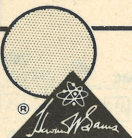
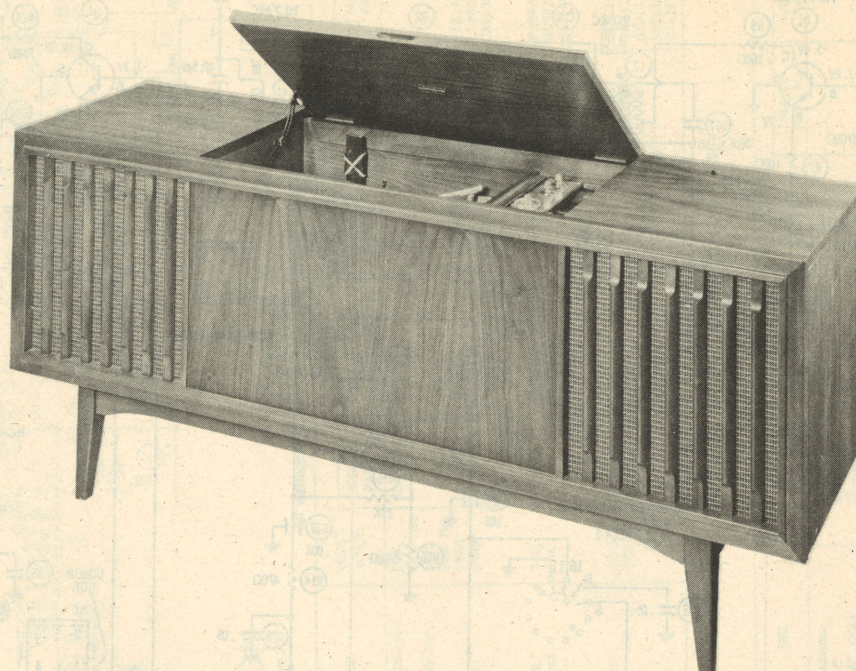


## PHOTOFACT® Folder

ZENITH  
CHASSIS 18XT20, 18XT20ZZENITH  
CHASSIS 18XT20, 18XT20Z

TRADE NAME: Zenith Models X920W, X922H/R, X924M, X926W (Chassis 18XT20/Z)

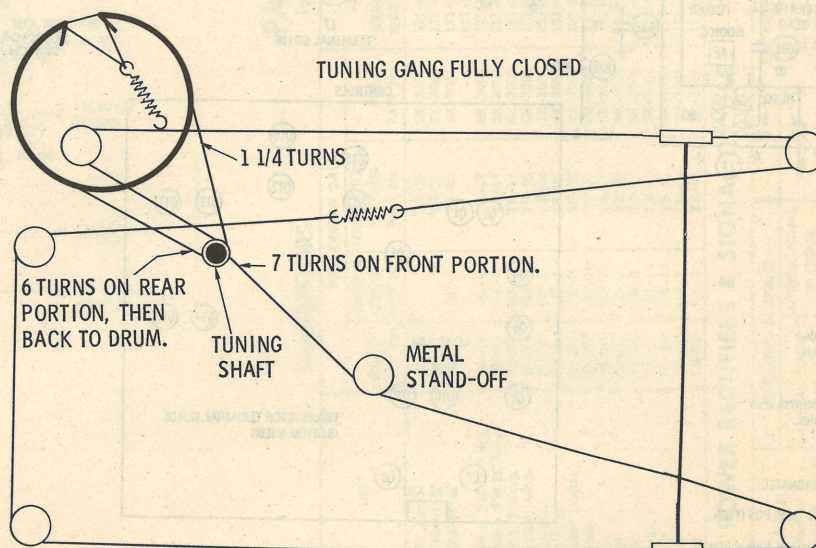
SUPPLIER: For Current Address, See Annual Index

TYPE SET: 18-Transistor AM-FM-FM Stereo Receiver w/4-Speed Automatic Record Changer

POWER SUPPLY: 110-120 Volts AC, 60 Cycles      RATING: 9 Watts, .09 Amp. @ 117Volts AC

