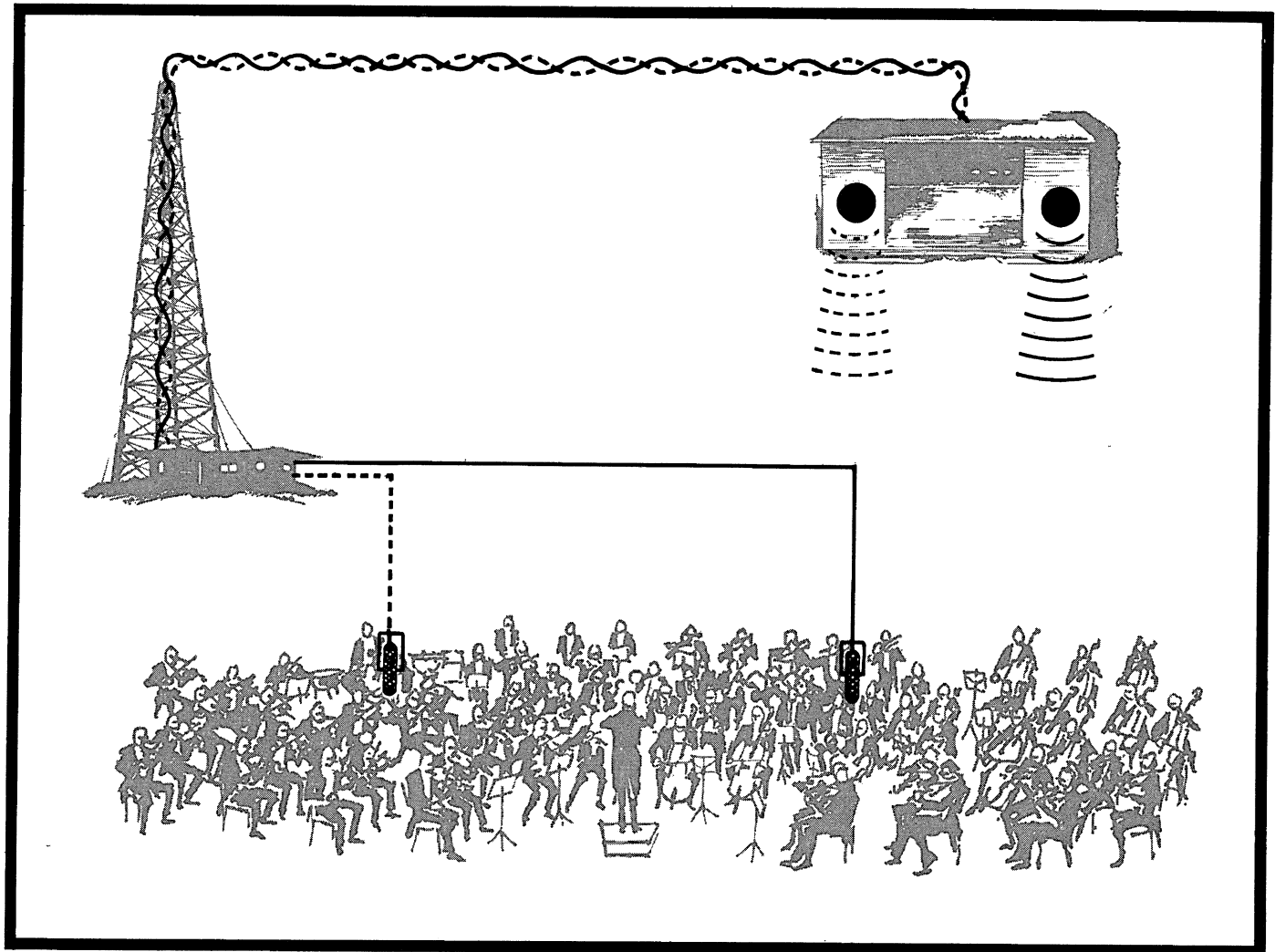




SERVICE MANUAL



HIGH FIDELITY AND STEREO FM MODELS

ZENITH RADIO CORPORATION

1900 N. AUSTIN AVENUE

CHICAGO, ILLINOIS 60639

PRICE \$1.50

HF 16 SUPPLEMENT No.2

PART NO. 923-515

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*DENOTES MODELS COVERED IN THIS SUPPLEMENT

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FEATURES OF HIGH FIDELITY & STEREO FM MODELS

MODEL NO.	CABINET				CHASSIS		EIA POWER OUTPUT
	STYLE	MATERIAL	FINISH	COLOR	MODEL	TYPE	
GA50-4J	Table Speaker Table (w/handle) (Hinged spkr. Enclosures)	Plastic Fibrit	Plastic Textured Vinyl	Dark Brown	—	—	—
GA50-8L				Beige	6ZT21	6 Transistor Phono Only	2W
GA50-10P	Consolee (Lift Lid)	Wood w/plastic Front	Wood	Pecan	18YT20Z	FM-AM Phono	8W
GA50-10W	Console (Lift Lid)	Wood w/plastic Front	Wood	Walnut	18YT20Z	FM-AM Phono	8W
GA50-12W	Console (Lift Lid)	Wood	Wood	Walnut	18YT20Z	FM-AM Phono	8W
Y504B	Table (w/handle) (Lift Lid)	Plastic	Textured	Blue & White	1Y20Z	1 Tube Phono Only	— —
Y504D	Table (w/handle) (Lift Lid)	Plastic	Textured	Red & White	1Y20Z	1 Tube Phono Only	— —
Y504P	Table (w/handle) (Lift Lid)	Plastic	Textured	Yellow & White	1Y20Z	1 Tube Phono Only	— —
Y504V	Table (w/handle) (Lift Lid)	Plastic	Textured	Red & White	1Y20Z	1 Tube Phono Only	— —
Z508B	Table (w/handle)	Plastic	Textured	Blue & White	2ZT24	2 Transistor Phono only	1W
Z508L	Table (w/handle)	Plastic	Textured	Beige & White	2ZT24	2 Transistor Phono only	1W
Z508P	Table (w/handle)	Plastic	Textured	Yellow & White	2ZT24	2 Transistor Phono only	1W
Z522J	Table (w/handle)	Plastic	Textured	Brown & White	2ZT21 2ZT22	4 Transistor AM-Phono	1W
Z522L	Table (w/handle)	Plastic	Textured	Beige & Dark Brown	2ZT21 2ZT22	4 Transistor AM-Phono	1W
Z540J	Table (w/handle) (One Detachable Speaker)	Hardboard and Flakeboard	Vinyl	Dk. Olive	8YT21	8 Transistor Phono Only	2W
Z540G	Table (w/handle) (One Detachable Speaker)	Hardboard and Flakeboard	Vinyl	Light Grey	8YT21	8 Transistor Phono only	2W
X560W-1	Table (w/handle)	Wood	Vinyl Coated	Walnut	W.C.	10 Transistor Phono Only	16W

NOTES:

1. All models using VM style record changers are equipped with 45 RPM record adapter.
2. All record changers are 4 speed automatic and use 2 pole motors.
3. Remote speakers can be used with adapter kit #S-74539.
4. *Stylus 56-558 is used with cartridge 142-149 and stylus 56-566 is used with cartridge 142-165.

FEATURES OF HIGH FIDELITY & STEREO FM MODELS

SPEAKER			RECORD CHANGER				RECORD STORAGE	REMOTE SPEAKER
PART NO.	VOICE COIL IMPEDANCE (IN OHMS)	SIZE (IN INCHES)	TYPE	MOUNTING	CARTRIDGE	STYLUS		
49-1140 49-1084	3.2	2-6½"	169-341	Hinged Panel	142-163	Diamond Sapphire S-68567	None	None
49-1064 49-1094	16 45	2-10" 2-3½"	169-331	Shelf	142-163	Diamond Sapphire S-68567	Yes	Note 3
49-1064 49-1094	16 45	2-10" 2-3½"	169-331	Shelf	142-163	Diamond Sapphire S-68567	Yes	Note 3
49-1064 49-1094	16 45	2-10" 4-3½"	169-331	Shelf	142-163	Diamond Sapphire S-68567	Yes	Note 3
49-1096	3.2	4	Manual Player	Shelf	142-161	Sapphire 56-480	None	None
49-1096	3.2	4	Manual Player	Shelf	142-161	Sapphire 56-480	None	None
49-1096	3.2	4	Manual Player	Shelf	142-161	Sapphire 56-480	None	None
49-1096	3.2	4	Manual Player	Shelf	142-161	Sapphire 56-480	None	None
49-1039	3.2	1-4"	169-347	Hinged Panel	142-149 or 142-165*	Dual Sapphire 56-558 or *56-566	None	None
49-1039	3.2	1-4"	169-347	Hinged Panel	142-149 or 142-165*	Dual Sapphire 56-558 or *56-566	None	None
49-1039	3.2	1-4"	169-347	Hinged Panel	142-149 or 142-165*	Dual Sapphire 56-558 or *56-566	None	None
49-1096	3.2	1-4"	169-346	Hinged Panel	142-149 or 142-165*	Dual Sapphire 56-558 or *56-566	None	None
49-1096	3.2	1-4"	169-346	Hinged Panel	142-149 or 142-165*	Dual Sapphire 56-558 or *56-566	None	None
49-1147	22	2-4"	169-275 or 169-350	Hinged Panel	142-148	Dual Sapphire 56-528	None	None
49-1147	22	2-4"	169-288	Hinged Panel	142-148	Dual Sapphire 56-528	None	None
964-18016 964-49189 964-16237	8 6.4 34	2-8" 2-4" 2-3½"	169-345	Hinged Panel	142-163	Diamond Sapphire S-68567	None	None

169-275 (VM) Brown and Ivory.
 169-288 (VM) Charcoal Grey and White
 169-331 (VM) Brilliant Aluminum and Black
 169-341 (VM) Brown, Beige and Gold
 169-343 (VM) Grey and White
 169-344 (VM) Black and Grey
 169-345 (VM) Brown, Beige and Gold
 169-346 (BSR) Beige and Dark Brown
 169-347 (BSR) White and Charcoal
 169-350 (VM) White and Dark Brown

GENERAL INFORMATION

MULTIPLEX THEORY

For all theory regarding the operation of the multiplex circuits, refer to service manuals HF-14 and HF-14 Supplement.

