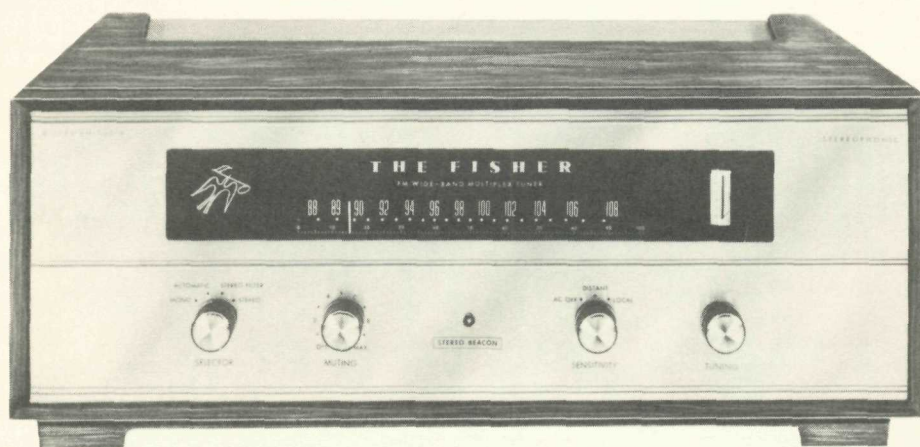




THE FISHER FM-100-B SERVICE MANUAL



MODEL FM-100-B

CHASSIS SERIAL NUMBERS
FROM 40001 TO 49999 INCLUSIVE

PRICE: \$1.00

FISHER RADIO CORPORATION • NEW YORK
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PARTS DESCRIPTION LIST

CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value). All capacitors not marked with are pF (uF).

C1	Ceramic, 8 ±.5, NPO, 500V	CC20C1080D5
C2	Ceramic, 100, N1500, 1000V	C50070-6
C3	Ceramic, Trimmer	C662-123
C4	FM, Variable	C726-116
C5	Ceramic, 100, N1500, 1000V	C50070-6
C6, 7, 8, 9	Ceramic, Feedthru, 1000, GMV Molded, .01 uF, 20%, 600V	C592-187
C10	Ceramic, 1000, 1000V	C2747
C11	Ceramic, Feedthru, 1000, GMV	C50072-3
C12	Ceramic, 8 ±.5, NPO, 500V	C592-187
C13	Ceramic, Trimmer	CC20C1080D5
C14	Ceramic, 100, N1500, 1000V	C662-123
C15	Ceramic, 68, N750, 500V	C50070-6
C16	Ceramic, 100, N1500, 1000V	CC20UJ680K5
C17	Ceramic, 5 ±.5, N220, 500V	C50070-6
C18	Ceramic, 5 ±.5, N150, 500V	CC20RH050D5
C19	Ceramic, 47, N750, 1000V	C50070-4
C20	Ceramic, Trimmer	C662-123
C21	Ceramic, Feedthru, 1000, GMV	C592-187
C22, 23	Electrolytic, A-section:	C670-125B
	A—40uF, 300V	
	B—40uF, 300V	
	C—40uF, 250V	
	D—40uF, 250V	
C25	Ceramic, 100, N1500, 1000V	C50070-6
C27	Ceramic, Feedthru, 1000, GMV	C50072-3
C28	Ceramic, .02uF, +80—20%, 500V	C592-187
C29	Ceramic, 5000, +80—20%, 500V	C50089-4
C30	Ceramic, 2700, 1000V	C50089-6
C31, 32	Ceramic, 5000, +80—20%, 500V	C50072-17
C33	Ceramic, 7 ±.5, NPO, 500V	CC20C1070D5
C34, 35	Ceramic, 5000, +80—20%, 500V	C50089-6
C36	Mylar, .1uF, 125V	C50435-7
C37, 38	Ceramic, 100, N1500, 1000V	C50070-6
C39, 40	Ceramic, 5000, +80—20%, 500V	C50089-6
C41	Ceramic, 2700, 1000V	C50072-17
C42	Ceramic, 5000, +80—20%, 500V	C50089-6
C43	Ceramic, 24, 5%, N150, 1000V	C50070-6
C44	Ceramic, 5000, +80—20%, 500V	C50089-6
C45	Mylar, .1uF, 125V	C50435-7
C46	Ceramic, 5000, +80—20%, 500V	C50089-6
C47	Ceramic, 2700, 1000V	C50072-17
C48	Mylar, .1uF, 250V	C50197-54
C49	Ceramic, .02uF, 20%, 500V	C50089-5
C50	Ceramic, 5000, +80—20%, 500V	C50089-6
C51, 52	Ceramic, 2700, 1000V	C50072-17
C53	Mylar, .1uF, 250V	C500197-54
C54	Ceramic, .02uF, 20%, 500V	C50089-5
C55	Ceramic, 5000, +80—20%, 500V	C50089-6
C57	Ceramic, 12, NPO, 1000V	C50070-2
C58	Ceramic, 5000, +80—20%, 500V	C50072-17
C59	Ceramic, 2700, 1000V	C50072-17
C60	Ceramic, .02uF, GMV, 1000V	C50071-6
C61	Ceramic, 330, 1000V	C50072-1
C62	Ceramic, .05uF, +80—20%, 100V	C50073-2
C63	Electrolytic, 2uF, 70V	C721-142
C64	Ceramic, 560, 1000V	C50072-14
C65	Electrolytic, 8uF, 50V	C629-138
C66, 67	Ceramic, 330, 1000V	C50072-1

