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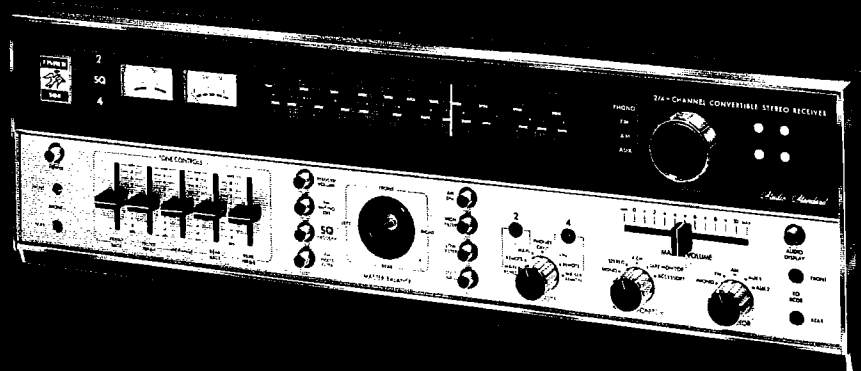
SERVICE MANUAL

PRICE \$2.00

504

SERIAL NUMBERS
BEGINNING 10001

The Fisher® 504



Studio-Standard
**2/4-Channel Convertible
Stereo Receiver**

WORLD LEADER IN HIGH QUALITY STEREO

CONTENTS and SERVICE TIPS

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CAUTION: This precision high-fidelity instrument should be serviced only by qualified personnel, trained in the repair of transistor equipment and printed circuitry.

Many of these items are included only as a reminder — they are normal procedures for experienced technicians. Shortcuts may be taken, but these often cause additional damage to transistors, circuit components, or printed circuit boards.

SOLDERING: A well-tinned, hot, clean soldering iron tip will make soldering easier, without causing damage to the printed circuit board or the components mounted on it. Regular use of a sponge cleaner will maintain a clean soldering surface. The heat available at the tip, (not the wattage of the iron) is important. Some 50-watt irons reach temperatures of 1,000° F, while others will hardly melt solder. Small-diameter tips should be used for single solder connections, pyramid and chisel tips for large areas.

Always disconnect the AC power cord from the line when soldering. Turning the power switch OFF is not sufficient. Power-line leakage paths, through the heating elements of the iron, may destroy transistors.

PARTS REMOVAL: If a part is not being returned for in-warranty factory replacement, it may be cut in half (with diagonal cutting pliers) to make removal easier. Multiple terminal parts, such as IF transformers, or electrolytic capacitors, should be removed using special de-soldering tips made especially for this purpose. Removing solder from terminals, reduces the possibility of breaking the printed circuit board when the part is removed.

ACCIDENTAL SHORTS: A clean working area, free of metal particles, screws, etc., is an important preventive in avoiding servicing problems: Screws, removed from the chassis during servicing, should be stored in a box until needed. While a set is operating, it takes only an instant for a base-to-collector short to destroy a transistor (and others direct-coupled to it). In the time it takes for a dropped screw, washer, or screw-driver, to contact a pair of terminals (or terminal and chassis), a transistor can be ruined.

SOLID-STATE DEVICES: Integrated Circuits contain the equivalent of many circuit parts, including transistors, diodes, resistors, and capacitors. The preferred troubleshooting procedure requires isolating the trouble to one stage using AC signal tracing methods. Once the suspected stage is located the DC voltages at the input and output leads are measured to give an accurate indication of the operating conditions of the IC. DO NOT use an ohmmeter, to check continuity with the IC mounted on the printed circuit board. Forward biasing the internal junctions within the IC may burn out the transistors. Do not replace a defective IC until all external resistors, capacitors, and transformers are checked first, to prevent the replacement IC from failing immediately due to a defect in the connecting components. Solder and unsolder each lead separately using a pliers or other heat sink on the lead to

prevent damage from excessive heat. Check that the leads are connected to the correct locations on the printed circuit board before turning the set on.

Whenever possible, a transistor tester should be used to determine the condition of a transistor or diode. Ohmmeter checks do not provide conclusive data, and many even destroy the junction(s) within the device.

Never attempt to repair a transistor power amplifier module until the power supply filter-capacitors are fully discharged.

If an output or driver transistor becomes defective (opens or shorts), always check ALL direct-coupled transistors and diodes in that channel. In addition, check the bias pot., and other parts in the bias network, before installing replacement transistors. All output and driver transistors in one channel may be destroyed if the bias network is defective. After parts replacement, check bias for specified idling current.

In some applications, replacement of transistors must be made from the same beta group as the original type. The beta group is indicated by a colored marking on the transistor. Include this information when ordering replacements.

When mounting a replacement power transistor, be sure the bottom of the flange, mica insulator, and the surface of the heat sink, are free of foreign matter. Dust and grit will prevent flat contact, reducing heat transfer to the heat sink. Metallic particles can puncture the insulator, cause a short, and destroy the transistor.

Silicone grease must be used between the transistor and the mica insulator and between the mica and the heat sink for best heat transfer. Use Dow-Corning DC-3, or an equivalent compound made for power transistor heat conduction.

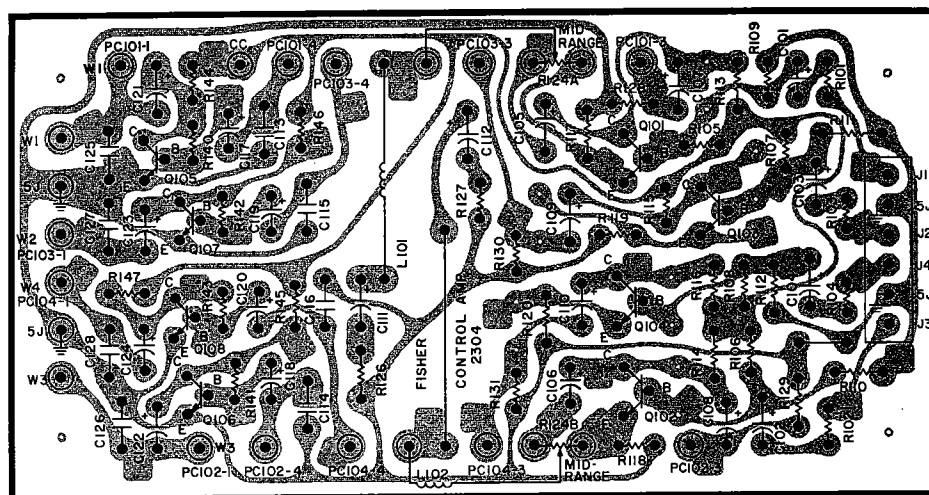
Use care when making connections to speakers and output terminals. To reduce the possibility of shorts, lugs should be used on the exposed ends, or stranded wire should be tinned to prevent frayed wire ends. Current in the speakers and output circuitry is quite high — poor contacts, or small wire, can cause significant power losses. For wire lengths greater than 30 feet, 16 AWG, or heavier, should be used.

VOLTAGE MEASUREMENTS: All voltages are measured with the line voltage adjusted to 120 volts. All measured voltages are $\pm 20\%$. DC voltages are measured to chassis with a VTVM, with no signal input unless otherwise noted. AC signal voltages are measured under the conditions specified on the schematic.

ALIGNMENT PROCEDURES: DO NOT attempt realignment unless the required test equipment is available, and the alignment procedure is thoroughly understood.