EXTENSION SPEAKER SYSTEMS

It is recommended that only Zenith extension speakers be used in conjunction with Zenith receivers. Should it be desired to use extension speakers with Models GA50-10 and GA50-12 you may do so with an Adapter Kit, Zenith part # S-74539 which is available from your Zenith Distributor.

MUTING CONTROL

The muting control is factory adjusted, and should not require readjustment. However, if the receiver is operated in an extremely noisy area, there is a possibility that there may be noise bursts of sufficient magnitude to overcome this mute voltage ... when this occurs, the Stereophonic FM Indicator will light up. To further cut off the 19KC amplifier, carefully rotate the muting control to cut off the light. This should only be done when a stereo signal is on the air since the mute control must only be advanced to a point where the Stereo Indicator does not light up on noise, but it should not be advanced to a point where the desired stereo signal is cut off.

MULTIPLEX ALIGNMENT

These receivers have been properly aligned at the factory and will not require further adjustment. As a result, it is not recommended that any attempt be made to alter the multiplex stages. However, should any major components in these circuits require replacement or should anyone tamper with the multiplex adjustments then, of course, realignment will be necessary.

Zenith has designed and manufactured an SPTE-1 Multiplex Generator that can be used to properly align the multiplex portion of these receivers. The multiplex alignment procedure is included in later pages of this manual. The SPTE-1 Multiplex Generator is available at your Zenith Distributor.

ANTENNAS FOR STEREO FM

Due to the characteristics of the stereo FM system, it will require more signal for proper performance than does monaural FM. As a result, it may be necessary to operate the stereo FM receiver with an external antenna. The necessity for an external antenna will be determined by the signal conditions at each individual installation.

EXTERNAL FM ANTENNA

If the receiver is operated in an area of either low signal strength, high noise, or where multipath (FM ghosts) signals are present, a good external FM antenna will be required. The necessity of an external antenna as a result of weak signal or noise, will be quite evident

since the set will not limit, and/or noise will be quite evident. It is extremely difficult to determine if multipath (FM ghosts) signals are present, however, should the program material be distorted, the best manner to decide if multipath signals are the cause of the problem, is to connect an external FM antenna to the receiver. Usually a TV antenna may be available for trial, but even then the results can be misleading, since many TV antennas are of low gain on FM frequencies.

FM CABINET ANTENNA

All console models contain an FM antenna built into the cabinet. This antenna consists of a Folded Dipole cut to the desired frequency, and attached to the internal periphery of the cabinet.

SIGNAL STRENGTH CHART

There are certain minimum voltages necessary for proper stereo FM reception. To help determine if there is sufficient signal available, the following developed AGC voltage versus microvolt input voltage charts have been compiled. Since the desired FM Station may not always be operating in the stereo mode when an installation is made, these AGC voltage measurements have been taken with a monaural FM signal. The point "*" of minimum AGC voltage necessary for good stereo FM reception has been indicated on these charts. For chassis 18YT20Z connect a V.T.V.M. to the junction of 10K, 4.7K and C30 5 mfd (test point B).

Chassis 18YT20Z	
Micro-volts Input	AGC Voltage at RF Coil
0	-1.4
25	-1.4
100	-1.52
200	-1.70
500	-1.78
1 K	-1.83
5 K	*-1.98
50 K	-2.22
100 K	-2.28

AUTOMATIC FREQUENCY CONTROL AFC

These receivers feature an automatic frequency control which automatically keeps your receiver on the exact station frequency when you are tuned to an FM station. To utilize this feature tune the receiver as instructed and then move the selector or mode switch to AFC position.

When the desired FM station is a weak station, adjacent in frequency to a strong station, the AFC may pull the tuning into the stronger station. Under these conditions, place the switch in FM position and tune the receiver as instructed.

Tuning the receivers on the frequency modulation band will require more care than on the broadcast band. A hissing sound may be noted when tuning between Frequency Modulation stations. This is normal, and will disappear as the station is tuned in. After a station is located, the pointer should be moved back and forth over it until the point of quietest reception and best tone quality is found. Correct tuning is indicated by the disappearance of background noise.

SPEAKER PHASING

It is most important that coded speaker leads be connected to coded terminals on speakers for proper polarity within each speaker group. It is also then most important that the speaker groups be in phase with each other. One excellent method is to play a monaural record as described under Automatic Balance Control, in the customers operating guide.

Under these conditions the sound should appear to come from a point midway between the two speaker groups. If the sound comes from any other point than midpoint, then one speaker group is out of phase with the other and you should check polarity. One of the easiest methods of checking polarity within the speaker group is to momentarily place a 4½ volt battery across the speaker feed terminals. All the speaker cones should simultaneously move in the same direction.

POWER AMPLIFIERS

Power transistors and their circuits are unique in operation, therefore, repair procedure differs from those steps followed when repairing tube type circuits.

1. Each channel of the push-pull amplifiers use a pair of matched power transistors in the final output stage. Therefore, should one transistor fail, both transistors must be replaced simultaneously, since they will not perform properly unless matched.
2. When a power transistor using an insulator between the transistor and the heat sink is replaced, the heat sink should also be replaced. Be certain to apply Dow Corning #340 heat conductive grease between the transistor and the insulator. Also between the insulator and the chassis. The Dow Corning grease can be obtained in 1 C.C. quantities by ordering part #205-51.
3. On some chassis place the heat conductive grease in the detent of the chassis, all around the transistor and also into the detent in the combination heat sink and retaining bracket.
4. Do not operate these amplifiers without their proper Speaker load.
5. Do not short out the audio output of either channel when the amplifier is operating.
6. Should a power transistor fail (short) be certain to replace the emitter resistors for the specific channel. Also be certain to check the condition of the silicon diode rectifiers.
7. Remove transistors from their sockets before doing any soldering to the socket lugs.

FM, RF, AND IF ALIGNMENT— CHASSIS 18YT20Z

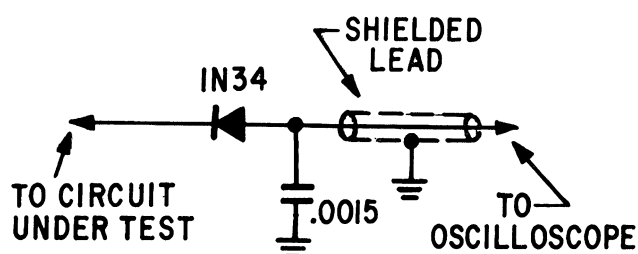
Alignment of these chassis will, in most cases, not be necessary unless an RF or IF transformer is replaced or if someone has tampered with the adjustments.

Because of the wide band pass required in the multiplex FM tuner, it is desirable to use an FM signal generator having a deviation of 400 KC with a sweep rate of 60 cycles as well as an oscilloscope when aligning both the IF and RF FM portions of this receiver. It is not only necessary to obtain maximum amplitude in the IF amplifier stages, but also necessary to maintain symmetry. To help achieve this symmetry, it is desirable to have 10.6, 10.7 and 10.8 megacycle markers in obtaining IF curve symmetry.

The condenser mentioned further on in the alignment procedure should be as small as possible and the ground lead of the generator must be connected to the chassis at the base of the socket, where the signal is being injected. Should the signal be injected at some point other than a socket, then the ground lead should be connected to ground as closely as possible to this point.

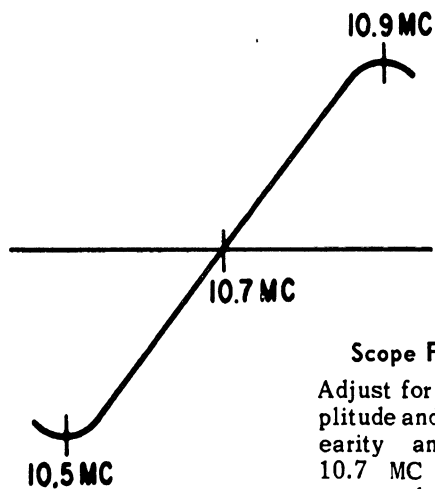
In all alignment procedures, the signal generator output should be kept just high enough to obtain an indication. This is most necessary, since on some chassis we have a zero time constant limiter which will clip the signals if their magnitude is too great, resulting in erroneous waveforms.

A detector probe is required. If your oscilloscope is not equipped with this probe, it can easily be constructed. For best results, this probe should be shielded.



Simplified Circuit Diagram of
Detector Probe.

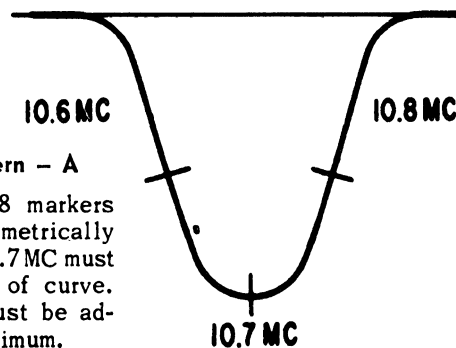
- A. On chassis 18YT20Z connect scope or V.T.V.M. to junction of 10 ohm resistor and .001 mfd capacitor Test Point (H). The 10 ohm resistor is connected to terminal #6 of the ratio detector transformer.



Scope Pattern - B

Adjust for maximum amplitude and maintain linearity and symmetry. 10.7 MC must be on curve at base line.

- B. On chassis 18YT20Z connect the scope to the base of the last FM IF transistor Test Point (G). The common scope terminal should be connected to chassis.



Scope Pattern - A

10.6 and 10.8 markers must be symmetrically positioned. 10.7 MC must be at center of curve. This point must be adjusted for maximum.

