second reading taken with 1000 ohm-per-volt meter.

- All readings made between tube socket terminals and chassis.
- Voltages measured on a 117 Volt A.C. line.
- Dial turned to low frequency end, no signal.
- Voltages measured with a vacuum-tube voltmeter. A second voltage reading (marked with an asterisk *) indicates readings made with a 1000 ohm-per-volt meter when use of this instrument would result in appreciably lower readings.

DIAL CORD STRINGING



MODELS 5K11, 5K12, 5K13,
5K14; 7T10, 7T14, 7T15,
Rev.; Ch. 5K1



Loctal tubes 14B6, 50A5, 35Y4 used as alternates for 12SQ7, 50L6, 35Z5 respectively. See tube manual for pin numbers.

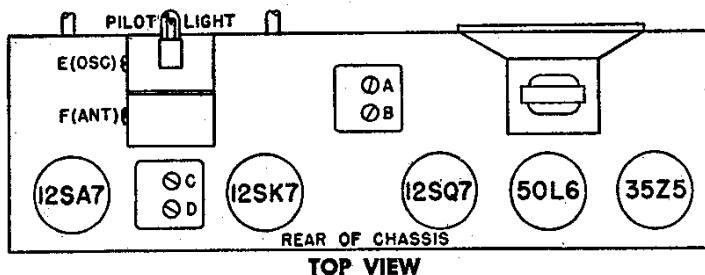
ALIGNMENT PROCEDURE

1. Check pointer setting: With gang closed, the pointer should be horizontal.
2. Connect Output Meter across Voice Coil.
3. Turn Receiver Volume Control full on.
4. Use lowest Output setting of Signal Generator capable of producing adequate Output Meter indication and then proceed as outlined in chart below.
5. Repeat adjustments to insure good results.

Connect Signal Generator to—	Dummy Antenna Between Radio and Generator	Set Generator Frequency to—	Set Receiver Dial Frequency to—	Adjust Following Trimmers	Type of Adjustment
Tuning Condenser Antenna Stator	250 mmfd. Condenser	455 K.C.	High frequency end of Dial	A-B—2nd I. F. C-D—1st I. F. (See note below)	Adjust to maximum Output
Tuning Condenser Antenna Stator	250 mmfd. Condenser	1630 K.C.	High frequency end of Dial	E—Osc.	Adjust to maximum Output
Loop radiator (or place lead from generator close to loop of set to obtain adequate signal).	No actual connection between set and generator.	1400 K.C.	Tune in generator signal	F—Ant.	Adjust to maximum Output

Note: In some sets, the B and D adjustments must be made from the underside of the chassis.

Loctal tubes 14B6, 50A5, 35Y4 used as alternates for 12SQ7, 50L6, 35Z5 respectively. See tube manual for pin numbers.



POINTER EXTREMES
540 K.C. 1630 K.C.

1400 K.C. SETTING INDICATED ON DIAL SCALE

The diagram shows a circular dial scale with a horizontal dashed line representing the 0 K.C. mark. A pointer is shown at the 1400 K.C. position. A line from the 1400 K.C. setting on the dial scale points to the 1400 K.C. setting on the dial scale.

35Z5 50L6 12SQ7 12SK7 12SA7

0 115 AC 115 95 # 0 # 30 0 24 AC # -7
 -6 55 0 -6 55 0 -10 0
 120 0 109 86 0 -8 0 95 0 90 0 24
 8 12 3 AC AC 2 3 4 5 0 AC 7 12 3 AC
 86 7 6 3 1 8 7 6 0 12 36 90 4 2 1 8 90 4 2 1 8
 AC 0 36 AC 0 AC 95 0 12 AC
 0 109 AC # 0 -8 0 # 0

*Indicates second reading taken with 1000 ohm-per-volt meter.

- All readings made between tube socket terminals and B minus (Terminal of on-off switch).
- Voltages measured on a 117 Volt A.C. line.
- Dial turned to low frequency end, no signal.
- Voltages measured with a vacuum-tube voltmeter. A second voltage reading (marked with an asterisk *) indicates readings made with a 1000 ohm-per-volt meter when use of this instrument would result in appreciably lower readings.

RESISTORS

Symbol	Description	Part No.
rR1.....	12,000 ohms, ½ watt.....	60B8-123
R2.....	1 Megohm, ½ Watt.....	60B 8-105
R3.....	47 Megohms, ½ Watt.....	60B 8-475
R4.....	470,000 Ohms, ½ Watt.....	60B 8-474
rR5.....	150,000 Ohms, ½ watt.....	60B8-154
R6.....	33 Ohms, Watt.....	60B 28-3
R7.....	1000 Ohms, 1 Watt.....	60B 28-2
R8.....	1 Megohm, Volume Control and Switch.....	758 1-16
rR9.....	12,000 Ohms, ½ watt.....	60B8-123
R10.....	150,000' Ohms, ½ watt.....	60B 8-154

(R10 used only in sets with model numbers ending in "UL".)

rR1 was 22,000, R5 was 470,000 and R9 was 150 ohms when self-bias circuit was employed. See schematic inset.