C68
C69
C70
C71, 72
C73

Ceramic, 5000, +80—20%, 500V
Mylar, .1uF, 125V
Electrolytic, .5uF, 350V
Mylar, .1uF, 125V
Polystyrene, 2200, 5%, 125V

C50089-6
C50435-7
C50283-7
C50435-7
CP50394-12

RESISTORS & POTENTIOMETERS

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

R1	Composition, 100K	RC20BF104K
R2	Composition, 2.7K	RC20BF222K
R3, 4	Composition, 270	RC20BF271K
R5	Composition, 100K	RC20BF104K
R6	Composition, 470K	RC20BF474K
R7	Composition, 120	RC20BF121K
R8	Dep. Carbon, 1M, 5%, 1/2 W	R33DC105J
R9, 10	Composition, 330K	RC20BF334K
R11	Composition, 820K	RC20BF824K
R12	Composition, 22	RC20BF220K
R13	Composition, 2.2K	RC20BF222K
R14, 15	Composition, 120	RC20BF121K
R16	Glass, 270, 3W	RC20BF474K
R17	Composition, 470	RC20BF471K
R18	Glass, 270, 3W	RC20BF102K
R19	Composition, 1K	RC20BF102K
R20, 21	Composition, 56K	RC20BF563K
R22	Composition, 150	RC20BF151K
R23	Composition, 150	RC20BF151K
R24	Composition, 39K	RC20BF393K
R25	Composition, 1K	RC20BF102K
R26	Composition, 680K	RC20BF684K
R27	Potentiometer, Muting Control	R50160-108
R28	Dep. Carbon, 330K, 5%, 1/2 W	R33DC334J
R29	Composition, 150	RC20BF151K
R30	Composition, 470K	RC20BF474K
R31	Composition, 100K	RC20BF104K
R32	Composition, 27K	RC20BF273K
R33	Dep. Carbon, 220K, 5%, 1/2 W	R33DC224J
R34	Composition, 39K	RC20BF393K
R35	Composition, 1K	RC20BF102K
R36	Composition, 18K	RC20BF183K
R37	Composition, 150	RC20BF151K
R39	Composition, 1.8M	RC20BF185K
R40, 41	Composition, 82K	RC20BF823K
R42	Composition, 68K	RC20BF683K
R43	Composition, 10K	RC20BF103K
R44	Composition, 1K	RC20BF102K
R45	Composition, 270K	RC20BF274K
R46	Composition, 1.8M	RC20BF185K
R47	Composition, 22K	RC20BF223K
R48	Composition, 180	RC20BF181K
R49	Dep. Carbon, 470K, 5%, 1/2 W	R33DC474J
R50	Potentiometer, 500K, Level Set B	R50103-6
R51	Dep. Carbon, 100K, 5%, 1/2 W	R33DC104J
R52	Composition, 15M	RC20BF156K
R53	Composition, 56K	RC20BF563K
R54	Dep. Carbon, 100K, 5%, 1/2 W	R33DC104J
R55	Composition, 1K	RC20BF102K
R56	Composition, 15M	RC20BF156K
R57	Composition, 1K	RC20BF102K
R58	Dep. Carbon, 470K, 5%, 1/2 W	R33DC474J