FOR SERVICE INFORMATION ON RECORD CHANGER, MODEL 169-290 — SEE SIMILAR CHANGER — PHOTOFACT SET 797, FOLDER 7

## DIAL CORD STRINGING



HOWARD W. SAMS &amp; CO., INC. Indianapolis, Indiana 46206



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. SN122

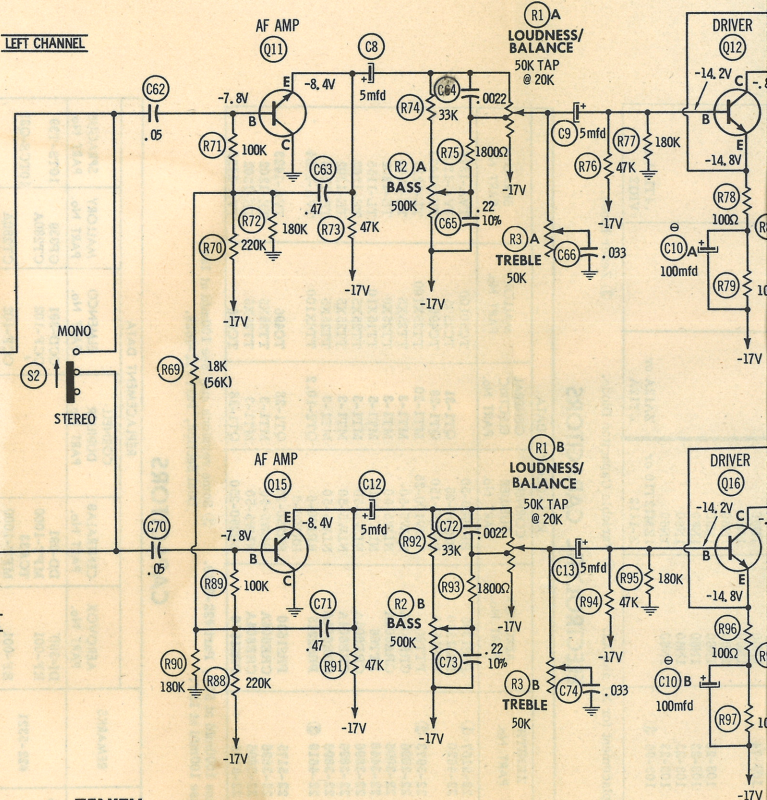
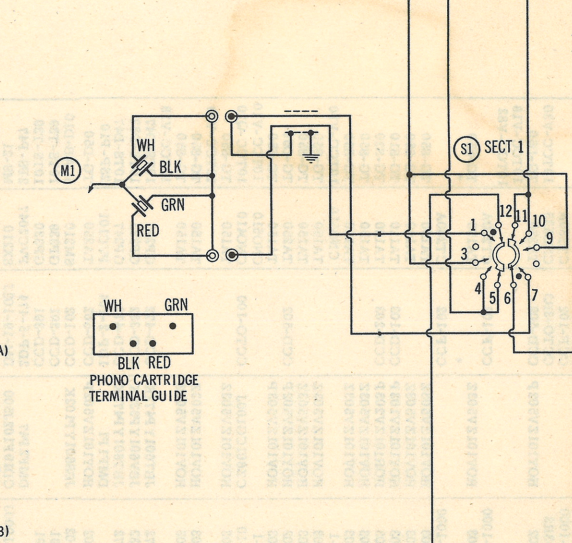
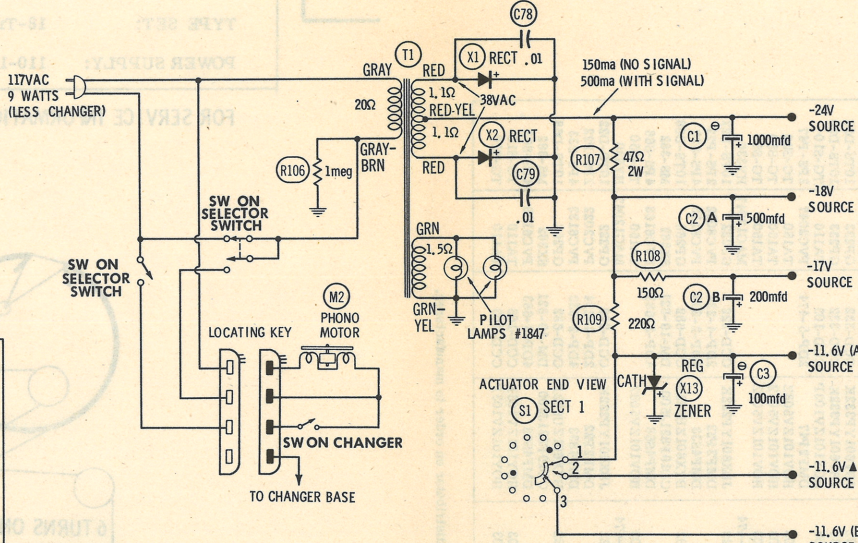
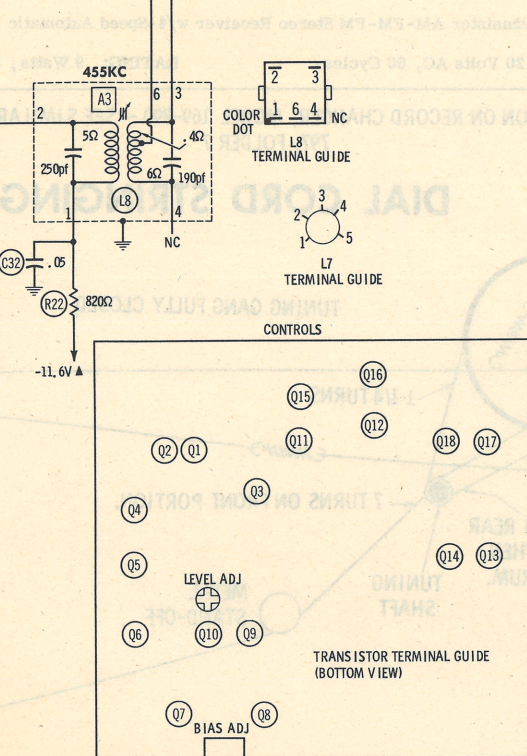
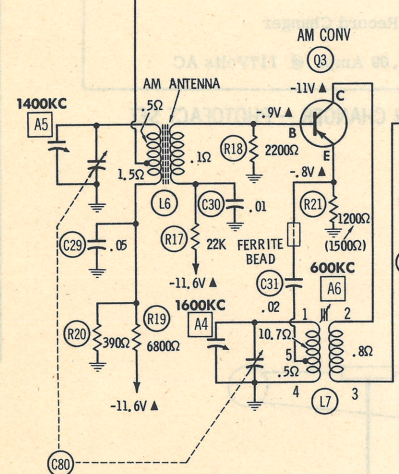
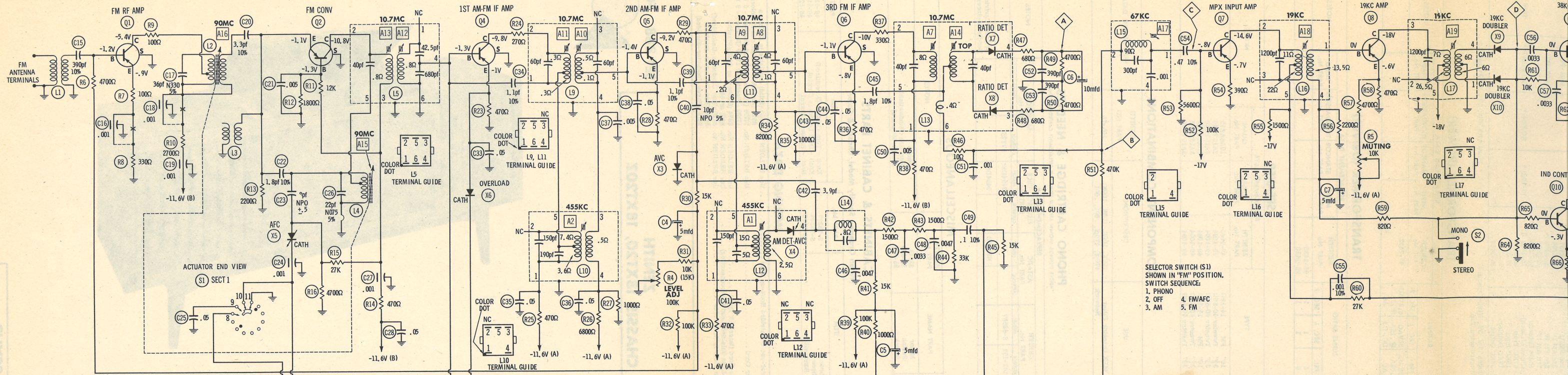
Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1967 Howard W. Sams & Co., Inc., Indianapolis, Indiana 46206. Printed in U. S. of America

