Stereophonic

THE FISHER 202-R

SERVICE MANUAL

MODEL 202-R

CHASSIS SERIAL NUMBERS
FROM 10001 TO 19999 INCLUSIVE

PRICE: $1.00

FISHER RADIO CORPORATION · NEW YORK

CHASSIS SERIAL NUMBERS
FROM 10001 TO 19999 INCLUSIVE

THE FISHER 202-R

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, 24uuf, 5%, N150, 1000V	C50070-8
C2	Molded, .01uf, 20%, 600V	C2747
C3	Variable, AM	C799-119
C4	Ceramic, 100uuf, N1500, 1000V	C50070-6
C5	Ceramic, feedthru, .001uf, GMV	C592-187
C6	Molded, .01uf, 20%, 600V	C2747
C7	Ceramic, 10uuf, ±.5uuf, NPO, 500V	CC20CJ100D5
C8	Ceramic, 100uuf, N1500, 1000V	C50070-6
C9	Electrolytic, 25uf, 6V	C639-114
C10	Ceramic, 100uuf, N1500, 1000V	C50070-6
C11	Ceramic, trimmer	C662-123
C12	Ceramic, feedthru, .001uf, GMV	C592-187
C13	Variable, FM	C726-116
C14	Ceramic, feedthru, .001uf, GMV	C592-187
C15	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C16	Ceramic, feedthru, .001uf, GMV	C592-187
C17	Ceramic, 3uuf, NPO, 1000V	C50070-28
C18	Ceramic, feedthru, .001uf, GMV	C592-187
C19	Ceramic, .005uf, 20%, 500V	C50089-1
C20	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C21, 22	Ceramic, trimmer	C662-123
C23	Ceramic, 10uuf, ±.5uuf, NPO, 500V	CC20CJ100D5
C24	Ceramic, 8uuf, ±.5uuf, N220, 500V	CC20RJ080D5
C25	Ceramic, .68uuf, 500V	C50077-6N
C26	Electrolytic, three section	C50180-24
	A — 40uf 300V	
	B — 40uf 300V	
	C — 40uf 300V	
C27	Ceramic, feedthru, .001uf, GMV	C592-187
C28	Ceramic, .001uf, 1000V	C50072-3
C29	Ceramic, feedthru, .001uf, GMV	C592-187
C30	Ceramic, 100uuf, N1500, 1000V	C50070-6
C31	Mylar, .047uf, 250V	C50197-52
C32	Ceramic, 100uuf, N1500, 1000V	C50070-6
C33	Ceramic, 68uuf, N750, 500V	CC20UJ680K5
C34	Ceramic, 100uuf, N1500, 1000V	C50070-6
C35	Mica, 470uuf, 5%, 300V	C3334
C36	Ceramic, 47uuf, N750, 1000V	C50070-4
C37	Ceramic, 24uuf, 5%, N150, 1000V	C50070-8
C38	Ceramic, 100uuf, 5%, N1500, 1000V	C50070-19
C39	Ceramic, 100uuf, N1500, 1000V	C50070-6
C40	Ceramic, 10uuf, ±.5uuf, NPO, 500V	CC20CJ100D5
C41	Ceramic, .001uf, 1000V	C50072-3
C42, 43	Ceramic, feedthru, .001uf, GMV	C592-187
C44	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C45	Mica, 470uuf, 5%, 300V	C3334
C46	Ceramic, .005uf, 20%, 500V	C50089-1
C47	Ceramic, feedthru, .001uf, GMV	C592-187
C48, 49	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C50, 51	Ceramic, .005uf, 20%, 500V	C50089-1
C52	Mylar, .1uf, 250V	C50197-54
C53	Ceramic, .0027uf, 1000V	C50072-17
C54	Mica, 470uuf, 5%, 300V	C3334
C55, 56	Ceramic, .005uf, 20%, 500V	C50089-1
C57	Mylar, .047uf, 250V	C50197-52
C58	Mylar, .1uf, 250V	C50197-54
C59	Ceramic, .005uf, 20%, 500V	C50089-1
C60	Ceramic, 10uuf, ±.5uuf, NPO, 500V	CC20CJ100D5
C61	Mica, 470uuf, 5%, 300V	C3334
C62	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C63	Ceramic, .0027uf, 1000V	C50072-17
C64, 65, 66, 67	Ceramic, .005uf, 20%, 500V	C50089-1
C68	Ceramic, 5uuf, ±.5uuf, NPO, 500V	CC20CJ050D5
C69	Ceramic, .005uf, 20%, 500V	C50089-1
C70	Ceramic, 100uuf, N1500, 1000V	C50070-6
C71	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C72	Ceramic, 100uuf, N1500, 1000V	C50070-6
C73	Ceramic, 24uuf, 5%, N150, 1000V	C50070-8
C74	Ceramic, 560uuf, 1000V	C50072-14
C75	Mica, trimmer	C629-151-5
C76	Mylar, .047uf, 250V	C50197-52
C77	Ceramic, 100uuf, N1500, 1000V	C50070-6
C78	Ceramic, .005uf, 20%, 500V	C50089-1
C79	Ceramic, .0027uf, 1000V	C50072-17
C80	Ceramic, .01uf, 20%, 500V	C50089-3
C81	Ceramic, .02uf, 20%, 500V	C50089-5
C82	Ceramic, 24uuf, 5%, N150, 1000V	C50070-8
C83	Ceramic, .005uf, 20%, 500V	C50089-1
C84	Ceramic, .02uf, +80 —20%, 500V	C50089-4
C85	Ceramic, 150uuf, 1000V	C50072-18
C86	Ceramic, .005uf, 20%, 500V	C50089-1
C87	Ceramic, .0027uf, 1000V	C50072-17
C88	Ceramic, .005uf, 20%, 500V	C50089-1
C89	Mylar, .1uf, 250V	C50197-54
C90	Ceramic, 15uuf, N75, 1000V	C50070-18
C91, 92	Electrolytic, 20uf, 250V	C746-145
C93, 94	Ceramic, .005uf, 20%, 500V	C50089-1
C95, 96	Mylar, .1uf, 250V	C50197-54
C97	Ceramic, .005uf, 20%, 500V	C50089-1
C98	Ceramic, .0027uf, 1000V	C50072-17
C99, 100	Mylar, .1uf, 250V	C50197-54
C101	Ceramic, 12uuf, NPO, 1000V	C50070-2
C102	Ceramic, .0027uf, 1000V	C50072-17
C103	Ceramic, .005uf, 20%, 500V	C50089-1
C104	Ceramic, 330uuf, 1000V	C50072-1
C105	Molded, .0033uf, 5%, 200V	C68P332J2
C106	Ceramic, .005uf, 20%, 500V	C50089-1
C107, 108	Ceramic, 330uuf, 1000V	C50072-1
C109	Electrolytic, 8uf, 50V	C629-138
C110	Ceramic, .005uf, 20%, 500V	C50089-1

