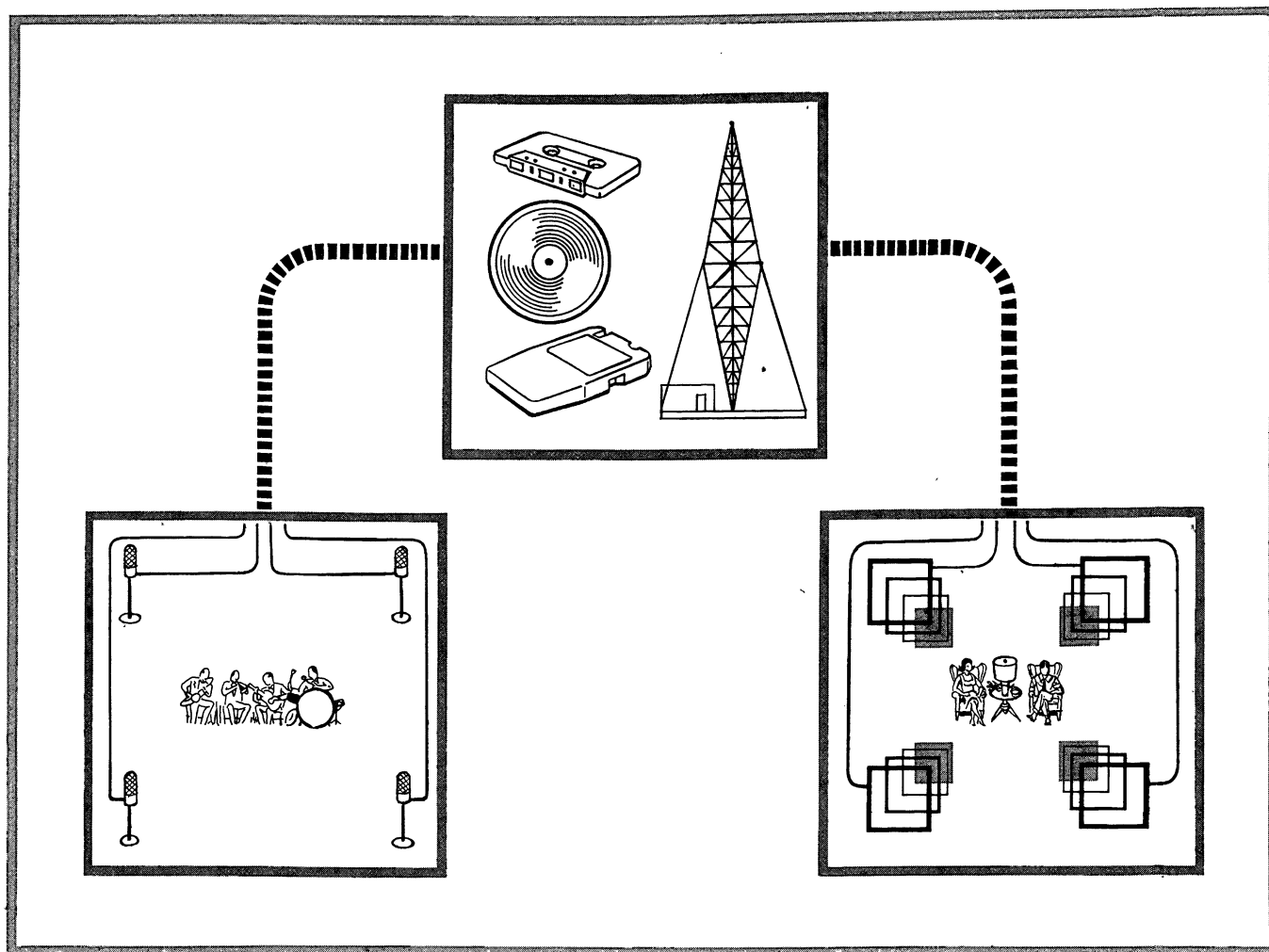


HF-32S1

HF-32S1

ZENITH ® **SERVICE MANUAL**



MODULAR AND CONSOLE AUDIO PRODUCTS

**ZENITH RADIO CORPORATION
PARTS AND SERVICE DIVISION**

11000 SEYMOUR AVENUE, FRANKLIN PARK, ILLINOIS 60131

To the Service Technician

PRODUCT SAFETY SERVICING GUIDELINES FOR ALL AUDIO AMPLIFIERS AND RADIO RECEIVERS

CAUTION: No modification of any circuit should be attempted. Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

SUBJECT: Fire & Shock Hazard

1. Be sure that all components are positioned in such a way to avoid possibility of adjacent components shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Always replace all protective devices such as insulators and barriers after working on a receiver.
3. Check for frayed insulation on wires including the AC cord. Also check across-the-line components for damage and replace if necessary.
4. All fuses and certain resistors and capacitors which are of the flameproof type (shaded on the schematic diagrams and parts lists) must be replaced with exact Zenith types to prevent potential fire hazard.
5. After re-assembly of the set always perform an AC leakage test on the exposed metallic parts of the cabinet such as the knobs, antenna terminals, etc. to be sure the set is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this test. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm 10 watt resistor, (63-10401-76) paralleled by a .15 mfd, AC type capacitor (22-4384) between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination 1500 ohm resistor and .15 mfd. capacitor. Reverse the AC plug on the set and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed .3 volts RMS. This corresponds to 0.2 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

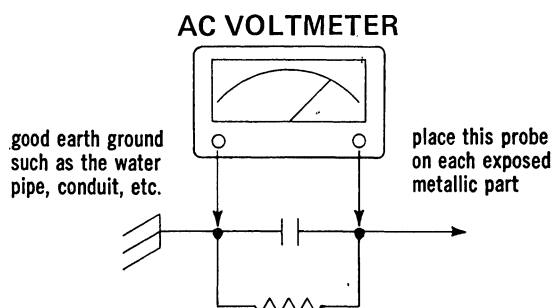


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Schematics, Related Drawings and Parts Legends (Refer to Index on Page 1)	Pages 7-20

TECHNICAL APPLICATIONS INDEX

Various "HF" series service manuals contain information relating to solid state device theory, operation and circuit applications as introduced into our products. In addition, service procedures are also explained, if required, in the appropriate service manuals. Such information has been included in the following service manuals:

- HF 18: Theory — Diodes (Including Zener and SCR), Transistors, (PNP, NPN, Darlington, and JFET). Applications — Chassis 29AT24 (JFET FM-RF, Multiplex, Electronic Touch Switching), Complementary Symmetry, Chassis 11ZT27 (Electronic Filter).
- HF 22: Theory — JFET, IGFET, MOSFET. Applications — Dual Gate MOSFET FM-RF, JFET Biphase Detector, Quasi-Complementary Symmetry.
- HF 23: Applications — Model C9029/Chassis 15WCA10 Four Channel Decoder.
- HF 26: Applications — Chassis 15WDR51 (JFET Meter Circuit, Multiplex IC, Four Channel Decoding).
- HF 27: Applications — Model SD2568 Speaker Switching Circuitry.
- HF 28: Applications — Model D9013W Allegro Speaker System.
- HF 29: Theory — Light Emitting Diodes (LED). Applications — Three Light Tuning (Target Tuning), Multiplex IC.
- HF 29S1: Applications — Snap-off Escutcheon and Out Front Chassis Removal, "E" Line Models.
- HF 30: Applications — Snap-off Escutcheon and Out Front Chassis Removal, "F" Line Models.
- HF 31: Theory and Applications — Chassis 12WGR59 (Ceramic Filters, IF IC, Quadrature Detector, Interstation Muting, PLL Multiplex IC, Audio). General Product Information — Audio Circuitry (including Two on Two Speaker Matrix, Allegro Speaker Systems), "G" Line Disassembly Procedures.
- HF 31S2: Applications — Four Channel Sound Reproduction Input Vs. Output, Repairing Push Button Switches, Record Changer and Phono Cartridge Interchangeability, Chassis 12WGR59 Accessibility.
- HF 32: Applications — "H" Line Disassembly Procedures, Part Number Identification, Record Changer and Phono Cartridge Interchangeability, Allegro Speaker Systems and Repair Procedures.

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15WDR51	—	HF 26, 27, 29, 30	G9019W	—	HF 31, 31S1
15WFR51	—	HF 30, 30S1	E9026W	—	HF 30S1
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 HF 30S1 is Part No. 923-841
 HF 31S2 is Part No. 923-864

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PRODUCT FEATURES

SEE NOTES ON PAGE 4

CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
H584W	Walnut	M, LL	3WHR52	FM/AM/Phono	Note D2	—	—	169-511C	TM	2 on 2 A1,A2,A3	DL, H, PL, TIO, UNI
H587W	Walnut	M, LL	3WHR52	FM/AM/Phono/ Tape	Note D2	—	—	169-511C	8TK-P 169-520A or 169-492 or 169-458	2 on 2 A1,A2,A3	DL, H, PL, TIO, UNI
HR587W	Walnut	M, LL	3WHR52	FM/AM/Phono/ Tape	Note D2	—	—	169-511C	8TK-R/P 169-509B	2 on 2 A1,A2,A3	DL, H, PL, TIO, UNI
H590W	Walnut	M, LL	6WHR57	FM/AM/Phono/ Tape	Note D2	—	—	169-512A	8TK-P 169-510C or 169-510E	2 on 2 A1,A2,A3	AUX, DL, F, H, PL, T, TIO, UNI
HR590W	Walnut	M, LL	6WHR57	FM/AM/Phono/ Tape	Note D2	—	—	159-512A	8TK-R/P 169-507C or 169-507	2 on 2 A1,A2,A3	AUX, DL, F, H, PL, T, TIO, UNI
HR590W1	Walnut	M, LL	6WHR57	FM/AM/Phono/ Tape	Note D2	—	—	169-512A	8TK-R/P 169-507-02	2 on 2 A1,A2,A3	AUX, DL, F, H, PL, T, TIO, UNI
HR591W	Walnut	M, LL	6WHR57	FM/AM/Phono/ Tape	Note D2	—	—	169-512A	Cass-R/P 169-539	2 on 2 A1,A2,A3	AUX, DL, F, H, PL, T, TIO, UNI
H596W	Walnut	M, LL	12WHR29	FM/AM/Phono/ Tape	Note D2	—	—	169-513A	8TK-P 169-505B or 169-505D or 169-505A	2 on 2 A2,A3	AUX, DL, F, H, PL, T, TIO
HR596W	Walnut	M, LL	12WHR29	FM/AM/Phono/ Tape	Note D2	—	—	169-513A	8TK-R/P 169-506B or 169-506	2 on 2 A2,A3	AUX, DL, F, H, PL, T, TIO
HR684W	Walnut	M	6WHR56	FM/AM/Tape	Note D2	—	—	—	8TK-R/P 169-507C or 169-507	2 on 2 A1,A2,A3	AUX, F, H, PL, T, TIO, UNI
HR684W1	Walnut	M	6WHR56	FM/AM/Tape	Note D2	—	—	—	8TK-R/P 169-507-02	2 on 2 A1,A2,A3	AUX, F, H, PL, T, TIO, UNI
H736W1	Walnut	M, LL	6WGR91	FM/AM/Phono/ Tape	Note D2	—	—	169-512A	8TK-2/4P 169-518 or 169-471	A1,A2,A3	AUX, HH, PL, UNI
H900W	Walnut	C, LL	1WGR50	FM/AM/Phono/ Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-541	8TK-R/P 169-536	—	DL, H, RS
H901P	Pecan	C, LL	1WGR50	FM/AM/Phono/ Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-535A	8TK-P 169-536	—	DL, H, RS
H901P11	Pecan	C, LL	1WGR50	FM/AM/Phono/ Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-541	8TK-P 169-536	—	DL, H, RS
HR901P	Pecan	C, LL	1WGR50	FM/AM/Phono/ Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-535A	8TK-R/P 169-537	—	DL, H, RS
HR901P11	Pecan	C, LL	1WGR50	FM/AM/Phono/ Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-541	8TK-R/P 169-537	—	DL, H, RS
HR902P	Pecan	C, LL	1WGR50	FM/AM/Phono/ Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-535A	8TK-R/P 169-537	—	DL, H, RS