Resistors are deposited Film, 5%, ¼W. K=Kilohm M=Megohm

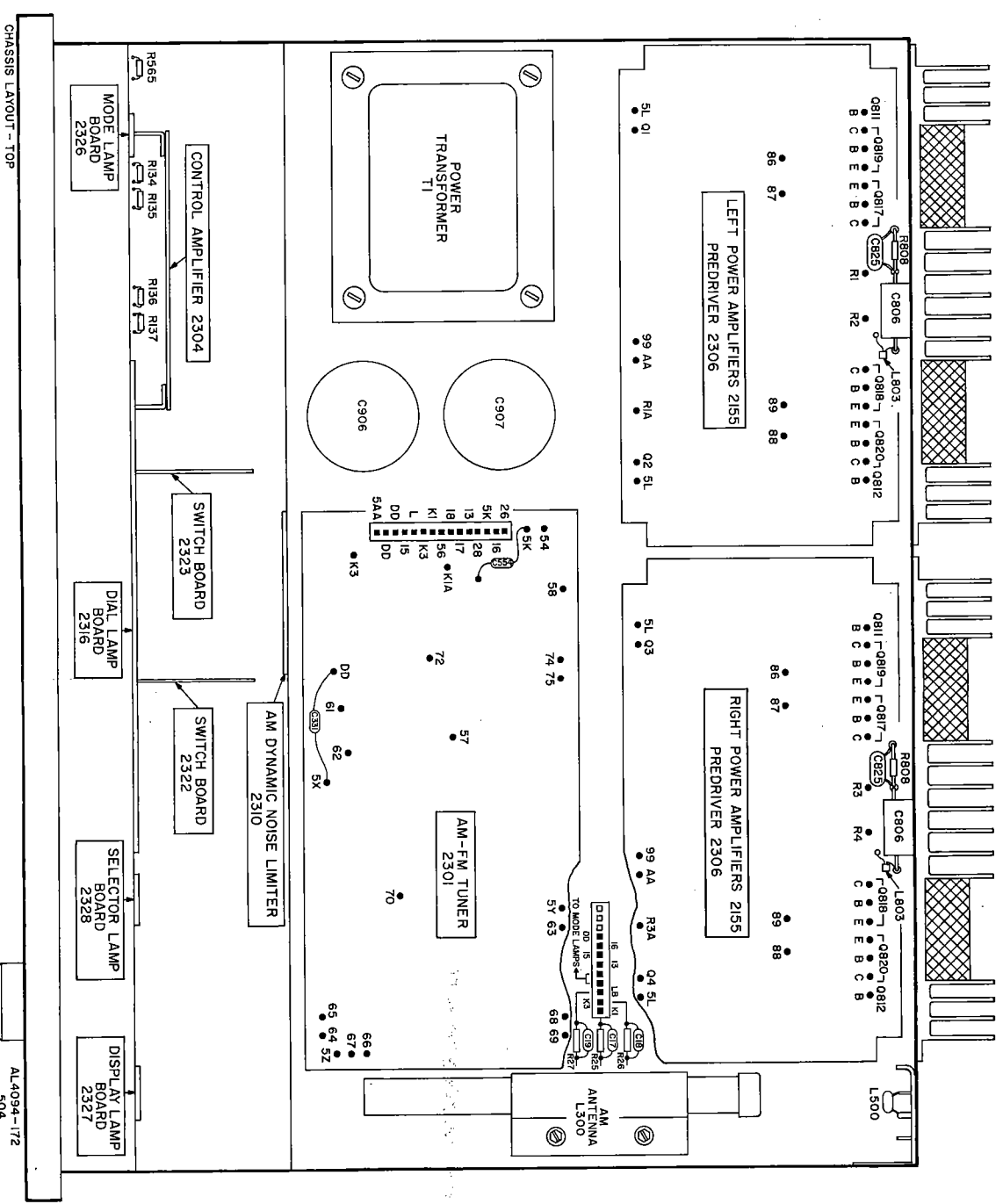
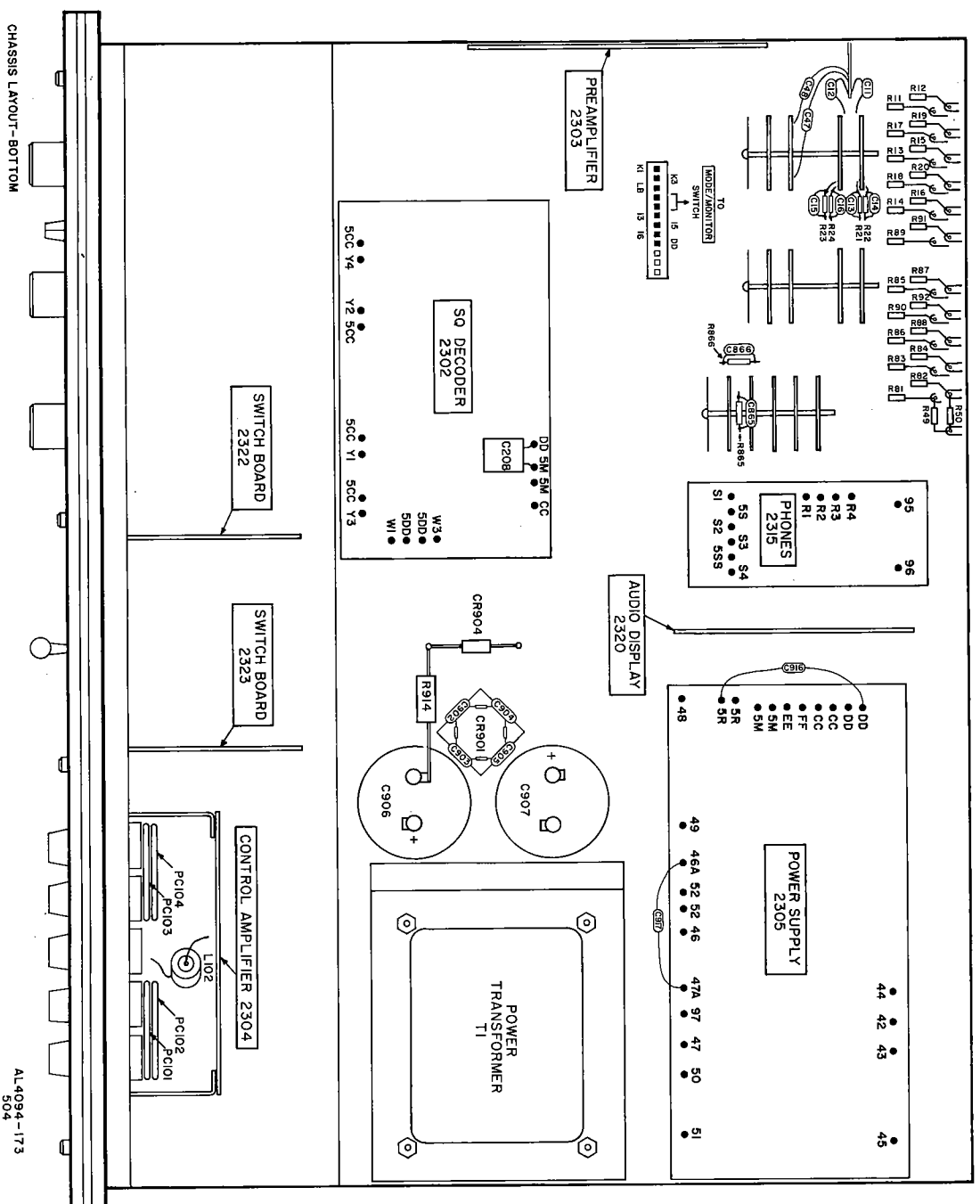


AL2304-111

Symbol	Description	Part Number	Sug. Ret.
C101, 102, 103, 104, 111, 112	Sintered Aluminum, 0.33UF, 25V	CS22340-3	.45
C105, 106, 121, 122, 123, 124	Tantalum, 4UF, 35V	CL22305-14	.80
C107, 108, 109, 110	Tantalum, 1UF, 35V	CL22305-3	.60
C113, 114, 115, 116	Ceramic, 820pF, 10%, 50V	CK22347-11	.30
C117, 118, 119, 120	Sintered Aluminum, 1UF, 25V	CS22340-5	.45
I9, 10	Lamp, Sub-Miniature	LM21421-4	.70
L101, 102	Choke, 39mH	L50334-11	1.05
PC101, 102, 103, 104	Encapsulated Circuit	EP50187-87	1.60
Q101, 102, 103, 104	Transistor, NPN (BC414C)	TR01015	.85
Q105, 106, 107, 108	Transistor NPN (BC414B)	TR01015-2	1.15
R81, 82, 83, 84	22K	RF25DC223J	.30
R85, 86, 87, 88, 89, 90, 91, 92	56K	RF25DC563J	.30
R101, 102, 103, 104	2.2K	RF25DC222J	.30
R105, 106, 107, 108	270K	RF25DC274J	.30
R109, 110, 111, 112	82K	RF25DC823J	.30
R113, 114, 115, 116	1.8K	RF25DC182J	.30
R117, 118, 119, 120	1K	RF25DC102J	.30
R124A, B	Potentiometer, 20K Dual-Slide	RP50160-286	3.00
R126, 127	330	RF25DC331J	.30
R128, 129, 130, 131	1M	RF25DC105J	.30
R132A, B, 133A, B, 138A, B, 139A, B	Potentiometer, 200K Dual-Slide	RP50160-285	2.75
R134, 135, 136, 137	330K	RF25DC334J	.30
R140, 141, 142, 143	1.2M	RF25DC125J	.30
R144, 145, 146, 147	4.7K	RF25DC472J	.30
S81	Switch, MODE/MONITOR	SR4094-154	6.75
--	Connector, 6-Pin Male	HH20685-6	.50
--	Connector, 6-Pin Female	HH20683-6	.45