AM ALIGNMENT

- C. A V.T.V.M. on low AC scale connected across the speaker voice coil output terminals (either left or right channel), will be satisfactory for all AM, IF and RF adjustments.

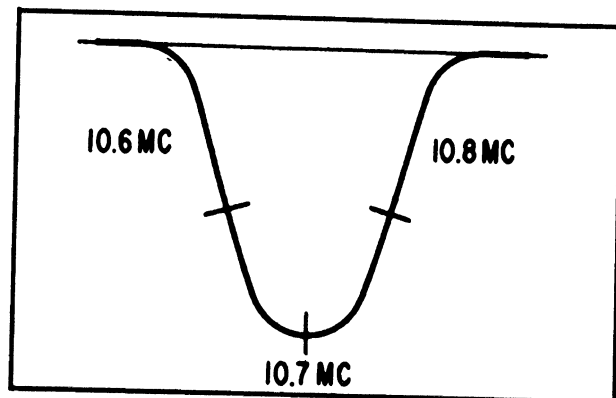
RF AND IF ALIGNMENT PROCEDURE FOR CHASSIS 18YT20Z

OPERATION	CONNECT GENERATOR TO	DUMMY ANTENNA	INPUT SIGNAL FREQUENCY	SET DIAL TO	ADJUST IRON CORES	PURPOSE
1 A	Term. #3 of T3 3rd IF Trans.	47 ohm in shunt with gen. output. Then from hot lead a 27 ohm in series with a .001 MFD capacitor.	10.7 MHz 400 KHz Deviation	88 MHz	L11	Adjust Primary and secondary of ratio detector for maximum amplitude and symmetry as shown in Scope Pattern "B"
2 A	Term. #3 of T3 3rd IF Trans.		10.7 MHz 400 KHz Deviation	88 MHz	L12	
3 B	Term. #3 of T2 2nd IF Trans. Test Point "F"		10.7 MHz 400 KHz Deviation	88 MHz	L9 & L10	Align I.F. transformers for maximum output and symmetry. This pattern is not necessarily identical to the overall Scope Pattern "A"
4 B	Term. #1 of T1 1st IF Trans. Test Point "E"		10.7 MHz 400 KHz Deviation	88 MHz	L7 & L8	
5 B	Connect to Test Point #D		10.7 MHz 400 KHz Deviation	88 MHz	L5 & L6	
6 B	Connect to Test Point #D		10.7 MHz 400 KHz Deviation	88 MHz	Readjust L5, L6, L7, L8	Align I.F. transformers for maximum output and symmetry as indicated in Scope Pattern "A"
7 B	FM Antenna Post (Remove Antenna) Test Point "A"	300 ohm	98 MHz 400 KHz Deviation	98 MHz	L4	Set oscillator to Dial Scale
8 B	FM Antenna Post (Remove Antenna) Test Point "A"	300 ohm	98 MHz 400 KHz Deviation	98 MHz	L2	Align FM Detector stage for maximum.
9 C	Test Point #L	.05 in series with hot lead of gen.	455 KHz 400 Cycle Modulated	600 KHz	L15, L14, L21 & L20	Align AM IF for maximum.
10 C	Two turn loop loosely coupled to wave-magnet		1600 KHz 400 Cycle Modulated	1600 KHz	C39D	Set oscillator to dial scale.
11 C	Two turn loop loosely coupled to wave-magnet		1400 KHz 400 Cycle Modulated	1400 KHz	C39A	Align antenna stages.

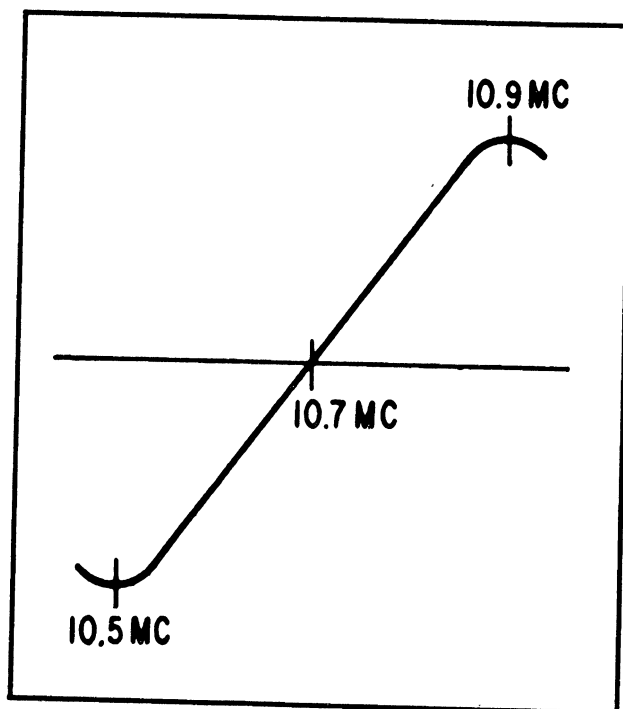
For A, B, C See Pages 7 and 8

MULTIPLEX ALIGNMENT PROCEDURE CHASSIS 18YT20Z

Using the Zenith FM multiplex signal generator, the multiplex portion of Zenith or any FM multiplex receiver can be aligned, but first before any attempt is made to do this it is necessary that the technician be certain that the RF, IF, and ratio detector alignment is correct, and that the receiver operates normally on monaural signals.



IF CURVE



RATIO DETECTOR CURVE

Because of the wide band pass required in the multiplex FM receiver, it is desirable to use an FM signal generator having a deviation of at least 200 KC with a sweep rate of 60 cycles, as well as an oscilloscope. During the IF and ratio detector alignment it is not only necessary to obtain maximum gain, but also extremely important to maintain symmetry.

To help achieve this IF curve symmetry 10.6 and 10.8 megacycle markers must be symmetrically positioned and the 10.7 megacycle marker must be at the center of the curve. When aligning the ratio detector 10.5 and 10.9 megacycle markers are desirable to achieve S curve symmetry. The pattern illustrating marker use

to obtain S curve symmetry indicates it is most necessary to adjust for maximum gain and at the same time maintain linearity and symmetry. 10.7 megacycles must be on the curve at the reference line. 10.5 megacycles and 10.9 megacycles must be at the lower and upper turn of the S curve respectively. Only when the I.F. and ratio detector circuitry have been aligned in accordance with these specifications should the technician proceed to align the multiplex portion of the receiver.

PRELIMINARY PROCEDURES

Before using the Zenith FM multiplex signal generator it is recommended that it be connected to the power source and turned on giving it a 10 to 20 minute warmup period. This will allow ample time for the RF audio and 19 KC oscillators to stabilize.

The following procedure is only necessary when the generator has been received from the factory, or has been subjected to a great deal of handling or transportation vibration. Although the 19KC pilot generator oscillator is extremely stable, there is always the possibility that it could shift from its precisely assigned frequency. As a result we have a very simple method to check the 19KC pilot frequency using an FM multiplex receiver and FM multiplex station as a frequency standard. Proceed as follows:

1. Tune your FM multiplex receiver to an FM multiplex station and when the pilot lights up, this indicates the 19KC pilot amplifier is functioning. Since the 19KC sine wave is from the transmitter it must be on frequency and can be used as a reference standard. With a cable connect the collector output of the 19KC amplifier to the vertical input of a good oscilloscope.
2. On the multiplex generator set the pilot carrier amplitude control to 10%. Place L-R, L+R and 67KC switches in OFF position and connect the composite output terminal directly to the horizontal input of the oscilloscope. On the oscilloscope you will see an oval Lissajous figure which should be motionless when the 19KC output of the generator is synchronized with the 19KC signal from the transmitter. Should the Lissajous figure rotate it will only be necessary to adjust the pilot carrier frequency trimmer on the multiplex generator with an IF alignment wrench until the Lissajous figure ceases to rotate. After the generator has been adjusted to zero beat, disconnect all cables.

The multiplex generator provides a composite multiplex signal as well as an RF signal, FM modulated by the composite multiplex signal.

The composite signal is very useful since it is an excellent tool that can be used in signal tracing the multiplex portion of the receiver. We do not recommend that multiplex alignment be made using only the composite signal injected at the output terminal of the ratio detector tertiary winding, since there is always some phase shift occurring in the RF, IF or ratio detector circuits. As a result, multiplex alignment made by a signal injected at the ratio detector would not be correct. For proper multiplex alignment the composite signal must FM modulate the RF carrier and then be fed into the FM antenna terminals. With the signal injected in this manner the multiplex alignment would then be the best that could possibly be obtained and separation would be the maximum for this receiver.

67 KC Trap Adjustment

1. Connect the stereo generator RF leads to the G and F FM antenna terminals and set the pilot carrier control to zero.
2. Move L + R and L - R switches to OFF position.
3. Move 67KC generator switch from OFF position up to 67KC.
4. Connect the V.T.V.M. (AC scale) and/or scope to the base of the Composite Amplifier Transistor, Test Point "M" and chassis ground.
5. Adjust 67KC trap for minimum output.
6. Move 67KC generator switch to OFF position.

19KC Sub Carrier Amplifier, Doubler and Mute Adjustments

1. Turn generator 19KC pilot carrier amplitude control to 10% position.
2. Connect the V.T.V.M. (DC scale) and/or scope to the junction of the two frequency doubling diodes and chassis (test point "N").
3. Place the stereo-monaural switch in stereo position and short Test Point #T to GND.
4. Adjust T11 19KC amplifier transformer and T10 doubler transformer for maximum output. Simultaneously adjust the mute control so the voltage at the junction of the two frequency doubling diodes never exceeds -2 volt during this operation. This voltage must be kept at a minimum for proper alignment.
5. Remove GND from Test Point #T.
6. Turn generator pilot carrier amplitude control to 5% position.
7. Slowly rotate the mute control to a point where the stereo indicator lights up.