PRODUCT FEATURES
SEE NOTES ON PAGE 4

CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
HR902P11	Pecan	C, LL	1WGR50	FM/AM/Phono/Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-541	8TK-R/P 169-537	—	DL, H, RS
HR903PN	Pine	C, LL	1WGR50	FM/AM/Phono/Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-535A	8TK-R/P 169-537	—	DL, H, RS
HR903PN11	Pine	C, LL	1WGR50	FM/AM/Phono/Tape	49-1094 49-1153-01	45 16	2-3½ 2-6x9	169-541	8TK-R/P 169-537	—	DL, H, RS
H914P	Pecan	C, LL	3WHR50	FM/AM/Phono/Tape	49-1251-01 49-1261-01	8 8	2-3 2-8	169-515	8TK-P 169-521B or 169-521D or 169-521E or 169-521F or 169-486	2 on 2 A1,A2,A3	A, DL, H, PL, RS, TIO
H915AE	Antique Oak	C, LL	3WHR50	FM/AM/Phono/Tape	49-1251-01 49-1261-01	8 8	2-3 2-8	169-515	8TK-P 169-521B or 169-521D or 169-521E or 169-521F or 169-486	2 on 2 A1,A2,A3	A, DL, H, PL, RS, TIO
H916M	Maple	C, LL	3WHR50	FM/AM/Phono/Tape	49-1251-01 49-1261-01	8 8	2-3 2-8	169-515	8TK-P 169-521B or 169-521D or 169-521E or 169-521F or 169-486	2 on 2 A1,A2,A3	A, DL, H, PL, RS, TIO
SR917M	Maple	C, LL	1WGR50	FM/AM/Phono/Tape	49-1166 49-1269	8 16	2-3½ 2-10	169-540	8TK-P/R 169-537	—	DL, H, RS
SR918P	Pecan	C, LL	1WGR50	FM/AM/Phono/Tape	49-1166 49-1269	8 16	2-3½ 2-10	169-540	8TK-P/R 169-537	—	DL, H, RS
HR920AE	Antique Oak	C, LL	6WHR55 or 6WGR55	FM/AM/Phono/Tape	49-1166 49-1217	8 8	2-3½ 2-10	169-516	8TK-R/P 169-508B or 169-508C or 169-508	2 on 2 A1,A2,A3	A, AUX, DL, H, RS, T, TIO
HR921P	Pecan	C, LL	6WHR55 or 6WGR55	FM/AM/Phono/Tape	49-1166 49-1217	8 8	2-3½ 2-10	169-516	8TK-R/P 169-508B or 169-508C or 169-508	2 on 2 A1,A2,A3	A, AUX, DL, H, RS, T, TIO
HR922M	Maple	C, LL	6WHR55 or 6WGR55	FM/AM/Phono/Tape	49-1166 49-1217	8 8	2-3½ 2-10	169-516	8TK-R/P 169-508B or 169-508C or 169-508	2 on 2 A1,A2,A3	A, AUX, DL, H, RS, T, TIO

PRODUCT FEATURES

SEE NOTES BELOW

CABINET			CHASSIS		SPEAKERS			RECORD CHANGER	OTHER FEATURES		
MODEL	COLOR	STYLE NOTE A	MODEL	TYPE	PART NUMBER	IMPED. (In Ohms)	QTY. AND SIZE (In Inches)	PART NUMBER NOTE B	TAPE PROVISION NOTE C	SPEAKER PROVISION NOTE D	MISC. NOTE E
HR936AE1	Antique Oak	C, LL	12WGR58	FM/AM/Phono/Tape	49-1166 49-1217	8 8	2-3½ 2-10	169-513A	8TK-R/P 169-523	2 on 2 A1,A2,A3	A, DL, F, H, PL, RS, T.
HR937P	Pecan	C, LL	12WGR58	FM/AM/Phono/Tape	49-1166 49-1217	8 8	2-3½ 2-10	169-513A	8TK-R/P 169-523	2 on 2 A1,A2,A3	A, DL, F, H, PL, RS, T
HR966P	Pecan	C, LL	12WHR29	FM/AM/Phono/Tape	49-1166 49-1271	8 8	2-3½ 2-12	169-513A	8TK-R/P 169-506-01A	2 on 2 A2, A3	AUX, DL, F, H, PL, RS, T
H1000W	Walnut	M, SP	—	—	49-1249 49-1251-01	8 8	1-6½ 1-3	—	—	—	A1
H1000W1	Walnut	M, SP	—	—	49-1251-01 49-1254-01	8 8	1-3 1-8	—	—	—	A1
H1000W2	Walnut	M, SP	—	—	49-1251-01 49-1254-01	8 8	1-3 1-8	—	—	—	A1
H1000W3	Walnut	M, SP	—	—	49-1249 49-1251-01	8 8	1-6½ 1-3	—	—	—	A1
H2000W	Walnut	M, SP	—	—	49-1166 49-1261-02	8 8	1-3½ 1-8	—	—	—	A2
H2000W3	Walnut	M, SP	—	—	49-1166 49-1261-02	8 8	1-3½ 1-8	—	—	—	A2
H3000W	Walnut	M, SP	—	—	49-1166 49-1270	8 8	1-3½ 1-10	—	—	—	A3
H3000W3	Walnut	M, SP	—	—	49-1166 49-1270	8 8	1-3½ 1-10	—	—	—	A3
H9026W	Walnut	M	—	—	—	—	—	169-513A	—	—	—

NOTE A – CABINET STYLE:

C = Console, M = Modular, LL = Lift Lid, SP = Speaker System.

NOTE B – RECORD CHANGERS

Record Changers having alpha suffixes (ie. 169-511A) denote variations of internal mechanical and/or electrical components (refer to Record Changer Features charts on page 5) but otherwise are interchangeable with other alpha suffix and non-suffix versions.

NOTE C – TAPE INPUT AND OUTPUT PROVISIONS:

Factory Installed: 8 TK - Eight Track Cartridge.

Cass = Cassette, P = Play, R = Record.

TM = Top of Set Model for installation with the designated console or modular models:

Model F635 - Cartridge Tape Player.

Model E637 - Cassette Tape Player/Recorder.

Model F638 - Cartridge Tape Player/Recorder.

Tape Units having alpha suffixes (ie. 169-510A) denote variations of internal mechanical and/or electrical components (refer to Tape Unit Features charts on pages 6 and 7) but are otherwise interchangeable with other alpha suffix and non-suffix versions. Units having numeric (ie. 169-506-01) or numeric/alpha (ie. 169-506-01A) suffixes may have a one way interchangeability under some conditions (refer to Product Features charts on pages 2, 3 and 4).

NOTE D – SPEAKER PROVISIONS:

NOTE D1: Models G1000W, G2000W, W11, G3000W, W11, G9012W1, G9014W and G9019W (and the prior E9012 series) are 8 ohm Allegro Speaker Systems. Allegro Models in the E9014 and E9018 series were 16 ohm systems.

NOTE D2: "H" Line Modular Models may use either H1000W, H2000W, or H3000W series models. (See Speaker Provision).

NOTE D3: Models G941P and G942M contain a complete Four Channel speaker system. In addition, Models G941P and G942M have two jacks to which an external speaker system may be connected so the external speaker system may be used for the back channels of a Four Channel system. Model G946AE has two jacks to which the G946AES speaker system is connected.

2 on 2 - Speaker Matrix or Conventional Stereo Extension Speaker System Provisions.

A1 = Model H1000W Allegro 1000 Speaker System may be used.

A2 = Model H2000W Allegro 2000 Speaker System may be used.

A3 = Model H3000W Allegro 3000 Speaker System may be used.

NOTE E – MISCELLANEOUS FEATURES:

A = Speaker System is Allegro.

A1 = Speaker System is Allegro 1000.

A2 = Speaker System is Allegro 2000.

A3 = Speaker System is Allegro 3000.

AUX = Auxiliary input accepts Record Changer Model G9026W or Tape Units listed under Note B.

DL = Dial Scale Light.

F = Flywheel Tuning.

H = Headphone Jack (Stereo).

HH = Headphone Jack (Four Channel).

PL = Power Indicator Light (other than Dial Scale Light).

RS = Record Storage.

T = Tuning Meter.

TIO = Tape Input/Output.

UNI = Uniband Dial Scale Light.



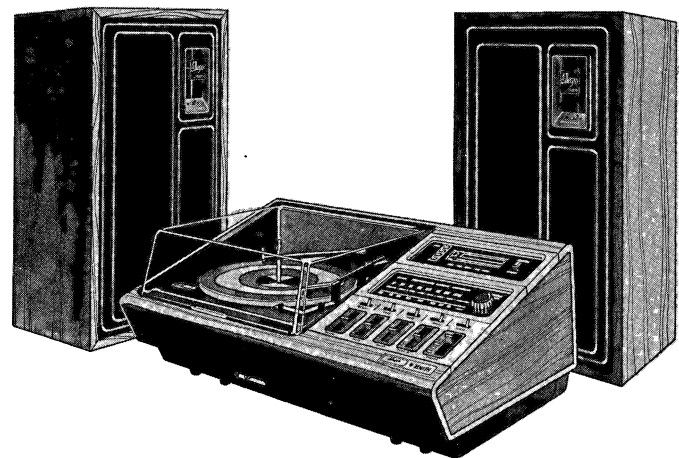
H587W



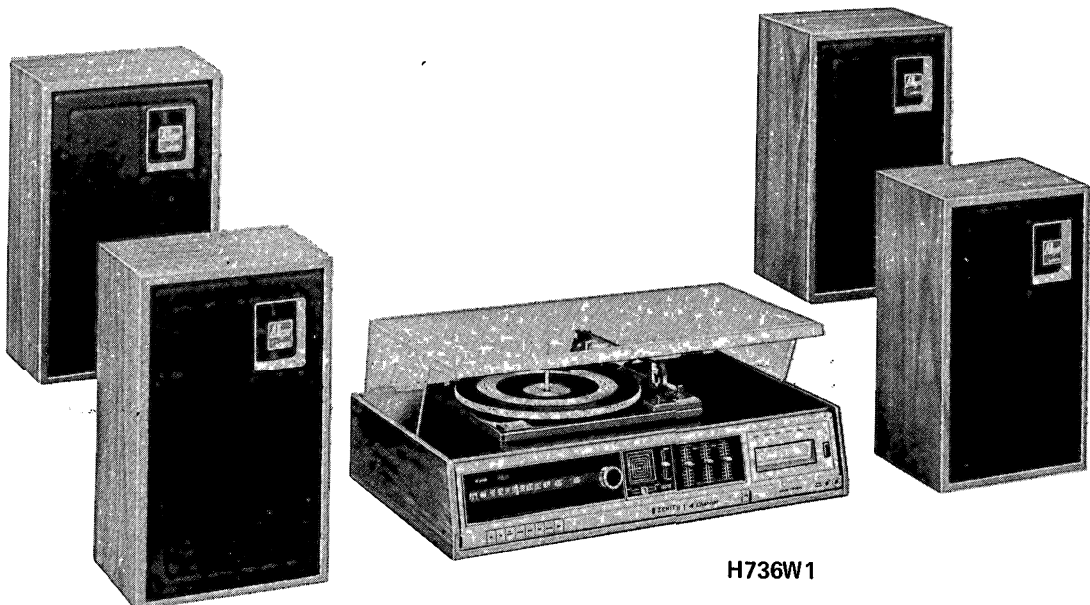
HR590W, W1



HR591W



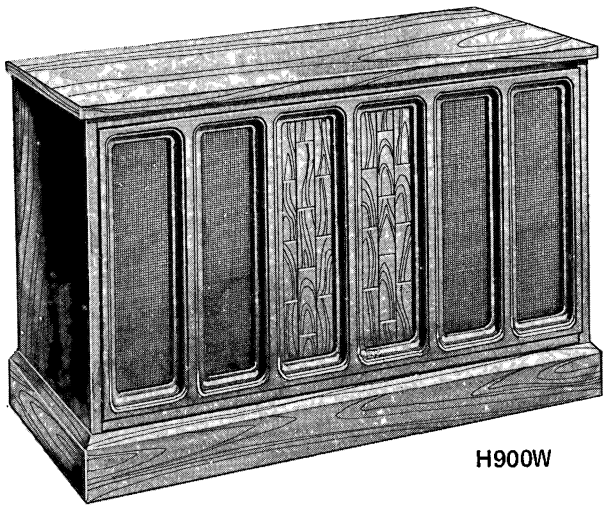
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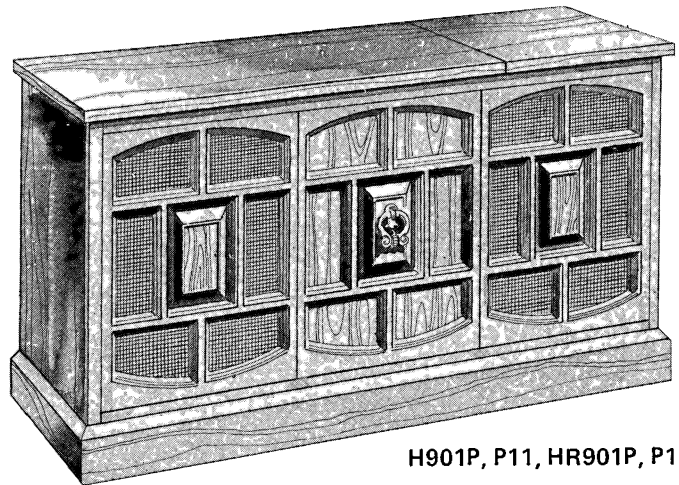
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NOTE — MODULAR MODELS
ARE SHOWN WITH OPTIONAL
ALLEGRO SPEAKER SYSTEMS.

