



THE FISHER FM-50

SERVICE

MANUAL



MODEL FM-50

CHASSIS SERIAL NUMBERS
FROM 10001 TO 19999 INCLUSIVE

PRICE: \$1.00

FISHER RADIO CORPORATION • NEW YORK

PARTS DESCRIPTION LIST

CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value.)

Symbol	Description	Part No.
C1	Ceramic, 21uf, 5%, N750, 1000V	C50070-32
C2	Molded, .01uf, 20%, 600V	C2747
C3	Ceramic, .001uf, GMV, 1000V	C50071-2
C4	Ceramic, Feedthru, .001uf, GMV	C592-187
C5	Ceramic Trimmer	C662-123
C6	FM, variable	C818-116
C7	Ceramic, 8uf, \pm .5uf, NPO, 500V	CC20CJ080D5
C8	Electrolytic, three section	C670-125
	A — 40uf 300V	
	B — 40uf 250V	
	C — 40uf 250V	
C9	Ceramic, 33uf, 5%, N750, 1000V	C50070-25
C10	Ceramic Trimmer	C662-123
C11	Ceramic, 24uf, 5%, N150, 1000V	C50070-8
C12	Ceramic, 47uf, 5%, N50, 1000V	C50070-29
C13	Ceramic, .100uf, 5%, N1500, 1000V	C50070-19
C14	Ceramic, 8uf \pm .5uf, NPO, 500V	CC20CJ080D5
C15	Ceramic, .001uf, 1000V	C50072-3
C16, 17	Ceramic, .005uf, 20%, 500V	C50089-1
C18	Ceramic, 10uf, \pm .5uf, N150, 500V	CC20PJ100D5
C19	Ceramic, .02uf, +80 — 20%, 500V	C50089-4
C20, 21	Ceramic, .005uf, 20%, 500V	C50089-1
C22	Ceramic, .0027uf, 1000V	C50072-17
C23	Ceramic, .005uf, 20%, 500V	C50089-1
C24	Ceramic, .02uf, +80 — 20%, 500V	C50089-4
C25	Ceramic, .01uf, 20%, 500V	C50089-3
C26	Ceramic, .0027uf, 1000V	C50072-17
C27	Ceramic, .005uf, 20%, 500V	C50089-1
C28	Ceramic, 330uf, 1000V	C50072-1
C29	Mylar, .047uf, 250V	C50197-52
C30	Ceramic, 47uf, N750, 1000V	C50070-4
C31	Ceramic, .0027uf, 1000V	C50072-17
C32	Ceramic, .005uf, 20%, 500V	C50089-1
C33	Mylar, .1uf, 250V	C50197-54
C34	Ceramic, .01uf, 20%, 500V	C50089-3
C35, 36	Mylar, .047uf, 250V	C50197-52
C37	Electrolytic, 20uf, 250V	C746-145
C38	Ceramic, .0027uf, 1000V	C50072-17
C39	Ceramic, .005uf, 20%, 500V	C50089-1
C40	Mylar, .1uf, 250V	C50197-54
C41, 42	Ceramic, 330uf, 1000V	C50072-1
C43	Ceramic, .005uf, 20%, 500V	C50089-1
C44	Ceramic, .0033uf, 1000V	C50072-11
C45	Electrolytic, 8uf, 50V	C629-138
C46	Ceramic, Feedthru, .001uf, GMV	C592-187
C47	Ceramic, .001uf, GMV, 1000V	C50071-2
C48, 49, 50	Ceramic, .02uf, 20%, 500V	C50089-5
C51	Ceramic, 330uf, 1000V	C50072-1

RESISTORS AND POTENTIOMETERS

In ohms, 10% tolerance, 1/2 watt, unless otherwise noted: K=kilohm, M=Megohm.

