

ALIGNMENT PROCEDURE — To set pointer, completely mesh tuning capacitor and align pointer with last reference mark at low frequency end of dial. Volume control should be in maximum clockwise position. Output of signal generator should be no

higher than necessary to obtain an output reading. Low side of signal generator and indicating meter should be connected directly to chassis at all times. Use an insulated screwdriver with 1/6" thick blade for adjusting IF transformers.

		SIGNAL GENERATOR			Dial Setting	Indicating Meter	Adjust	Indication
		Coupling	Freq.	Modulation				
AM Alignment	1	.01 μ f to pin 7 of 12AT7	455 kc	400 cps AM	Point of no interference	AC voltmeter at Audio output	1, 2, 3, & 4	Maximum deflection
	2	220 μ pf to AM ant. input	1500 kc	400 cps AM	1500 kc	Same as above	5	Maximum deflection
	3	Same as above	600 kc	400 cps AM	Tune for maximum response	Same as above	6 & 7	Maximum deflection
	4	Same as above	1400 kc	400 cps AM	Tune for maximum response	Same as above	8 & 9	Maximum deflection
	5	Repeat Steps 3 & 4						
	6	Same as above	1400 kc	10 kc AM	Tune for maximum response	Same as above	10	Null
FM Alignment	7	.01 μ f to pin 2 of 12AT7	10.7 mc	None	Point of no interference	Neg. DC VTVM across R31	11, 12, 13, 14, 15, & 16	Maximum deflection
	8	Same as above	10.7 mc	None	Same as above	Neg. DC VTVM at junction R62 & R63	17 & 18	Maximum deflection
	9	Same as above	10.7 mc	None	Same as above	Zero center scale DC VTVM at Det. Output	19	Zero volts between positive & negative reading
	10	270 Ω Carbon to FM ant. input	106 mc	400 cps FM + 25 kc	106 mc	AC voltmeter at Audio output	20	Maximum deflection
	11	Same as above	98 mc	Same as above	Tune for maximum response	Same as above	Contract or extend coil spring 21, 22, & 23	Maximum deflection
	12	Same as above	98 mc	400 cps FM + 250 kc	98 mc	Vertical input oscilloscope at Det. Output		Check symmetry of "S" shape

*AC Voltages measured at 1,000 ohms per volt.

DC Voltages measured with vacuum-tube voltmeter.

Socket connections are shown as bottom views.

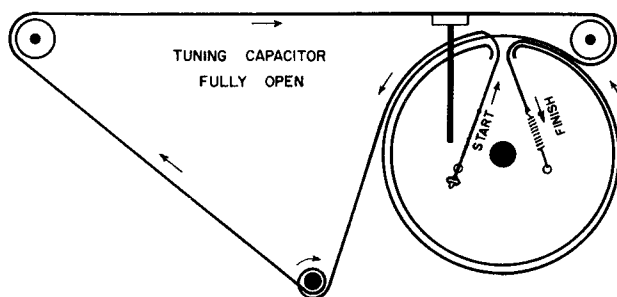
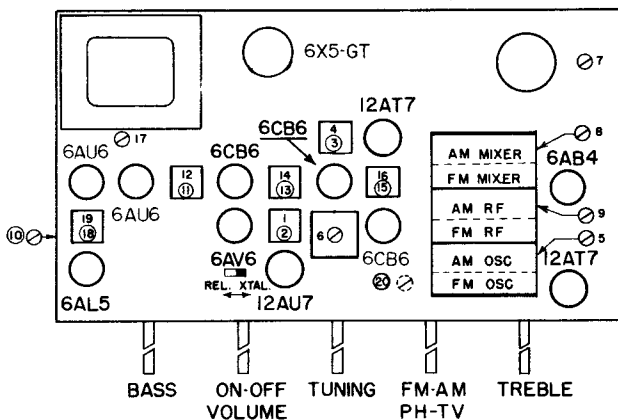
Measured values are from socket pin to common negative.

Line voltage maintained at 117 volts for voltage readings.