Separation Adjustments

1. Place stereo monaural switch in Stereo position.
2. Turn generator pilot carrier amplitude control to 10% position.
3. Move L-R and L+R generator switches from OFF position up to L-R and L+R positions.
4. Connect a V.T.V.M. (AC scale) and/or scope to the L audio output, after the 38KC filter.
5. Adjust T9 38KC detector transformer for maximum voltage at L output. The magnitude of this signal should be much greater than that at the R output. The voltage at the L output should be approximately 10 times or greater than at the R output.

TROUBLE-SHOOTING

Should a problem arise in aligning the FM multiplex portion of the receiver and the technician does not know whether the difficulty lies in the RF, IF, limiter and ratio detector portions of the receiver, or whether the difficulty lies in the multiplex portion, the multiplex generator can be used as an excellent signal tracing device to determine if the multiplex section of the receiver is functioning properly. The composite output of the multiplex generator can be

injected at the output of the ratio detector. To reduce possible extraneous signals coming through the ratio detector, short the ratio detector primary with a jumper lead. The wave forms and their magnitudes may vary slightly from chassis to chassis, however, they are quite indicative of what will be seen when signal tracing the multiplex circuitry.

67KC Signal Tracing

1. Turn generator pilot carrier amplitude control to zero.
2. Move L+R and L-R switches to OFF position.
3. Move 67KC generator switch from OFF position up to 67KC. Sequentially connect an oscilloscope to the input and output of the 67KC trap. The 67KC signal at the output of the trap if it is properly nulled, will be much smaller than at the input. The voltage ratio should be approximately 20 to 1 input to output.

19KC Signal Tracing

1. Move the 67KC generator switch to OFF.
2. Rotate the generator 19KC pilot carrier amplitude control to 10% position.
3. Sequentially connect your scope to the base of composite amplifier, base of 19KC amplifier and collector of 19KC amplifier. The amplitude of the 19KC signal should greatly increase as you proceed along the 19KC chain.

Doubler and Subcarrier Signal Tracing

To determine if the doubler is functioning, place your scope at the junction of the two diodes and you will see 38KC DC pulses. Placing the scope at the collector of the subcarrier amplifier, you should see a 38KC sine wave which will indicate that the subcarrier amplifier and associated ringing circuitry is functioning properly.

Multiplex Detector Signal Tracing

1. Leave the 19KC amplitude control at 10%.
2. Move the L - R generator switch from OFF position to L - R position. You should see equal amplitude 1000 cycle sine waves at both L and R outputs.
3. Move the L+R switch from OFF up to L+R and look at the L audio output, and measure the magnitude of the 1000 cycle sine wave. If the multiplex detector and preceding circuitry are aligned properly, the magnitude of the wave form at L should be greater than at R.

If all the waves are similar in form and magnitude to those indicated, then it can be assumed that the multiplex portion of the receiver is functioning properly and the problem lies ahead of this in the FM receiver. If any of the wave forms are missing at a latter point but are apparent at a previous point, then something is amiss in the circuitry between the two test points.

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
CHASSIS 1Y20Z			CHASSIS 2ZT22		
C1	22-17	.001 MFD Disc $\pm$ 10% 1000V	C1A		Antenna Trimmer
C3A	22-5400	40 MFD Electrolytic 150 V	C1B		Antenna Tuning
C33		20 MFD Electrolytic 150V	C1C	22-4657	Oscillator Tuning
C4	22-4859	.1 MFD Tubular $\pm$ 20% 600V	C1D		Oscillator Trimmer
R1	63-6997	1 Megohm Volume Control & Switch	C2	22-3034	.05 Mfd. Disc. $\pm$ 100% -50% 25V
R2	63-6998	150 Ohm Fuse Resistor 2W $\pm$ 10%	C3	22-4617	.01 Mfd. Disc. $\pm$ 40% -10% 500V
	95-2628		C4	22-2884	5 Mfd. Electrolytic 12V
T1	OR		C5	22-2998	.1 Mfd. Tubular $\pm$ 20% 50V
	95-2502	Audio Output Transformer	C6	22-3034	.05 Mfd. Disc. $\pm$ 100% -50% 25V
SP1	49-1096	4" Speaker	C7	22-2998	.1 Mfd. Tubular $\pm$ 20% 50V
SE1	212-71	Rectifier	C8	* 22-5611	1.1 Pfd. Gimmick 500V
V1	25C5	Power Pentode	C9	22-3393	.01 Mfd. Disc. $\pm$ 80% -30% 25V
	54-139	3/8-32 x 9/16 Palnut - Cadmium (Mts. 63-6997)	C10	22-3393	.01 Mfd. Disc. $\pm$ 80% -30% 25V
	63-1747	120 Ohm Resistor - $\frac{1}{2}$ W. 10%	L1	S-72896	Wave Magnet Assembly
	63-1828	10K Ohm Resistor - $\frac{1}{2}$ W. 20%	L2	149-311	Iron Core Sleeve
	63-1856	47K Ohm Resistor - $\frac{1}{2}$ W. 20%	T1	95-2403	Oscillator Transformer
	63-1870	100K Ohm Resistor - $\frac{1}{2}$ W. 20%	T2	95-2461	1st I.F. Transformer
	78-1542	Wafer Tube Socket	T3	95-2394	2nd I.F. Transformer
	79-174-12	No. 18 Sleeving - Yellow - 1 $\frac{1}{2}$ "	X1	103-51	Crystal Diode
	83-5548	Four Lug Terminal Strip	X2	103-44	Crystal Diode
CHASSIS 2ZT21				63-1761	270 Ohm Resistor - $\frac{1}{2}$ W. 10%
C11	22-5267	.022 Mfd. Tubular $\pm$ 10% 100 V		63-1764	330 Ohm Resistor - $\frac{1}{2}$ W. 10%
C12	22-3654	.47 Mfd. Disc. $\pm$ 100% -0% 3V		63-1771	470 Ohm Resistor - $\frac{1}{2}$ W. 10%
C13	22-4145	.1 Mfd. $\pm$ 20% 200V		63-1785	1000 Ohm Resistor - $\frac{1}{2}$ W. 10% (3 required)
C14	22-4617	.01 Mfd. Disc. $\pm$ 40% -10% 500V		63-1796	1800 Ohm Resistor - $\frac{1}{2}$ W. 10%
C15	22-3659	.047 Mfd. $\pm$ 20% 400V		63-1813	4700 Ohm Resistor - $\frac{1}{2}$ W. 10%
C16	22-3513	.01 Mfd. Disc. $\pm$ 30% 500V		63-1817	5600 Ohm Resistor - $\frac{1}{2}$ W. 10%
C17A		40 Mfd. Electrolytic 25V		63-1834	15K Ohm Resistor - $\frac{1}{2}$ W. 10%
C17B	22-4853	60 Mfd. Electrolytic 150V		63-1846	30K Ohm Resistor - $\frac{1}{2}$ W. 5%
C18	22-4859	.1 Mfd. Tubular $\pm$ 20% 600V		63-1887	270K Ohm Resistor - $\frac{1}{2}$ W. 10%
R1	63-6858	Loudness Control		83-3042	Rubber Strip
R2	63-6319	Tone Control		86-412	Antenna Terminal (4 part of S-72896)
R3	63-5440	Voltage Dependent Resistor		113-10	6-32 x 3/16 x 1/4 Hex Hd. Mach. Screw - N.P. - Internal Shakeproof Lockwasher (3 mt. 22-4657)
R4	63-6112	10K Ohms $\pm$ 10% 1W		121-637	Transistor (I.F.)
R5	63-5302	350 Ohms $\pm$ 5% Fusing 3W		121-638	Transistor (Converter)
S1	85-915	3 Position Switch		126-1206	Shield
T4	95-2341	Output Transformer	CHASSIS 2ZT24		
SE1	212-71	Silicon Rectifier	C1	22-4617	.01 Mfd. Disc. $\pm$ 80% -20% 500V
SP1	49-1096	P.M. Speaker	C2	22-4617	.01 Mfd. Disc. $\pm$ 80 -20% 500V
	11-87	A.C. Line Cord	C3	22-3513	.01 Mfd. Disc. $\pm$ 30% 500V
	12-4318	Switch Mounting Bracket	C4	22-4145	.1 Mfd. $\pm$ 20% 200V
	54-384	4-40 Palnut - Cadmium (1 used on ea. 114-940)	C5	22-4859	.1 Mfd. Tubular $\pm$ 20% 600V
	63-1708	15 Ohm Resistor - $\frac{1}{2}$ W. 10%	C6	22-5121	40 Mfd. Electrolytic 150V
	63-1733	56 Ohm Resistor - $\frac{1}{2}$ W. 10%	C7	22-3896	5 Mfd. Electrolytic 25V
	63-1824	8200 Ohm Resistor - $\frac{1}{2}$ W. 10%	R1	*63-7543	2 Megohm Volume Control
	63-1835	15K Ohm Resistor - $\frac{1}{2}$ W. 20%	R2	63-6319	50K Ohm Tone Control
	63-1890	330K Ohm Resistor - $\frac{1}{2}$ W. 10%	R3	63-5302	350 Ohm Fusing Type 3W
	63-1908	820K Ohm Resistor - $\frac{1}{2}$ W. 10%	T1	95-2341	Output Transformer
	83-5147	10 Lug Terminal Strip	SE1	212-71	Silicon Rectifier
	83-5148	Insulating Strip (used on 83-5147)	SP1	49-1039	Speaker
	83-5170	Three Lug Terminal Strip		11-87	Line Cord
	83-5171	Insulating Strip (used on 83-5170)		54-384	4-40 Palnut - Cadmium (2 required)
	83-5381	Six Lug Terminal Strip		63-1736	68 Ohm Resistor - $\frac{1}{2}$ W. 10%
	83-5382	Insulating Strip (used on 83-5181)		63-1806	3300 Ohm Resistor - $\frac{1}{2}$ W. 10%
	83-5688	Transistor Insulating Strip (Part of 800-158)		63-1824	8200 Ohm Resistor - $\frac{1}{2}$ W. 10%
	86-199	Terminal (2 required)		63-1852	39K Ohm Resistor - $\frac{1}{2}$ W. 10%
	86-329	Connector Terminal (2 required)		63-1866	82K Ohm Resistor - $\frac{1}{2}$ W. 10%
	86-344	Connector Terminal (1 used on ea. Black Wire - 26 $\frac{1}{2}$ ", Brown Wire - 26" & Red Wire - 30")		63-1880	180K Ohm Resistor - $\frac{1}{2}$ W. 10%
	86-357	Connector Terminal (1 used on ea. Green Wire - 22", Red Wire - 23" & Gray Wire - 23")		63-1898	470 K Ohm Resistor - $\frac{1}{2}$ W. 20%
	94-1424	Shoulder Bushing (2 part of 800-158)		63-1925	2.2 Megohm Resistor - $\frac{1}{2}$ W. 10%
	114-940	4-40 x 5/16 x 3/16 Hex Hd. Mach. Screw - Cadmium (2 used on 800-158)		83-5284	5 Lug Terminal Strip
	121-433	Transistor - Driver		83-5291	Insulating Strip (used on 83-5284)
	205-51	Dow Corning Heat Conductive Grease (Part Of 800-158)		83-5436	10 Lug Terminal Strip
	800-158	Transistor Kit - Output (121-436)		83-5437	Insulating Strip (used on 83-5436)
				83-5936	Transistor Insulating Strip (Part of 800-158)
				86-199	Terminal (used on 800-158)
				86-329	Connector Terminal (2 required)
				86-344	Connector Terminal (3 required)