DATE 6 -67

SET 888 FOLDER 9

ZENITH  
CHASSIS 18XT20, 18XT20Z





Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

Switches viewed from end opposite control knob or actuator unless otherwise indicated.

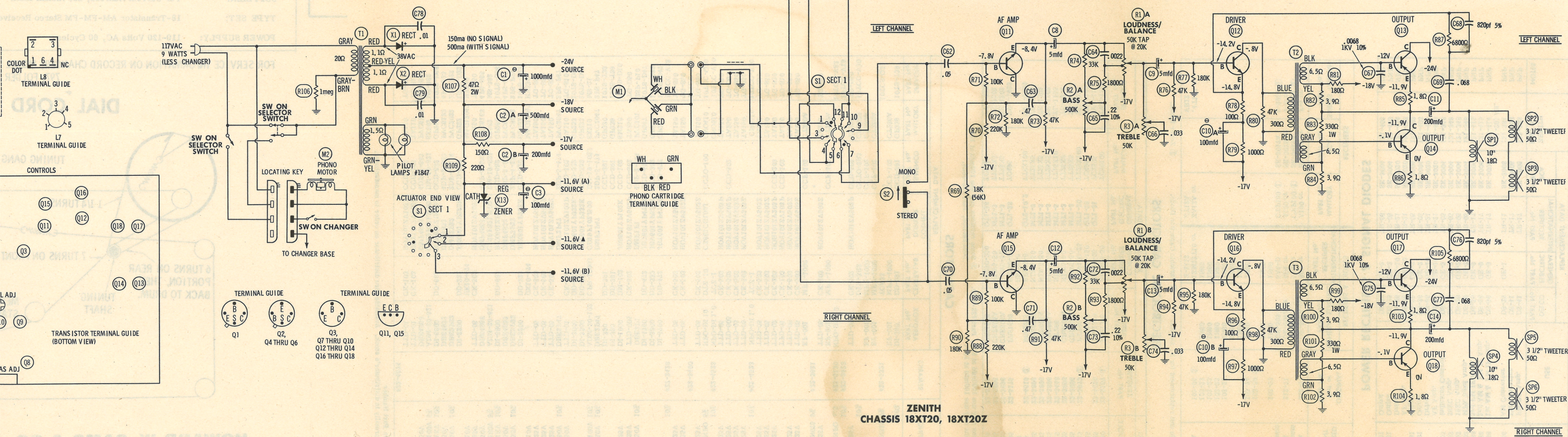
ALL VOLTAGES MEASURED IN "FM" POSITION UNLESS OTHERWISE DESIGNATED.