Resistors are Deposited Film, 5%, 1/4W. K=Kilohm M=Megohm

CHASSIS LAYOUT



Symbol	Description	Part Number	Sug. Ret.
C301, 501, 516	Ceramic, 5pF, 5%, N750, 50V	CK22344-35	.30
C302	p/o C503		
C303	Ceramic, 39pF, N330, 50V	CK22344-22	.30
C304	p/o C503		
C305	Ceramic, 4pF, ± 0.25 pF, N750, 50V	CK22346-8	.30
C306	Ceramic, 15pF, 5%, N750, 50V	CK22344-2	.30
C308	Ceramic, 270pF, 10%, 50V	CK22350-5	.30
C309, 318, 322	Mylar, 0.1uF, 10%, 160V	C50B646-4	.45
C311, 316, 323, 326, 529	Electrolytic, 47uF, 16V	CE22342-8	.40
C312, 313, 314, 330, 523, 524, 527, 532	Ceramic, 0.02uF, +80-20%, 50V	CK22354-2	.30
C315	Mylar, 0.022uF, 10%, 160V	C50B647-9	.40
C317, 321	Polystyrene, 2200pF, 5%, 33V	C51B256-30	.45
C319, 327	Electrolytic, 10uF, 50V	CE22342-4	.35
C320	Ceramic, 0.1uF, +80-20%, 50V	CK22354-3	.35
C324	Electrolytic, 22uF, 35V	CE22342-6	.40
C328	Ceramic, 0.02uF, 20%, 50V	CK22349-3	.30
C331, 549	Mylar, 0.47uF, 10%, 50V	CY22356-13	.75
C502, 505, 507, 508, 515, 518, 526, 528, 530, 536, 544	Ceramic, 0.01uF, +80-20%, 50V	CK22354-1	.30
C503A, B, C, D, E	Tuning Gang Assembly	CV21013	5.70
C504	p/o C503		
C506, 509, 522, 525, 539, 543	Ceramic, 1000pF, 10%, 50V	CK22350-12	.30
C510	Ceramic, 12pF, 5%, NPO, 50V	CK22344-6	.30
C511	Ceramic, 8pF, 5%, NPO, 50V	CK22344-5	.30
C513	Ceramic, 5pF, ± 0.25 pF, N1500	CT22336-10	.40
C514	Trimmer, 1-6pF	C50B938-5	.75
C517	p/o C503		
C519	Silvered Mica, 330pF, 5%, 50V	CA22313-6	.45
C531, 535, 540, 542	Electrolytic, 4.7uF, 50V	CE22342-3	.35
C533	Ceramic, 0.1uF, +80-20%, 12V	CK22315-2	.50
C534, 537	Electrolytic, 1uF, 50V	CE22342-2	.35
C538	Ceramic, 220pF, 10%, 50V	CK22350-4	.30
C546, 550	Mylar, 0.22uF, 10%, 50V	CY22356-12	.60
C547	Silvered Mica, 470pF, 5%, 50V	CA22313-1	.45
C548	Ceramic, 0.05uF, +80-20%, 16V	CK22315-1	.50
C551	Electrolytic, 100uF, 16V	CE22342-12	.40
C552, 553	Mylar, 0.015uF, 5%, 50V	CY22356-5	.50
C554	*Mylar, 0.01uF, 5%, 50V	CK22356-4	.45
C557, 558	Ceramic, 1000pF, 10%, 50V	CE22342-1	.35
C559, 560	Silvered Mica, 330pF, 1%, 50V	CA22313-31	.60
C563	Ceramic, 3300pF, 20%, 50V	CK22349-5	.30
CF501	Filter, 10.7MHz Ceramic	ZK22110	4.20
CR301	Diode, Germanium (AA119)	TR12001-4	.50
CR302, 501, 502, 503, 504	Diode, Silicon	TR13006-2	.35
CR505	Light Emitting Diode	TR19001	1.40
IC501	I.C., FM IF	TR09018	6.65
IC502	I.C., MPX Demodulator	TR09019	11.25
L300	Antenna, AM Ferrite	AS4094-160	2.95
L301, 302, 500, 502, 507	Choke, 3.3uH	LC21814-2	.35
L501	Choke, 1.2uH	LC21822-2	.50
L503	Coil, FM Mixer	L218811	.75
L504	Coil, FM Oscillator	LC21816	.90
L505	Choke, 10uH	L50B848-6	.50
L506	Choke, 22uH	L50B848-18	.65
M1	Signal Meter	MC21620	3.90

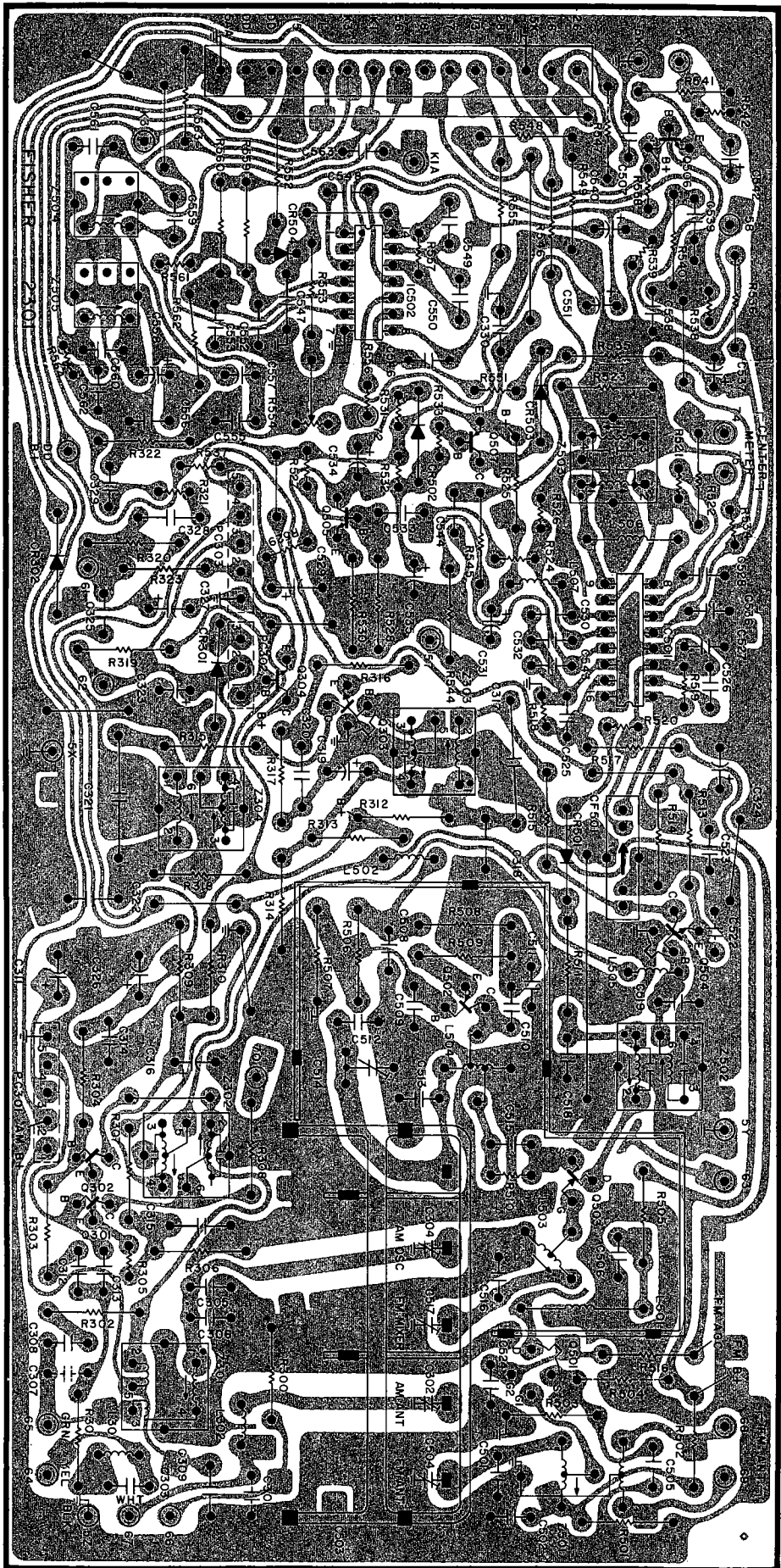
Symbol	Description	Part Number	Sug. Ret.
M2	Center-of-Ch Meter	MC21619EX	3.90
PC301	Encapsulated Bias Network	EP50187-86	.85
PC302	Encapsulated 455kHz Filter	PC50B187-62	.85
PC303	Encapsulated Bias/Audio Network	PC50B187-60	.80
Q301, 302	Transistor, NPN (A494/BF194)	TR01027	1.00
Q303	Transistor, NPN (BF199 or A473/BF173)	TR01074	1.00
Q304, 505, 506	Transistor, NPN (BC239C)	TR01026 or TR01014	1.15 or .70
Q501	Transistor, Dual-Gate MOSFET	TR08004	1.45
Q502	Transistor, PNP (SPS871)	TR02012	.95
Q503	Transistor, N-Channel FET	TR06014	1.80
Q504	Transistor, NPN (BF198 or A467/BF167)	TR01073 or TR01042	1.80 or 1.00
Q507	Transistor, PNP (2N4250)	TR02020-2	.55
R300	330K	RF25DC334J	.30
R301	68	RF25DC680J	.30
R302, 314	1.5K	RF25DC152J	.30
R303	47	RF25DC470J	.30
R304, 559, 560	6.8K	RF25DC682J	.30
R305	5.6	RF25DC56J	.30
R306, 506	2.2K	RF25DC222J	.30
R307, 546	15K	RF25DC153J	.30
R308, 319, 517, 531, 532, 535, 544	100K	RF25DC104J	.30
R309, 514	820	RF25DC821J	.30