REPRESENTATIVE MODEL ILLUSTRATIONS



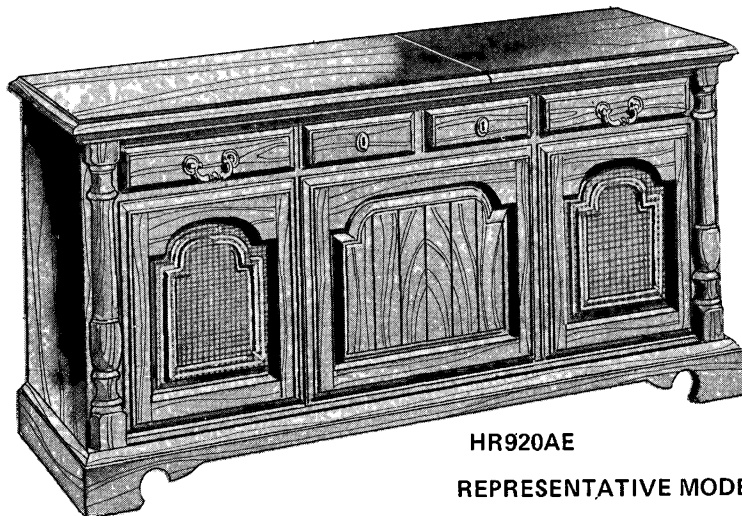
H900W



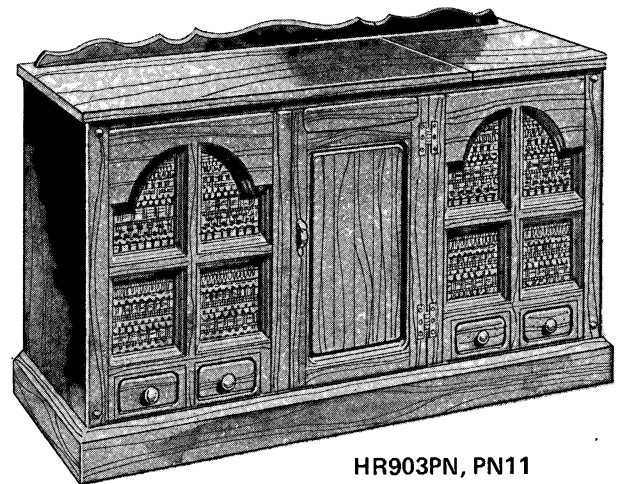
H901P, P11, HR901P, P11



HR902P, P11



HR920AE

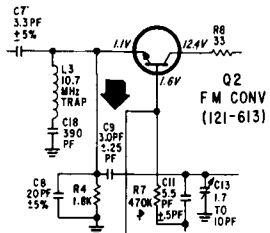
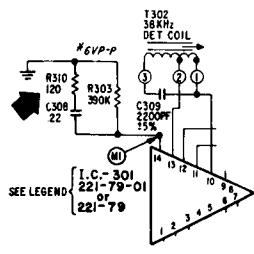
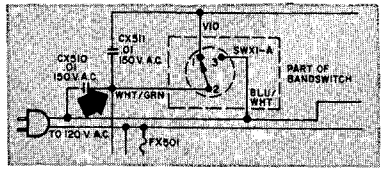


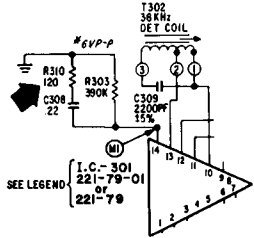
HR903PN, PN11

REPRESENTATIVE MODEL ILLUSTRATIONS

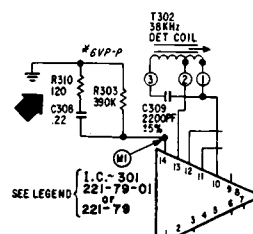
REVISIONS

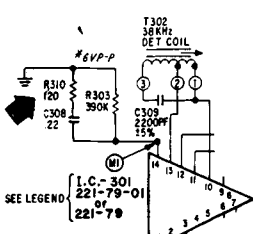
Revisions to information previously published in "HF" series service manuals is shown in the following charts. Each chart heading will list Chassis and/or Model identification and reference to the appropriate Service Manual. Information will normally consist of: schematic reference number (i.e. C304), action taken (omit, add, or alternate usage), part number and description of components, and a partial schematic of the circuit or other appropriate drawing.

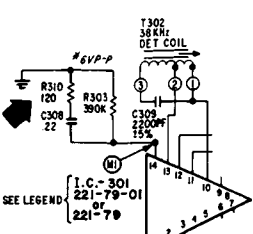
CHASSIS 3WHR50 MODELS H914P, H915AE, H916M				3WHR50 CHASSIS MODELS
COMPONENT CHANGES		REFER TO HF32		DRAWING CHANGES
				(5182B1, B2, C1, C2, D1, D2)
C9	OMIT ADD	22-5879 22-7577	3.3 PF $\pm$.25 PF Disc 25V 3.0 PF $\pm$.25 PF Disc 500V	
R310	ADD	63-4147	120 Ohm 10%, 1/4W	
—	NOTE	—	HF 32, Page 32 should show connection dot at junction of CX510 and CX511.	
—	NOTE	—	HF32, Page 33 Circuit Board Drawing revised at C1, C13, C14, C203, C222, C225, C308, L101, R220, R221, R303	Revised Drawing on Page 11 of this manual.

CHASSIS 3WHR52 MODELS H584W, H587W, HR587W				3WHR52 CHASSIS MODELS
COMPONENT CHANGES		REFER TO HF 32		DRAWING CHANGES
				(5179A1, A2, B1, B2, C1, C2)
FX501	OMIT	136-117-10	.25 Amp Slo Blo Fuse	
	ADD	136-117-12	.375 Amp Slo Blo Fuse	
FX502	NOTE	136-115-15	Should read 1.0 Amp Regular Fuse	
R310	ADD	63-4147	120 Ohm 10%, 1/4W	
T101	OMIT	95-3077	AM Oscillator Transformer	Revised Drawing on Page 12 of this manual.
	ADD	95-3271	AM Oscillator Transformer	
—	NOTE	—	HF 32, Page 37 Circuit Board Drawing revised at C1, C13, C14, C203, C222, C225, C308, L101, R220, R221, R305, R411, R461	

REVISIONS

CHASSIS 6WHR55 MODELS HR920AE, HR921P, HR922M				6WHR55 CHASSIS MODELS
COMPONENT CHANGES		REFER TO HF 32		DRAWING CHANGES
				(5183D1, D2, E1, E2)
R310	ADD	63-4147	120 Ohm 10%, 1/4W	
—	NOTE	—	HF 32, Page 39 Circuit Board Drawing revised at C1, C6, C13, C16, C305, C308, C406, C453, C456, CR503, L102, Q406, R402, R408	
				Revised Drawing on Page 13 of this manual.

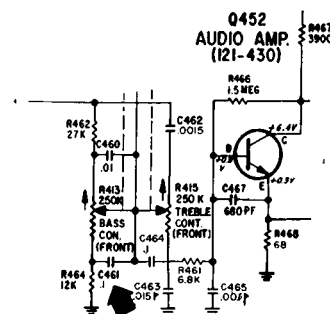
CHASSIS 6WHR56 MODELS HR684W, HR684W1				6WHR56 CHASSIS MODELS
COMPONENT CHANGES		REFER TO HF 32		DRAWING CHANGES
				(5180D1, D2, E1, E2)
R310	ADD	63-4147	120 Ohm 10%, 1/4W	
—	NOTE	—	HF 32, Page 43 Circuit Board Drawing revised at C1, C6, C7, C13, C16, C203, C305, C308, CR503, C453, L102, Q406, R402, R408	
				Revised Drawing on Page 14 of this manual.

CHASSIS 6WHR57 MODELS H590W, HR590W, HR590W1, HR591W				6WHR57 CHASSIS MODELS
COMPONENT CHANGES		REFER TO HR 32		DRAWING CHANGES
				(5181D1, D2, E1, E2)
R310	ADD	63-4147	120 Ohm 10%, 1/4W	
—	NOTE	—	HF 32, Page 45 Circuit Board Drawing revised at C1, C6, C7, C13, C16, C203, C308, C406, C453, C456, CR503, L102, Q406, R402, R408	
				Revised Drawing on Page 15 of this manual.

REVISIONS

CHASSIS 12WHR29 MODELS H596W, HR596W, HR966P				12WHR29 CHASSIS MODELS	
COMPONENT CHANGES			REFER TO HF 32	DRAWING CHANGES	
			(5156A1, A2, B1, B2, C1, C2, D1, D2)		
R214	OMIT	63-10524-03	2.5K Ohm Meter Adj.		
	ADD	63-10651-02	2.5K Ohm Meter Adj.		
R308	OMIT	63-10524-01	10K Ohm Mute Adj.		
	ADD	63-10651-04	10K Ohm Mute Adj.		
R317	OMIT	63-10524	5K Ohm PPL Adj.		
	ADD	63-10651-03	5K Ohm PPL Adj.		
C318	OMIT	22-3080	.005 MF Disc 25V		
	ADD	22-7152-08	100 MF Electrolytic 25V		
—	NOTE	—	HF 32, Page 50 - Pwr Amp Circuit Board Drawing revised at C417, C428, C478, Q408, Q458	Revised Drawing on Page 16 of this manual.	
—	NOTE	—	HF 32, Page 50 - Pwr Supply Circuit Board Drawing revised at leads to DSX506, DSX507	Revised Drawing on Page 16 of this manual.	
—	NOTE	—	HF 32, Page 51 - RF/IF/MPX Circuit Board Drawing revised at L205	Revised Drawing on Page 17 of this manual.	
—	NOTE	—	HF 32, Page 52 - Pre Amp Circuit Board Drawing Revised at C403, C453, R402	Revised Drawing on Page 18 of this manual.	

CHASSIS 12WGR58 MODELS GR936AE, GR937P, HR936AE1, HR937P			12WGR58 CHASSIS MODELS	
COMPONENT CHANGES			REFER TO HF 32	DRAWING CHANGES
				(4988C1, C2)
C461	NOTE	22-5862	HF 31, Page 62 - C461 should read .1, not .047	
C108	NOTE	22-4819	HF 31, Page 63 - C108 should read $\pm .25$ PF	
RX502	NOTE	63-4694	HF 31, Page 63 - RX502 should read 820, not 320	
—	NOTE	—	HF 31, Page 63 - Circuit Board Drawing revised at C1, C14, C233, C415, C461, C465, CR503, M1, Q102, R234, R235, R236, R237, R437, R487, T102	
				Revised Drawing on Page 19 of this manual.



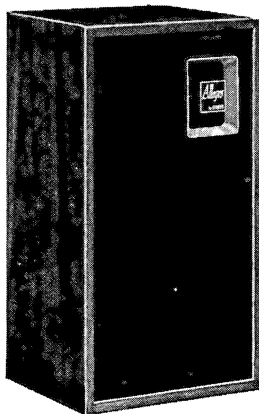
REVISIONS

CHASSIS 35WFR50 MODELS ET931W, F923W, FR923W, F924M, FR924M; F925DE, P, FR925DE, P, FR936AE, FR937P		35WFR50 CHASSIS MODELS
COMPONENT CHANGES	REFER TO HF 30, HF 30S1	DRAWING CHANGES (4879C1, C2)
— NOTE —	HF 30, Page 133 Circuit Board Drawing revised at C1, C227, C232, C407, C411, C461, CR503, M1, Q406, Q456, R10, R234, R235, R236, R237, R402, R431, R452, T102, 4 Ch. Jacks, T.P. "L". Revised Drawing on Page 20 of this manual.	