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
CHASSIS 8YT21			C9	22-5258	.22 MFD $\pm 20\%$ - 12V.
C401	*22-5507	22 Pf 500V. $\pm 20\%$ Disc.	C10		
C402	22-3414	.0047 Mf - 25V. $\pm 20\%$ Disc.	C11	22-3896	5 MFD Electrolytic - 25V.
C403	22-3448	10 Mf - 15V. Electrolytic	C12	22-4628	2 x 100 MFD Electrolytic - 15V.
C404	*22-5511	100 Mf - 20V. Electrolytic	C13	22-3014	820 Pf $\pm 10\%$ - 500V.
C405	*22-3598	.022 Mf - 50V. $\pm 20\%$	C14	22-5184	.047 MFD - 100V.
C406	*22-5509	.22 Mf - 3V. $\pm 20\%$	C15	22-5168	300 MFD Electrolytic - 25V.
C407	*22-5512	250 Mf - 15V. Electrolytic	C16	22-4649	70 MFD - 15V.
C451	*22-5507	22 Pf - 500V. $\pm 20\%$ Disc.	C17	22-3034	.05 MFD - 25V.
C452	22-3414	.0047 Mf - 25V. $\pm 20\%$ Disc.	C18	22-3654	.47 MFD - 3V.
C453	22-3448	10 Mf - 15V. Electrolytic	C19	22-3615	1 MFD Electrolytic - 25V.
C454	*22-5511	100 Mf - 20V. Electrolytic	C20		
C455	22-3598	.022 Mf - 50V. $\pm 20\%$	C21	22-5251	.15 MFD $\pm 20\%$ - 12V.
C456	*22-5509	.22 Mf - 3V. $\pm 20\%$ Disc.	C22	22-5257	.1 MFD $\pm 20\%$ - 12V.
C457	*22-5512	250 Mf - 15V. Electrolytic	C23	22-5259	.0082 MFD $\pm 20\%$ - 500V.
C501	*22-5511	100 Mf - 20V. Electrolytic	C24	22-5257	.1 MFD $\pm 20\%$ - 12V.
C502	*22-5511	100 Mf - 20V. Electrolytic	C25	22-5257	.1 MFD $\pm 20\%$ - 12V.
C503	22-5475	500 Mf - 25V. Electrolytic	C26	22-5258	.22 MFD $\pm 20\%$ - 12V.
R402A	*63-7383	Dual Tone Control	C27	22-3896	5 MFD Electrolytic - 25V.
R402B			C28	22-3014	820 Pf $\pm 10\%$ - 500V.
R407	*63-7384	Volume Control	C29	22-5184	.047 MFD - 100V.
R457	*63-7384	Volume Control	C30	22-5168	300 MFD Electrolytic - 25V.
T501	95-2573	Output Power Transformer	C31	22-5167	1000 MFD Electrolytic - 30V.
CR-501	212-71	Silicon Rectifier	C32	22-5260	2 x 500 MFD Electrolytic 25V.
	11-183	A.C. Line	R1A		
	12-4779	Chassis Bracket	R1B	63-6480	50K Dual Bass Control
	*19-552	Clip-Heat Sink (6 required)	R2A	63-6480	50K Dual Treble Control
	22-4568	100 Mf Electrolytic Capacitor-15V. (4 required)	R2B		
	OR		R3A		
	22-5511	100 Mf Electrolytic Capacitor-20V. (4 required)	R3B	63-6481	50K Dual Loudness Control
	22-4570	100 Mf Electrolytic Capacitor - 35V.	R4	63-6052	390 Ohm - 1W.
	OR		R5	63-5944	1 Ohm - 1W.
	22-5510	100 Mf Electrolytic Capacitor - 25V.	R6	63-5944	1 Ohm - 1W.
	23-23	Wire Connector	R7	63-6052	390 Ohm - 1W.
	43-519	Socket Contact Housing	R8	63-5944	1 Ohm - 1W.
	63-1722	33 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	R9	63-5944	1 Ohm - 1W.
	63-1750	150 Ohm Resistor - $\frac{1}{2}W$. 10% (3 required)	R10	63-6021	68 Ohm $\pm 10\%$ - 1W.
	63-1768	390 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	T1	95-2388	Driver Transformer
	63-1778	680 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	T2	95-2388	Driver Transformer
	63-1785	1000 Ohm Resistor - $\frac{1}{2}W$. 10%	T3	95-2386	Power Transformer
	63-1792	1500 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	SE1	212-71	Silicon Rectifier
	63-1813	4700 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	SE2	212-71	Silicon Rectifier
	63-1880	180K Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	SP1	49-1089	$\frac{5}{4}''$ P.M. Speaker
	63-1908	820K Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)	SP2	49-978	$\frac{3}{2}''$ P.M. Speaker
	63-1911	1 Megohm Resistor - $\frac{1}{2}W$. 10%	SP3	49-830	3 x 14 P.M. Speaker
	63-1915	1.2 Megohm Resistor - $\frac{1}{2}W$. 10% (2 required)	SP4	49-1089	$\frac{5}{4}''$ P.M. Speaker
	63-4529	4.7 Ohm Resistor - $\frac{1}{2}W$. 10% (4 required)	SP5	49-978	$\frac{3}{2}''$ P.M. Speaker
	79-174-12	No. 18 Sleeving - Yellow $1\frac{1}{2}''$	M1	S-72500	Housing and Cable Assembly
	86-329	Connector Terminal (4 used on Speaker Lead)		11-210	A.C. Line Cord & Plug
	86-334	Connector Terminal (3 required)		17-181	Cable Clamp
	114-657	8-18 x 5/16 x $\frac{1}{4}$ Hex Washer Hd. Self-Tap Screw - Stat. Bronze (Used on 95-2573)		23-23	Wire Connector (3 required)
	*121-632	Transistor - Driver (2 required)		43-519	Socket Housing (Male)
	*121-633	Transistor - Pre Driver (2 required)		52-1270	Three Conductor Cable - Approx. 11"
	205-51	Dow Corning Heat Conductive Grease (part of 800-219)		52-1378	Two Conductor Shielded Lead (Phono Cable)
	*800-219	Transistor Assembly - Output - Matched Pair (2 required)		54-139	3/8-32 x 9/16 Palnut - Cadmium (Used on 63-6481)
	*S-78037	Chassis Control Panel Assembly		54-271	6-32 x $\frac{1}{4}$ Palnut - Cadmium (1 Used on ea. 114-58)
	*S-78038	Chassis Bracket Assembly		58-214	Single Prong Plug (2 Used on 52-1378)
	*S-79177	Phono Cable & Plug Assembly		63-1729	47 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
CHASSIS 10NTO1Z				63-1736	68 Ohm Resistor - $\frac{1}{2}W$. 10%
C1	22-3034	.05 MFD Disc. - 25V.		63-1747	120 Ohm Resistor - $\frac{1}{2}W$. 10% (4 required)
C2	22-3654	.47 MFD - 3V.		63-1771	470 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
C3	22-3615	1 MFD Electrolytic - 25V.		63-1772	470 Ohm Resistor - $\frac{1}{2}W$. 20% (2 required)
C4	22-5251	.15 MFD Electrolytic $\pm 20\%$ - 12V.		63-1782	820 Ohm Resistor - $\frac{1}{2}W$. 10% (4 required)
C5	22-5257	.1 MFD $\pm 20\%$ - 12V.		63-1792	1500 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
C6	22-5259	.0082 MFD $\pm 20\%$ - 500V.		63-1800	2200 Ohm Resistor - $\frac{1}{2}W$. 20% (2 required)
C7	22-5257	.1 MFD $\pm 20\%$ - 12V.		63-1803	2700 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
C8	22-5257	.1 MFD $\pm 20\%$ - 12V.		63-1813	4700 Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
				63-1827	10K Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
				63-1849	33K Ohm Resistor - $\frac{1}{2}W$. 20% (2 required)
				63-1866	82K Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
				63-1873	120K Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)
				63-1876	150K Ohm Resistor - $\frac{1}{2}W$. 10% (2 required)