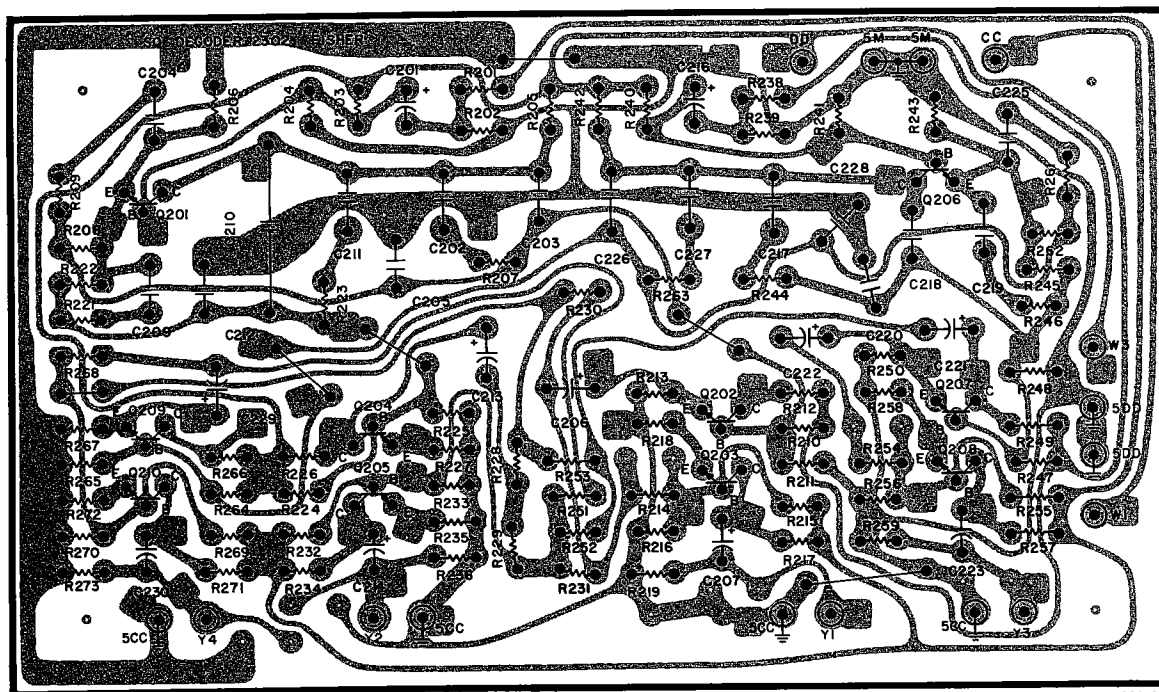
Symbol	Description	Part Number	Sug. Ret.
R310, 541	2.7K	RF25DC272J	.30
R311, 317, 536, 557	1K	RF25DC102J	.30
R312, 318	470	RF25DC471J	.30
R515, 519, 524			
R313, 510	4.7K	RF25DC472J	.30
R315, 503, 525	100	RF25DC101J	.30
R316, 323, 513, 530	22	RF25DC220J	.30
R320	18K	RF25DC183J	.30
R321	82K	RF25DC823J	.30
R501, 518, 528, 533, 545	10K	RF25DC103J	.30
R502, 539, 551	220K	RF25DC224J	.30
R505, 511, 537	220	RF25DC221J	.30
R507, 529	3.9K	RF25DC392J	.30
R508	1.2K	RF25DC122J	.30
R509	150	RF25DC151J	.30
R516, 538	150K	RF25DC154J	.30
R520	33K	RF25DC333J	.30
R521	5.6K	RF25DC562J	.30
R522, 542, 556, 561, 562	22K	RF25DC223J	.30

Symbol	Description	Part Number	Sug. Ret.
R523	3.3K	RF25DC332J	.30
R526	12K	RF25DC123J	.30
R527	200K	RF25DC204J	.30
R534	39K	RF25DC393J	.30
R540, 549	8.2K	RF25DC822J	.30
R548, 555	120K	RF25DC124J	.30
R552	47K	RF25DC473J	.30
R553	16K	RF25DC163J	.30
R554	Variable, 5K, 20%	RV50150-23-3	.60
R558	180	RF25DC181J	.30
R565	Composition, 680, $\frac{1}{4}$ W	RC20BF681J	.35
S277, 278	p/o 4-Switch Assembly	SP50200-60	3.45
Z301	Coil, AM Oscillator	ZZ50210-181	1.20
Z302	Transformer, 455kHz IF	ZZ50210-161	2.00
Z303	Transformer, 455kHz IF	ZZ50210-156	1.75
Z304	Transformer, 455kHz IF	ZZ50210-159	1.75
Z501	Coil, FM Antenna	L218808	1.45
Z502	Transformer, 10.7MHz IF	ZZ50210-178	1.35
Z503	Coil, 38KHz Trap	ZZ50210-169	1.35
Z504, 505	Transformer, 15-Pin Male Connector, 15-Pin Female	AS4094-166 or HH20685-15	.85 or .75

*Used in PB2301-2 Export Tuner

Except as noted, resistors are Deposited Film, 5%, $\frac{1}{4}$ W, K=Kilohm

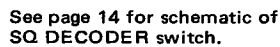
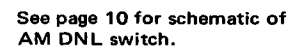