R59
R60
R61
R62
R63
R64
R65
R66
R67
R68

Potentiometer, 500K, Level Set A
Composition, 47K
Composition, 1.8M
Composition, 47K
Composition, 47K
Composition, 1K
Dep. Carbon, 470K, 5%, 1/2 W
Composition, 270
Dep. Carbon, 100K, 5%, 1/2 W
Dep. Carbon, 1K, 5%, 1/2 W
Composition, 15K
Dep. Carbon, 150K, 5%, 1/2 W
Dep. Carbon, 1.5K, 5%, 1/2 W
Dep. Carbon, 56K, 5%, 1/2 W

R50103-6
RC20BF473K
RC20BF185K
RC20BF473K
RC20BF473K
RC20BF102K
RC20BF102K
RC20BF274K
R12DC104J
R33DC102J
RC20BF135K
R12DC154J
R33DC152J
R12DC563J

75, 76
R77
R78

Dep. Carbon, 820K, 5%, 1/2 W
Dep. Carbon, 47K, 5%, 1/2 W
Dep. Carbon, 470K, 5%, 1/2 W

R12DC824J
R12DC473J
R12DC474J

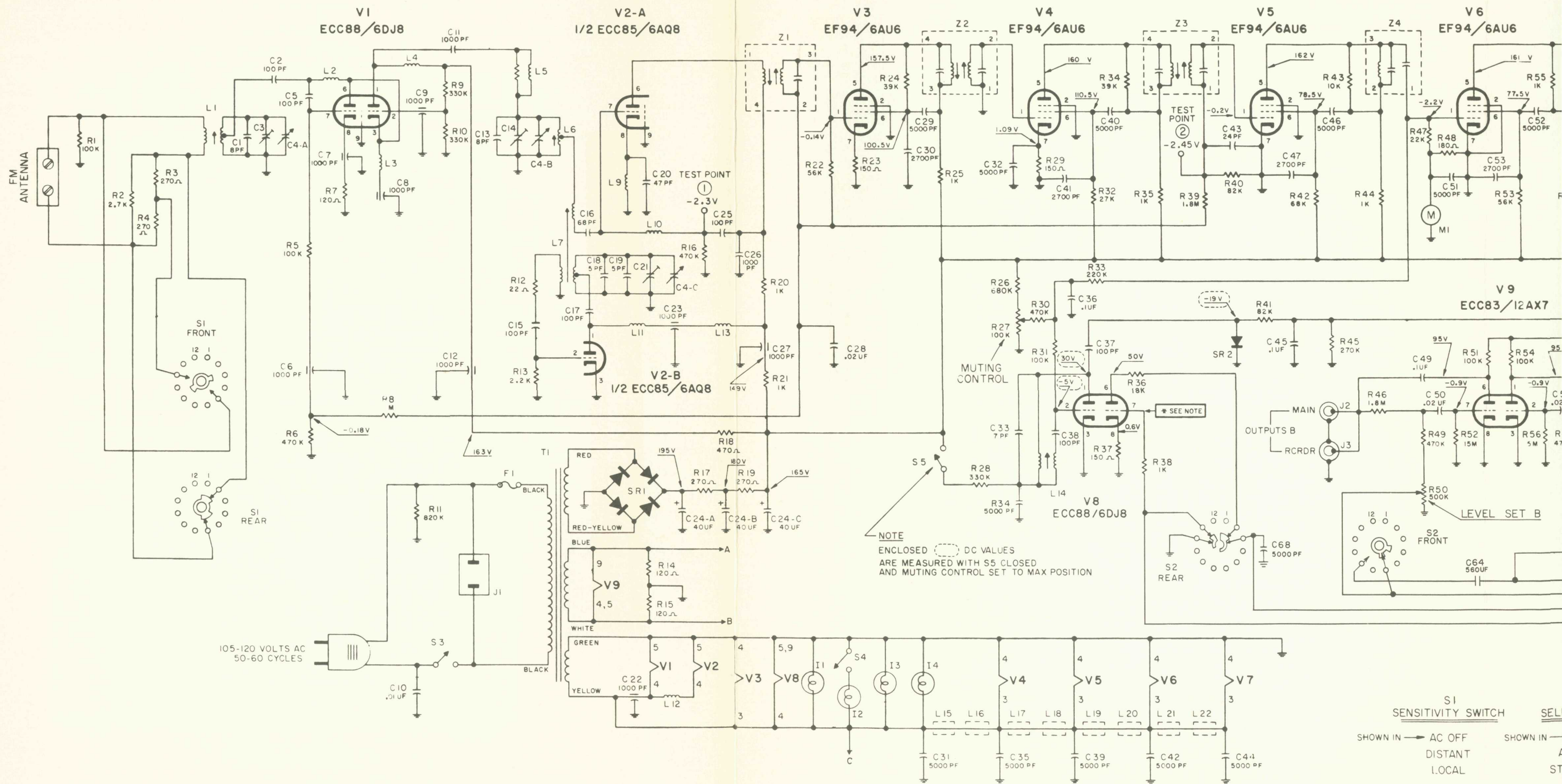
COILS, CHOKES & TRANSFORMERS

L1	Coil, FM Antenna	L726-124
L2	Choke, 1 Micro Henry	L50066-2
L3, 4	Choke, .56 Micro Henrys	L50066-19
L5	Choke, R.F.	L629-180
L6	Coil, FM RF	L726-126
L7	Coil, FM Oscillator	L726-125
L9	Choke, .56 Micro Henrys	L50066-19
L10, 11	Choke, 1 Micro Henry	L50066-2
L12, 13	Choke, 1.2 Micro Henrys	L50066-3
L14	Coil, Muting Oscillator	L50210-22
L15, 16,		
17, 18,		
19, 20		
21, 22		
L23	Coil Filament, Ferrite Bead	L592-189
L24	Coil, 3.3 Micro Henrys	L50066-8
T1	Transformer, Power	T903-115
Z1	Transformer, FM IF	Z7662-117
Z2	Transformer, FM IF	Z22987
Z3	Transformer, FM IF	ZZ50210-2
Z4, 5	FM Limiter Coil	ZZ50210-6
Z6	FM Ratio Detector	ZZ50210-9