- ▲ VOLTAGE MEASUREMENTS TAKEN IN "AM" POSITION.  
 ● See parts list.  
 1. Voltage measurements taken with vacuum tube voltmeter.  
 2. All controls set for normal operation, no signal applied.  
 3. Measured values are from socket pin or terminal to common ground.  
 4. All terminals viewed from bottom unless otherwise designated.  
 5. Numbers assigned to terminals may not be found on the unit.  
 6. Supply voltage maintained at rated value for voltage readings.  
 7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
 © Howard W. Sams & Co., Inc. 1967

ZENITH  
 CHASSIS 18XT20, 18XT20Z







(When ordering parts, state Model, Part Number, and Description.)

(When ordering parts, state Model, Part Number, and Description.)

## TRANSISTORS

## TRANSISTORS

All wattages 1/2 watt. or less, unless otherwise listed.

All wattages 1/2 watt. or less, unless otherwise listed.

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				ZENTH PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERMEDIATE RECIFIER	PCA PART No.		
Q1	2N3399	FM RF Amp.	DS-41		TR-17	SK-3006	121-383	PNP
Q2	DS-41	FM Converter	DS-41		TR-17	SK-3006	121-428	PNP
Q3	2N1526	AM Converter	DS-25	GE-1	TR-11	SK-3008	121-381	PNP
Q4	2N3588	1st AM & FM IF Amp.	DS-56	GE-9	TR-17	SK-3006	121-414	PNP
Q5	2N3588	2nd AM & FM IF Amp.	DS-56	GE-9	TR-17	SK-3006	121-415	PNP
Q6	2N3588	3rd FM IF Amp.	DS-56	GE-9	TR-17	SK-3006	121-445	PNP
Q7	2N1303	MPX Input Amp.	DS-26	GE-2	TR-05	SK-3004	121-348	PNP
Q8	2N1303	19KC Amp.	DS-26	GE-2	TR-05	SK-3004	121-348	PNP
Q9	2N1303	38KC Amp.	DS-26	GE-2	TR-05	SK-3004	121-348	PNP
Q10	2N1303	Indicator Control	DS-26	GE-2	TR-05	SK-3004	121-348	PNP
Q11		AF Amp.	DS-46	GE-10	TR-21	SK-3020	121-433	NPN
Q12		Driver	DS-46	GE-10	TR-21	SK-3020	121-433	NPN
Q13	2N4451	Output	DS-26	GE-2	TR-05	SK-3000	121-403	PNP
Q14	2N4451	Output	DS-26	GE-2	TR-05	SK-3000	121-403	PNP
Q15	2N4451	AF Amp.	DS-46	GE-10	TR-21	SK-3020	121-433	NPN
Q16	2N4451	Driver	DS-46	GE-10	TR-21	SK-3020	121-433	NPN
Q17	2N2431	Output	DS-26	GE-2	TR-05	SK-3004	121-403	PNP
Q18	2N2431	Output	DS-26	GE-2	TR-05	SK-3004	121-403	PNP

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS		SARKES TARZIAN PART No.
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLOY PART No.	RCA PART No.	
X1	.250A Maximum	212-71	GE-504A or GE-505	9D4	A100 or CTP200 ①	SK-3016 or SK-3017A	F-4 or S-5981 ①
X2	.250A Maximum	212-71	GE-504A or GE-505	9D4 or 54A-D	A100 or CTP100 ①	SK-3016 or SK-3017A	F-4 or S-5981 ①
X3		103-23	1N60	1N60			
X4		103-38 ②	1N60	1N60			
X5		103-39	1N60	1N60			
X6		103-74	1N60	1N60			
X7			1N60	1N60			
X8			1N60	1N60			
X9		103-23	1N60	1N60			
X10		103-23	1N60	1N60			
X11		103-23	1N60	1N60			
X12		103-23	1N60	1N60			
X13	.020A	103-96 ③		1ZM12T10 or Z-1112	ZA12A or ZT12A		.4T12A or VR12

① A single unit replacement for X1 and X2.

### Variable Capacitor Diode.

③ Zener Diode.

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		ZENITH PART No.	AEROVOX PART No.	REPLACEMENT DATA		MALLORY PART No.	SPRAGUE PART No.
	CAP.	VOLT.			CORNEILL-DUBILIER PART No.	GENERAL ELECTRIC PART No.		
C1	1000	30	22-5167 ①	PRS1395	BR1000-50	QTL-31	TC50100	TVA-1316
C2	500	25	22-4620	PRS1390	BR2000-25	QTL-28	TC5005	TVA-1209
C3	1000	25	22-3973	PRS1530	BR2000-150	QTL-28	TC9496	TVA-1423
C4	5	25	22-3897 ②	PT188	NLM100-25	MT1-3	TC795X100	TTA-1211
C5	100	25	22-3896	CRE60A	NLM5-50	MT1-3	TC795X5	TTA-1202
C6	5	25	22-3896	CRE60A	NLM5-50	MT1-3	TC795X5	TTA-1202
C7	100	15	22-3448	PT166	NLM10-15	MT1-5	TT15X10	TTA-1155
C8	5	25	22-3896	CRE60A	NLM5-50	MT1-3	TC795X5	TTA-1202
C9	5	25	22-3896	CRE60A	NLM5-50	MT1-3	TC795X5	TTA-1202
C10	1000	6	22-4613 ③	PRS2245	BR1000-6	Q72-10,2	TC795X100	TVA-2464
C11	200	25	22-5175	PRS1530	BR250-25	MT1-28	TC9496	TVA-1423
C12	5	25	22-3896	CRE60A	NLM5-50	MT1-3	TC795X5	TTA-1202
C13	5	25	22-3896	CRE60A	NLM5-50	MT1-3	TC795X5	TTA-1202
C14	200	25	22-5175	PRS1530	BR250-250	MT1-28	TC9496	TVA-1423