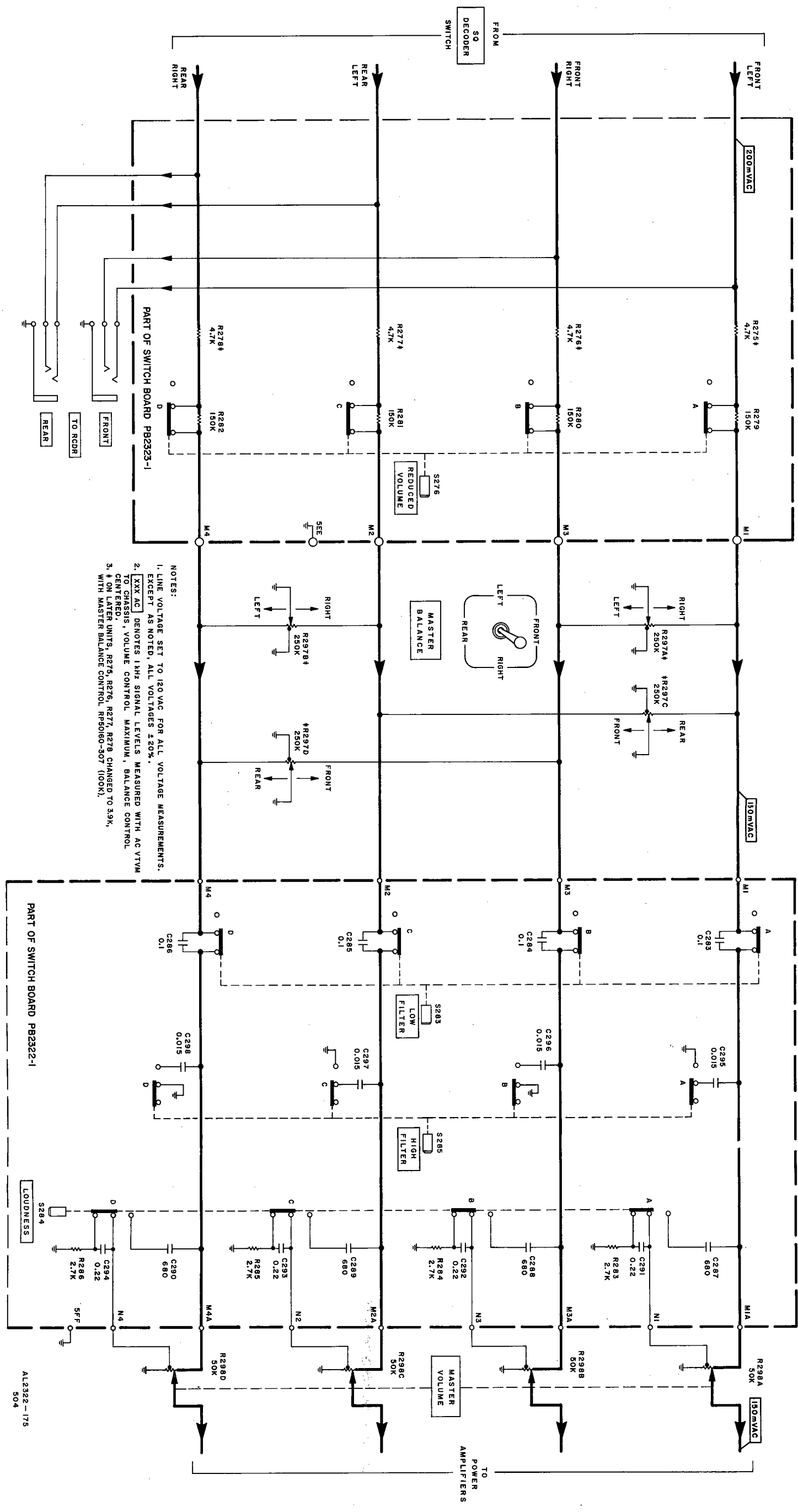
AL2302-111

Symbol	Description	Part Number	Sug. Ret.	Symbol	Description	Part Number	Sug. Ret.
C201, 216	Electrolytic, 4.7UF, 50V	CE22342-3	.35	R205, 206, 470		RF25DC471J	.30
C202, 211, 217, 227	Mylar, 0.1UF, 5%, 160V	C50B646-9	.45	212, 213, 242, 243, 249, 250, 266			
C203, 218	Polystyrene, 2500pF, 5%, 33V	C51B256-37	.45	R207, 244	7.5K	RF25DC752J	.30
C204, 219	Mylar, 31400pF, 5%, 50V	CY22356-7	.50	R209, 246	3.3K	RF25DC332J	.30
C205, 220	Polystyrene, 3300pF, 5%, 33V	C51B256-21	.45	R210, 247	68K	RF25DC683J	.30
C206, 213, 221, 222, 229	Electrolytic, 10UF, 50V	CE22342-4	.35	R214, 216, 254, 256	10K	RF25DC103J	.30
C207, 214, 223, 230	Tantalum, 1UF, 35V	CL22305-3	.60	R215, 255	200K	RF25DC204J	.30
C208	Electrolytic, 220UF, 16V	CE22342-15	.40	R217, 234, 257, 271	5.6K	RF25DC562J	.30
C209, 225	Mylar, 44180pF, 5%, 50V	CY22356-8	.50	R218, 235, 258, 272	220	RF25DC221J	.30
C210, 226	Polystyrene, 6800pF, 5%, 33V	C51B256-25	.50	R221, 261	5.1K	RF25DC512J	.30
C212, 228	Polystyrene, 0.018UF, 5%, 33V	C51B256-38	.70	R222, 262	220K	RF25DC224J	.30
I8	Lamp, Sub-Miniature	LM21421-4	.70	R223, 263	16K	RF25DC163J	.30
Q201, 202, 204, 206, 207, 209	Transistor, NPN (BC239C)	TR01014	.70	R224, 264	330K	RF25DC334J	.30
Q203, 205, 208, 210	Transistor, NPN (BC147B)	TRBC147B	1.00	R225, 265	120K	RF25DC124J	.30
R201, 211, 238, 248	27K	RF25DC273J	.30	R226, 267	1K	RF25DC102J	.30
R202, 239	470K	RF25DC474J	.30	R227	910	RF25DC911J	.30
R203, 219, 236, 240, 259, 273	100K	RF25DC104J	.30	R228, 231, 251, 253	22K	RF25DC223J	.30
R204, 208, 241, 245	47K	RF25DC473J	.30	R229, 230, 252, 268	8.2K	RF25DC822J	.30
				R232, 269	820K	RF25DC824J	.30
				R233, 270	56K	RF25DC563J	.30
				S275	p/o 4-Switch Assembly	SP50200-60	3.45