MISCELLANEOUS

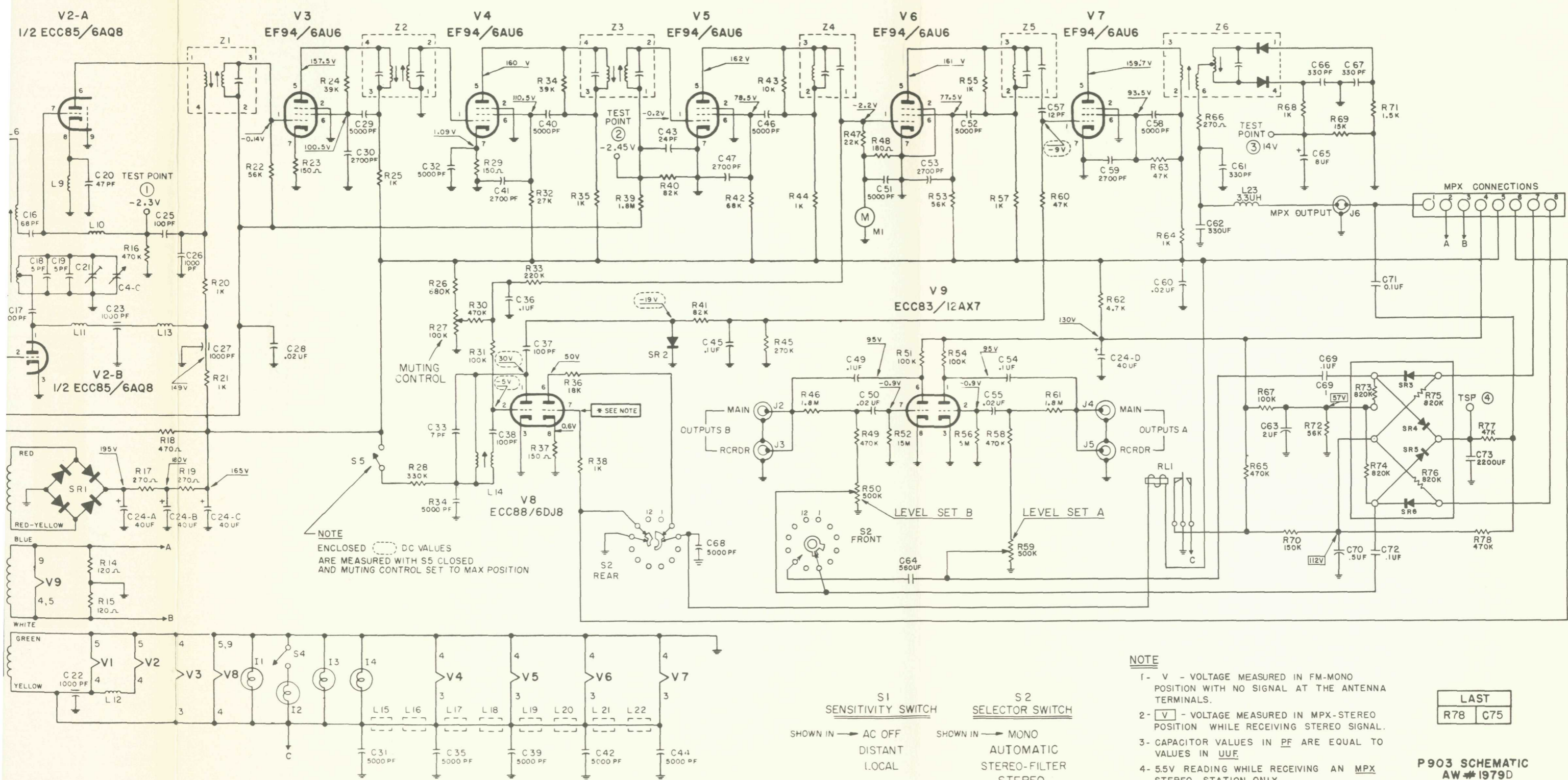
F1	Fuse, 1 Amp, Slo-Blo	F692-132
I1	Bulb Meter #470F	I50009-4
I2	Lamp, Stereo Beacon #47	I50009-1
I3, 4	Lamp, Dial	I150082-7
RL1	Relay	K50314
M1	Meter, Tuning	M766-137
S1	Switch, Sensitivity	S903-120
S2	Switch, Selector	S903-128
S3	Switch, Power	Part of S1
S4	Selenium Rectifier, bridge	SR50279-1
SR2, 3, 4,		
5, 6	Diode, Type 1112	V-1112
	Dress Panel	AS903-122
	Dipole Assembly	ASS0227-1
	Knob, Tuning	E50325-2
	Knob	E50325-1
	Jewel, Green	I50162-4
	Fuse Holder	X1036