PART NO.	DESCRIPTION
63-1897	470K Ohm Resistor - ½W. 10% (2 required)
63-1911	1 Megohm Resistor - ½W. 10% (2 required)
63-4533	5.6 Ohm Resistor - ½W. 10% (4 required)
79-174-34	No. 18 Sleeving - Yellow - 4¼"
83-3265	Five Lug Terminal Strip
83-3652	Three Lug Terminal Strip
83-5277	Insulating Strip (1 Part of ea. 800-208)
83-5577	Terminal Board
86-199	Terminal - Shakeproof (1 Used on Chassis Base & 1 Used on ea. 800-208)
86-334	Connector Terminal (3 Used on 52-1270)
93-415	No. 6 External Lockwasher (1 Used on ea. 83-3265 & 83-3652)
93-542	Shoulder Washer (2 Used on ea. 800-208)
114-58	6-32 x 3/8 Hex Hd. Mach. Screw - N.P. (2 Used on ea. 800-208)
114-801	8-18 x 5/16 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (1 Used on ea. 95-2386 & 95-2388)
121-417	Transistor - Driver (2 required)
121-433	Transistor - Pre-Driver (4 required)
205-51	Silicone Grease (Part of 800-208)
212-71	Rectifier
OR	
212-57	Rectifier
800-208	Output Transistor Assembly - Matched Pairs (4 required)

18YT20Z CHASSIS PARTS

11-106	Line Cord
12-4009	Tuner Bracket
12-4228	Heat Sink (2 required)
12-4409	Switch Mtg. Bracket
12-4411	Antenna Mtg. Bracket
19-238	Coil Mtg. - Clip (Used on S-66580)
19-322	Coil Mtg. Clip (3 required)
20-1256	Trap Coil
20-1422	Trap Coil
22-13	.0033 Mf Disc Capacitor - 500V. (2 required)
22-14	.0047 Mf Disc Capacitor - 500V. (2 required)
22-18	.0022 Mf Capacitor - 500V. (2 required)
22-2428	1.8 Pf Gimmick Capacitor - 500V. (2 required)
22-2729	.001 Mf Disc Capacitor - 25V.
22-3010	.01 Mf Disc Capacitor - 25V.
22-3033	.02 Mf Disc Capacitor - 25V.
22-3034	.05 Mf Disc Capacitor - 25V. (15 required)
22-3177	390 Pf Disc Capacitor - 500V. (3 required)
22-3400	3.9 Pf Gimmick Capacitor - 500V.
22-3448	10 Mf Electrolytic Capacitor - 15V.
22-3550	3.3 Pf Gimmick Capacitor - 500V.
22-3630	.068 Mf Mylar Capacitor - 50V. (2 required)
22-3644	820 Pf Mica Capacitor - 100V. (2 required)
22-3645	1000 Pf Mica Capacitor - 100V.
22-3675	10 Pf Disc Capacitor - 500V.
22-3710	.22 Mf Capacitor - 50V. (2 required)
22-3896	5 Mf Electrolytic Capacitor - 25V. (8 required)
22-3973	100 Mf Electrolytic Capacitor - 25V.
22-4523	1.1 Pf Gimmick Capacitor - 500V. (2 required)
22-4613	Feed-Thru Capacitor - 500V. (5 required)
22-4617	.01 Mf Disc Capacitor - 500V. (2 required)
OR	
22-3	.01 Mf Disc Capacitor - 500V. (2 required)
22-4619	2 x 100 Mf Electrolytic Capacitor - 6V.
22-4620	Electrolytic Capacitor
22-4674	Two Section Variable Capacitor
22-5018	.47 Mf Capacitor - 50V.
22-5021	.0068 Mf Disc Capacitor - 1KV. (2 required)
22-5037	.005 Mf Disc Capacitor - 25V. (3 required)
22-5130	8 Pf Disc Capacitor - 500V.
22-5167	1000 Electrolytic Capacitor - 30V.
22-5175	200 Mf Electrolytic Capacitor - 25V.
22-5182	.033 Mf Capacitor - 50V. (2 required)
22-5188	.1 Mf Capacitor - 50V.
22-5321	36 Pf Disc Capacitor - 500V.
*22-5487	.047 Mf Disc Capacitor - 3V. (2 required)

PART NO.	DESCRIPTION
24-1473	Tuner Cover
*26-1405	Dial Scale (Part of S-75913)
43-519	Contact Housing
43-5171	Tone Control Knob (2 required)
46-5157	Tuning Knob
46-5172	Dual Loudness Control Knob
46-5218	Balance Control Knob
46-5415	Bandswitch Knob
*46-5649	Push Button - Stereo - Monaural
52-1241	Three Conductor Cable
54-139	3/8 - 32 x 9/16 Palnut - Cadmium (1 Used on ea. 63-6853, 63-6854, 63-6855 & 85-919)
54-549	Tinnerman Speed Nut (6 Used on S-75912)
54-633	Transistor Socket Retaining Nut (1 Used on ea. 78-1442, 78-1622 & 78-1677)
56-426	Roll Pin (4 required)
56-512	Roll Pin (2 required)
58-214	Single Prong Plug (2 required)
*59-824	Dial Pointer
63-1701	10 Ohm Resistor - ½W. 10%
63-1729	47 Ohm Resistor - ½W. 10%
63-1743	100 Ohm Resistor - ½W. (3 required)
63-1750	150 Ohm Resistor - ½W. 10%
63-1754	180 Ohm Resistor - ½W. 10% (2 required)
63-1757	220 Ohm Resistor - ½W. 10%
63-1761	270 Ohm Resistor - ½W. 10%
63-1764	330 Ohm Resistor - ½W. 10% (3 required)
63-1768	390 Ohm Resistor - ½W. 10% (2 required)
63-1771	470 Ohm Resistor - ½W. 10% (7 required)
63-1772	470 Ohm Resistor - ½W. 20% (3 required)
63-1775	560 Ohm Resistor - ½W. 10%
63-1778	680 Ohm Resistor - ½W. 10% (2 required)
63-1782	820 Ohm Resistor - ½W. 10% (2 required)
63-1785	1K Ohm Resistor - ½W. 10% (5 required)
63-1789	1200 Ohm Resistor - ½W. 10%
63-1792	1500 Ohm Resistor - ½W. 10% (3 required)
63-1796	1800 Ohm Resistor - ½W. 10% (2 required)
63-1799	2200 Ohm Resistor - ½W. 10%
63-1803	2700 Ohm Resistor - ½W. 10%
63-1806	3300 Ohm Resistor - ½W. 10% (2 required)
63-1813	4700 Ohm Resistor - ½W. 10% (4 required)
63-1817	5600 Ohm Resistor - ½W. 10%
63-1820	6800 Ohm Resistor - ½W. 10% (4 required)
63-1824	8200 Ohm Resistor - ½W. 10% (2 required)
63-1828	10K Ohm Resistor - ½W. 10%
63-1834	15K Ohm Resistor - ½W. 10% (3 required)
63-1838	18K Ohm Resistor - ½W. 10%
63-1841	22K Ohm Resistor - ½W. 10%
63-1845	27K Ohm Resistor - ½W. 10%
63-1848	33K Ohm Resistor - ½W. 10% (3 required)
63-1855	47K Ohm Resistor - ½W. 10% (6 required)
63-1859	56K Ohm Resistor - ½W. 10%
63-1869	100K Ohm Resistor - ½W. 10% (4 required)
63-1880	180K Ohm Resistor - ½W. 10% (4 required)
63-1883	220K Ohm Resistor - ½W. 10% (2 required)
63-1897	470K Ohm Resistor - ½W. 10%
63-1912	1 Megohm Resistor - ½W. 20%
63-1932	3.3 Megohm Resistor - ½W. 10%
63-3238	Potentiometer
63-4143	100 Ohm Resistor - ¼W. 10%
63-4196	1800 Ohm Resistor - ¼W. 10%
63-4199	2200 Ohm Resistor - ¼W. 10%
63-4231	12K Ohm Resistor - ¼W. 10%
63-4297	470K Ohm Resistor - ¼W. 10%
63-4512	1.8 Ohm Resistor - ½W. 10% (4 required)
63-4526	3.9 Ohm Resistor - ½W. 10% (4 required)
63-4533	5.6 Ohm Resistor - ½W. 10%
63-5614	47 Ohm Resistor - 2W. 10%
63-6049	330 Ohm Resistor - 1W. 10%
63-6495	Potentiometer
63-6853	Dual Treble Control
63-6854	Dual Loudness Control
63-6855	Dual Bass Control
76-1403	Tuner Guide Shaft
*76-1734	Tuning Shaft

PART NO.	DESCRIPTION
54-424	8-32 Hex Nut (2 used on 6ZT21)
54-541	Thread Forming Nut (2 Mt. ea. 57-5614 & 57-6056)
55-316	Record Changer Mounting Panel (Part of 14-8793)
57-5589	Support Leg Mounting Plate (Part of 14-8787)
57-5614	Nameplate - L.H. Zenith
57-5629	Catch Mounting Panel (Part of 14-8793)
57-6056	Nameplate - R.H. (Solid State - Stereophonic)
*57-6798	Escutcheon
76-1580	Leg Support Shaft (Part of 14-8787)
80-1840	Stylus Turret Spring (Part of 142-163)
83-2790	Phono Shipping Strip (2 required)
83-4124	Dampening Pad (3 used on 169-341)
83-5420	Speaker Housing Trim Strip (2 part of 14-8799 or 14-8800)
83-5421	Changer & Amplifier Trim Strip (Part of 14-8793)
83-5422	Cabinet Trim Strip (Part of 14-8793)
83-5718	Polyethylene Strip (2 required)
83-5904	Felt Strip (2 required)
83-6065	Protective Strip - Left
83-6066	Protective Strip - Right
96-589	Support Leg (Part of 14-8787)
*101-1245	Transistor Layout & Patent Label
102-9107	Instruction Label (Stylus Selection)
112-1949	8-18 x 3/4 Oval Hd. Pozidrive Special Screw (8 used on 14-8793 & 3 used on 139-211)
114-895	6-18 x 1/2 Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (1 used on ea. 17-141)
125-62	Rubber Grommet (Used on 169-341)
*139-211	Speaker Baffle (2 required)
142-163	Dual Pickup Cartridge - .7 Mil. Diamond & 3 Mil. MFD. Sapphire (Part of 169-341)
156-78	Strike (1 used on ea. 139-211)
159-152	Plug Button (2 part of 14-8793)
166-155	Plastic Bumper (Cabinet Legs) (4 part of 14-8793)
169-341	Four Speed Record Changer (See Changer Parts List for Components)
188-155	Knob Clamping Ring (1 Part of ea. 46-6386)
188-296	Retaining Ring (2 used on 76-1580)
199-438	Protective Sleeve
*202-3111	Instruction Book
220-46	Packing Cushioning Material
854-13	Hex Nut (1 used on ea. 912-49)
893-17	Lockwasher - Int. Tooth (2 required)
912-49	Phillips Flat Hd. Mach. Screw (2 Mt. 36-465)
S-69785	Pivot Assembly - L.H. (Part of 14-8793)
S-69786	Pivot Assembly - R.H. (Part of 14-8793)
S-71552	Catch Mtg. Plate Assembly (Part of 14-8793)
S-72649	45 RPM Adapter
	"OPTIONAL AT EXTRA COST"
S-75801	Stylus Assembly - .7 Mil. Dual Diamond