Symbol	Description	Part No.
R1	Composition, 100K	RC20BF104K
R2	Composition, 470	RC20BF471K
R3	Wirewound, 330, 5W	R746-146
R4	Composition, 820	RC20BF821K
R5	Wirewound, 270, 5W	R684-141
R6	Composition, 150K	RC20BF154K
R7, 8	Composition, 1K	RC20BF102K
R9	Composition, 100	RC20BF101K
R10	Composition, 47K	RC20BF473K
R11	Composition, 68K	RC20BF683K
R12	Composition, 1K	RC20BF101K
R13, 14	Composition, 2.2M	RC20BF225K
R15	Composition, 150	RC20BF151K
R16	Composition, 47K	RC20BF473K

R17	Composition, 1K	RC20BF102K
R18	Composition, 470K	RC20BF474K
R19	Composition, 100K	RC20BF104K
R20, 21	Composition, 1.8M	RC20BF185K
R22	Composition, 47K	RC20BF473K
R23	Composition, 22M	RC20BF226K
R24	Composition, 4.7M	RC20BF475K
F25	Composition, 470K	RC20BF474K
R26	Potentiometer, 1M, Rec., Ind.	R50103-9
R27	Composition, 47K	RC20BF473K
R28	Composition, 82K	RC20BF823K
R29	Composition, 1K	RC20BF102K
R30	Composition, 330K	RC20BF334K
R31	Composition, 2.2M	RC20BF225K
R32	Composition, 3.3M	RC20BF335K
R33	Composition, 100K	RC20BF104K
R34	Composition, 22M	RC20BF226K
R35	Composition, 1.8M	RC20BF185K
R36	Composition, 470K	RC20BF474K
R37	Composition, 33K	RC20BF333K
R38	Potentiometer, 500K, Rec. Level	R50160-58
R39	Potentiometer, 500K, FM Level for Amp. outputs	R50103-6
R40	Composition, 470K	RC20BF474K
R41	Composition, 4.7K	RC20BF472K
R42	Composition, 100K	RC20BF104K
R43	Composition, 22M	RC20BF226K
R44	Composition, 82K	RC20BF824K
R45	Composition, 1.8M	RC20BF185K
R46	Composition, 1K	RC20BF102K
R47	Composition, 270	RC20BF271K
R48, 49	Dep. Carbon, 22K, 5%, 1/3 W	R33DC223J
R50	Composition, 1.5K	RC20BF152K
R51, 52	Composition, 6.8K	RC20BF682K
R53	Composition, 1K	RC20BF102K

COILS, CHOKES AND TRANSFORMERS

Symbol	Description	Part No.
L1	FM Antenna Coil	L818-113
L2	Choke, RF, 1.5 Microhenry	L50066-4
L3	Choke, RF	L629-180
L4	FM, RF Coil	L818-114
L5	FM Osc. Coil Assembly	A5818-118
L6	Choke, RF, .68 Microhenry	L50066-1
L7	Choke, RF, .2 Microhenry	L50066-21
L8, 9, 10, 11, 12, 13	Choke Fil., Ferrite Bead	L592-189
T1	Transformer, power	T794-115
Z1	FM, IF Transformer	ZZ662-117
Z2	FM, IF Transformer	ZZ629-142
Z3	FM, IF Transformer	ZZ50210-2
Z4	FM, Lim. Coil Assembly	L670-145
Z5	FM, Det. Transformer	ZZ592-170