Resistors are Deposited Film, 5%, 1/4W. K=Kilohm

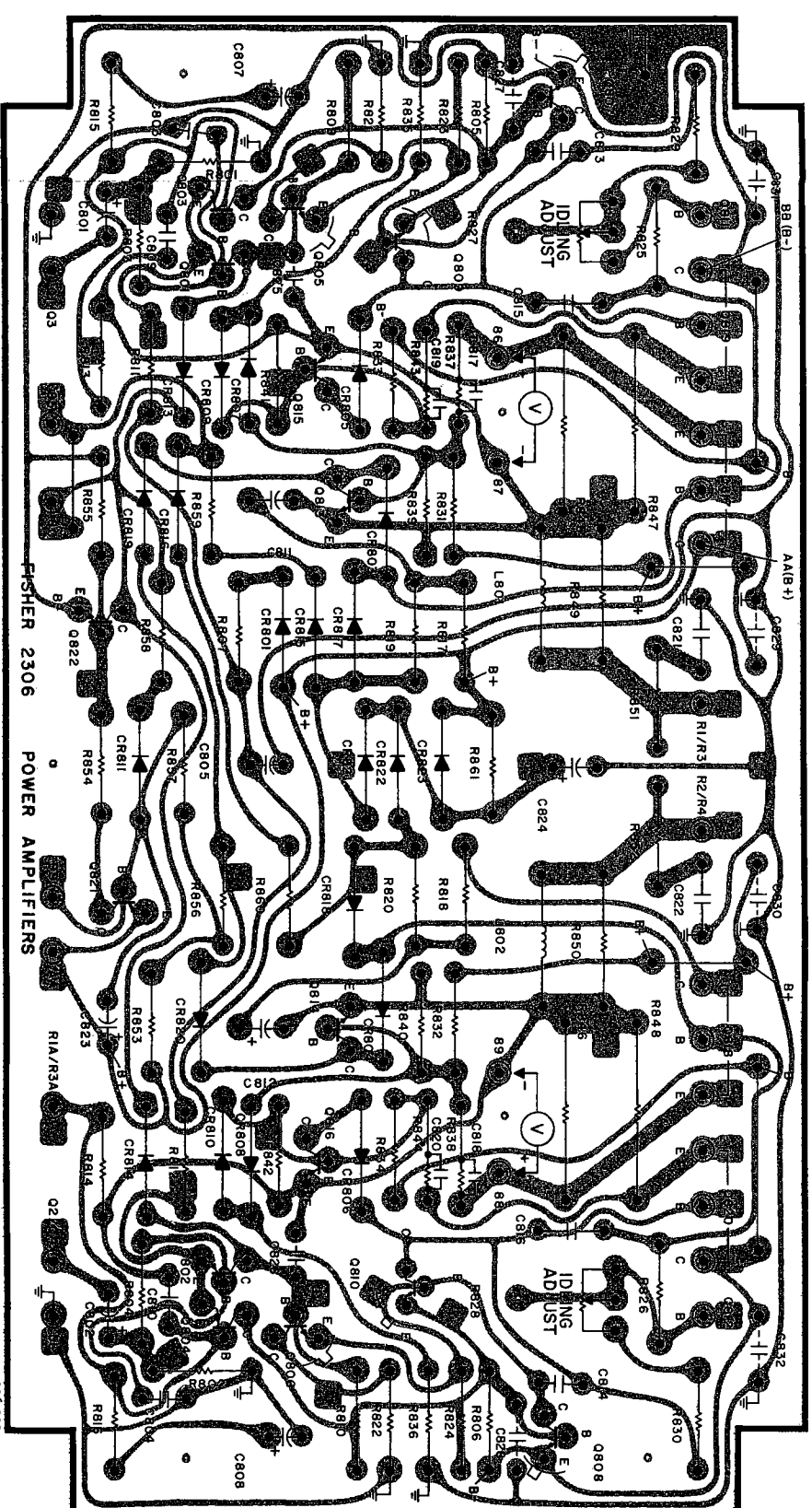


Resistors are Deposited Film, 5%, 1/4W. K=Kilohm



Symbol	Description	Part Number	Sug. Ret.
CR801, 802	Tantalum, 1UF, 35V	CL22305-3	.60
CR803, 804	Ceramic, 270pF, 10%, 50V	CK22345-5	.30
CR805, 824	Electrolytic, 100UF, 50V	CE22342-9	.50
CR806	Electrolytic, 470UF, 50V	CE22343-33	.95
CR807, 808	Electrolytic, 100UF, 16V	CE22342-12	.40
CR809, 810	Ceramic, 10pF, 10%, NP0, 50V	CK22345-3	.30
CR811, 812	Electrolytic, 47UF, 35V	CE22342-7	.40
CR813, 814	Ceramic, 56pF, 10%, N1500, 50V	CK22345-10	.30
CR815, 816	Ceramic, 0.02UF, 20%, 50V	CK22345-3	.30
CR817, 818	Ceramic, 0.05UF, +80-20%, 50V	CK22348-1	.35
CR819, 820	Ceramic, 0.1UF, +35%, 100V	CS1163-1	.60
CR821, 822	Tantalum, 47UF, 6V	CL22305-16	.85
CR823	Ceramic, 0.1UF, +80-20%, 50V	CK22361-3	.35
CR825	Diode, Silicon	TR13006-3	.40
CR801, 803	Diode, Silicon		
804, 805			
806, 807			
808, 809			
810, 811			
813, 814			
815, 816			
817, 818			
819, 820			
821, 822			
CR823	Diode, Silicon	SID51C052-19	.50
L801, 802	Choke, 3.3UH	LC21826	1.40
L803	Choke, 3.3UH	LC21814-2	.35
Q801, 802	Transistor, PNP	TR02063-8	1.00
Q803, 804	Transistor, NPN	TR01040	1.05
Q805, 806	Transistor, NPN	TR01062-7	2.45
807, 808	Transistor, NPN	TR01062-7	1.90
Q809, 810	Transistor, NPN	TR01065-5	1.00
Q811, 812	Transistor, NPN	TR01065	1.00
Q813, 814	Transistor, NPN		
822			
Q815, 816	Transistor, PNP	TR02063-1	.90
Q817, 818	Transistor, NPN Darlington	TR01064-9	8.75
Q819, 820	Transistor, PNP Darlington	TR02064-9	11.15
Q821	Transistor, PNP	TR02065	1.05
R801, 802	56K	RF25DC563J	.30
813, 814	1.5K	RF25DC152J	.30
R803, 804			
825, 826	12	RF25DC120J	.30
R805, 806	470	RF25DC471J	.30
R807, 815			
816, 823			
824			
R808	Composition, 33, 10%, 1/4W	RC20BF330K	.30
R809, 810	22K	RF25DC223J	.30
R811, 812	270K	RF25DC274J	.30
R817, 818	Composition, 1K, 1/4W	RC20BF102J	.30
835, 836			
R819, 820	Composition, 1.2K, 1/4W	RC20BF122J	.30
859, 860			
R821, 822	2.2K	RF25DC222J	.30
R827, 828	Variable, 1K, 30%	RF50B150-20-2	.65
R829, 830	270	RF25DC271J	.30
R831, 832	8.2K	RF25DC822J	.30
833, 834			
R837, 838	120	RF25DC121J	.30
843, 844			
R839, 840	150	RF25DC151J	.30
841, 842			
R845, 846	Wirewound, 0.39, 5W	RW5WR39J	.50
847, 848			
R849, 850	Wirewound, 2, 2W	RW20W020J	.60
R851, 852	Composition, 10, 10%, 1/4W	RC20BF100K	.30
R853	1.8K	RF25DC182J	.30
R854	Composition, 22K, 10%, 1/4W	RC20BF223K	.30
R855, 856	10K	RF25DC103J	.30
R857	100K	RF25DC104J	.30
R858	220K	RF25DC224J	.30
R861	47K	RF25DC473J	.30
--	Heat Sink, Q809, 810	AS08842-5	.50
--	Insulator, Mica Q811, 812	E20413-4	.25
--	Insulator, Mica Q817, 818, 819	E20413-5	.30
--	820		
--	Socket, Transistor Q817, 818, 819, 820	ES20422	.45

Except as noted, resistors are Deposited Film, 5%, 1/4W, K=Kilohm



CAUTION: When amplifiers are switched for 2-channel operation, inspect load connections carefully before testing or troubleshooting. Front-channel amplifier loads must be 'floating' (ungrounded). If any of the front-channel speakers COM terminals are grounded through common load returns, or through test equipment grounds connected to the load, the output of each series-connected rear amplifier will be short-circuited. This may trigger the auto shutdown circuit. The circuit can be reset by momentarily jumping pin AA (B+) to pin 99.

SERVICE NOTE: A defective amplifier may shut down prematurely and prevent normal troubleshooting methods from determining the amplifier fault. The auto shutdown circuit may be temporarily defeated by connecting a jumper between pin AA (B+) and pin 99.

CENTER VOLUME TEST

Set SPEAKERS switch to MAIN-4, slide MASTER VOLUME control to MIN. Warm-up unit about 10 minutes. Set line voltage to 120 VAC.

- (1) Connect a 4-ohm load resistor between MAIN SPEAKERS FRONT LEFT and COM terminals.
- (2) Connect a DC VTVM between the MAIN SPEAKERS FRONT LEFT terminal and chassis. Check for indication of 0 VDC ($\pm 100mVDC$).
- (3) Repeat for FRONT RIGHT, REAR LEFT, and REAR RIGHT speaker terminals.

IDLING CURRENT ADJUSTMENT

Set SPEAKERS switch to MAIN-4, slide MASTER VOLUME

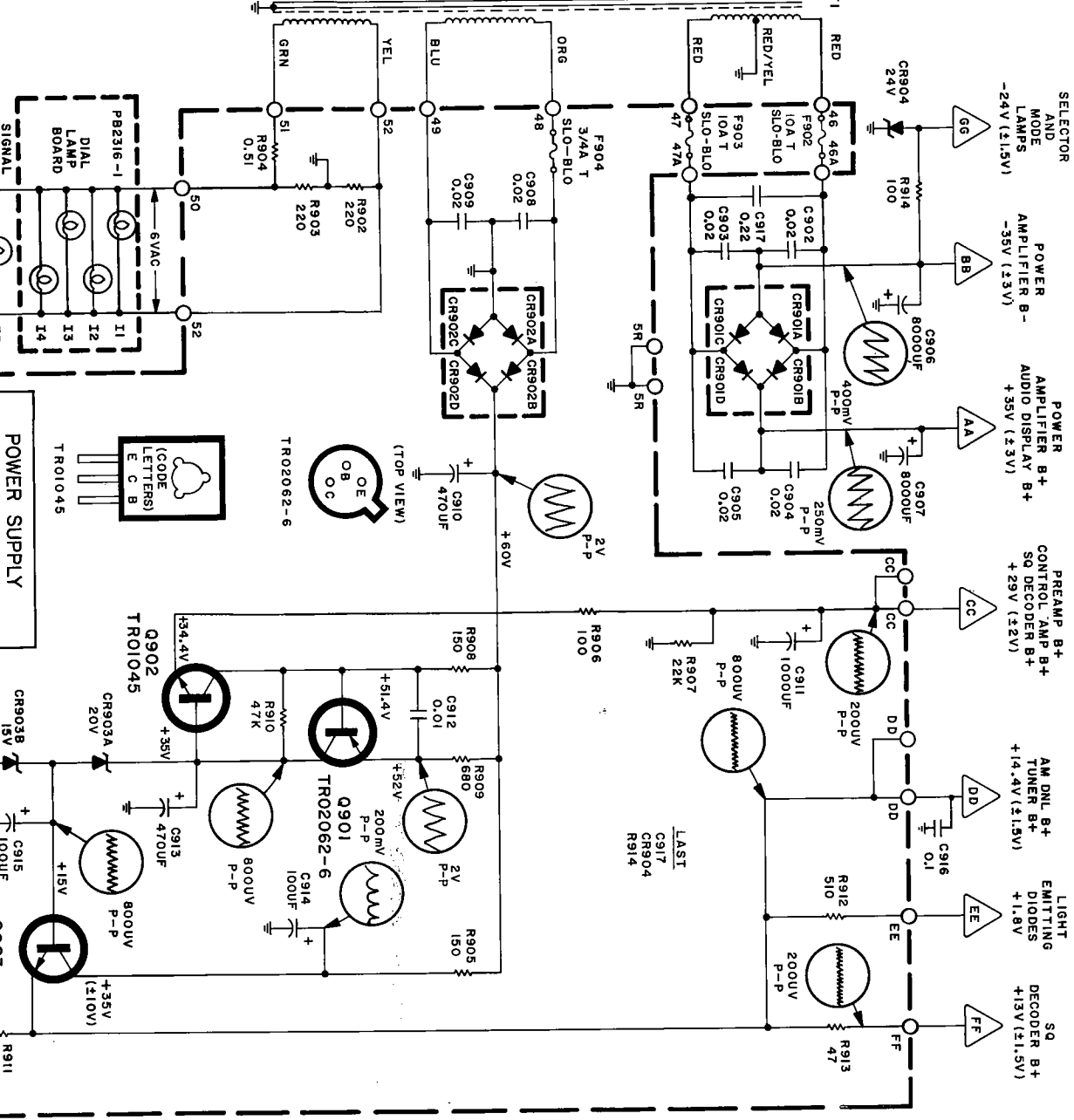
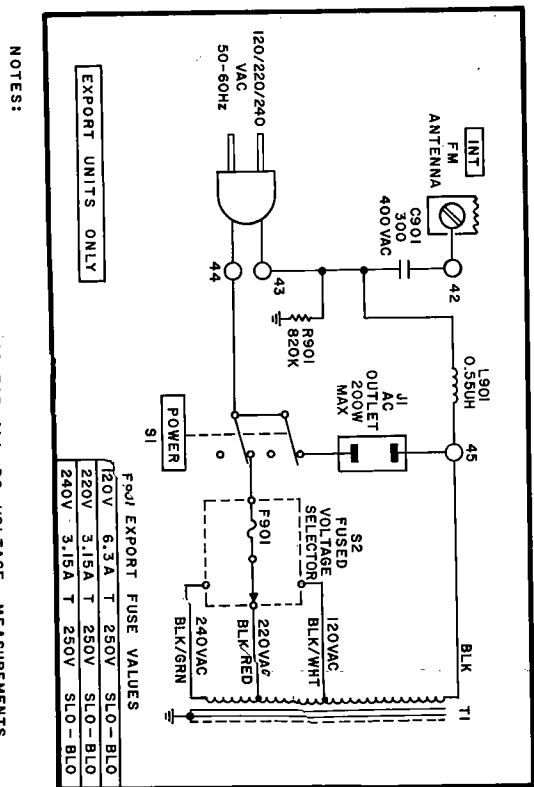
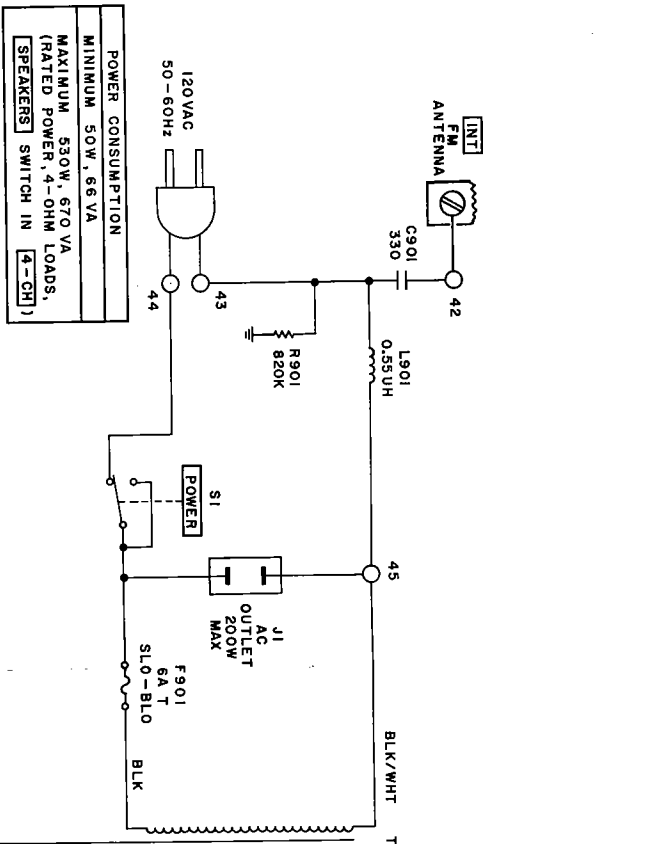
control to MIN. Warm-up unit about 10 minutes. Set line voltage to 120 VAC.