MODEL GA50 - 10P & W - USING CHASSIS 18YT20Z

* 2-3011	Cabinet Back
* 14-8817	Console Cabinet - Model GA-50-10W
* 14-8818	Console Cabinet - Model GA-50-10P
* 16-3593	Packing Carton
19-495	45 RPM Adapter Mtg. Clip
49-1064	10" PM Speaker (2 required)
49-1094	3 1/2" PM Speaker (4 required)
52-1416	Two Conductor Cable (Approx. 24")
52-1440	Two Conductor Cable (Approx. 26 1/4")
54-423	6-32 x 5/16 Nut (2 Mt. ea. 49-1094)
54-424	8-32 x 11/32 Nut (4 Mt. ea. 49-1064)
57-5204	Nameplate - Zenith (Part of 14-8817 or 14-8818)
* 57-6883	Moulded Plastic Sliding Door (2 part of 14-8817) Model GA-50-10W
* 57-6884	Moulded Plastic Sliding Door (2 part of 14-8818) Model GA-50-10P
* 57-6887	Moulded Plastic Fixed Panel (2 part of 14-8817) Model GA-50-10W
* 57-6888	Moulded Plastic Fixed Panel (2 part of 14-8818) Model GA-50-10P

PART NO.	DESCRIPTION
80-1840	Stylus Turret Spring (Part of 142-163)
83-2123	Antenna Terminal Strip
83-2535	Phono Shipping Strip (2 required)
83-4124	Dampening Pad (3 used on 169-331)
86-255	Spade Terminal - FM Antenna Wire (2 required)
86-329	Connector Terminal (8 used on Speaker Lead)
86-344	Connector Terminal (3 used on Speaker Lead)
86-450	Connector Terminal (2 used on Antenna Cable)
OR	
86-344	Connector Terminal (2 used on Antenna Cable)
101-1076	Transistor Layout & Patent Label
102-9107	Instruction Label (Stylus Selection)
112-1265	6-32 x 1 1/4 Speaker Mtg. Screw (8 part of 14-8817 or 14-8818)
112-1274	8-32 x 1 1/4 Speaker Mtg. Screw (8 part of 14-8817 or 14-8818)
114-453	6-18 x 5/8 Slotted Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (8 Mt. 2-3011)
114-842	6-18 x 1/2 Slotted Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (2 Mt. 19-495 & 2 used on 83-2123)
114-1019	8-18 x 3/8 Hex Hd. Self-Tap. Screw - Stat. Bronze - Flat Washer Att. (4 Mt. 18YT20Z)
125-62	Rubber Grommet (Used on 169-331)
126-1255	Light Shield
142-163	Dual Pickup Cartridge - .7 Mil. Diamond & 3 Mil. MFD. Sapphire (Part of 169-331)
169-331	Four Speed Record Changer (See Changer Parts List for Components)
*202-3119	Instruction Book
819-5	Tubular Clip (2 Mt. 57-5204)
*836-125	Door Pull & Screw (2 part of 14-8817 or 14-8818)
840-26	Lid Support - L.H. (Part of 14-8817 or 14-8818)
840-105	Lid Hinge (2 part of 14-8817 or 14-8818)
*870-3	8 x 5/8 Rd. Hd. Wood Screw (2 Mt. 966-14)
*910-722	Grille Cloth - Horizontal Warp (2 part of 14-8817 or 14-8818)
*912-119	7 x 1" Flat Hd. Recessed Cross Slot Sheet Metal Screw - Stat. Bronze (6 Mt. ea. 840-105) (Lid)
*912-120	7 x 5/8 Flat Hd. Recessed Cross Slot Sheet Metal Screw - Stat. Bronze (6 Mt. ea. 840-105) (Rail)
*912-121	6 x 5/8 Flat Hd. Recessed Cross Slot Sheet Metal Screw - Stat. Bronze (4 used on 840-26)
965-9	3/4 Dia. Glide - Plastic, Single Prong - Off-White (4 part of 14-8817 or 14-8818)
*966-14	Bumper (2 part of ea. 14-8817 or 14-8818)
S-54774	Antenna Cable & Terminal Assembly
S-68567	Stylus Assembly - .7 Mil. Diamond & 3 Mil. MFD. Sapphire (Part of 142-163)
S-69287	45 RPM Record Adapter Assembly
S-76841	FM Antenna Cable & Terminal Assembly
	"OPTIONAL AT EXTRA COST"
S-74539	Speaker Adapter Kit
S-75801	Stylus Assembly - .7 Mil. Dual Diamond (142-163)

MODEL GA50 - 12W - USING CHASSIS 18YT20Z

*2-3012	Cabinet Back
*14-8819	Console Cabinet
*16-3597	Packing Carton
19-495	45 RPM Adapter Clip
49-1064	10" PM Speaker (2 required)
49-1094	3 1/2" PM Speaker (4 required)
*52-1416	Two Conductor Cable (Approx. 24")
*52-1440	Two Conductor Cable (Approx. 26 1/4")
54-423	6-32 x 5/16 Nut (2 Mt. ea. 49-1094)
54-424	8-32 x 11/32 Nut (4 Mt. ea. 49-1064)
57-5204	Nameplate - Zenith (Part of 14-8819)
80-1840	Stylus Turret Spring (Part of 142-163)
83-2123	Antenna Terminal Strip
83-2535	Phono Shipping Strip (2 required)
83-4124	Dampening Pad (3 used on 169-331)
86-255	Spade Terminal - FM Antenna Wire (2 required)
86-329	Connector Terminal (8 used on Speaker Lead)

PART NO.	DESCRIPTION
86-344	Connector Terminal (3 used on Speaker Lead)
86-450	Connector Terminal (2 used on Antenna Cable)
OR	
86-344	Connector Terminal (2 used on Antenna Cable)
101-1076	Transistor Layout & Patent Label
102-9107	Instruction Label (Stylus Selection)
112-1265	6-32 x 1 1/4 Speaker Mtg. Screw (8 part of 14-8819)
112-1269	8-32 x 1 7/16 Speaker Mtg. Screw (8 part of 14-8819)
114-453	6-18 x 5/8 Slotted Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (8 Mt. 2-3012)
114-842	6-18 x 1/2 Slotted Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (2 Mt. 19-495 & 2 used on 83-2123)
114-1019	8-18 x 3/8 Hex Hd. Self-Tap. Screw - Stat. Bronze - Flat Washer Att. (4 Mt. 18YT20Z)
125-62	Rubber Grommet (Used on 169-331)
126-1255	Light Shield
142-163	Dual Pickup Cartridge - .7 Mil. Diamond & 3 Mil. MFD. Sapphire (Part of 169-331)
169-331	Four Speed Record Changer (See Changer Parts List for Components)
*202-3119	Instruction Book
819-5	Tubular Clip (2 Mt. 57-5204)
836-80	Door Pull & Screws (2 part of 14-8819)
840-26	Lid Support - L.H. (Part of 14-8819)
840-87	Top Hinge & Plate Assembly - R.H. Door (Part of 14-8819)
840-88	Top Hinge & Plate Assembly - L.H. Door (Part of 14-8819)
840-89	Bottom Plate Assembly (2 part of 14-8819)
840-105	Lid Hinge (2 part of 14-8819)
910-539	Grille Cloth - Vertical (2 part of 14-8819)
*912-119	7 x 1" Flat Hd. Recessed Cross Slot Sheet Metal Screw (3 used on ea. 840-105) (Lid)
*912-120	7 x 5/8 Flat Hd. Recessed Cross Slot Sheet Metal Screw (3 used on ea. 840-105) (Rail)
*912-121	6 x 5/8 Flat Hd. Recessed Cross Slot Sheet Metal Screw (4 used on 840-26)
*912-122	5 x 5/8 Rd. Hd. Sheet Metal Screw (6 used on ea. 840-87 & 840-88)
*912-123	5 x 5/8 Flat Hd. Sheet Metal Screw (4 used on ea. 840-87 or 840-88 & 4 used on 840-89)
965-9	3/4 Dia. Plastic Glide - Single Prong (4 part of 14-8819)
999-15	Nylon Sleeves for Door Hinges (12 part of 14-8819)
S-54774	Antenna Cable & Terminal Assembly
S-68567	Stylus Assembly - .7 Mil. Diamond & 3 Mil. MFD. Sapphire (Part of 142-163)
S-69287	45 RPM Record Adapter Assembly
S-76841	Cable & Terminal Assembly (FM Antenna)
	"OPTIONAL AT EXTRA COST"
S-74539	Speaker Adapter Kit
S-75801	Stylus Assembly - .7 Mil. Dual Diamond (142-163)