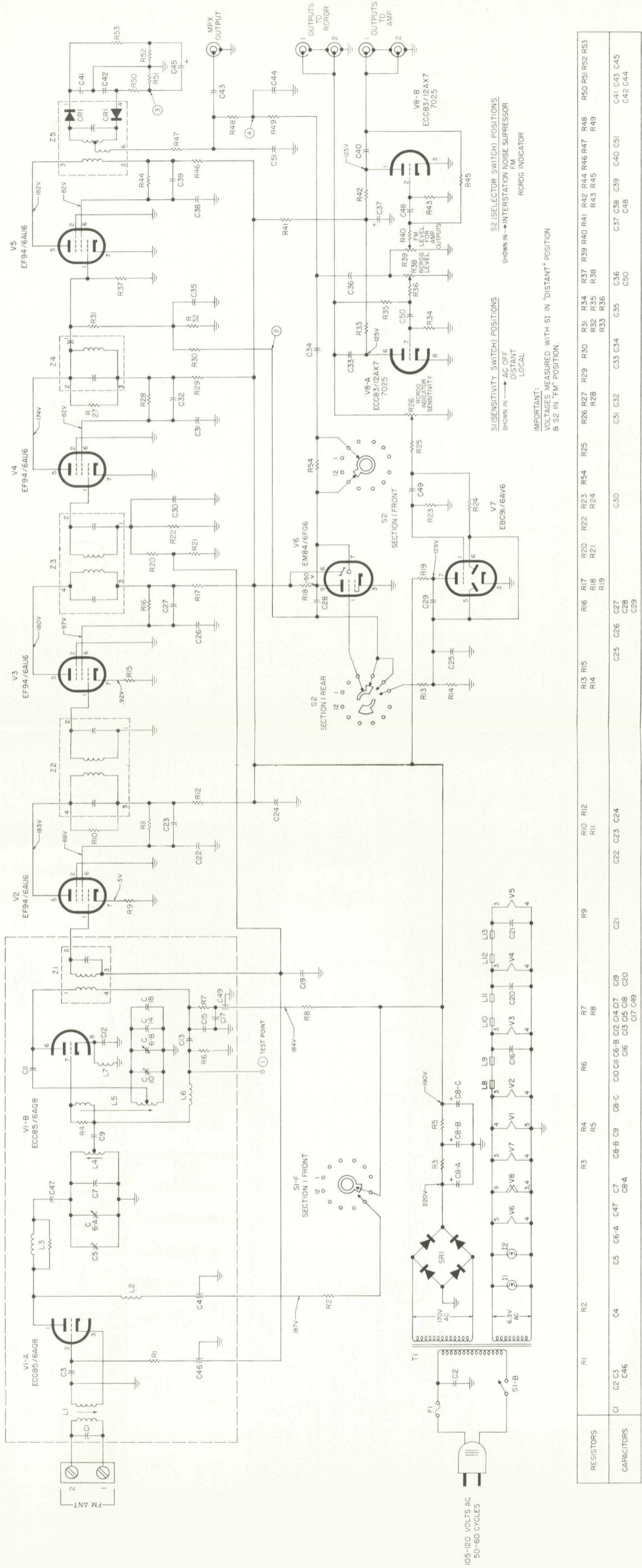
MISCELLANEOUS

Symbol	Description	Part No.
CR1, 2	Diode Type, 1N542	V-1N542
F1	Fuse lamp, Slo-blo	F692-132
I, 2	Lamp Dial	150082-7
S1	Switch, sens. and power	S794-119
S2	Switch, Sel.	S794-118
SR1	Sel. Rect.	SR50253-2

MECHANICAL PARTS

Symbol	Description	Part No.
	Dress panel	A5794-108
	Dial Pointer	A50242-6
	Dipole Assembly	A550227
	Shielded Cable, 4 feet long	A550004-1
	Knob	E50133-2
	Knob, tuning	E50133-1

SCHEMATIC DIAGRAM



AW#1778 - P794 SCHEMATIC

RESISTORS	CAPACITORS
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53	C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 C32 C33 C34 C35 C36 C37 C38 C39 C40 C41 C42 C43 C44 C45

ALIGNMENT INSTRUCTIONS

Read These Instructions With Extreme Care Before Attempting Alignment.

TEST EQUIPMENT: FM Signal Generator, DC VTVM, Oscilloscope.

CHASSIS: 1 — For the entire alignment procedure, set the Selector Switch to FM position, the Sensitivity Switch to DISTANT, and all level controls to maximum.

2 — Turn the Tuning knob maximum counterclockwise. (Dial pointer should line up with calibration mark at the beginning

of the dial. Reset the dial pointer if necessary.)

3 — Allow the tuner and test equipment at least 15 minutes warm-up time. Adjust the line voltage for 117 volts AC 50-60 cps. Use fully insulated tools: a small screw-driver for trimmer capacitors C5 and C10, a K-Tran tool for Z1, Z2 and Z3; a hex tool for all Z4, Z5, L1, L4 and L5.