RESISTORS AND POTENTIOMETERS

In ohms, 10% tolerance, ½ watt, unless otherwise noted. K=kilohm, M=megohm.

Symbol	Description	Part No.
R1	Composition, 1K, 10%, ½W	RC20BF102K
R2	Composition, 330, 10%, ½W	RC20BF331K
R3	Composition, 270, 10%, ½W	RC20BF271K
R4	Composition, 2.7K, 10%, ½W	RC20BF272K
R5	Composition, 820K, 10%, ½W	RC20BF824K
R6	Composition, 4.7, 10%, ½W	RC20BF4R7K
R7	Composition, 8.2K, 5%, ½W	RC20BF822J
R8	Composition, 820K, 10%, ½W	RC20BF824K
R9	Composition, 100K, 10%, ½W	RC20BF104K
R10	Composition, 100, 10%, ½W	RC20BF101K
R11	Composition, 120, 10%, ½W	RC20BF121K
R12, 13	Composition, 220, 10%, ½W	RC20BF221K
R14	Composition, 47K, 10%, ½W	RC20BF473K
R15	Composition, 1K, 10%, ½W	RC20BF102K
R16, 17	Composition, 330K, 10%, ½W	RC20BF334K
R18	Composition, 4.7, 10%, ½W	RC20BF4R7K
R19	not used	
R20	Wirewound, 270, 10%, 5W	R684-141
R21	Composition, 820K, 10%, ½W	RC20BF824K
R22	Wirewound, 270, 10%, 5W	R684-141
R23	Composition, 100, 10%, ½W	RC20BF101K
R24	Composition, 2.2K, 10%, ½W	RC20BF222K
R25	Composition, 470K, 10%, ½W	RC20BF474K
R26	Composition, 22K, 10%, ½W	RC20BF223K
R27	Composition, 470, 10%, ½W	RC20BF471K
R28	Composition, 100, 10%, ½W	RC20BF101K
R29	Composition, 1K, 10%, ½W	RC20BF102K
R30	Composition, 18K, 10%, 1W	RC20BF183K
R31	Composition, 82K, 10%, ½W	RC20BF823K
R32	Composition, 150, 10%, ½W	RC20BF151K
R33	Composition, 1M, 10%, ½W	RC20BF105K
R34	Composition, 470, 10%, ½W	RC20BF471K
R35	Composition, 100, 10%, ½W	RC20BF101K
R36	Composition, 22M, 10%, ½W	RC20BF226K