SCHEMATIC DIAGRAM



S1
SENSITIVITY SWITCH
AC OFF
DISTANT
LOCAL

SEL
A
ST



NOTE
ENCLOSED DC VALUES
ARE MEASURED WITH S5 CLOSED
AND MUTING CONTROL SET TO MAX POSITION

NOTE
1- V - VOLTAGE MEASURED IN FM-MONO POSITION WITH NO SIGNAL AT THE ANTENNA TERMINALS.
2- [V] - VOLTAGE MEASURED IN MPX-STEREO POSITION WHILE RECEIVING STEREO SIGNAL.
3- CAPACITOR VALUES IN PF ARE EQUAL TO VALUES IN UUF.
4- 5.5V READING WHILE RECEIVING AN MPX STEREO STATION ONLY.

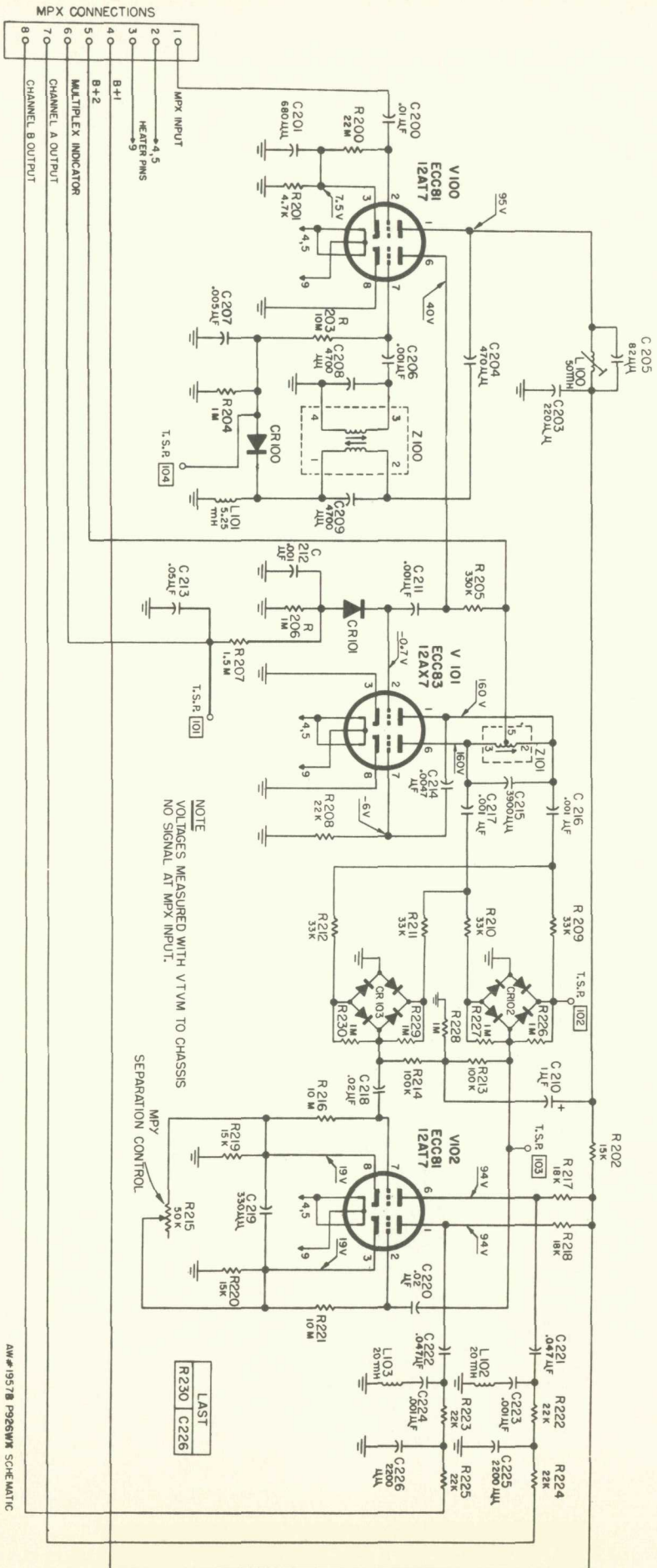
LAST	
R78	C75

S1 SENSITIVITY SWITCH
SHOWN IN → AC OFF
DISTANT
LOCAL

S2 SELECTOR SWITCH
SHOWN IN → MONO
AUTOMATIC
STEREO-FILTER
STEREO

P903 SCHEMATIC
AW #1979D

SCHEMATIC DIAGRAM • MULTIPLEX SECTION



AW#1957B P926WV SCHEMATIC

PARTS DESCRIPTION LIST • MULTIPLEX SECTION

CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value). All capacitors not marked uf are pF (uuf).

Symbol	Description	Part No.
C200	Ceramic, .01uf, +80 -20%, 500V	C50089-7