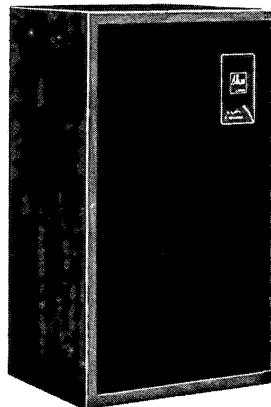


H9026W

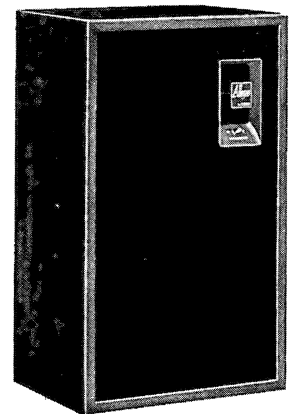
ALLEGRO SPEAKER SYSTEMS



H1000W, W1, W2, W3



H2000W, W3



H3000W, W3

REPRESENTATIVE MODEL ILLUSTRATIONS

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
C1A	221301	FAL DETECTOR TRIMMER	C066	221301	600 OHM ICM (ALT 67-7781 12W 10K)	A045	63-9048-48	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)
C1B	221302	600 OHM ICM (ALT 67-7781 12W 10K)	C067	221302	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A046	63-9048-49	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1C	221303	FAL OSCILLATOR TURNING	C068	221303	47K OHM ELECTROLYTIC 25V	A047	63-9021-44	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1D	221304	600 OHM ICM (ALT 67-7781 12W 10K)	C069	221304	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A048	63-9021-45	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1E	221305	FAL OSCILLATOR TURNING	C070	221305	47K OHM ELECTROLYTIC 25V	A049	63-9021-46	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1F	221306	600 OHM ICM (ALT 67-7781 12W 10K)	C071	221306	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A050	63-9021-47	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1G	221307	FAL OSCILLATOR TURNING	C072	221307	47K OHM ELECTROLYTIC 25V	A051	63-9021-48	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1H	221308	600 OHM ICM (ALT 67-7781 12W 10K)	C073	221308	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A052	63-9021-49	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1I	221309	FAL OSCILLATOR TURNING	C074	221309	47K OHM ELECTROLYTIC 25V	A053	63-9021-50	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1J	221310	600 OHM ICM (ALT 67-7781 12W 10K)	C075	221310	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A054	63-9021-51	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1K	221311	FAL OSCILLATOR TURNING	C076	221311	47K OHM ELECTROLYTIC 25V	A055	63-9021-52	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1L	221312	600 OHM ICM (ALT 67-7781 12W 10K)	C077	221312	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A056	63-9021-53	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1M	221313	FAL OSCILLATOR TURNING	C078	221313	47K OHM ELECTROLYTIC 25V	A057	63-9021-54	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1N	221314	600 OHM ICM (ALT 67-7781 12W 10K)	C079	221314	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A058	63-9021-55	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1O	221315	FAL OSCILLATOR TURNING	C080	221315	47K OHM ELECTROLYTIC 25V	A059	63-9021-56	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1P	221316	600 OHM ICM (ALT 67-7781 12W 10K)	C081	221316	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A060	63-9021-57	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1Q	221317	FAL OSCILLATOR TURNING	C082	221317	47K OHM ELECTROLYTIC 25V	A061	63-9021-58	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1R	221318	600 OHM ICM (ALT 67-7781 12W 10K)	C083	221318	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A062	63-9021-59	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1S	221319	FAL OSCILLATOR TURNING	C084	221319	47K OHM ELECTROLYTIC 25V	A063	63-9021-60	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1T	221320	600 OHM ICM (ALT 67-7781 12W 10K)	C085	221320	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A064	63-9021-61	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1U	221321	FAL OSCILLATOR TURNING	C086	221321	47K OHM ELECTROLYTIC 25V	A065	63-9021-62	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1V	221322	600 OHM ICM (ALT 67-7781 12W 10K)	C087	221322	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A066	63-9021-63	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1W	221323	FAL OSCILLATOR TURNING	C088	221323	47K OHM ELECTROLYTIC 25V	A067	63-9021-64	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1X	221324	600 OHM ICM (ALT 67-7781 12W 10K)	C089	221324	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A068	63-9021-65	3.2 OHM ICM (ALT 67-7781 12W 10K)
C1Y	221325	FAL OSCILLATOR TURNING	C090	221325	47K OHM ELECTROLYTIC 25V	A069	63-9021-66	1.6 OHM ICM (ALT 67-7781 12W 10K)
C1Z	221326	600 OHM ICM (ALT 67-7781 12W 10K)	C091	221326	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A070	63-9021-67	3.2 OHM ICM (ALT 67-7781 12W 10K)
C2A	221327	FAL OSCILLATOR TURNING	C092	221327	47K OHM ELECTROLYTIC 25V	A071	63-9021-68	1.6 OHM ICM (ALT 67-7781 12W 10K)
C2B	221328	600 OHM ICM (ALT 67-7781 12W 10K)	C093	221328	1.6 MEG OHM ICM (ALT 67-7781 12W 10K)	A072	63-9021-69	3.2 OHM ICM (ALT 67-7781 12W 10K)
C2C	221329	FAL OSC						



Q1
121-953
S = 2.4V
D = 12.5V
G1 =
G2 = 5.6V

Q2
121-613
E=1.1V
B=1.6V
C=12.4V

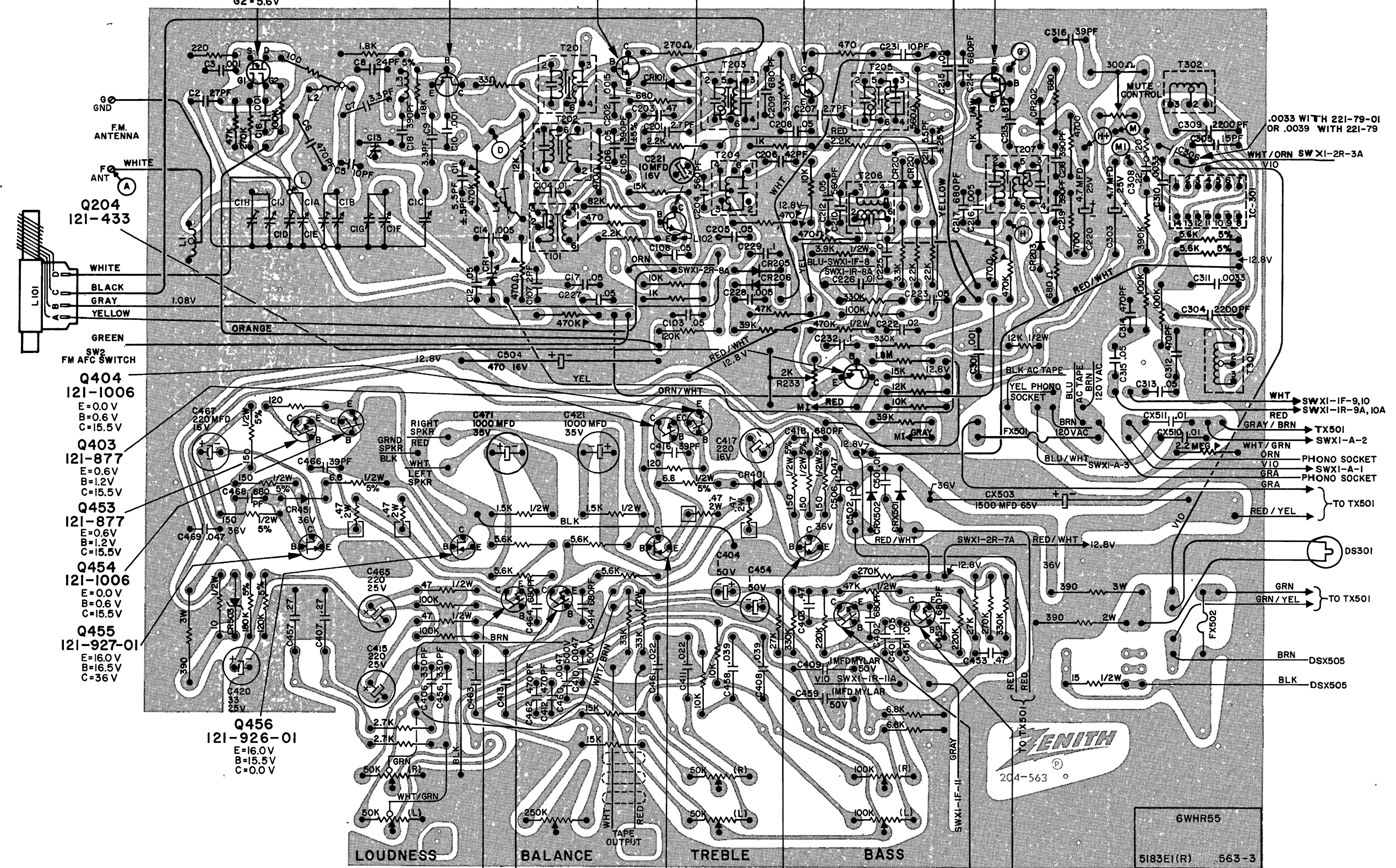
Q201
121-614
E=1.23V
B=2.11V
C=11.08V

Q101
121-735
E=1.3V
B=2.0V
C=12.5V

Q202
121-950
E=2.22V
B=2.97V
C=10.43V

Q203
121-950
E=1.44V
B=2.17V
C=9.06V

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
C1A		FM DETECTOR TRIMMER	C471	22-7104-12	100 MFD ELECTROLYTIC 35V	R430	3-9922-20	220 OHM
C1B		FM DETECTOR TUNING						
C1C		FM OSCILLATOR TUNING	C501-1	22-4817-17	.001 MFD DISC 500V	R451	3-9927-30	270K OHM 5% (ALT: 3-7887/12W 10%)
C1D		AM ANTENNA TRIMMER	C502-1	22-4817-17	.01 MFD DISC 500V	R452	3-9922-28	220K OHM 5% (ALT: 3-7883/12W 10%)
C1E		AM ANTENNA TUNING	C503-1	22-4817-17	100 OHM 5% (ALT: 3-7890/12W 10%)	R453	3-9922-28	220K OHM 5% (ALT: 3-7890/12W 10%)
C1F	22-7134	AM OSCILLATOR TUNING	C504-1	22-7141-17	100 OHM 5% (ALT: 3-7890/12W 10%)	R454	3-9922-28	270K OHM 5% (ALT: 3-7843/12W 10%)
C1G		FM ANTENNA TRIMMER	C505-1	22-4817-17	100 OHM 5% (ALT: 3-7890/12W 10%)	R455	3-9922-28	270K OHM 5% (ALT: 3-7843/12W 10%)
C1H		FM ANTENNA TRIMMER	C506-1	22-4817-17	100 OHM 5% (ALT: 3-7890/12W 10%)	R456	3-9922-28	270K OHM 5% (ALT: 3-7843/12W 10%)
C1J		FM ANTENNA TUNING	C507-1	22-4817-17	100 OHM 5% (ALT: 3-7890/12W 10%)	R457	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1K		FM ANTENNA TUNING	C508-1	22-4817-17	100 OHM 5% (ALT: 3-7890/12W 10%)	R458	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1L	22-7236	.01 MFD DISC 25V				R459	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1M	22-7270	.01 MFD DISC 25V	R1	3-9921-56	220 OHM 5% (ALT: 3-10183-12 14W 10%)	R460	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1N	22-7270	.01 MFD DISC 25V	R2	3-9922-20	100K OHM 5% (ALT: 3-10184-20 14W 10%)	R461	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1O	22-7270	.01 MFD DISC 25V	R3	3-9921-64	470 OHM 5% (ALT: 3-7772-12W 10%)	R462	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1P	22-7270	.01 MFD DISC 25V	R4	3-9921-78	1.8K OHM 5% (ALT: 3-7796-12W 10%)	R463	3-9922-20	15K OHM 5% (ALT: 3-7834-12W 10%)
C1Q	22-7270	.01 MFD DISC 25V	R5	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R464	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1R	22-7270	.01 MFD DISC 25V	R6	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R465	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1S	22-7270	.01 MFD DISC 25V	R7	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R466	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1T	22-7270	.01 MFD DISC 25V	R8	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R467	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1U	22-7270	.01 MFD DISC 25V	R9	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R468	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1V	22-7270	.01 MFD DISC 25V	R10	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R469	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1W	22-7270	.01 MFD DISC 25V	R11	3-9921-86	4.7K OHM 5% (ALT: 3-7803/12W 10%)	R470	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1X	22-7270	.01 MFD DISC 25V	R12	3-9922-12	47K OHM 5% (ALT: 3-10184-12 14W 10%)	R471	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1Y	22-7270	.01 MFD DISC 25V				R472	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C1Z	22-7270	.01 MFD DISC 25V				R473	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C201	22-3310	2.7 PF GIMMICK .10K 500V	R101	3-9922-10	15K OHM 5% (ALT: 3-7834-12W 10%)	R474	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C202	22-5480	.005 MFD DISC 500V	R102	3-9922-10	82K OHM 5% (ALT: 3-7886-12W 10%)	R475	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C203	22-5480	.005 MFD DISC 500V	R103	3-9921-08	10K OHM 5% (ALT: 3-7827-12W 10%)	R476	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C204	22-5480	.005 MFD DISC 500V	R104	3-9921-72	1K OHM 5% (ALT: 3-7785-12W 10%)	R477	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C205	22-5480	.005 MFD DISC 500V	R105	3-9921-40	2.2K OHM 5% (ALT: 3-7732-12W 10%)	R478	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C206	22-5480	.005 MFD DISC 500V	R106	3-9921-77	470 OHM 5% (ALT: 3-7771-12W 10%)	R479	3-9921-82	10K OHM 5% (ALT: 3-7803/12W 10%)
C207	22-5480	.005 MFD DISC 500V	R107	3-9921-64	470 OHM 5% (ALT: 3-7771-12W 10%)			
C208	22-3310	2.7 PF GIMMICK .10K 500V	R201	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)	L1	20-3654	FM ANTENNA COIL
C209	22-3310	2.7 PF GIMMICK .10K 500V	R202	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)	L2	20-3654	FM ANTENNA COIL
C210	22-3310	2.7 PF GIMMICK .10K 500V	R203	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)	L3	20-3654	FM ANTENNA COIL
C211	22-3310	2.7 PF GIMMICK .10K 500V	R204	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)	L4	20-3654	FM ANTENNA COIL
C212	22-3310	2.7 PF GIMMICK .10K 500V	R205	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C213	22-3310	2.7 PF GIMMICK .10K 500V	R206	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C214	22-3310	2.7 PF GIMMICK .10K 500V	R207	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C215	22-3310	2.7 PF GIMMICK .10K 500V	R208	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C216	22-3310	2.7 PF GIMMICK .10K 500V	R209	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C217	22-3310	2.7 PF GIMMICK .10K 500V	R210	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C218	22-3310	2.7 PF GIMMICK .10K 500V	R211	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C219	22-3310	2.7 PF GIMMICK .10K 500V	R212	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C220	22-3310	2.7 PF GIMMICK .10K 500V	R213	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C221	22-3310	2.7 PF GIMMICK .10K 500V	R214	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C222	22-3310	2.7 PF GIMMICK .10K 500V	R215	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C223	22-3310	2.7 PF GIMMICK .10K 500V	R216	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C224	22-3310	2.7 PF GIMMICK .10K 500V	R217	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C225	22-3310	2.7 PF GIMMICK .10K 500V	R218	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C226	22-3310	2.7 PF GIMMICK .10K 500V	R219	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C227	22-3310	2.7 PF GIMMICK .10K 500V	R220	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C228	22-3310	2.7 PF GIMMICK .10K 500V	R221	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C229	22-3310	2.7 PF GIMMICK .10K 500V	R222	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C230	22-3310	2.7 PF GIMMICK .10K 500V	R223	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C231	22-3310	2.7 PF GIMMICK .10K 500V	R224	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C232	22-3310	2.7 PF GIMMICK .10K 500V	R225	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C233	22-3310	2.7 PF GIMMICK .10K 500V	R226	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C234	22-3310	2.7 PF GIMMICK .10K 500V	R227	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C235	22-3310	2.7 PF GIMMICK .10K 500V	R228	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C236	22-3310	2.7 PF GIMMICK .10K 500V	R229	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C237	22-3310	2.7 PF GIMMICK .10K 500V	R230	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C238	22-3310	2.7 PF GIMMICK .10K 500V	R231	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C239	22-3310	2.7 PF GIMMICK .10K 500V	R232	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C240	22-3310	2.7 PF GIMMICK .10K 500V	R233	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C241	22-3310	2.7 PF GIMMICK .10K 500V	R234	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C242	22-3310	2.7 PF GIMMICK .10K 500V	R235	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C243	22-3310	2.7 PF GIMMICK .10K 500V	R236	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C244	22-3310	2.7 PF GIMMICK .10K 500V	R237	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C245	22-3310	2.7 PF GIMMICK .10K 500V	R238	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C246	22-3310	2.7 PF GIMMICK .10K 500V	R239	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C247	22-3310	2.7 PF GIMMICK .10K 500V	R240	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C248	22-3310	2.7 PF GIMMICK .10K 500V	R241	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C249	22-3310	2.7 PF GIMMICK .10K 500V	R242	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C250	22-3310	2.7 PF GIMMICK .10K 500V	R243	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C251	22-3310	2.7 PF GIMMICK .10K 500V	R244	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C252	22-3310	2.7 PF GIMMICK .10K 500V	R245	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C253	22-3310	2.7 PF GIMMICK .10K 500V	R246	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C254	22-3310	2.7 PF GIMMICK .10K 500V	R247	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C255	22-3310	2.7 PF GIMMICK .10K 500V	R248	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C256	22-3310	2.7 PF GIMMICK .10K 500V	R249	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C257	22-3310	2.7 PF GIMMICK .10K 500V	R250	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C258	22-3310	2.7 PF GIMMICK .10K 500V	R251	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C259	22-3310	2.7 PF GIMMICK .10K 500V	R252	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C260	22-3310	2.7 PF GIMMICK .10K 500V	R253	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C261	22-3310	2.7 PF GIMMICK .10K 500V	R254	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C262	22-3310	2.7 PF GIMMICK .10K 500V	R255	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C263	22-3310	2.7 PF GIMMICK .10K 500V	R256	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C264	22-3310	2.7 PF GIMMICK .10K 500V	R257	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C265	22-3310	2.7 PF GIMMICK .10K 500V	R258	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C266	22-3310	2.7 PF GIMMICK .10K 500V	R259	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C267	22-3310	2.7 PF GIMMICK .10K 500V	R260	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C268	22-3310	2.7 PF GIMMICK .10K 500V	R261	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C269	22-3310	2.7 PF GIMMICK .10K 500V	R262	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C270	22-3310	2.7 PF GIMMICK .10K 500V	R263	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C271	22-3310	2.7 PF GIMMICK .10K 500V	R264	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C272	22-3310	2.7 PF GIMMICK .10K 500V	R265	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C273	22-3310	2.7 PF GIMMICK .10K 500V	R266	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C274	22-3310	2.7 PF GIMMICK .10K 500V	R267	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C275	22-3310	2.7 PF GIMMICK .10K 500V	R268	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C276	22-3310	2.7 PF GIMMICK .10K 500V	R269	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C277	22-3310	2.7 PF GIMMICK .10K 500V	R270	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C278	22-3310	2.7 PF GIMMICK .10K 500V	R271	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C279	22-3310	2.7 PF GIMMICK .10K 500V	R272	3-9921-78	680 OHM 5% (ALT: 3-7778-12W 10%)			
C2								