PARTS DESCRIPTION LIST

R37	Composition, 47K, 10 %, ½ W	**RC20BF473K**
R38	Composition, 470K, 10 %, ½ W	**RC20BF474K**
R39	Composition, 33K, 10 %, ½ W	**RC20BF333K**
R40	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R41	Composition, 470, 10 %, ½ W	**RC20BF471K**
R42	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R43	Composition, 1M, 10 %, ½ W	**RC20BF105K**
R44	Composition, 820K, 10 %, ½ W	**RC20BF824K**
R45	Composition, 470K, 10 %, ½ W	**RC20BF474K**
R46	Composition, 150, 10 %, ½ W	**RC20BF151K**
R47	Composition, 180, 10 %, ½ W	**RC20BF181K**
R48	Composition, 47K, 10 %, ½ W	**RC20BF473K**
R49	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R50	Composition, 27K, 10 %, ½ W	**RC20BF273K**
R51	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R52	Composition, 68K, 10 %, ½ W	**RC20BF683K**
R53	Composition, 470K, 10 %, ½ W	**RC20BF474K**
R54, 55	Composition, 47K, 10 %, ½ W	**RC20BF473K**
R56	Composition, 22M, 10 %, ½ W	**RC20BF226K**
R57	Composition, 27K, 10 %, ½ W	**RC20BF273K**
R58	Composition, 3.9K, 10 %, ½ W	**RC20BF392K**
R59	Composition, 47K, 10 %, ½ W	**RC20BF473K**
R60	Composition, 390K, 10 %, ½ W	**RC20BF394K**
R61	Composition, 100K, 10 %, ½ W	**RC20BF104K**
R62	Potentiometer, 500K, AM level	**R50103-6**
R63	Composition, 82K, 10 %, ½ W	**RC20BF823K**
R64	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R65	Composition, 2.7K, 10 %, ½ W	**RC20BF272K**
R66	Composition, 220K, 10 %, ½ W	**RC20BF224K**
R67	Composition, 100K, 10 %, ½ W	**RC20BF104K**
R68	Composition, 6.8K, 10 %, ½ W	**RC20BF682K**
R69	Composition, 27K, 10 %, 1W	**RC30BF273K**
R70	Potentiometer, 25K	**R50103-2**
R71	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R72	Composition, 10M, 10 %, ½ W	**RC20BF106K**
R73	Dep. Carbon, 470K, 5 %, ⅓ W	**R33DC474J**
R74	Composition, 10M, 10 %, ½ W	**RC20BF106K**
R75, 76	Composition, 220K, 10 %, ½ W	**RC20BF224K**
R77	Composition, 1M, 10 %, ½ W	**RC20BF105K**
R78	Composition, 47K, 10 %, ½ W	**RC20BF473K**
R79	Composition, 560, 10 %, ½ W	**RC20BF561K**
R80	Composition, 470K, 10 %, ½ W	**RC20BF474K**
R81	Composition, 390K, 10 %, ½ W	**RC20BF394K**
R82	Potentiometer, 100K, muting	**R50160-63**
R83	Composition, 100K, 10 %, ½ W	**RC20BF104K**
R84	Composition, 4.7K, 10 %, ½ W	**RC20BF472K**
R85	Composition, 56K, 10 %, ½ W	**RC20BF563K**
R86	Composition, 68K, 5 %, ½ W	**RC20BF683J**
R87	Potentiometer, 250K, FM level	**R50103-1**
R88	Dep. Carbon, 470K, 5 %, ⅓ W	**R33DC474J**
R89	Composition, 2.2M, 10 %, ½ W	**RC20BF225K**
R90	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R91	Composition, 1.8M, 10 %, ½ W	**RC20BF185K**
R92	Composition, 2.2M, 10 %, ½ W	**RC20BF225K**
R93, 94	Composition, 560, 10 %, ½ W	**RC20BF561K**
R95	Dep. Carbon, 470K, 5 %, ⅓ W	**R33DC474J**
R96, 97	Dep. Carbon, 100K, 5 %, ⅓ W	**R33DC104J**
R98	Composition, 330, 10 %, ½ W	**RC20BF331K**
R99, 100	Composition, 150K, 10 %, ½ W	**RC20BF154K**
R101	Composition, 22M, 10 %, ½ W	**RC20BF226K**
R102	Composition, 820K, 5 %, ½ W	**RC20BF824J**
R103	Composition, 4.7K, 10 %, ½ W	**RC20BR472K**
R104	Composition, 820K, 5 %, ½ W	**RC20BF824J**
R105	Composition, 100K, 10 %, ½ W	**RC20BF104K**
R106	Composition, 560, 10 %, ½ W	**RC20BF561K**
R107	Composition, 1M, 10 %, ½ W	**RC20BF105K**
R108	Composition, 5.6K, 10 %, ½ W	**RC20BF562K**
R109, 110	Compositon, 4.7K, 10 %, ½ W	**RC20BF472K**
R111	Composition, 47K, 10 %, ½ W	**RC20BF473K**
R112	Composition, 100, 10 %, ½ W	**RC20BF101K**
R113	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R114	Composition, 15K, 10 %, ½ W	**RC20BF153K**
R115	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R116	Composition, 270, 5 %, ½ W	**RC20BF271J**
R117	Dep. Carbon, 22K, 5 %, ⅓ W	**R33DC223J**
R118	Composition, 1.5K, 10 %, ½ W	**RC20BF152K**
R119	Composition, 1K, 10 %, ½ W	**RC20BF102K**
R120, 121	Composition, 6.8K, 5 %, ½ W	**RC20BF682J**
R122	Composition, 470K, 10 %, ½ W	**RC20BF474K**
R123	Composition, 3.3, 10 %, ½ W	**RC20BF3R3K**
R124	Composition, 150K, 10 %, ½ W	**RC20BF154K**
R125	Composition, 1M, 10 %, ½ W	**RC20BF105K**
R126	Composition, 100K, 10 %, ½ W	**RC20BF104K**