C201	Ceramic, 680, 1000V	C50072-2
C203	Ceramic, 220, 1000V	C50183-3
C204	Polystyrene, 470, 5%, 500V	C50394-1
C205	Ceramic, 82, N1500, 1000V	C50070-7
C206	Ceramic, .001uf, GMV, 500V	C50089-2
C207	Ceramic, .005uf, +80 -20%, 500V	C50089-6
C208, 209	Mica, 4700, 5%, 500V	C50332-5
C210	Electrolytic, 1uf, 350V	C50283-3
C211, 212	Ceramic, .001uf, GMV, 500V	C50089-2
C213	Ceramic, .05uf, +80 -20%, 100V	C50073-2
C214	Mylar, .0047uf 400V	C50197-25
C215	Mica, 3900, 5%, 500V	C50332-6
C216, 217	Ceramic, .001uf, GMV, 500V	C50089-2
C218	Ceramic, .02uf, 20%, 500V	C50089-5
C219	Ceramic, 330, 1000V	C50072-1
C220	Ceramic, .02uf, 20%, 500V	C50089-5
C221, 222	Mylar, .047uf, 10%, 250V	C50197-52
C223, 224	Ceramic, .001uf, 1000V	C50072-3
C225, 226	Ceramic, 2200, 1000V	C50072-5

RESISTORS AND POTENTIOMETERS

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

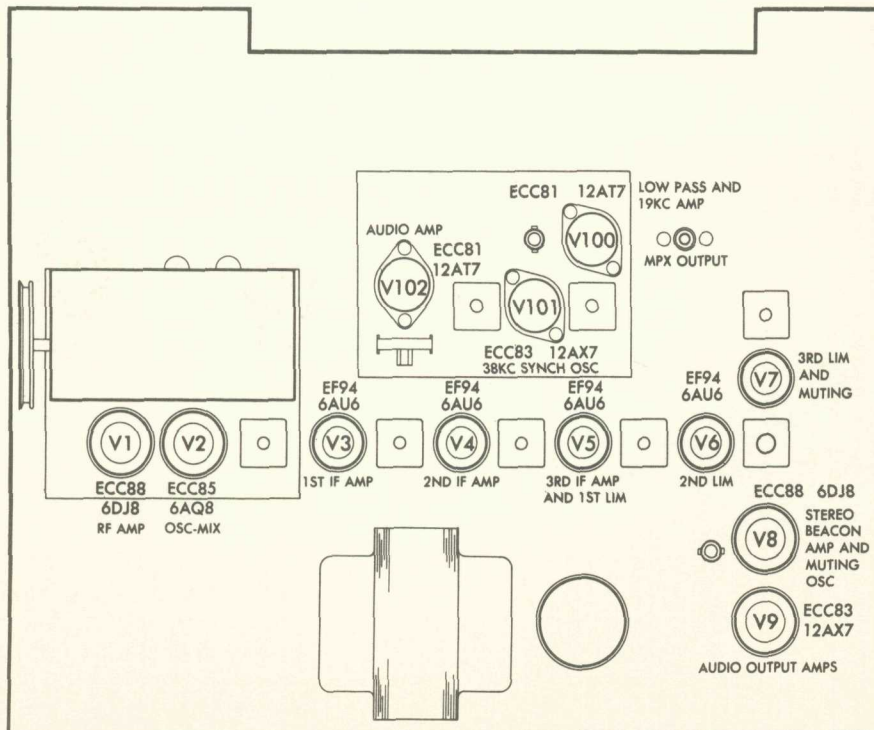
Symbol	Description	Part No.
R200	Composition, 22M	RC20BF226K