13

Q1
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S=12.5V
G1=62=5.6V

Q2
121-613
E=1.1V
B=1.6V
C=12.4V

Q3
121-614
E=1.23V
B=2.11V
C=11.08V

Q4
121-735
E=1.3V
B=2.0V
C=12.5V

Q5
121-950
E=2.22V
B=2.97V
C=10.43V

Q6
121-950
E=1.44V
B=2.17V
C=9.06V

Q7
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E=1.44V
B=2.17V
C=9.06V

Q456
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C=0.0V

Q452
121-1005
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C=1.2V

Q402
121-1005
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C=1.2V

Q406
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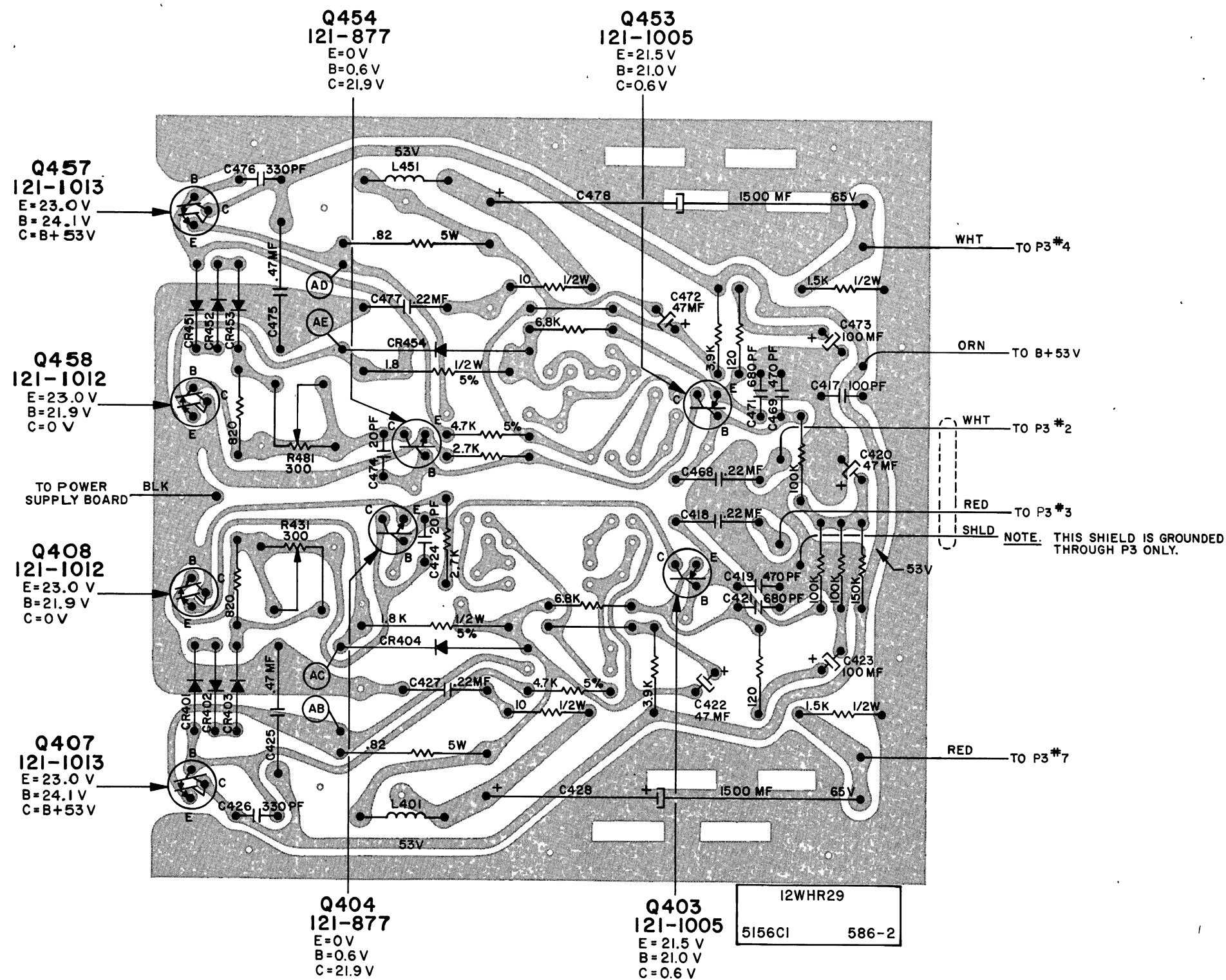
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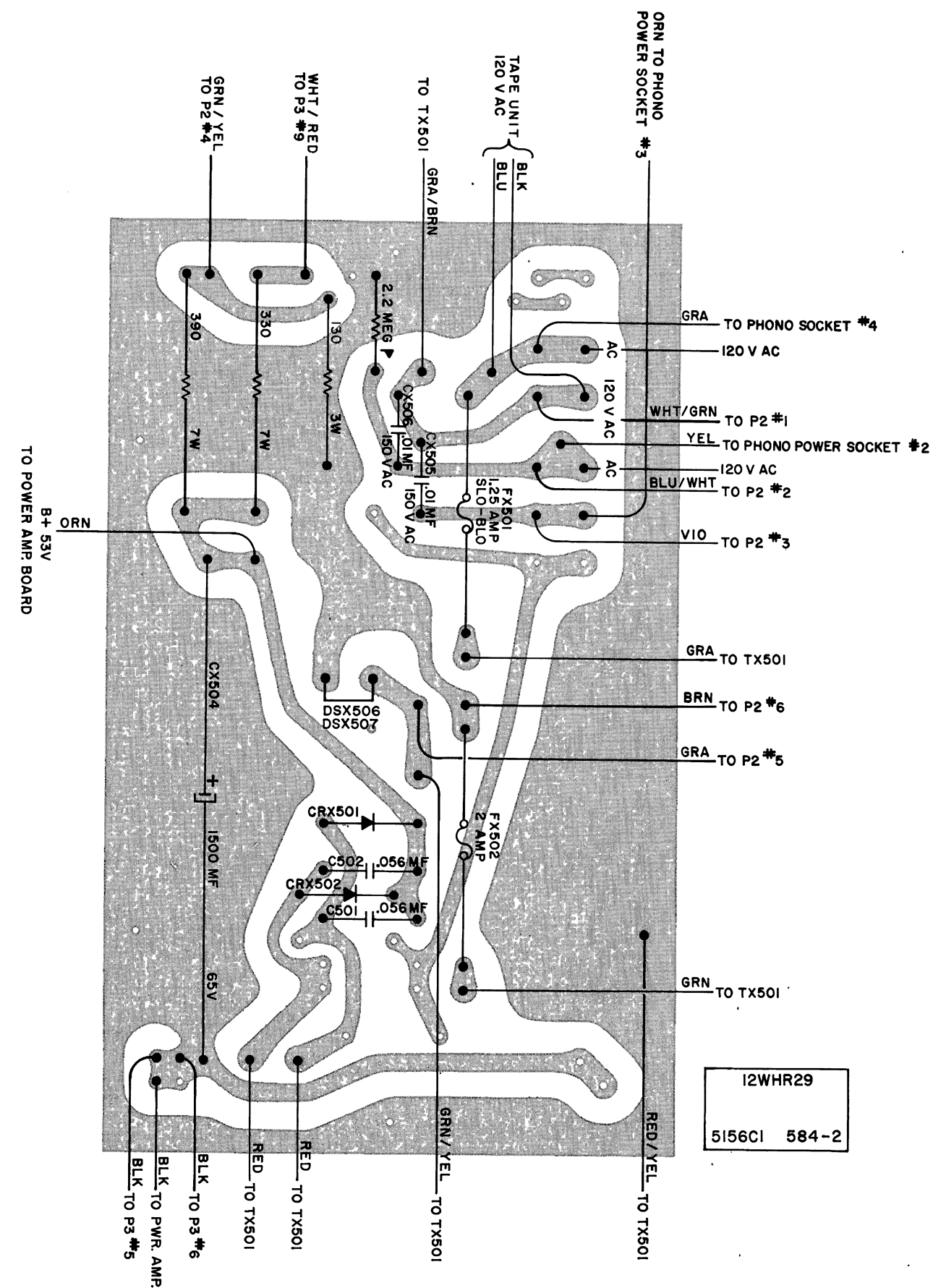
Q451
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6WHR57
5181EI (R) 563-3

ZENITH
204-563



CHASSIS 12WHR29 - CHASSIS WIRING AND COMPONENTS
VIEWED FROM FOIL SIDE - POWER AMPLIFIER



CHASSIS 12WHR29 - CHASSIS WIRING AND COMPONENTS
VIEWED FROM FOIL SIDE - POWER SUPPLY

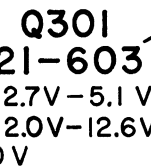
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121-950
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B=3.2 V
C=11.7 V

Q202
121-950
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B=2.1 V
C=12.0 V