COILS, CHOKES AND TRANSFORMERS

Symbol	Description	Part No.
L1, 2	FM antenna, matching coils	**L509-139**
L3, 4	Choke, filament, ferrite bead	**L592-189**
L5	AM ferrite loop	**L50210-24**
L6	AM ant., transformer	**L670-151**
L7	FM ant., coil	**L726-129**
L8	Choke, 1 Micro-henry	**L50066-2**
L9, 10	Choke, .56 Micro-henry	**L50066-19**
L11	FM, RF coil	**L726-126**
L12	FM, osc. coil assembly	**AS726-123**
L13	Choke, R.F.	**L629-180**
L14	Choke, .56 Micro-henry	**L50066-19**
L15	Choke, 1 Micro-henry	**L50066-2**
L16	AM osc. coil	**L50210-22**
L17, 18	Choke, 1 Micro-henry	**L50066-2**
L19	Muting osc. coil	**L50210-22**
L20	10Kc filter coil	**L644-120**
L21	Choke, 3.3 Micro-henries	**L50066-8**
L22	Choke, 1 Micro-henry	**L50066-2**
L23, 24, 25, 26, 27	Choke, filament, ferrite bead	**L592-189**
T1	Transformer, power	**T766-115**
Z1	FM, I.F. Transformer	**ZZ662-117**
Z2, 3	FM, I.F. Transformer	**ZZ50210-2**
Z4	FM, I.F. Transformer	**ZZ50210-4**
Z5, 6	FM, limiter coil assembly	**L670-145**
Z7	FM, Ratio detector	**ZZ592-170**
Z8	AM, R.F. Transformer	**L670-151**
Z9, 10	AM, I.F. Transformer	**ZZ629-135**
Z11	AM, I.F. Transformer	**ZZ2984**

MISCELLANEOUS

Symbol	Description	Part No.
CR1	Varicap, type 6.8SC20	**V-726-130**
CR2, 3	Silicon diode, type 2E4	**SR782-117**
CR4, 5	Diode, matched pair, type 1N542	**V-1N542**
F1	Fuse, 1.5 amp.	**F766-141**
I1, 4	Lamp, dial	**1-50082-61**
I2, 3	Lamp, meter, #470F	**150009-4**
I5, 6, 7	Lamp, #47	**I50009-1**
K1	Relay	**K50276-1**
M1	Meter, FM	**M766-136**
M2	Meter, AM	**M766-137**
S1, 2	Switch, slide	**S50200-2**
S3	Switch, AM, antenna	**S766-133**
S4	Switch, power	**S766-133**
S5	Switch, AM, bandwidth	**S766-132**
S6	Switch, FM, AFC	**S766-134**
S7	Switch, selector	**S766-135**
S8	Switch, muting	**part of R82**
SR-1	Selenium rectifier bridge	**SR740-137**
——	FM dipole assembly	**AS50227-1**
——	Knob, tuning	**E50224-2**
——	Knob	**E50224-1**
——	Jewel, red	**I50162-1**
——	Jewel, yellow	**I50162-2**
——	Jewel, green	**I50162-4**
——	Dial, glass	**N766-107**
——	Fuse holder	**X1036**