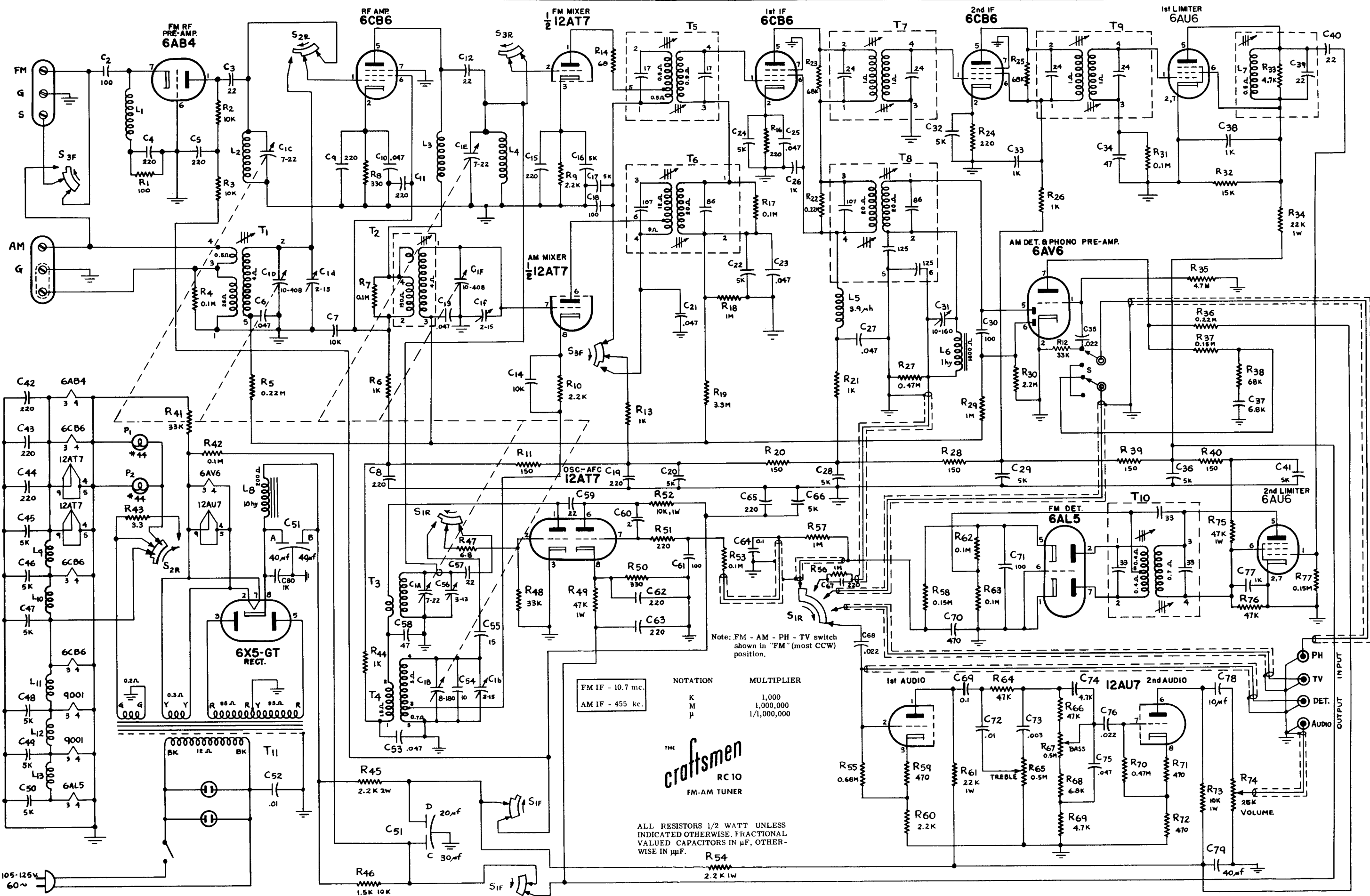
Measurements are with no signal applied and bandswitch in FM position.