① Some versions may use 1000mfd at 50V, Part #22-3879.  
 ② Some versions may use 100mfd at 15V.  
 ③ Dual Section, Part #22-4628.

Some versions may use 100mfd at 15V,  
Dual Section, Part #22-4628.

## CAPACITORS

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	EIEMCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C15	300	10%	DI-380	MFT-1000	HOY101ZV503Z	CCF-381	GP339	107S-T39
C16	30	N330 5%	EF-001	MFT-1000	HOY101ZV503Z	CCF-102	CT280A	107CS-Q33
C17	30	N330 5%	DI-380	MFT-1000	HOY101ZV503Z	CCF-102	CT280A	107CC-V30
C18	30	N330 5%	EF-001	MFT-1000	HOY101ZV503Z	CCF-102	CT280A	107CC-V18
C19	001	10%	EF-001	MFT-1000	HOY101ZV503Z	CCF-102	CT280A	107CC-V82
C20	3.3	10%	TTD-005	CK-502	HOY101ZV502P	CCD-502	TA250	107CC-V82
C21	2.2	10%	NPO-DI 8.2	MFT-1000	HOY101ZV503Z	CCF-102	CT280A	TC-S80
C22	1.8	NPO ±.5	TTD-06	CK-503	HOY101ZV503Z	*	TA150	*
C23	8	NPO	EF-001	CK-503	HOY101ZV503Z	*	CT280A	TC-S80
C24	0.01	25V	TTD-06	MFT-1000	HOY101ZV503Z	CCF-102	TA150	TC-S80
C25	0.01	25V	TTD-06	CK-503	HOY101ZV503Z	CCF-102	TA150	TC-S80
C26	0.01	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-103	TA150	TC-S80
C27	0.01	N075 5%	EF-001	MFT-1000	HOY101ZV503Z	CCF-102	TA150	TC-S80
C28	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-103	TA150	TC-S80
C29	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-103	TA150	TC-S80
C30	0.1	25V	TTD-02	CK-103	HOY101ZV103P	CCD-103	TA150	TC-S80
C31	0.2	25V	TTD-02	CK-103	HOY101ZV203P	CCD-103	TA150	TC-S80
C32	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C33	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C34	1.1	10%	NPO-DI 1.0	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C35	0.1	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C36	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C37	0.05	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C38	0.5	25V	TTD-06	CK-503	HOY101ZV503P	CCD-502	TA150	TC-S80
C39	1.1	10%	NPO-DI 1.0	CK-503	HOY101ZV503P	CCD-502	TA150	TC-S80
C40	10	NPO 5%	NPO-DI 10	CK-503	C2601CG100J	CCCTO-100	CNO410	107CC-V10
C41	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	107CC-V10
C42	3.9	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	107CC-V39
C43	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	107CC-V39
C44	1.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	107CC-V18
C45	0.2	10%	DI-4700	DD-472	JBX601YVW2K	CCD-472	GP243	107CS-D47
C46	0.047	10%	DI-3300	DD-332	JBX601YVW2K	CCD-332	GP243	107CS-D47
C47	0.033	10%	DI-4700	DD-472	DMF1 P1	1D-2-104	PCV101	28P-P10
C48	0.047	10%	DEB2P1	DD-472	DMF1 P1	1D-2-104	PCV101	28P-P10
C49	1	50V 10%	DEB2P1	DD-472	DMF1 P1	1D-2-104	PCV101	28P-P10
C50	0.05	25V	TTD-4000	CK-502	HOY101ZV502P	CCD-502	TA250	TC-D50
C51	0.01	25V	TTD-4000	CK-502	HOY101ZV502P	CCD-502	TA250	TC-D50
C52	390	25V	DI-380	DD-381	JBX601YV102K	CCD-381	GP330	107S-T39
C53	390	25V	DI-380	DD-381	JBX601YV102K	CCD-381	GP330	107S-T39
C54	47	50V 10%	DEB2P47	CK-503	DMF2 P47	2D-5-474	PCV2047	28P-P47
C55	47	100V 10%	ADM-20-102	CK-503	DMF2 P47	2D-5-474	PCV2047	28P-P47
C56	0.033	10%	DI-3300	DD-332	JBX601YV102K	CCD-332	GP243	107S-D33
C57	0.033	10%	DI-3300	DD-332	JBX601YV102K	CCD-332	GP243	107S-D33
C58	0.033	10%	TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TC-S10
C59	47	50V 10%	DEB2P47	CK-503	DMF2 P47	2D-5-474	PCV2047	28P-P47
C60	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C61	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C62	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C63	47	10V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C64	0.022	50V 10%	DI-2500	DD-222	JBX301YV222K	CCD-222	PCV222	28P-222
C65	0.22	50V 10%	DEB2P22	CK-503	DMF2 P22	2D-2-224	PCV3022	28P-222
C66	0.038	10%	DI-3300	DD-332	JBX601YV102K	CCD-332	GP243	107S-D33
C67	0.038	10%	DI-3300	DD-332	JBX601YV102K	CCD-332	GP243	107S-D33
C68	820	100V 5%	ADM-20-821	CK-503	DMF2 P500	DM-19-821	PCV820	28P-820
C69	0.68	50V 10%	DEB4S68	CK-503	DMF4 S68	4D-3-683	PCV168	4P-3-683
C70	0.5	25V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C71	47	10V	TTD-06	CK-503	HOY101ZV503Z	CCD-502	TA150	TC-S80
C72	0.022	50V 10%	DI-2500	DD-222	JBX301YV222K	CCD-222	PCV222	28P-222
C73	0.22	50V 10%	DEB2P22	CK-503	DMF2 P22	2D-2-224	PCV2022	28P-222
C74	0.033	50V 10%	DI-3300	DD-332	JBX601ZV103P	CCD-332	GP243	107S-D33
C75	0.033	10V 10%	DI-3300	DD-332	JBX601ZV103P	CCD-332	GP243	107S-D33
C76	0.68	10V 10%	DEB4S68	CK-503	DMF4 S68	4D-3-683	PCV168	4P-3-683
C77	0.68	50V 10%	DEB4S68	CK-503	DMF4 S68	4D-3-683	PCV168	4P-3-683
C78	0.1	25V	TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TC-S10
C79	0.1	25V	TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TC-S10
C80	0.1	25V	TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TC-S10