ALIGNMENT INSTRUCTIONS

Read These Instructions With Extreme Care Before Attempting Alignment.

CHASSIS: Turn the station selectors completely counterclockwise, without forcing. Dial pointers should be at zero index mark on logging scale. If not, reset the dial pointers. Disconnect the external antennas and the antenna link. Set Ferrite Loop to normal position, parallel to rear panel. When using an oscilloscope for alignment, set the output level controls for no overload, as shown by the proper waveform shape. Set FM antenna switches to "Distant" and 300 ohms.

SIGNAL GENERATORS: The signal generator equipment must be able to supply the following: FM RF ±22.5 KC deviation at 400 cps; FM-IF deviation ±250 KC at 50-100 cps; AM RF modulated 30% at 400cps; AM IF with 30 KC sweep for AM bandwidth adjustment; audio oscillator accurately calibrated for 1 and 10 KC audio output for testing the 10 KC AM whistle filter.

INDICATOR: DC VTVM, AC VTVM, and scope for alignment.

ALIGNMENT: Allow the chassis and test instruments to warm up for at least fifteen minutes. Adjust the line voltage for 117 volts AC, 50-60 cycles. Use fully insulated tools: a small screwdriver for all trimming capacitors; a K-Tran tool for Z1, Z2, Z3, Z4, Z8, Z9, Z10 and Z11; a hex tool for Z7, Z5, Z6, L7, L12, L11, L19 and L16.

NOTES:

1—For AM Alignment connect lead between the junction of R21, R8 & C31 and ground.

2—For calibrating both the AM and FM-RF, use as low an output voltage as possible from your signal generator.

3—Decrease FM Signal Generator output while adjusting FM-IF transformers so that DC VTVM shows noted voltage.

4—The center frequency should be kept constant for FM-IF, limiter and ratio detector alignment. The use of a sweep generator with marker is recommended.

5—If adjustment of muting oscillator is necessary, adjust it for 3 MC with a Grid-dip Meter.