Q102
121-735
E=1.5 V
B=2.0 V
C=12.8 V

Q101
121-850
E = 0.5 V
B = 1.2 V
C = 12.0 V

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
C1A	224245-01	FM ANTENNA TRIMMER	R106	93-0921-86	3.0K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R657	93-0921-78	180K OHM .5% 1/4W (ALT. GS-7306 1/20% 1/20W)
C1B		FM ANTENNA TRIMMER	R107	93-0921-86	470K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R658	93-0921-78	33K OHM .5% 1/4W (ALT. GS-7348 1/20% 1/20W)
C1C		FM ANTENNA TRIMMER	R108	93-0921-86	10K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R659	93-0921-78	33K OHM .5% 1/4W (ALT. GS-7348 1/20% 1/20W)
C1D		FM ANTENNA TRIMMER	R109	93-0922-10	39K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R660	93-0921-44	1.5MG OHM .5% 1/4W (ALT. GS-7391 1/20% 1/20W)
C1E		FM ANTENNA TRIMMER	R110	93-0922-99	33K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R661	93-0921-48	4.7K OHM .5% 1/4W (ALT. GS-7313 1/20% 1/20W)
C1F		FM ANTENNA TRIMMER	R111	93-0922-20	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R662	93-0921-48	680K OHM .5% 1/4W (ALT. GS-7378 1/20% 1/20W)
C1G		FM ANTENNA TRIMMER	R112	93-0921-72	10K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R663	93-0922-02	18K OHM .5% 1/4W (ALT. GS-7338 1/20% 1/20W)
C1H		FM ANTENNA TRIMMER	R113	93-0922-20	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R664	93-0921-90	5.6K OHM .5% 1/4W (ALT. GS-7317 1/20% 1/20W)
C1I		FM ANTENNA TRIMMER	R114	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R665	93-0921-04	22K OHM .5% 1/4W (ALT. GS-7361 1/20% 1/20W)
C1J		FM ANTENNA TRIMMER	R115	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R666	93-0921-04	22K OHM .5% 1/4W (ALT. GS-7361 1/20% 1/20W)
C1K		FM ANTENNA TRIMMER	R116	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R667	93-0921-04	22K OHM .5% 1/4W (ALT. GS-7361 1/20% 1/20W)
C1L		FM ANTENNA TRIMMER	R117	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R668	93-0921-04	22K OHM .5% 1/4W (ALT. GS-7361 1/20% 1/20W)
C1M		FM ANTENNA TRIMMER	R118	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R669	93-0921-04	22K OHM .5% 1/4W (ALT. GS-7361 1/20% 1/20W)
C1N		FM ANTENNA TRIMMER	R119	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R670	93-0921-04	22K OHM .5% 1/4W (ALT. GS-7361 1/20% 1/20W)
C1O		FM ANTENNA TRIMMER	R120	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R671	93-0922-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1P		FM ANTENNA TRIMMER	R121	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R672	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1Q		FM ANTENNA TRIMMER	R122	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R673	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1R		FM ANTENNA TRIMMER	R123	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R674	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1S		FM ANTENNA TRIMMER	R124	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R675	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1T		FM ANTENNA TRIMMER	R125	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R676	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1U		FM ANTENNA TRIMMER	R126	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R677	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1V		FM ANTENNA TRIMMER	R127	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R678	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1W		FM ANTENNA TRIMMER	R128	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R679	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1X		FM ANTENNA TRIMMER	R129	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R680	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1Y		FM ANTENNA TRIMMER	R130	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R681	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C1Z		FM ANTENNA TRIMMER	R131	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R682	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C20	224245-01	FM ANTENNA TRIMMER	R132	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R683	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C21	224245-01	FM ANTENNA TRIMMER	R133	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R684	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C22	224245-01	FM ANTENNA TRIMMER	R134	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R685	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C23	224245-01	FM ANTENNA TRIMMER	R135	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R686	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C24	224245-01	FM ANTENNA TRIMMER	R136	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R687	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C25	224245-01	FM ANTENNA TRIMMER	R137	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R688	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C26	224245-01	FM ANTENNA TRIMMER	R138	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R689	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C27	224245-01	FM ANTENNA TRIMMER	R139	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R690	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C28	224245-01	FM ANTENNA TRIMMER	R140	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R691	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C29	224245-01	FM ANTENNA TRIMMER	R141	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R692	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C30	224245-01	FM ANTENNA TRIMMER	R142	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R693	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C31	224245-01	FM ANTENNA TRIMMER	R143	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R694	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C32	224245-01	FM ANTENNA TRIMMER	R144	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R695	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C33	224245-01	FM ANTENNA TRIMMER	R145	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R696	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C34	224245-01	FM ANTENNA TRIMMER	R146	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R697	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C35	224245-01	FM ANTENNA TRIMMER	R147	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R698	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C36	224245-01	FM ANTENNA TRIMMER	R148	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R699	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C37	224245-01	FM ANTENNA TRIMMER	R149	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R700	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C38	224245-01	FM ANTENNA TRIMMER	R150	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R701	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C39	224245-01	FM ANTENNA TRIMMER	R151	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R702	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C40	224245-01	FM ANTENNA TRIMMER	R152	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R703	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C41	224245-01	FM ANTENNA TRIMMER	R153	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R704	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C42	224245-01	FM ANTENNA TRIMMER	R154	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R705	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C43	224245-01	FM ANTENNA TRIMMER	R155	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R706	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C44	224245-01	FM ANTENNA TRIMMER	R156	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R707	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C45	224245-01	FM ANTENNA TRIMMER	R157	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R708	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C46	224245-01	FM ANTENNA TRIMMER	R158	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R709	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C47	224245-01	FM ANTENNA TRIMMER	R159	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R710	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C48	224245-01	FM ANTENNA TRIMMER	R160	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R711	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C49	224245-01	FM ANTENNA TRIMMER	R161	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R712	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C50	224245-01	FM ANTENNA TRIMMER	R162	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R713	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C51	224245-01	FM ANTENNA TRIMMER	R163	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R714	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C52	224245-01	FM ANTENNA TRIMMER	R164	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R715	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C53	224245-01	FM ANTENNA TRIMMER	R165	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R716	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C54	224245-01	FM ANTENNA TRIMMER	R166	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R717	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C55	224245-01	FM ANTENNA TRIMMER	R167	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R718	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C56	224245-01	FM ANTENNA TRIMMER	R168	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R719	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C57	224245-01	FM ANTENNA TRIMMER	R169	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R720	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C58	224245-01	FM ANTENNA TRIMMER	R170	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R721	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C59	224245-01	FM ANTENNA TRIMMER	R171	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R722	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C60	224245-01	FM ANTENNA TRIMMER	R172	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R723	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C61	224245-01	FM ANTENNA TRIMMER	R173	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R724	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C62	224245-01	FM ANTENNA TRIMMER	R174	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R725	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C63	224245-01	FM ANTENNA TRIMMER	R175	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R726	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C64	224245-01	FM ANTENNA TRIMMER	R176	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R727	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C65	224245-01	FM ANTENNA TRIMMER	R177	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R728	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C66	224245-01	FM ANTENNA TRIMMER	R178	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R729	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C67	224245-01	FM ANTENNA TRIMMER	R179	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R730	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C68	224245-01	FM ANTENNA TRIMMER	R180	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R731	93-0921-20	100K OHM .5% 1/4W (ALT. GS-7369 1/20% 1/20W)
C69	224245-01	FM ANTENNA TRIMMER	R181	93-0921-40	100K OHM .5% 1/4W (ALT. GS-1010-86 1/20% 1/20W)	R732	93-0921-20	100K OH



Q303
121-950
E = 0.02V- * 0.25V
B = 0.08- * 1.0V
C = 13.1V- * 0.3V

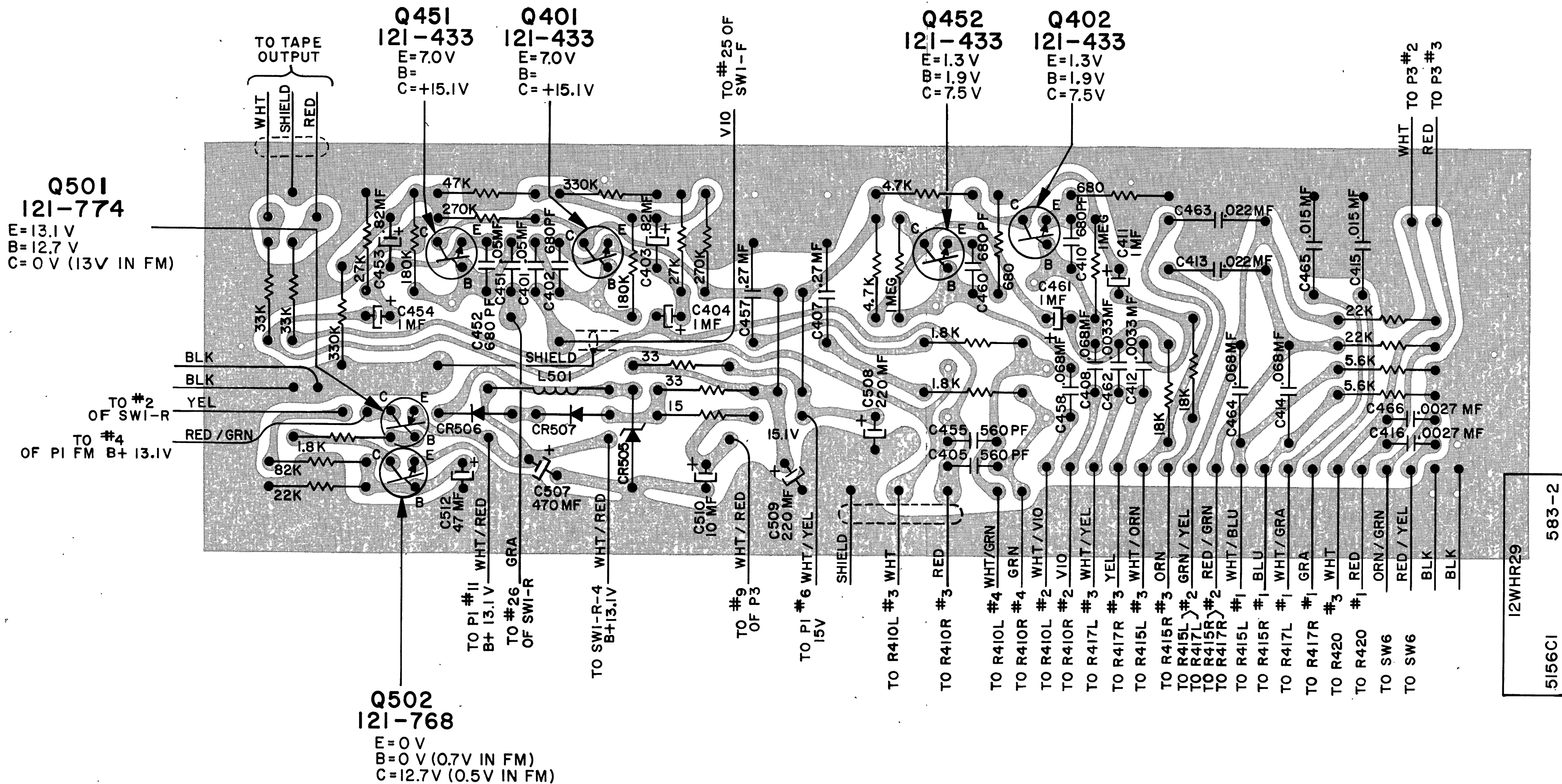
Q302
121-950
= 0.02V - * 0.25V
= 0.7V - * 0.55V
= 0.8 - * 1.0V

Q201
121-950
E=0V
B=0.7V
C=4.5V

Q2
121-613
E = 1.1 V
B = 1.7 V
C = 12.6 V

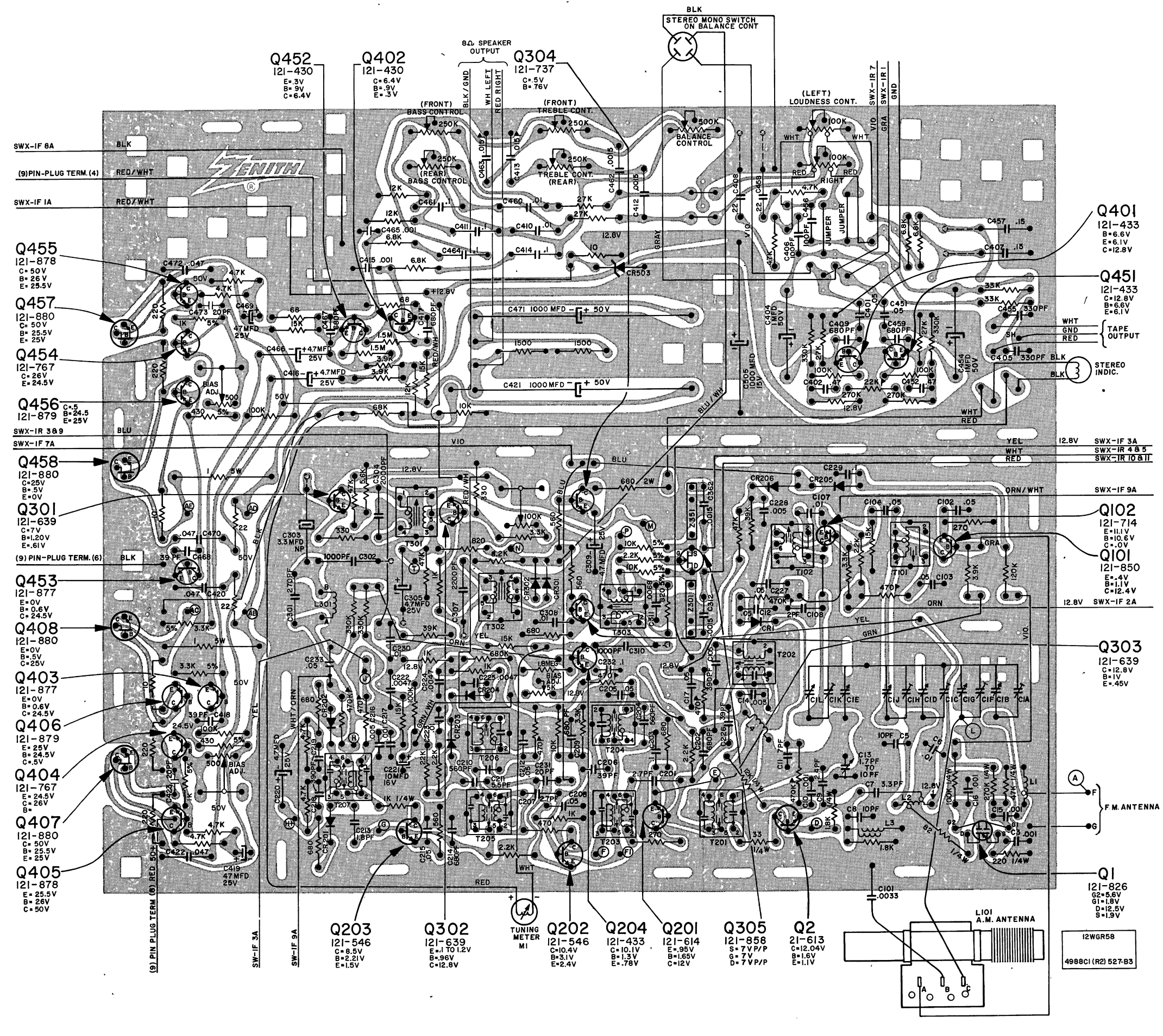
Q1
121-1024
(121-953 EARLY PRODUCTION)
G1=1.7V
G2=5.6V
D=9.8V
S=2.0V