# Zeith Part Number

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				MALLORY PART No.
			ZENITH PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R1A B	Leadness/Balance (Left)	50K 50K 20K Tap	63-4854				
R2A B	Leadness/Balance Bass/Left Bass/Right	500K 500K 500K	63-4855	F2-500K, R2-500K, SF100, CPL-2	B13-133, B13-133, SK1, QCM or (BU1, UP-B-400, DC-2	FB55A, RU55A, CS3500	
R3A B	Treble/Left Treble/Right	50K 50K	63-4853	F2-50K, R2-50K, SF100, CPL-2	SS7A, DC1) * R13-123, SK1, QCM or (BU1, CF12, CR7, SS6, SS7A, DC1) *	FB44A, RU44A, CS9500	
R4 E5	Level Adjust Muting	100K 10K	63-4495 63-5192	TT-14 or (F1-40K, SNK010)	U20R10MB B11-116, TM4 or (BU11, CF9, SS6) *	MTCH151A TU1414 or (RU14L, SL37, SN281) or (U414L, SN281)	

\* "SNAPTROL"

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				
		ZENITH PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	WORKMAN PART No.
L1	FM Antenna	S-71997				
L2	FM RF	S-68976				
L3	10,7MC Trap	20-1256				
L4	FM Oscillator	S-62387				
L5	1st FM IF	95-2236				
L6	Loopstick	S-73253				
L7	AM Oscillator	S-66580				
L8	1st AM IF	95-2233	14-1060 #	BC-387	70-08C	TS02
L9	2nd FM IF	95-2437			1602-PC	
L10	2nd AM IF	95-2234			1603-PC	
L11	3rd FM IF	95-2438				
L12	3rd AM IF	95-2235				
L13	Pre-Audio	95-2324				
L14	Choke (3.35uh)	20-1422 ①				
L15	67KC Trap	95-2316				
L16	19KC Input	95-2315				
L17	19KC Doubler	95-2313				
L18	38KC Output	95-2439				
			19-1003 *	BC-564 *	74F336AP *	T816 *

\* Shunt with 75 pf. 5%. N150 Capacitor.

① Includes 75nf, 5%, N150 Capacitor.

① Includes 75pf, 5%, N  
Disregard extra Tap.  
#

## TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	ZENITH PART No.	MERIT PART No.	STANDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .09A AC	38VAC @ .15A DC, CT	6.3VAC @ .3A AC	95-2432				

**TRANSFORMER (DRIVER)**

ITEM No.	TURNS RATIO			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T2	6	1	1					
T3	6	1	1	95-2430				
T4	6	1	1	95-2430				

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		ZENITH PART No.	JENSEN PART No.	QUAM PART No.	
SPI	10" PM 14-18Q	49-1084		10A8AZ15	
SF2	3 3/4" Tweeter 40-50Q	49-1084		3A15T240	
SF3	3 3/4" Tweeter 40-50Q	49-1084		3A15T240	
SF4	3 3/4" PM 14-18Q	49-1084		10A8AZ15	
SF5	3 3/4" Tweeter 40-50Q	49-1084		3A15T240	
SF6	3 3/4" Tweeter 40-50Q	49-1084		3A15T240	