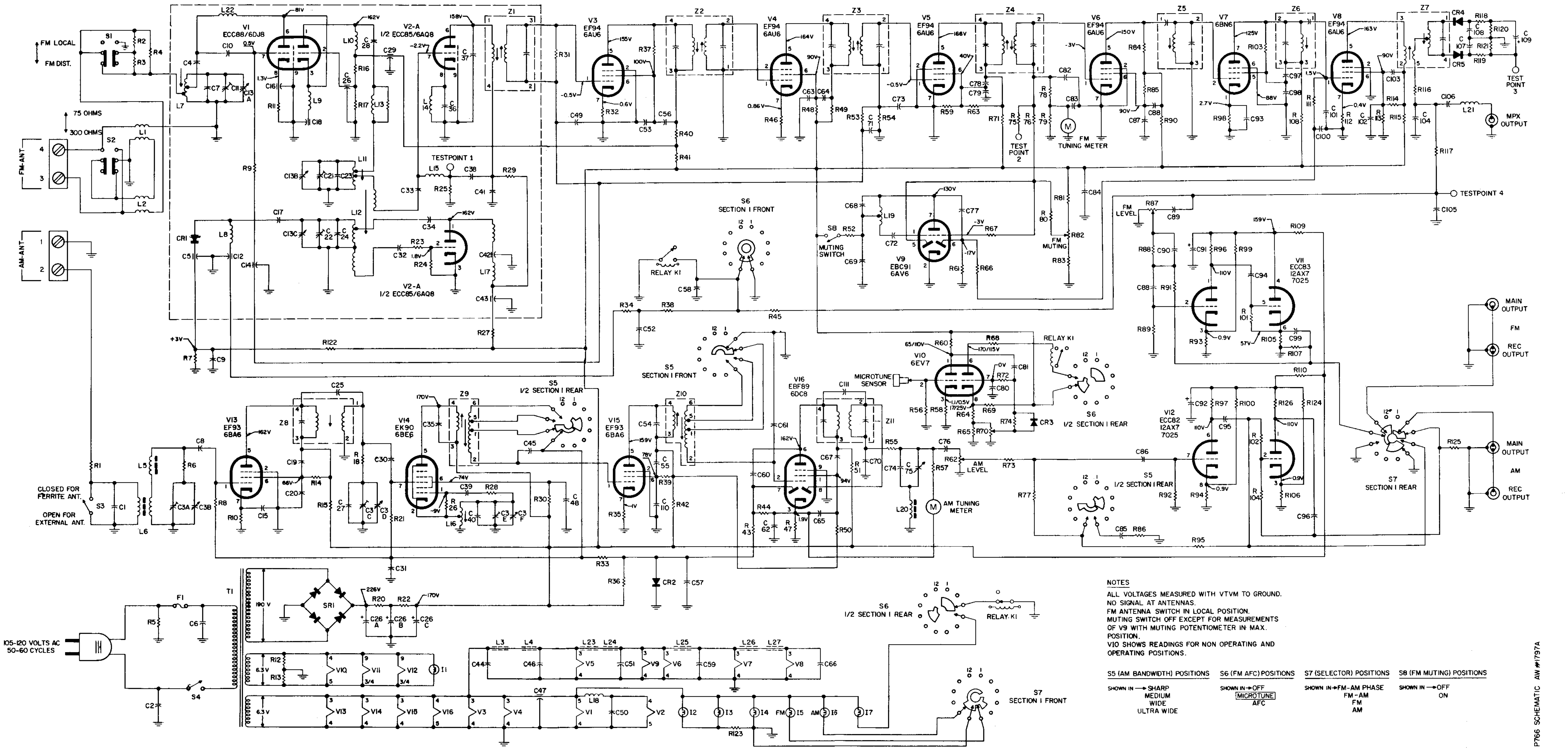
AM ALIGNMENT

STEPS	CHASSIS			SIGNAL GENERATOR			INDICATOR	ALIGNMENT	
	AM BANDWIDTH	SELECTOR	STATION SELECTOR	COUPLING	FREQ.	MOD.	TYPE CONNECTION	ADJUST	INDICATION
1	SHARP	AM	Point of no signal and no interference	Audio Gen. with 1V Output connected to Pin 7 of V16	10 KC	None	AC VTVM to AM Main Output	C75	Minimum Output
2	SHARP	AM	Point of no signal and no interference	AM RF Gen. connected thru .01-uf cap. in series with hot lead to V14, Pin 7	455 KC	30% AM at 400 cps	DC VTVM to the Junction of R55 & C70	Z9, Z10, Z11, top & bottom	Maximum negative voltage
3	WIDE	AM	Point of no signal and no interference	AM Sweep Gen. connected thru .01-uf cap. in series with hot lead to V14, Pin 7	455 KC	30 KC sweep	Scope to AM Main Output	Z11	Adjust slightly for symmetrical curve
4	SHARP	AM	600 KC	AM Gen. connected thru 220-uuf cap. in series with hot lead to antenna terminal 2	600 KC	30% AM at 400 cps	Scope to AM Main output. DC VTVM to the Junction of R55 & C70	L16, Z8. L5	Check for sine waveform Maximum negative voltage
5	SHARP	AM	1400 KC	AM Gen. connected thru 220-uuf cap. in series with hot lead to antenna terminal 2	1400 KC	30% AM at 400 cps	Scope to AM Main output. DC VTVM to the Junction of R55 & C70	C3E, C3C, C3A	Check for sine waveform Maximum negative voltage
6	Repeat steps 4 and 5 for proper dial calibration and maximum output.								