CHASSIS 12WHR29 – CHASSIS WIRING AND COMPONENTS
VIEWED FROM FOIL SIDE – RF/IF/MPX

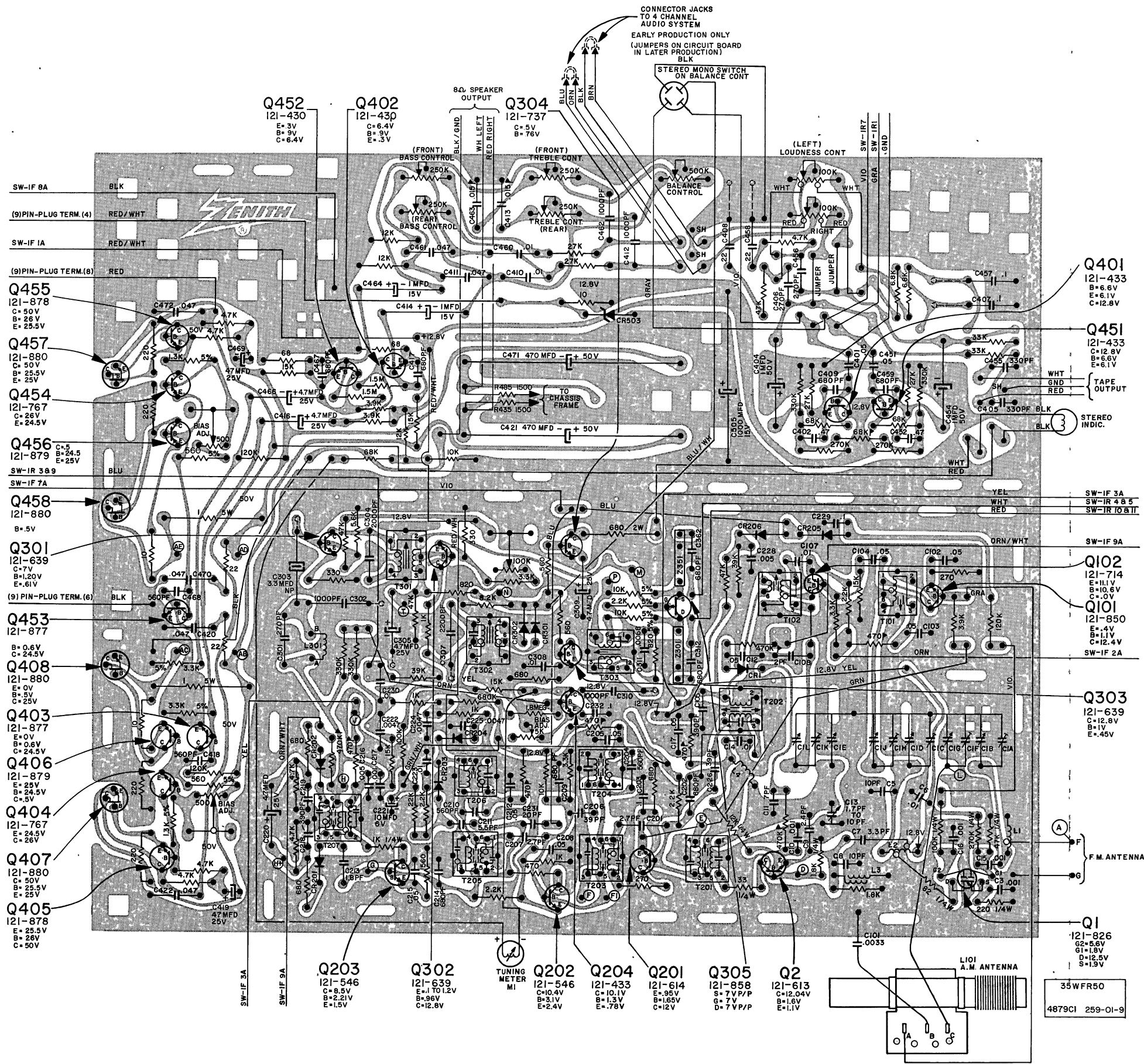


CHASSIS 12WHR29 - CHASSIS WIRING AND COMPONENTS
VIEWED FROM FOIL SIDE - PREAMPLIFIER

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
C1A	FM ANT TRIMMER		R230	330K OHM 5% (ALT. 63-7890 10% 1/2W)	
C1B	FM ANT TUNING		R231	330K OHM 5% (ALT. 63-7892 10% 1/2W)	
C1C	FM DETECTOR TRIMMER		R232	1.8M OHM 5% (ALT. 63-7892 10% 1/2W)	
C1D	FM OSCILLATOR TUNING		R233	1.8M OHM 5% (ALT. 63-7892 10% 1/2W)	
C1E	FM OSCILLATOR TUNING		R234	15K OHM 5% (ALT. 63-7834 10% 1/2W)	
C1F	FM OSCILLATOR TUNING		R235	12K OHM 5% (ALT. 63-7834 10% 1/2W)	
C1G	FM ANT TUNING		R236	12K OHM 5% (ALT. 63-7834 10% 1/2W)	
C1H	FM DETECTOR TUNING		R237	10K OHM 5% (ALT. 63-7826 10% 1/2W)	
C1K	AM DETECTOR TRIMMER		R301	47K OHM 5% (ALT. 63-7855 10% 1/2W)	
C1L	AM DETECTOR TUNING		R302	100K OHM 5% (ALT. 63-7775 10% 1/2W)	
C2	0.01 MFD DISC 25V		R303	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C3	0.01 MFD DISC 25V		R304	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C4	0.01 MFD DISC 25V		R305	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C5	0.01 MFD DISC 25V		R306	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C6	0.01 MFD DISC 25V		R307	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C7	0.01 MFD DISC 25V		R308	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C8	0.01 MFD DISC 25V		R309	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C9	0.01 MFD DISC 25V		R310	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C10	0.01 MFD DISC 25V		R311	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C11	0.01 MFD DISC 25V		R312	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C12	0.01 MFD DISC 25V		R313	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C13	0.01 MFD DISC 25V		R314	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C14	0.01 MFD DISC 25V		R315	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C15	0.01 MFD DISC 25V		R316	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C16	0.01 MFD DISC 25V		R317	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C17	0.01 MFD DISC 25V		R318	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C18	0.01 MFD DISC 25V		R319	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C19	0.01 MFD DISC 25V		R320	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C20	0.01 MFD DISC 25V		R321	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C21	0.01 MFD DISC 25V		R322	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C22	0.01 MFD DISC 25V		R323	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C23	0.01 MFD DISC 25V		R324	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C24	0.01 MFD DISC 25V		R325	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C25	0.01 MFD DISC 25V		R326	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C26	0.01 MFD DISC 25V		R327	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C27	0.01 MFD DISC 25V		R328	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C28	0.01 MFD DISC 25V		R329	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C29	0.01 MFD DISC 25V		R330	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C30	0.01 MFD DISC 25V		R331	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C31	0.01 MFD DISC 25V		R332	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C32	0.01 MFD DISC 25V		R333	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C33	0.01 MFD DISC 25V		R334	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C34	0.01 MFD DISC 25V		R335	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C35	0.01 MFD DISC 25V		R336	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C36	0.01 MFD DISC 25V		R337	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C37	0.01 MFD DISC 25V		R338	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C38	0.01 MFD DISC 25V		R339	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C39	0.01 MFD DISC 25V		R340	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C40	0.01 MFD DISC 25V		R341	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C41	0.01 MFD DISC 25V		R342	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C42	0.01 MFD DISC 25V		R343	330 OHM 5% (ALT. 63-7654 10% 1/2W)	
C43	0.01 MFD DISC 25V		R344	330 OHM 5% (ALT. 63-7654 10% 1/2	



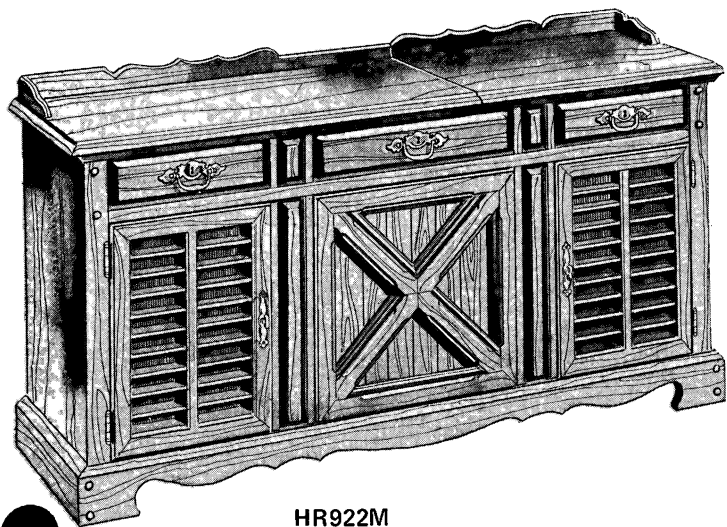
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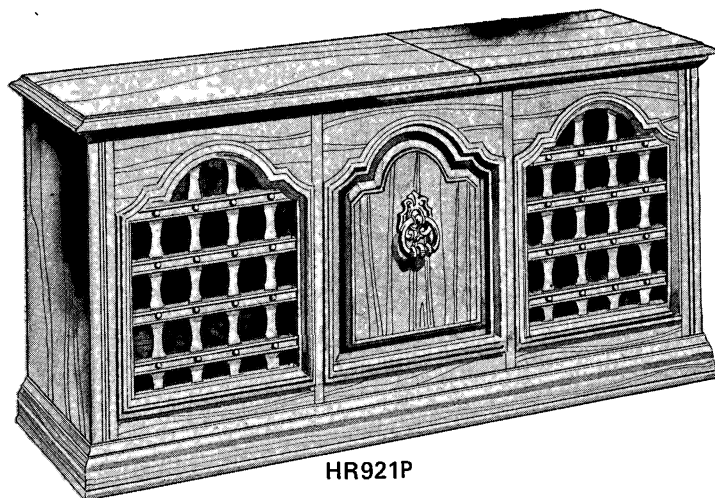
LEGEND CHASSIS 35WFR50