C1.....	1 mfd., 200 Volts, Paper.....	64B 1-30
C2.....	50 mmfd., $\pm 20\%$, Ceramic.....	65B 6-4
C3.....	.02 mfd., 400 Volts, Paper.....	64B 6-4
C4.....	.01 mfd., 400 Volts, Paper.....	64B 1-25
C5.....	.01 mfd., 400 Volts, Paper.....	64B 1-25
C6.....	250 mmfd., $\pm 20\%$, Ceramic.....	65B 6-5
C7.....	500 mmfd., $\pm 20\%$, Ceramic.....	65B 6-6
C8.....	.05 mfd., 400 Volts, Paper.....	64B 1-22
C9a.....	50 mfd., 150 Volts.....	67A 10
C9b.....	30 mfd., 150 Volts.....	67A 10
C10a } C10b } {	O-420 mmfd } Stamped.....	A1460
	O-162 mmfd } 68B5	
	or	
	O-420 mmfd } Stamped.....	68B19
	O-108 mmfd } 68B19	
(Drums are spotwelded to gangs.)		
C11.....	20 mmfd., $\pm 20\%$, Ceramic.....	65B 6-26

(Used in early sets only.)

CONDENSERS

Symbol	Description	Part No.
C12.....	.18 mfd., 200 Volts, paper.....	64A2-2
C13.....	.05 mfd., 400 Volts, paper.....	64B1-22
	(C12 and C13 used only in sets with model numbers ending in "U1".)	
C14.....	500 mmfd., $\pm 20\%$, Ceramic.....	65B6-6
	(Added in later production to prevent R.F. oscillation.)	

COILS, TRANSFORMERS, ETC.

L1.....	Antenna, Loop.....	69C 19
L2.....	Coil, Oscillator for gang stamped 68B5.....	69A20
	for gang stamped 68B19.....	69A20-2
T1.....	Transformer, 1st I.F.....	72B50
	Alternates 72B31 and 72B33 also used. Order part num- ber stamped on original part.	
T2.....	Transformer, 2nd I.F.....	72B51
	Alternates 72B32 and 72B34 also used. Order part num- ber stamped on original part.	
T3.....	Transformer, Output.....	98A 4
	Speaker (5" PM) and Output 'Transformer'.....	78B 26-1
SW1.....	Switch, On-Off.....	Part of 78B

Cabinet		
Plastic	Ebony (7T10E)	34D 14-1
Plastic	Mahogany (7T10M)	34D 14-2
Plastic	Ivory (7T10C)	34D 14-3
Wood	(7T15)	*
Plastic	Ebony (5K11)	34D 18-1
Plastic	Mahogany (5K12)	34D 18-2
Plastic	Ivory (5K13)	34D 18-3
Plastic	Mahogany & Gold (5K14)	34D 18-4

Description	Part No.
Carton and Fillers.....	44B 98
Dial Background.....	15B 180
Dial Cord.....	50A 1-3
Dial Crystal	
for 7T10, 7T14, 7T15.....	24A 4
for 5K11, 5K12, 5K13, 5K14.....	24A 8
Dial Drum.....	See C10
Dial Light.....	81A 1-8
Dial Light Socket and Leads.....	82A 7-2
Dial Scale.....	21B 39-1
Knob	
Plastic Ebony (7T10E).....	33A 18-6
Plastic Mahogany (7T10M).....	33A 18-4
Plastic Ivory (7T10C).....	33A 18-5
Plastic Ebony (5K11).....	33A 32-3
Plastic Mahogany (5K12).....	33A 32-1
Plastic Mahogany & Gold (5K14).....	33A 32-7
Plastic Ivory (5K13).....	33A 32-2
Pointer, for 7T10, 7T14, 7T15.....	25A 26
Pointer, for 5K11, 5K12, 5K13, 5K14	
Brown.....	25A 30-1
Brown and Gold.....	25A 30-2
Shaft, Tuning.....	28B 11-3
Snap, Buttons (For dial scale).....	13A 1-3-47
Snap Button, for dial crystal.....	13A 1-1-47
Snap Ring (for pointer).....	19A 31-1
Spring, Tension.....	67A 10-2
Washer, 'C' (for tuning shaft).....	14A 1-2
Washer, Felt (for knobs).....	5A 4-3
Washer, Fibre.....	5A 2-1
Washer, Spring (for tuning shaft).....	4A 6-3-0

*No longer available. Order plastic *cabinet.