R201	Composition, 4.7K, 5%	RC20BF472J
R202	Composition, 15K, 5%	RC20BF153J
R203	Composition, 10M	RC20BF106K
R204	Dep. Carbon, 1M, 5%, 1/8 W	R12DC105J
R205	Dep. Carbon, 330K, 5%, 1/3 W	R33DC334J
R206	Dep. Carbon, 1M, 5%, 1/8 W	R12DC105J
R207	Dep. Carbon, 1.5M, 5%, 1/3 W	R33DC155J
R208	Dep. Carbon, 22K, 5%, 1/8 W	R12DC223J
R209, 210,		
211, 212	Dep. Carbon, 33K, 5%, 1/8 W	R12DC333J
R213, 214	Dep. Carbon, 100K, 5%, 1/8 W	R12DC104J
R215	Potentiometer, 50K, MPX-separation	R50150-4
R216	Composition, 10M	RC20BF106K
R217, 218	Dep. Carbon, 18K, 5%, 1/3 W	R33DC183J
R219, 220	Dep. Carbon, 15K, 5%, 1/3 W	R33DC153J
R221	Composition, 10M	RC20BF106K
R222, 223,		
224, 225	Dep. Carbon, 22K, 5%, 1/8 W	R12DC223J
R226, 227,		
228, 229,		
230	Dep. Carbon, 1M, 5%, 1/8 W	R12DC105J

MISCELLANEOUS

Symbol	Description	Part No.
CR100, 101,		
102, 103	Diode, Type 1112	V-1112
L100	Coil, Low Pass	L50210-30
L101	Coil, 5.25 M.H., 5%	L50334-1
L102, 103	Coil, 20 M.H., 5%	L50334-2
Z100	Transformer, 19Kc	ZZ50210-34
Z101	Coil, 38Kc	ZZ50210-33

TUBE SOCKET LAYOUT



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 Mono position, the Muting Control to OFF position, the Channel A Level Set to MAXIMUM, and connect the oscilloscope to the Channel A output.

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 C21, C14 and C3; a K-Tran tool for Z1, Z2 and Z3; a hex tool for all L1, L6, L7, Z4, Z5 and Z6.

STEP	DIAL	SIGNAL GENERATOR			DC VTVM	ADJUST	INDICATION
		GENERATOR COUPLING	FREQ.	MOD.			
1	Set dial pointer for extreme C.C.W. position.	Pin 1, V5	10.7 MC	None	Test Point 3	Z4 Z5 Z6 top and bottom	Maximum positive voltage (below 10 volts)
		Ungrounded tube shield of V2	10.7 MC	None			
2					Test Point 2	Z1, Z2, Z3 top and bottom	Maximum negative voltage (below 2 volts)
3	90 MC	Two 120 ohm carbon resistors in series with generator leads to the antenna terminals.	90 MC	±22.5 KC deviation at 400 cps.	Test Point 2	L7, L6 and L1	Adjust for maximum negative voltages and check for sine wave-form, with scope at Ch A output.
4	106 MC		106 MC	±22.5 KC deviation at 400 cps.	Test Point 2	C21 C14 and C3	

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 3 and 4 to obtain proper dial calibration and maximum sensitivity.



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