ITEM NO.	PART NUMBER	DESCRIPTION	ITEM NO.	PART NUMBER	DESCRIPTION
C1A	22-2729	FM ANT TRIMMER	R222	63-1922	1.8M OHM
C1B	22-2729	FM ANT TRIMMER	R223	63-1922	1.8M OHM
C1C	22-2729	FM DETECTOR TRIMMER	R224	63-1922	1.8M OHM
C1D	22-2729	FM DETECTOR TRIMMER	R225	63-1922	1.8M OHM
C1E	22-2729	FM DETECTOR TRIMMER	R226	63-1922	1.8M OHM
C1F	22-2729	FM DETECTOR TRIMMER	R227	63-1922	1.8M OHM
C1G	22-2729	FM DETECTOR TRIMMER	R228	63-1922	1.8M OHM
C1H	22-2729	FM DETECTOR TRIMMER	R229	63-1922	1.8M OHM
C1I	22-2729	FM DETECTOR TRIMMER	R230	63-1922	1.8M OHM
C1J	22-2729	FM DETECTOR TRIMMER	R231	63-1922	1.8M OHM
C1K	22-2729	FM DETECTOR TRIMMER	R232	63-1922	1.8M OHM
C1L	22-2729	FM DETECTOR TRIMMER	R233	63-1922	1.8M OHM
C2	22-2729	FM DETECTOR TRIMMER	R234	63-1922	1.8M OHM
C3	22-2729	FM DETECTOR TRIMMER	R235	63-1922	1.8M OHM
C4	22-2729	FM DETECTOR TRIMMER	R236	63-1922	1.8M OHM
C5	22-2729	FM DETECTOR TRIMMER	R237	63-1922	1.8M OHM
C6	22-2729	FM DETECTOR TRIMMER	R238	63-1922	1.8M OHM
C7	22-2729	FM DETECTOR TRIMMER	R239	63-1922	1.8M OHM
C8	22-2729	FM DETECTOR TRIMMER	R240	63-1922	1.8M OHM
C9	22-2729	FM DETECTOR TRIMMER	R241	63-1922	1.8M OHM
C10	22-2729	FM DETECTOR TRIMMER	R242	63-1922	1.8M OHM
C11	22-2729	FM DETECTOR TRIMMER	R243	63-1922	1.8M OHM
C12	22-2729	FM DETECTOR TRIMMER	R244	63-1922	1.8M OHM
C13	22-2729	FM DETECTOR TRIMMER	R245	63-1922	1.8M OHM
C14	22-2729	FM DETECTOR TRIMMER	R246	63-1922	1.8M OHM
C15	22-2729	FM DETECTOR TRIMMER	R247	63-1922	1.8M OHM
C16	22-2729	FM DETECTOR TRIMMER	R248	63-1922	1.8M OHM
C17	22-2729	FM DETECTOR TRIMMER	R249	63-1922	1.8M OHM
C18	22-2729	FM DETECTOR TRIMMER	R250	63-1922	1.8M OHM
C19	22-2729	FM DETECTOR TRIMMER	R251	63-1922	1.8M OHM
C20	22-2729	FM DETECTOR TRIMMER	R252	63-1922	1.8M OHM
C21	22-2729	FM DETECTOR TRIMMER	R253	63-1922	1.8M OHM
C22	22-2729	FM DETECTOR TRIMMER	R254	63-1922	1.8M OHM
C23	22-2729	FM DETECTOR TRIMMER	R255	63-1922	1.8M OHM
C24	22-2729	FM DETECTOR TRIMMER	R256	63-1922	1.8M OHM
C25	22-2729	FM DETECTOR TRIMMER	R257	63-1922	1.8M OHM
C26	22-2729	FM DETECTOR TRIMMER	R258	63-1922	1.8M OHM
C27	22-2729	FM DETECTOR TRIMMER	R259	63-1922	1.8M OHM
C28	22-2729	FM DETECTOR TRIMMER	R260	63-1922	1.8M OHM
C29	22-2729	FM DETECTOR TRIMMER	R261	63-1922	1.8M OHM
C30	22-2729	FM DETECTOR TRIMMER	R262	63-1922	1.8M OHM
C31	22-2729	FM DETECTOR TRIMMER	R263	63-1922	1.8M OHM
C32	22-2729	FM DETECTOR TRIMMER	R264	63-1922	1.8M OHM
C33	22-2729	FM DETECTOR TRIMMER	R265	63-1922	1.8M OHM
C34	22-2729	FM DETECTOR TRIMMER	R266	63-1922	1.8M OHM
C35	22-2729	FM DETECTOR TRIMMER	R267	63-1922	1.8M OHM
C36	22-2729	FM DETECTOR TRIMMER	R268	63-1922	1.8M OHM
C37	22-2729	FM DETECTOR TRIMMER	R269	63-1922	1.8M OHM
C38	22-2729	FM DETECTOR TRIMMER	R270	63-1922	1.8M OHM
C39	22-2729	FM DETECTOR TRIMMER	R271	63-1922	1.8M OHM
C40	22-2729	FM DETECTOR TRIMMER	R272	63-1922	1.8M OHM
C41	22-2729	FM DETECTOR TRIMMER	R273	63-1922	1.8M OHM
C42	22-2729	FM DETECTOR TRIMMER	R274	63-1922	1.8M OHM
C43	22-2729	FM DETECTOR TRIMMER	R275	63-1922	1.8M OHM
C44	22-2729	FM DETECTOR TRIMMER	R276	63-1922	1.8M OHM
C45	22-2729	FM DETECTOR TRIMMER	R277	63-1922	1.8M OHM
C46	22-2729	FM DETECTOR TRIMMER	R278	63-1922	1.8M OHM
C47	22-2729	FM DETECTOR TRIMMER	R279	63-1922	1.8M OHM
C48	22-2729	FM DETECTOR TRIMMER	R280	63-1922	1.8M OHM
C49	22-2729	FM DETECTOR TRIMMER	R281	63-1922	1.8M OHM
C50	22-2729	FM DETECTOR TRIMMER	R282	63-1922	1.8M OHM
C51	22-2729	FM DETECTOR TRIMMER	R283	63-1922	1.8M OHM
C52	22-2729	FM DETECTOR TRIMMER	R284	63-1922	1.8M OHM
C53	22-2729	FM DETECTOR TRIMMER	R285	63-1922	1.8M OHM
C54	22-2729	FM DETECTOR TRIMMER	R286	63-1922	1.8M OHM
C55	22-2729	FM DETECTOR TRIMMER	R287	63-1922	1.8M OHM
C56	22-2729	FM DETECTOR TRIMMER	R288	63-1922	1.8M OHM
C57	22-2729	FM DETECTOR TRIMMER	R289	63-1922	1.8M OHM
C58	22-2729	FM DETECTOR TRIMMER	R290	63-1922	1.8M OHM
C59	22-2729	FM DETECTOR TRIMMER	R291	63-1922	1.8M OHM
C60	22-2729	FM DETECTOR TRIMMER	R292	63-1922	1.8M OHM
C61	22-2729	FM DETECTOR TRIMMER	R293	63-1922	1.8M OHM
C62	22-2729	FM DETECTOR TRIMMER	R294	63-1922	1.8M OHM
C63	22-2729	FM DETECTOR TRIMMER	R295	63-1922	1.8M OHM
C64	22-2729	FM DETECTOR TRIMMER	R296	63-1922	1.8M OHM
C65	22-2729	FM DETECTOR TRIMMER	R297	63-1922	1.8M OHM
C66	22-2729	FM DETECTOR TRIMMER	R298	63-1922	1.8M OHM
C67	22-2729	FM DETECTOR TRIMMER	R299	63-1922	1.8M OHM
C68	22-2729	FM DETECTOR TRIMMER	R300	63-1922	1.8M OHM
C69	22-2729	FM DETECTOR TRIMMER	R301	63-1922	1.8M OHM
C70	22-2729	FM DETECTOR TRIMMER	R302	63-1922	1.8M OHM
C71	22-2729	FM DETECTOR TRIMMER	R303	63-1922	1.8M OHM
C72	22-2729	FM DETECTOR TRIMMER	R304	63-1922	1.8M OHM
C73	22-2729	FM DETECTOR TRIMMER	R305	63-1922	1.8M OHM
C74	22-2729	FM DETECTOR TRIMMER	R306	63-1922	1.8M OHM
C75	22-2729	FM DETECTOR TRIMMER	R307	63-1922	1.8M OHM
C76	22-2729	FM DETECTOR TRIMMER	R308	63-1922	1.8M OHM
C77	22-2729	FM DETECTOR TRIMMER	R309	63-1922	1.8M OHM
C78	22-2729	FM DETECTOR TRIMMER	R310	63-1922	1.8M OHM
C79	22-2729	FM DETECTOR TRIMMER	R311	63-1922	1.8M OHM
C80	22-2729	FM DETECTOR TRIMMER	R312	63-1922	1.8M OHM
C81	22-2729	FM DETECTOR TRIMMER	R313	63-1922	1.8M OHM
C82	22-2729	FM DETECTOR TRIMMER	R314	63-1922	1.8M OHM
C83	22-2729	FM DETECTOR TRIMMER	R315	63-1922	1.8M OHM
C84	22-2729	FM DETECTOR TRIMMER	R316	63-1922	1.8M OHM
C85	22-2729	FM DETECTOR TRIMMER	R317	63-1922	1.8M OHM
C86	22-2729	FM DETECTOR TRIMMER	R318	63-1922	1.8M OHM
C87	22-2729	FM DETECTOR TRIMMER	R319	63-1922	1.8M OHM
C88	22-2729	FM DETECTOR TRIMMER	R320	63-1922	1.8M OHM
C89	22-2729	FM DETECTOR TRIMMER	R321	63-1922	1.8M OHM
C90	22-2729	FM DETECTOR TRIMMER	R322	63-1922	1.8M OHM
C91	22-2729	FM DETECTOR TRIMMER	R323	63-1922	1.8M OHM
C92	22-2729	FM DETECTOR TRIMMER	R324	63-1922	1.8M OHM
C93	22-2729	FM DETECTOR TRIMMER	R325	63-1922	1.8M OHM
C94	22-2729	FM DETECTOR TRIMMER	R326	63-1922	1.8M OHM
C95	22-2729	FM DETECTOR TRIMMER	R327	63-1922	1.8M OHM
C96	22-2729	FM DETECTOR TRIMMER	R328	63-1922	1.8M OHM
C97	22-2729	FM DETECTOR TRIMMER	R329	63-1922	1.8M OHM
C98	22-2729	FM DETECTOR TRIMMER	R330	63-1922	1.8M OHM
C99	22-2729	FM DETECTOR TRIMMER	R331	63-1922	1.8M OHM
C100	22-2729	FM DETECTOR TRIMMER	R332	63-1922	1.8M OHM

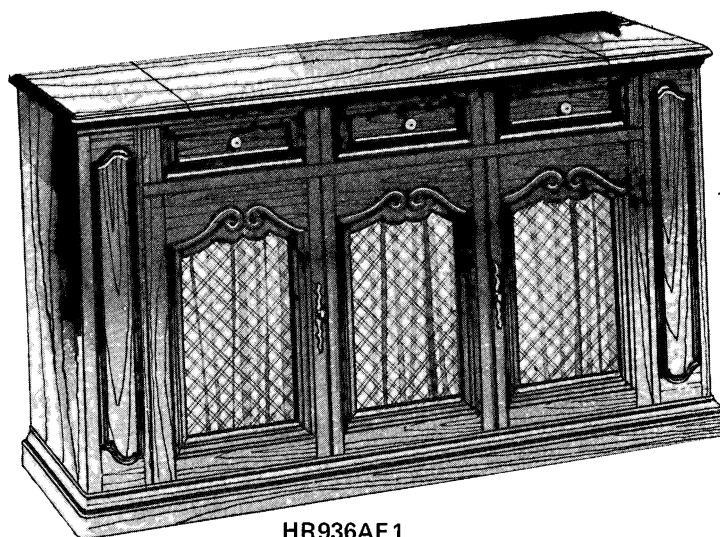
CHASSIS 35WFR50 - CHASSIS WIRING AND COMPONENTS
VIEWED FROM FOIL SIDE



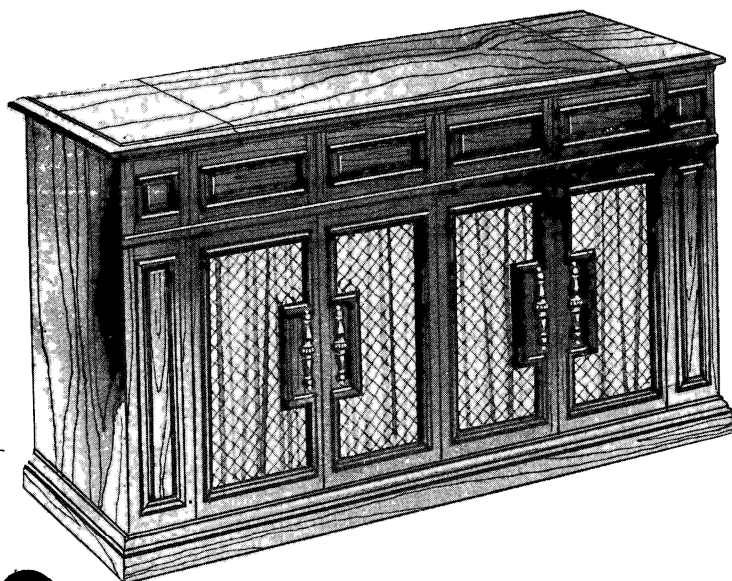
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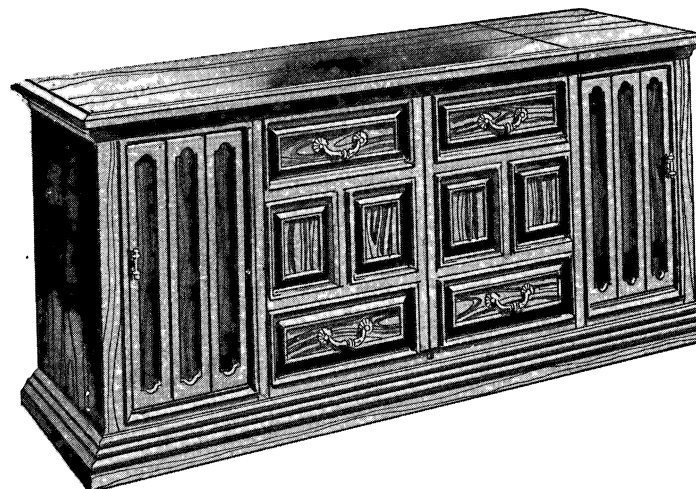
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