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	ZENITH PART NO.	REPLACEMENT DATA
PC1	MPX Detector Filter Network	100K, 100K, 100K, 100K, 470uf, 470uf, .001, .001	105-78	

## PHONO CARTRIDGE & NEEDLES

\*NEEDLE LISTINGS SHOWN ARE FOR RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

ITEM No.	ZENITH		ASTATIC		ELECTRO-VOICE		SONOTONE PART No.	NOTES
	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*		
M1	149-151	S-68567				3454DS*	1972S	
							3454DS	Original Cartridge Needle Replacement

## MISCELLANEOUS

ITEM No.	PART NAME	ZENITH PART No.	NOTES
M2	Motor	35447	Phono
S1	Switch	88-919	Function (Bandswitch)
S2	Switch	88-992	Stereo-Monaural

## CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis &amp; Color)

ITEM	PART No.	ITEM	PART No.
Escutcheon	S-73277	Knob - Tone Control (2 required)	46-5171
Escutcheon	S-73304	Knob - Dual Loudness Control	46-5172
Knob - Bandswitch	46-5170	Knob - Balance Control	46-5218

## WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord	Use BELDEN No. 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use BELDEN No. 17008 (Plastic) or 17126 (Rubber) - 6 Ft. or 17109 (Plastic) or 17129 (Rubber) - 9 Ft.
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)
Phone Pick-up Arm Cable	Use BELDEN No. 8401 or 8421
	Use BELDEN No. 8429 (Two Conductor-Unshielded)
	8439 (Three Conductor-Shielded)
	8419 (Two Conductor-Shielded)



ALIGNMENT INSTRUCTIONS

Maintain line voltage at 117 volts. Use only enough generator output to obtain a suitable indication. Allow a 15 minute warmup for receiver and equipment.  
CAUTION: Use isolation transformer, if available. If not, observe polarity when connecting test equipment.  
Suggested Alignment Tools:  
A1 thru A3, A6 thru A13, A16 thru A19 .. GENERAL CEMENT #8606, 8606L, 8869 .. WALSCO #2543, 2544, 2588  
A4, A5 ..... GENERAL CEMENT #8868, 8987, 9089 .... WALSCO #2531-X, 2541, 2587

AM ALIGNMENT — SELECTOR IN AM POSITION

Fashion loop of several turns of wire and connect generator across loop. Set volume control at maximum.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC (400% Mod.)	Tuning gang fully open.	Output Meter across Voice coil.	A1, A2, A3	Adjust for maximum. Repeat until no further improvement can be made.
2. 1600KC	"	"	A4	Adjust for maximum.
3. 1400KC	Tune to signal.	"	A5	"
4. 600KC	"	"	A6	Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made.

FM ALIGNMENT USING AM SIGNAL GENERATOR — SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point $\Delta$ ; common to ground.	A7, A8, A9, A10, A11, A12, A13	Adjust for maximum.
6. "	"	DC probe to point $\Delta$ ; common to ground.	A14	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR — SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead. Use only enough marker signal to obtain indication. Use 60% frequency modulated signal with 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (450KC Swp.)	Point of non-interference	Vert. amp. of Scope to point $\Delta$ ; low side to ground.	A7, A8, A9, A10, A11, A12, A13	Disconnect stabilizing capacitor C6. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C6.
6. "	"	Vert. amp. to point $\Delta$ ; low side to ground.	A14	Adjust A14 (Secondary) to place marker at center of crossover lines similar to Fig. 2. Adjust A7 (Primary) for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.