TUBE	FUNCTION	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9
6AB4	FM RF Preamp.	95	0	6.3*	0	0	0	0.5	--	--
6CB6	RF Amp.	0	2.5	0	6.3*	137	137	0	--	--
12AT7	Mixer	145	0	2.8	0	0	0	-1.0	0	6.3*
12AT7	Osc. & AFC	137	-2.0	0	0	0	156	0	2.1	6.3*
6CB6	1st IF Amp.	-0.2	1.9	6.3*	0	140	140	0	--	--
6CB6	2nd IF Amp.	0	2.0	6.3*	0	142	142	0	--	--
6AU6	1st Limiter	-0.4	0	6.3*	0	40	40	0	--	--
6AU6	2nd Limiter	-0.6	0	6.3*	0	36	36	0	--	--
6AL5	FM Det.	0	-2.0	6.3*	0	0	0	-1.8	--	--
6AV6	AM Det. & Phono Amp.	-0.83	0	55	55	-0.5	-0.7	77	--	--
12AU7	Audio Amp.	85	7.2	10	55	5	115	2.3	5.2	55
6X5GT	Rectifier	--	55	207*	--	207*	--	55	235	--

(ENCIRCLED ALIGNMENT POINTS ARE BENEATH CHASSIS)



Dial Cord Drive.



THE
craftsmen
RC 10
FM-AM TUNER

ALL RESISTORS 1/2 WATT UNLESS
INDICATED OTHERWISE. FRACTIONAL
VALUED CAPACITORS IN μF, OTHER-
WISE IN pF.

NOTATION	MULTIPLIER
K	1,000
M	1,000,000
μ	1/1,000,000

FM IF - 10.7 mc.
AM IF - 455 kc.