LEFT AMPLIFIERS

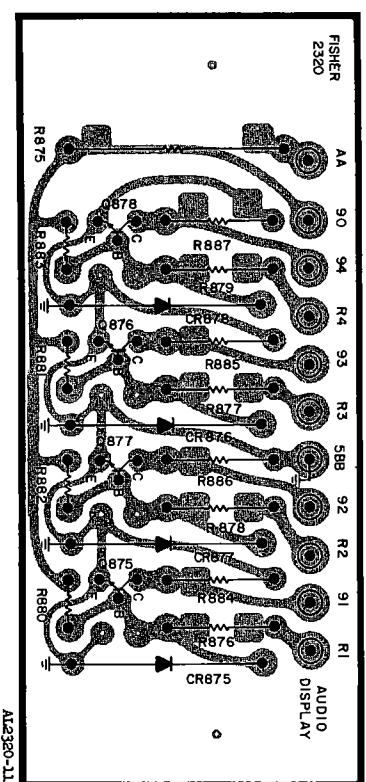
- (1) Connect a 4-ohm load resistor between MAIN SPEAKERS FRONT LEFT and COM terminals. Connect DC VTVM between pins 86 and 87. See board layout illustration. Set IDLING ADJUST R825 for indication of 12mV ($\pm 3mV$).
- (2) Connect a 4-ohm load resistor between MAIN SPEAKERS REAR LEFT and COM terminals. Connect DC VTVM between pins 88 and 89. Set IDLING ADJUST R826 for indication of 12mV ($\pm 3mV$).

RIGHT AMPLIFIERS

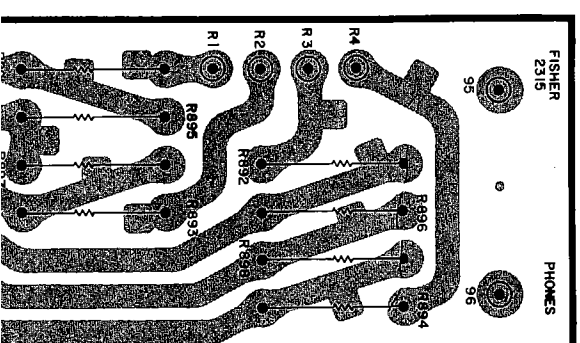
- Repeat steps (1) and (2) for FRONT RIGHT and REAR RIGHT channels.

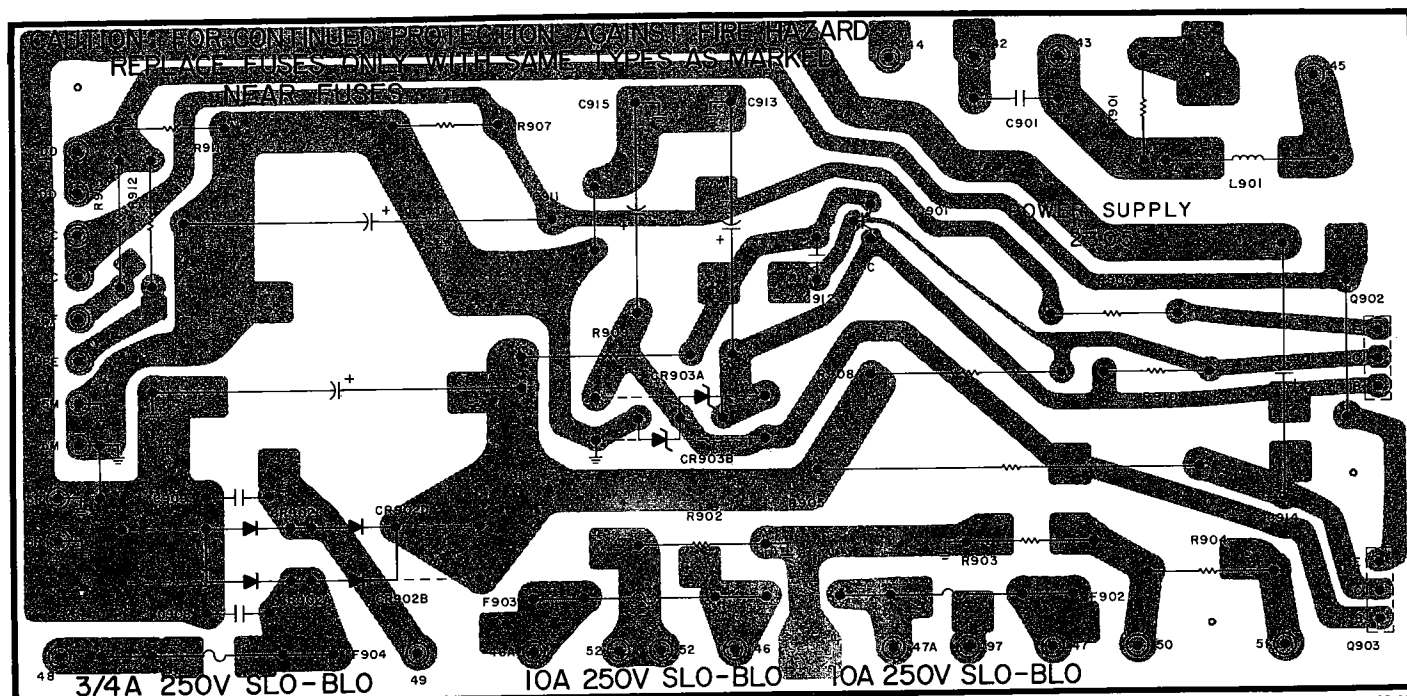


AUDIO DISPLAY 2320-1/PHONES 2315-1



Symbol	Description	Part Number	Sug. Ret.
CR865, 866	Ceramic, 10PF, 10%, 100V, NPO	CK22360-3	.30
CR865, 866	L.E.D. (with mounting clip and retainer)	TR19003	2.05
CR875, 876, 877, 878	Diode, Silicon	TR13006-2	.35
115, 16, 17, 18	Lamp, Sub-Miniature	LM21421-4	.70
OR875, 876, 877, 878	Transistor, NPN (BC147B)	TRB8C147B	1.00
R865, 866	56K	RF25DC563J	.30
R875	Wirewound, 120, 5W	RW5W121J	.50
R876, 877, 878, 879	3.3K	RF25DC332J	.30
R880, 881, 882, 883	220K	RF25DC224J	.30
R884, 885, 886, 887	Composition, 3.3K, 1/4W	RC20BF332J	.30
R891, 892, 893, 894	Wirewound, 220, 2W	RW200W221J	.45
R895, 896	100, 1/4W	RF50DC101J	.30