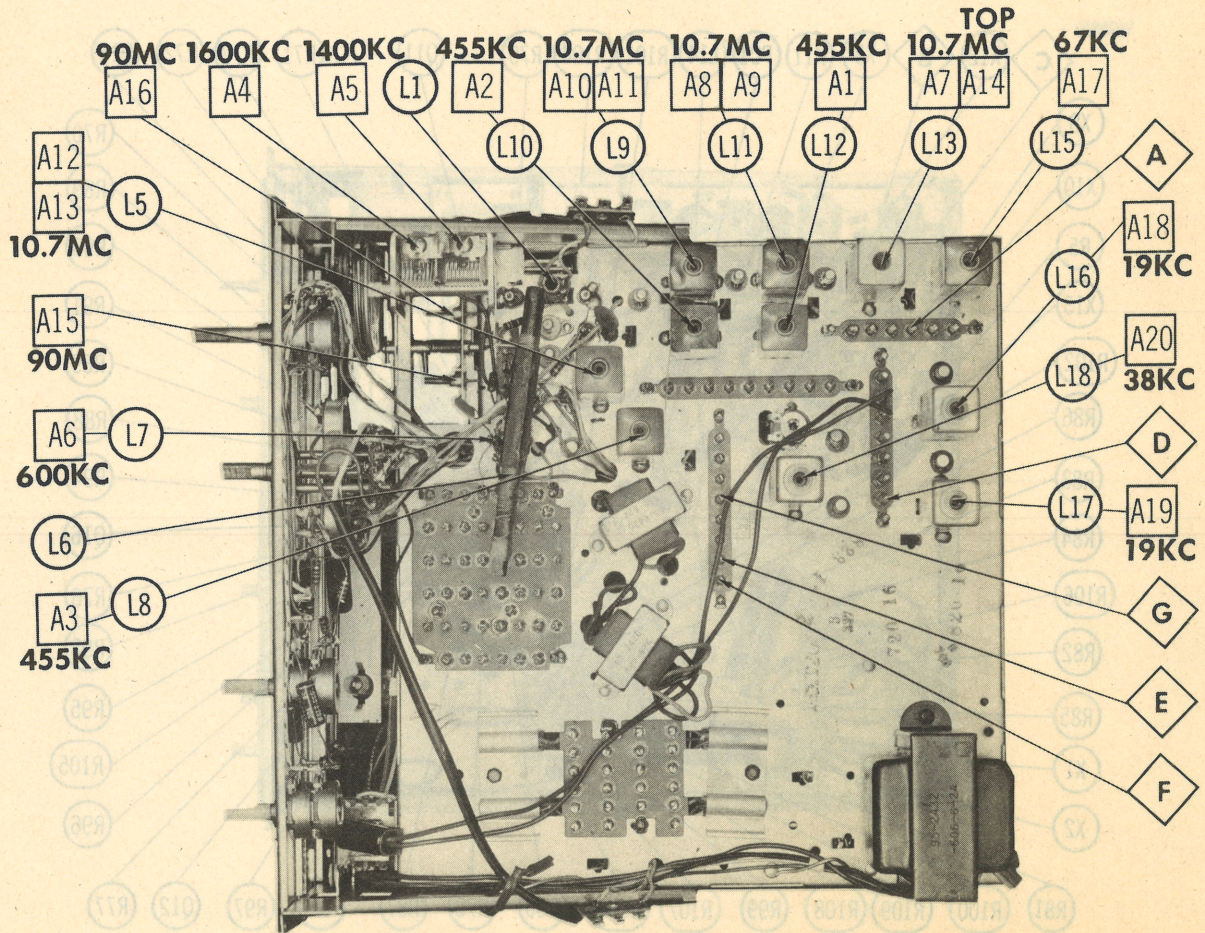
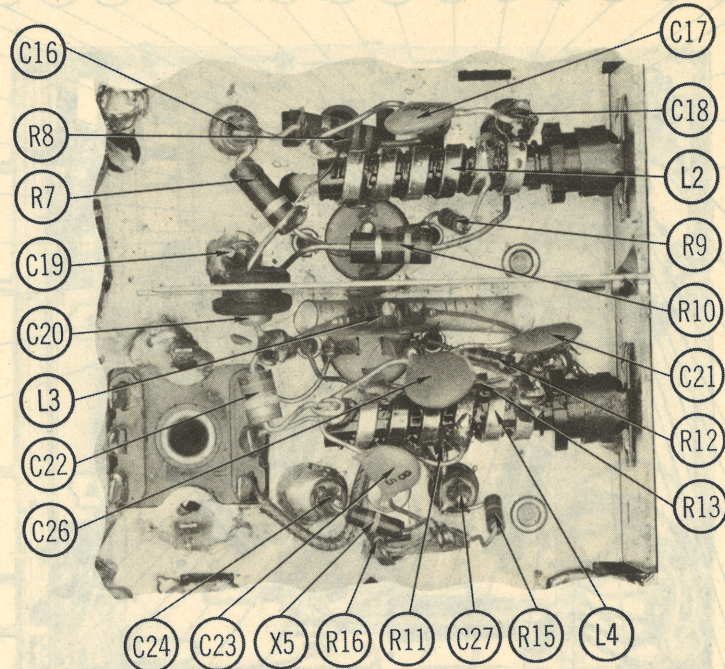
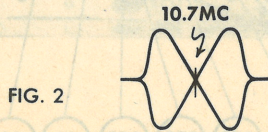
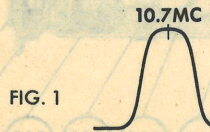
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. 90MC	Tune to signal.	DC probe of VTVM to point $\Delta$ ; common to ground.	A15, A16	Rock tuning and adjust for maximum.

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (± .0001% ACCURACY)

Connect high side of generator to Point  $\Delta$ , low side to ground.

GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
8. 67KC	Vert. amp. of Scope thru a 1 meg to point $\Delta$ ; low side to ground.	A17	Adjust for MINIMUM.
9. 19KC	Vert. amp. thru 47K to point $\Delta$ ; low side to ground.	A18, A19	Adjust for maximum.
10. "	Vert. amp. thru 47K to point $\Delta$ ; low side to ground.	A20	Adjust maximum for 38KC response.
11. Modulated Left Channel	Vert. amp. to point $\Delta$ ; low side to ground.	A18, A19, A20	Adjust for MINIMUM. This should require only a slight adjustment.
12. Modulated Right Channel	Vert. amp. to point $\Delta$ ; low side to ground.		Check for MINIMUM. Make compromise adjustments of A18, A19, and A20 if necessary.

To align multiplex section using an air signal, first make sure FM section is properly aligned. Tune in a strong FM stereo signal. Follow steps 8 thru 12 above except in step 8, adjust to eliminate whistle or interference.



ZENITH  
CHASSIS 18XT20, 18XG20Z

FOLDER 9