REPLACEMENT PARTS LIST

Part No.	Ref. No.	Description	Part No.	Ref. No.	Description
CAPACITOR, Ganged Tuning			5X406	L9, L10, L11, L12, L13	1.0 μ h Choke
17S007	C1A	7-22 μ mf, FM Osc. Tuning	5X409	L1	0.2 μ h Choke
	C1B	8-180 μ mf, AM Osc. Tuning	19S405	L8	10 h Filter Choke
	C1C	7-22 μ mf, FM RF Tuning	19S406	L6	1 h, 10 kc Filter
	C1D	10-408 μ mf, AM RF Tuning	RESISTORS		
	C1E	7-22 μ mf, FM Conv. Tuning	RC20AE6R8K	R47	6.8 Ω , 1/2w, Carbon
	C1b	2-15 μ mf, AM Osc. Mica Trimmer	RC20AE680K	R14	68 Ω , 1/2w, Carbon
	C1d	2-15 μ mf, AM RF Mica Trimmer	RC20AE101K	R1	100 Ω , 1/2w, Carbon
	C1f	2-15 μ mf, AM Conv. Mica Trimmer	RC20AE151K	R11, R20, R28, R39, R40	150 Ω , 1/2w, Carbon
CAPACITORS, Ceramic			RC20AE221K	R16, R24, R51	220 Ω , 1/2w, Carbon
17X402	C56	1-6 μ mf, 500v, Trimmer	RC20AE331K	R8, R50	330 Ω , 1/2w, Carbon
CC20CK2R0D	C50	2 μ mf, 500v, Tubular	RC20AE471K	R59, R71, R72	470 Ω , 1/2w, Carbon
CC20SL100M	C54	10 μ mf, 500v, Tubular	RC20AE102K	R6, R13, R21, R26, R44	1K Ω , 1/2w, Carbon
CC20SL150M	C55	15 μ mf, 500v, Tubular	RC20AE222K	R9, R10, R60	2.2K Ω , 1/2w, Carbon
CC20SL220M	C3, C12, C40	22 μ mf, 500v, Tubular	RC20AE472K	R33, R69	4.7K Ω , 1/2w, Carbon
CC20CK220M	C39, C57, C59	22 μ mf, 500v, NPO	RC20AE682K	R68	6.8K Ω , 1/2w, Carbon
CC20UK470M	C34, C58	47 μ mf, 500v, Tubular	RC20AE103K	R2, R3	10K Ω , 1/2w, Carbon
CC20SL101M	C2, C18, C30, C61, C71	100 μ mf, 500v, Tubular	RC20AE153K	R32	15K Ω , 1/2w, Carbon
CC20SL221M	C4, C5, C8, C9, C11, C15, C19, C42, C43, C44, C62, C63, C65, C67	220 μ mf, 500v, Tubular	RC20AE333K	R12, R41, R48	33K Ω , 1/2w, Carbon
CC25SL471K	C70	470 μ mf, 500v, Tubular	RC20AE473K	R64, R66, R76	47K Ω , 1/2w, Carbon
CC20SL102M	C26, C33, C38, C77, C80	1000 μ mf, 500v, Tubular	RC20AE683K	R23, R25, R38	68K Ω , 1/2w, Carbon
18X701	C16, C17, C20, C22, C24, C28, C29, C32, C36, C41, C46, C47, C45, C48, C49, C50, C66, C7, C14	5000 μ mf, 500v, Disc	RC20AE104K	R4, R7, R17, R31, R42, R53, R62, R63	0.1M Ω , 1/2w, Carbon
18X704		10,000 μ mf, 500v, Disc	RC20AE154K	R37, R58, R77	0.15M Ω , 1/2w, Carbon
CAPACITORS, Mica			RC20AE224K	R5, R22, R36	0.22M Ω , 1/2w, Carbon
17X205	C31	10-160 μ mf, 300v, Trimmer	RC20AE474K	R27, R70	0.47M Ω , 1/2w, Carbon
CM30A472K	C74	.0047 μ f, 300v, Molded	RC20AE684K	R55	0.68M Ω , 1/2w, Carbon
CM30A682K	C37	.0068 μ f, 300v, Molded	RC20AE105K	R18, R29, R56, R57	1M Ω , 1/2w, Carbon
CM30A332K	C73	.0033 μ f, 300v, Molded	RC20AE225K	R30	2.2M Ω , 1/2w, Carbon
CAPACITORS, Paper			RC20AE335K	R19	3.3M Ω , 1/2w, Carbon
CP10M4103M	C72	.01 μ f, 400v, Tubular	RC20AE475K	R35	4.7M Ω , 1/2w, Carbon
CP10M6103M	C52	.01 μ f, 600v, Molded	RC30AE222K	R54	2.2K Ω , 1w, Carbon
CP10M4223M	C35, C58, C76	.022 μ f, 400v, Tubular	RC30AE103K	R52, R73	10K Ω , 1w, Carbon
CP10M4473M	C6, C10, C13, C21, C23, C25, C27, C53	.047 μ f, 400v, Tubular	RC30AE223K	R34, R61	22K Ω , 1w, Carbon
CP10M4473K	C75	.047 μ f, 400v, $\pm 10\%$ Tubular	RC30AE473K	R49, R75	47K Ω , 1w, Carbon
CP10M4104M	C64, C69	0.1 μ f, 400v, Tubular	RC40AE222K	R45	2.2K Ω , 2w, Carbon
CAPACITORS, Electrolytic			RW03R3K	R43	3.3 Ω , 1/2w, Wire Wound
18X023	C78	10 μ f, 250v, Tubular	RWX152K	R46	1.5K Ω , 10w, Wire Wound
18S022	C51A	40 μ f, 300v, Twist Mount	23S715	R67	0.5M Ω , 1/4w, Carbon Potentiometer
	C51B	40 μ f, 300v, Twist Mount	23S716A	R74	25K Ω , 1/4w, Carbon Potentiometer and Switch
	C51C	30 μ f, 300v, Twist Mount	23S717	R65	0.5M Ω , 1/4w, Carbon Potentiometer
	C51D	20 μ f, 300v, Twist Mount	SWITCHES		
18X027	C79	40 μ f, 250v, Tubular	4S006	S1, S2, S3	4 Pos., 3 section Band Switch
PILOT LIGHTS			4S007	S	DPDT Slide Switch
15X003	P1, P2	No. 44 Pilot Light	TRANSFORMERS		
COILS & CHOKES			5X005	T10	10.7 mc FM Discriminator
5A209	L4	FM Conv. Coil	5X013	T5	10.7 mc FM Converter
5A210	L2	FM RF Coil	5X014	T7, T9	10.7 mc FM IF
5S402	L3, L5	3.3 μ h Choke	5X015	T6	455 kc AM Converter
5X017	L7	FM Limiter Coil	5X016	T8	455 kc AM IF
			5A208	T3	FM Osc.
			5A218	T4	AM Osc.
			5A219	T2	AM RF
			5A220	T1	AM Ant.
			19S208	T11	Power Transformer

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