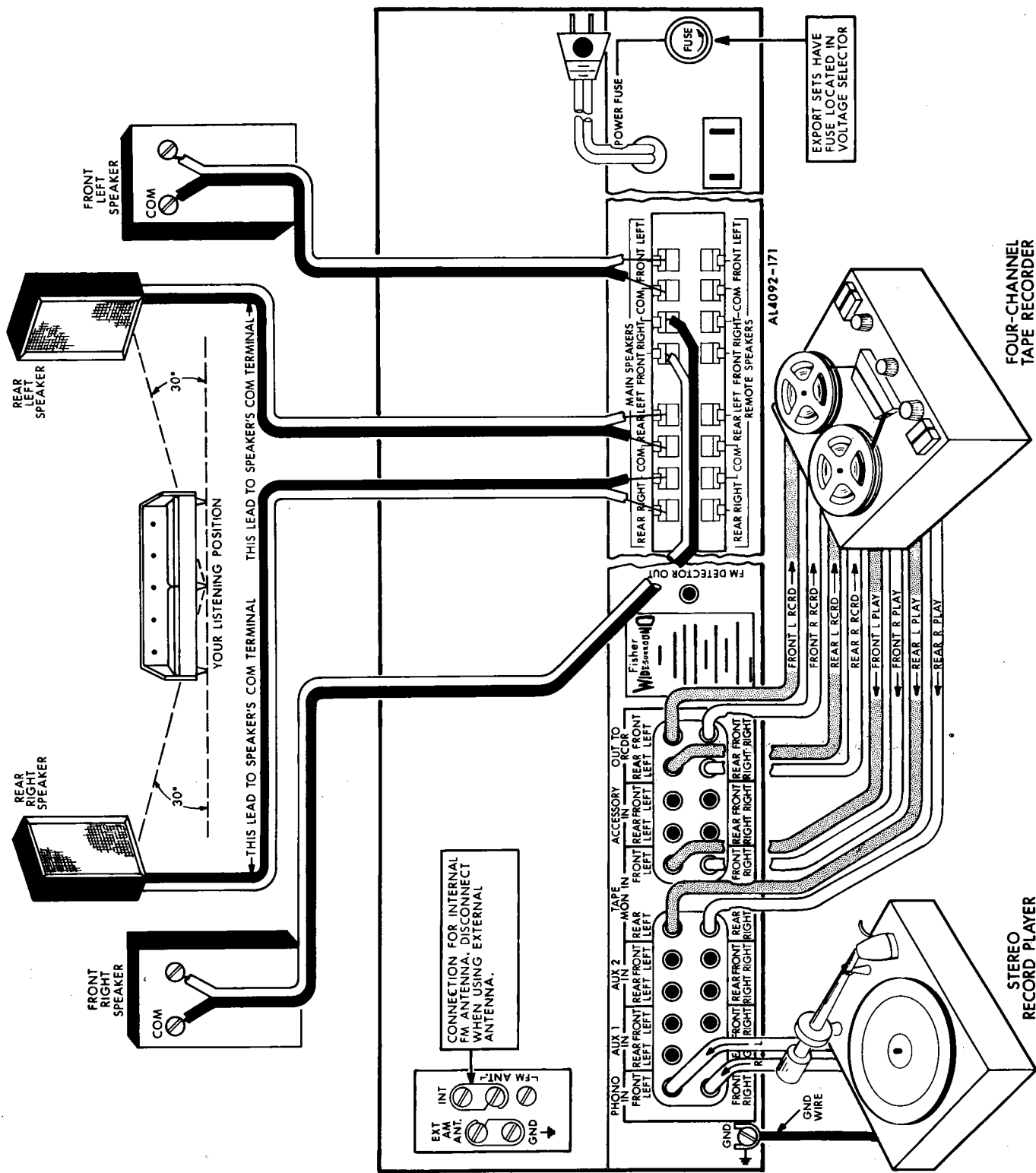


AL2305-114

Symbol	Description	Part Number	Sug. Ret.	Symbol	Description	Part Number	Sug. Ret.
C901	Ceramic, 330pF, +80-20%	CK22352-3	.40	J1	AC Outlet	JK20665	.60
* C901	Ceramic, 300pF, 400VAC	C51164-1	.90	L901	Choke, 0.55UH	LC21818	.45
C902, 903, 904, 905, 908, 909	Ceramic, 0.02UF, 20%, 500V	CK22359-3	.45	Q901	Transistor, PNP	TR02062-6	3.20
C906, 907	Electrolytic, 8000UF, 50V	CE22357-2	7.10	Q902, 903	Transistor, NPN	TR01045	3.05
C910	Electrolytic, 470UF, 100V	CE22343-44	.90	R901	Composition, 820K, 10%	RC20BF824K	.30
C911	Electrolytic, 1000UF, 50V	CE22343-36	1.25	R902, 903	Deposited Film, 220	R50DC221J	.35
C912	Ceramic, 0.01UF, +80-20%, 100V	C50B570-1	.40	R904	Wirewound, 0.51, 2W	RW200WR51J	.60
C913	Electrolytic, 470UF, 50V	CE22343-33	.95	R905	Wirewound, 150, 10W	RP10W151J	.50
C914	Electrolytic, 100UF, 100V	CE22343-43	.75	R906	Wirewound, 100, 2W	RW200W101J	.45
C915	Electrolytic, 100UF, 25V	CE22343-26	.45	R907	Deposited Film, 22K	R50DC223J	.30
C916	Mylar, 0.1UF, 20%, 250V	C50B575-1	.50	R908	Wirewound, 150, 5W	RP5W151J	.50
C917	Mylar, 0.22UF, 10%, 250V	C50B575-2	.60	R909	Deposited Film, 680	R50DC681J	.35
CR901A, B, C, D	Bridge Rectifier, 25A, 200V	BR51401-2	8.00	R910	Deposited Film, 47K	R50DC473J	.30
CR902A, B, C, D	Bridge Rectifier, 1.5A, 200V	BR51400-1	1.45	R911	Deposited Film, 10K	R50DC103J	.30
CR903A	Zener, 20V, 3%, 1W	TR14002-13	1.25	R912	Composition, 510	RC20BF511J	.30
CR903B	Zener, 15V, 3%, 1W	TR14002-12	1.25	R913	Composition, 47	RC20BF470J	.30
CR904	Zener, 24V, 5%, 3W	TR14001-1	1.05	R914	Wirewound, 100, 3W	RW3W101J	.50
F901	Fuse, 6A, 125V, Slo-Blo	FL51313-25	.70	S1	Switch, POWER	SP50200-65	2.95
* F901	Fuse, 6.3A, 250V, Slo-Blo	F51B247-24	.60	* S1	Switch, POWER	SP50200-64	2.55
* F901	Fuse, 3.15A, 250V, Slo-Blo	F51B247-20	.60	* S2	Switch, Fused Voltage Selector	SR51304-1	1.90
F902, 903	Fuse, 10A, 250V, Slo-Blo	FL51313-22	.85	T1	Transformer, Power	TD4094-115	36.70
F904	Fuse, 3/4A, 250V, Slo-Blo	FL51313-7	.85	* T1	Transformer, Power	TE4094-215	41.15
I1, 2, 3, 4	Dial Lamp	LM21434	1.00	--	Line Cord	W50023-1	1.20
I5, 6	Lamp, Meter-Signal, Center-of-Ch	AS21410-6	.75	--	* Line Cord (3-Conductor)	WR20678	3.20

*Used in Export Units

Except as noted, resistors are 5%, 1/4W. K=Kilohm



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