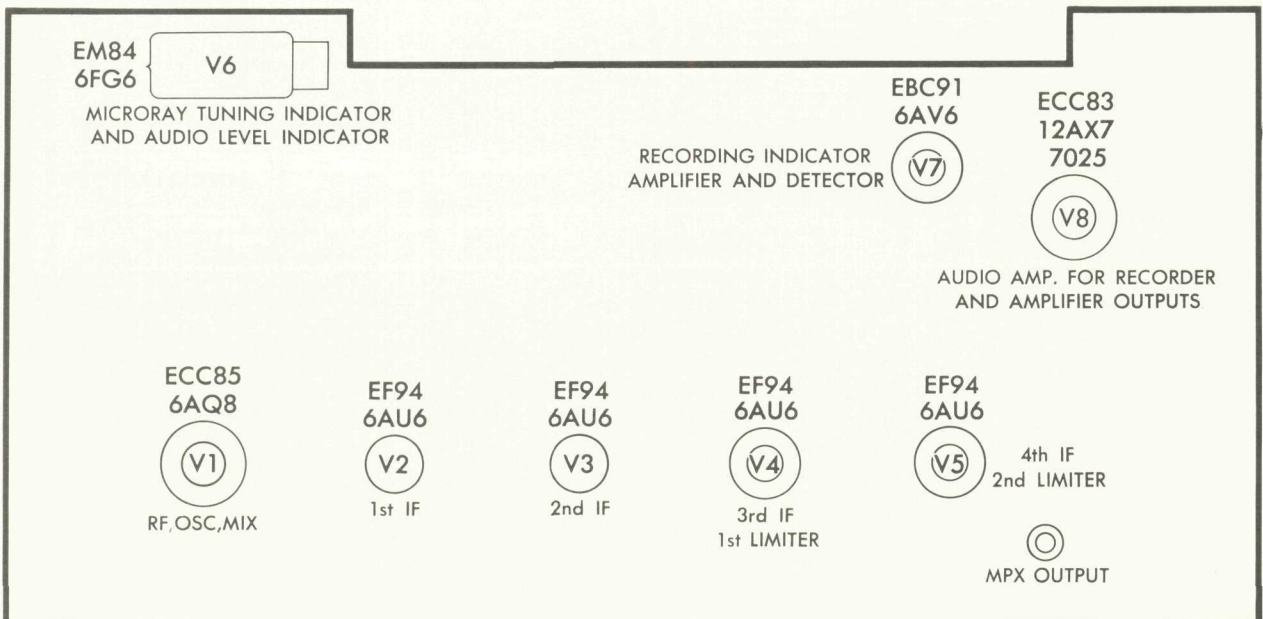
STEP	DIAL	SIGNAL GENERATOR			DC VTVM	ADJUST	INDICATION
		GENERATOR COUPLING	FREQ.	MOD.			
1	Set dial pointer for extreme C.C.W. position.	Test Point 1	10.7 MC	None	Test Point 2	Z1, Z2, Z3 top and bottom and bottom Z4	Maximum negative voltage below 5 volts.
2		Test Point 1	10.7 MC	None	Test Point 3	Z4 top	Maximum negative voltage below 5 volts.
3		Test Point 1	10.7 MC	None	Test Point 4	Z5 top	Zero indication on zero center dial.
4	90 MC	Two 120 ohm carbon resistors in series with generator leads to antenna terminals.	90 MC	±22.5 KC deviation at 400 cps.	Test Point 2	L1, L4 and L5	Adjust for maximum negative voltages and check for sine wave-form.
5	106 MC		106 MC	±22.5 KC deviation at 400 cps.	Test Point 2	C5 & C10	

NOTE: (Steps 1 and 2): Decrease signal generator output while aligning IF transformers so that the VTVM indicates not more than specified voltages. Repeat steps 4 and 5 to obtain proper dial calibration and maximum sensitivity.

Instruction #5 has been corrected to reflect proper adjustment locations.

L.A.D

TUBE LAYOUT





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