FM ALIGNMENT

STEPS	CHASSIS			SIGNAL GENERATOR			INDICATOR	ALIGNMENT	
	AM BANDWIDTH	SELECTOR	STATION SELECTOR	COUPLING	FREQ.	MOD.	TYPE CONNECTION	ADJUST	INDICATION
NOTE: For steps 1 to 6 remove Tube VI.									
1	FM Muting & AFC Switch Off	FM	Point of no signal and no interference	FM Generator connected to Pin 1 of V6	10.7 MC	None	Connect VTVM to test point 3	Z5, Z6 top, Z7 bottom & top	Noted Volt. between +5 and +9 Volt, See Note 2
2	FM Muting & AFC Switch Off	FM	Point of no signal and no interference	FM Generator connected to Pin 1 of V6	10.7 MC	None	DC VTVM to test point 4	Z7 top	Zero reading on zero center scale
3	FM Muting & AFC Switch Off	FM	Point of no signal and no interference	FM Generator connected to Pin 1 of V5	10.7 MC	±250 K deviation	DC VTVM and Scope to test point 2	Z4 top & bottom	With DC voltage between —2 and —4 volts, adjust for symmetrical curve
4	FM Muting & AFC Switch Off	FM	Point of no signal and no interference	FM Generator connected to Pin 1 of V4	10.7 MC	±250 K deviation	DC VTVM and Scope to test point 2	Z3 top & bottom	With DC voltage between —2 and —4 volts, adjust for symmetrical curve
5	FM Muting & AFC Switch Off	FM	Point of no signal and no interference	FM Generator connected to Pin 1 of V3	10.7 MC	±250 K deviation	DC VTVM and Scope to test point 2	Z2	With DC voltage between —2 and —4 volts, adjust for symmetrical curve
6	FM Muting & AFC Switch Off	FM	Point of no signal and no interference	FM Generator connected to ungrounded tube shield of V2	10.7 MC	±250 K deviation	DC VTVM and Scope to test point 2	Z1	With DC voltage between —2 and —4 volts, adjust for symmetrical curve
7	FM Muting & AFC Switch Off	FM	90 MC	FM Gen. connected thru two 120-ohm carbon resistors in series with lead to antenna terminals 3 and 4	90 MC	30% FM (22.5 KC Dev.) at 400 cps.	DC VTVM to test point 2 and scope to FM Main Output	L12, L11, L7	Check for sine waveform and adjust for maximum negative voltage
8	FM Muting & AFC Switch Off	FM	106 MC	FM Gen. connected thru two 120-ohm carbon resistors in series with lead to antenna terminals 3 and 4	106 MC	30% FM (22.5 KC Dev.) at 400 cps.	DC VTVM to test point 2 and scope to FM Main Output	C22, C21, C11	Check for sine waveform and adjust for maximum negative voltage
9	Repeat steps 7 and 8 for proper dial calibration and maximum output.								

SCHEMATIC DIAGRAM



NOTES

ALL VOLTAGES MEASURED WITH VTVM TO GROUND.
NO SIGNAL AT ANTENNAS.
FM ANTENNA SWITCH IN LOCAL POSITION.
MUTING SWITCH OFF EXCEPT FOR MEASUREMENTS OF V9 WITH MUTING POTENTIOMETER IN MAX. POSITION.
V10 SHOWS READINGS FOR NON OPERATING AND OPERATING POSITIONS.

S5 (AM BANDWIDTH) POSITIONS	S6 (FM AFC) POSITIONS	S7 (SELECTOR) POSITIONS	S8 (FM MUTING) POSITIONS
SHOWN IN → SHARP	SHOWN IN → OFF	SHOWN IN → FM-AM PHASE	SHOWN IN → OFF
MEDIUM	MICROTUNE	FM-AM	ON
WIDE	AFC	FM	
ULTRA WIDE		AM	

RESISTORS	R1		R2 R3	R4 R5	R6	R7		R8		R9 R10		R11 R12 R13		R14		R15 R122		R16 R17 R18		R20		R21 R22		R23 R24	R25 R26
CAPACITORS		C1		C2	C3A C3B	C4 C5 C6	C7 C8 C9		C10 C11 C12	C13A C14	C15 C13B C13C	C16	C18 C19 C20		C21 C22		C23 C24 C25	C26 C27 C3C	C28 C3D C26A		C26B		C29 C30 C26C	C31 C32 C33	C34 C35 C36

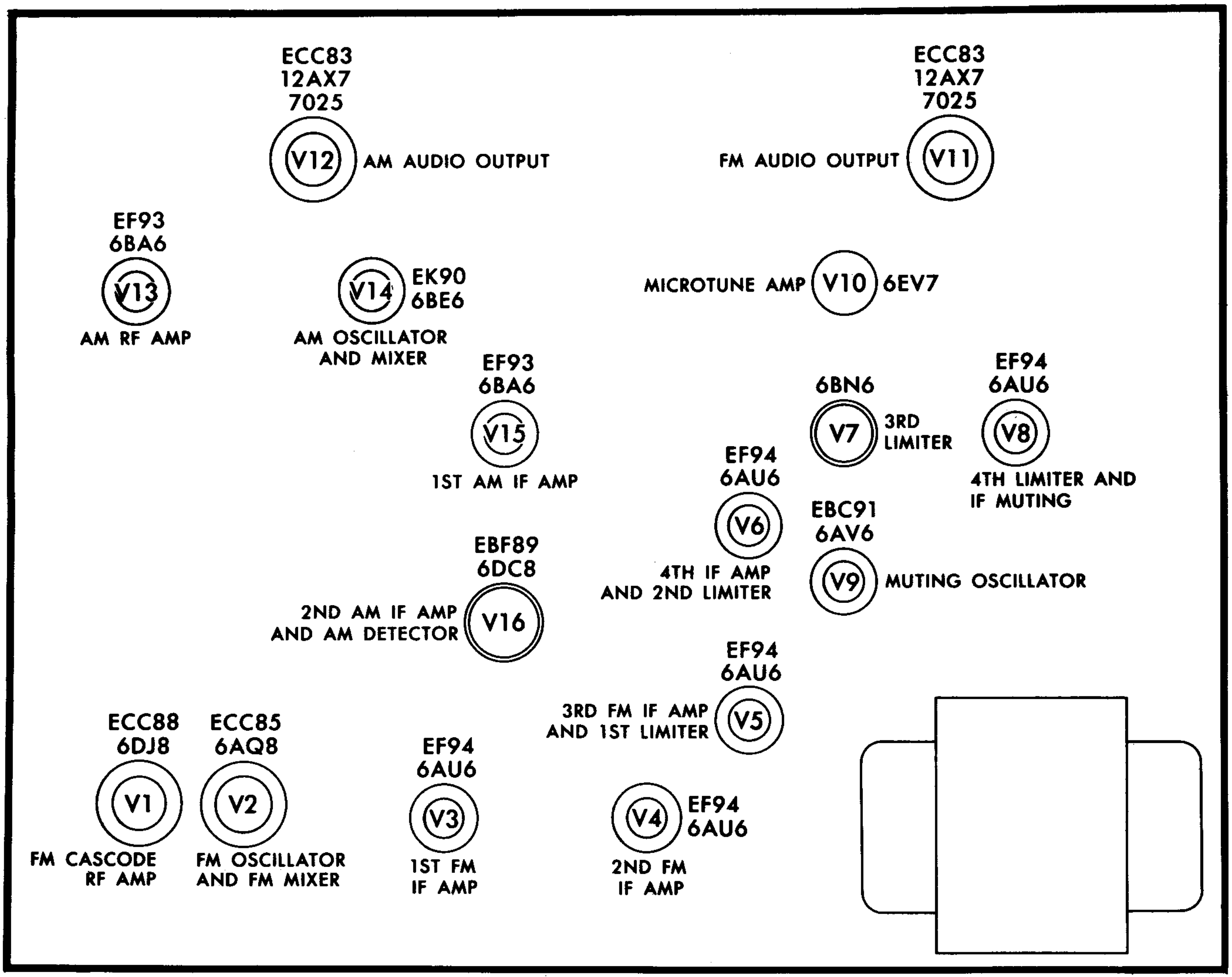
RESISTORS			R27 R28	R29		R30	R31			R32 R33		R34 R35 R36			R37 R38 R39	R40 R41 R42		R123	R43 R44	R45 R46	R47		R48	R49 R50	
CAPACITORS	C37 C38 C39	C40	C41 C42 C43	C44 C3E C3F	C45 C46 C47			C48	C49		C50	C51	C52	C53 C54 C55		C56 C57 C110	C58 C59		C60	C61 C62		C63	C64 C65 C66		C67

RESISTORS		R51 R52 R53		R54	R55		R56 R57	R58 R59 R60	R61 R62	R63 R64 R65		R66 R67 R68	R69 R70 R71	R72 R73 R74	R75 R76 R77	R78 R79 R80	R81 R82 R83			R84 R85 R86	R87 R88 R89	R90 R91 R92		R93 R94 R95
CAPACITORS	C111		C68 C69 C70	C71	C72 C73 C74	C75		C76			C77		C78 C79 C80	C81			C82 C83	C84	C85	C86	C87 C88	C89 C90	C91 C92	

RESISTORS	R96 R97	R98 R99 R100		R101 R102		R103 R104 R126	R105 R106 R107	R108 R109 R110	R111 R124		R112	R113	R114		R115		R116		R117		R125		R118 R119	R120 R121	
CAPACITORS			C93 C94 C95		C96		C97 C98 C99		C100	C101		C102		C103		C104		C105		C106		C107 C108			C109

P766 SCHEMATIC AW #1797A

TUBE LAYOUT



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