MODEL Y504B, D, P & V USING CHASSIS 1Y20Z

11-180	Line Cord & Plug
*14-8097	Cabinet Lid - Model Y504B
*14-8098	Cabinet Lid - Model Y504D
*14-8099	Cabinet Lid - Model Y504P
*14-8100	Cabinet Lid - Model Y504V
*14-8121	Cabinet Base - Models Y50B & D
*14-8122	Cabinet Base - Models Y504 P & V
*16-3446	Packing Carton
19-499	Speaker Mounting Clip
24-1171	Chassis Bottom Cover
*24-1554	Bottom Cover - Models Y504B & D
*24-1555	Bottom Cover - Models Y504P & V
*29-86	Turntable - Models Y504B & D
*29-87	Turntable - Model Y504P
*29-88	Turntable - Model Y504V
*46-5567	Volume Control Knob - Model Y504B
*46-5568	Volume Control Knob - Model Y504D
*46-5570	Volume Control Knob - Model Y504P

PART NO.	DESCRIPTION
*46-5571	Volume Control Knob - Model Y504V
*46-5607	Speed Selector Knob - Models Y504B & D
*46-5608	Speed Selector Knob - Model Y504P
*46-5609	Speed Selector Knob - Model Y504V
54-139	3/8-32 x 9/16 Palmnut - Cadmium (2 Used On 1Y20Z)
54-566	7/16-20 x 5/8 Palmnut - Cadmium (Used On S-75521 Or S-75522 Or S-75523 Or S-75524)
54-717	Tinnerman Speed Nut (4 Used On 14-8121 Or 14-8122)
56-545 B	Stylus - 2 Mil. Mfd. Sapphire (Part of 142-161B)
79-174-12	No. 18 Sleeving - Yellow - 1 1/2"
*101-1153	Label (Power Information)
112-1635	6-20 x 1/2 Phillips Rd. Hd. Self-Tap. Screw - N.P. (1 Joins Ea. 24-1554 Or 24-1555 & 54-717 & 166-132)
114-657	8-18 x 5/16 x 1/4 Hex Washer Hd. Self-Tap. Screw - Stat. Bronze
114-786	8-18 x 1/2 Hex. Hd. Self-Tap. Screw - Stat. Bronze - Flat Washer Att. (4 Mt. S-78845)
114-807	6-20 x 7/16 x 1/4 Hex Hd. Self-Tap. Screw - Stat. Bronze
126-1345	Heat Shield
*142-161B	Dual Pickup Cartridge - 2 Mil. Mfd. Sapphire (Part Of S-75521, S-75522, S-75523 Or S-75524)
159-153	Trimount Stud (2 Used On 24-1171)
166-132	Polyethylene Bumper (4 Required)
188-140	Retaining Ring (Used On 29-86, 29-87 Or 29-88)
188-177	Knob Clamping Ring (Used On 46-5567, 46-5568, 46-5570 Or 46-5571)
*202-2970	Instruction Book
856-6	Pin (Retains Back Assembly To Tone Arm)
880-17	Tone Arm Weight Spring
912-85	4-40 Screw (Mts. Cartridge to Arm)
932-2	Rubber-Wire Retainer (2 Required)
S-75521	Tone Arm Assembly - Model Y504B
S-75522	Tone Arm Assembly - Model Y504D
S-75523	Tone Arm Assembly - Model Y504P
S-75524	Tone Arm Assembly - Model Y504V
*S-78845	Phono Motor Assembly
825-1	Cotter Pin
827-3	45 RPM Adapter Center Disc
846-80	Knob
857-107	RPM Plate
861-5	Tire & Disc Ass'y. (Pulley)
880-18	Idle Spring
880-19	Link Spring
880-20	Detent Spring
893-22	Fibre Washer (4 Required)
925-2	Grommet (8 Required)
988-12	Retaining Ring (Retains 893-22)
988-13	Retaining Ring
988-14	Retaining Ring (Retains 880-19)
	"OPTIONAL AT EXTRA COST"
56-480	Stylus - 7 Mil Mfd. Sapphire

MODELS - Z508B ,L ,P - USING CHASSIS 2ZT24

*12-4876	Pivot Bracket - Left
*12-4877	Pivot Bracket - Right
*14-8635	Plastic Cabinet - Rear (Part of 14-8711)
*14-8636	Plastic Cabinet - Rear (Part of 14-8712)
*14-8637	Plastic Cabinet - Rear (Part of 14-8713)
*14-8645	Plastic Cabinet - Front (Part of 14-8711)
*14-8646	Plastic Cabinet - Front (Part of 14-8712 or 14-8713)
*14-8711	Portable Phono Cabinet - Complete - Model Z508B
*14-8712	Portable Photo Cabinet - Complete - Model Z508L

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
*14-8713	Portable Photo Cabinet - Complete - Model Z508P	19-414	Line Cord Clip (2 required)
*16-3550	Packing Carton	19-499	Speaker Retaining Clip (3 required)
17-120	Line Cord Retaining Clamp	*19-515	Mounting Clip (45 RPM Adapter)
19-414	Line Cord Clip (2 required)	*26-1552	Dial Scale (Part of S-79119 or S-79120)
19-499	Speaker Retaining Clip (3 required)	*36-572	Cabinet Handle (Part of 14-8709)
19-515	Mounting Clip (45 RPM Adapter)	*36-573	Cabinet Handle (Part of 14-8710)
*36-574	Cabinet Handle (Part of 14-8711)	*43-975	Record Changer Housing (Part of 14-8709)
*36-575	Cabinet Handle (Part of 14-8712)	*43-976	Record Changer Housing (Part of 14-8710)
*36-576	Cabinet Handle (Part of 14-8713)	*46-6364	Tuning Knob
*43-977	Record Changer Housing (Part of 14-8711)	*46-6403	Control Knob - Volume - Tone (2 required)
*43-978	Record Changer Housing (Part of 14-8712)	49-1096	4" PM Speaker
*43-979	Record Changer Housing (Part of 14-8713)	*54-799	Tinnerman Speed Nut
*46-6402	Control Knob - Volume - Tone (2 required)	*54-800	Tinnerman Speed Nut (2 used on 14-8643 or 14-8644, 4 used on 43-975 or 43-976 2 part of 14-8709 or 14-8710)
49-1039	4" PM Speaker	56-532 or	Needle - 1 Mil. & 3 Mil. Mfd. Sapphire (Part of 142-149)
*54-799	Tinnerman Speed Nut	*56-558	Needle - .7 Mil. & 3 Mil. Mfd. Sapphire (Part of 142-149)
*54-800	Tinnerman Speed Nut (2 used on 14-8645 or 14-8646, 4 used on 43-977, 43-978 or 43-979 & 2 part of 14-8711, 14-8712 or 14-8713)	57-5816	Name Plate (Part of S-78980)
56-532	Needle - 1 Mil. & 3 Mil. Mfd. Sapphire (Part of 142-149)	69-115	8-32 x 1 3/8 Round Hd. Mach. Screw - N.P. (2 join 14-8633 & 14-8643, 14-8634 & 14-8644 & 2 part of 14-8709 or 14-8710)
OR		69-306	6-32 x 1/4 Phillips Rd. Hd. Mach. Screw - N.P. (2 used on 19-515)
56-558	Needle - .7 Mil. & 3 Mil. Mfd. Sapphire (Part of 142-149)	79-180-104	No. 1 Sleeving - Clear - 13"
*57-5816	Name Plate (Part of S-78980)	80-2011	Latch Spring (2 part of 14-8711, 14-8712 or 14-8713)
*69-115	8-32 x 13/8 Rd. Hd. Mach. Screw - N.P. (2 join 14-8635 & 14-8645, 14-8636 & 14-8646 or 14-8637 & 14-8646 & 2 part of 14-8711, 14-8712 or 14-8713)	83-5604	Four Lug Terminal Strip
*69-306	6-32 x 1/4 Phillips Rd. Hd. Mach. Screw - N.P. (2 used on 19-515)	83-6406	Trim Strip (Part of 14-8711 or 14-8713)
*79-180-104	No. 1 Sleeving - Clear - 13"	94-1499	Trim Strip (Part of 14-8712)
*80-2011	Latch Spring (2 part of 14-8711, 14-8712 or 14-8713)	97-811	Spacer Bushing (2 part of 14-8711, 14-8712 or 14-8713)
*83-5604	Four Lug Terminal Strip	*97-811	Pivot Stud - Right (Part of 14-8711, 14-8712 or 14-8713)
*83-6580	Trim Strip (Part of 14-8711 or 14-8713)	*97-821	Pivot Stud - Left (Part of 14-8711, 14-8712 or 14-8713)
*83-6581	Trim Strip (Part of 14-8712)	*101-1159	Transistor Layout & Patent Label
*94-1499	Spacer Bushing (2 part of 14-8711, 14-8712 or 14-8713)	112-901	6-20 x 3/8 Phillips Rd. Hd. Self-Tap. Screw - Cadmium (4 Mt. 22T24)
*97-811	Pivot Stud - Right (Part of 14-8711, 14-8712 or 14-8713)	112-1383	6-20 x 5/16 Phillips Rd. Hd. Self-Tap. Screw - Stat. Bronze (3 Mt. 49-1039)
*97-821	Pivot Stud - Left (Part of 14-8711, 14-8712 or 14-8713)	112-2047	8-32 x 1" Phillips Oval Hd. Mach. Screw - N.P. (4 used on 169-347)
*101-1159	Transistor Layout & Patent Label	*114-218	10-16 x 7/8 Hex Hd. Self-Tap. Screw - Stat. Bronze Flat Washer Att. (2 Mt. 36-674, 36-575 or 36-576)
112-901	6-20 x 3/8 Phillips Rd. Hd. Self-Tap. Screw - Cadmium (4 Mt. 22T24)	114-351	6-20 x 1/2 Lg. x 1/4 Hex Hd. Self-Tap. Screw - Stat. Bronze (4 join 12-4876 or 12-4877 & 80-2011)
112-1383	6-20 x 5/16 Phillips Rd. Hd. Self-Tap. Screw - Stat. Bronze (3 Mt. 49-1039)	114-809	8-18 x 3/16 x 1/4 Hex Hd. Self-Tap. Screw - Stat. Bronze (Joins 83-5604 & 169-346)
112-2047	8-32 x 1" Phillips Oval Hd. Mach. Screw - N.P. (4 used on 169-347)	*114-1074	6-20 x 1/2 x 1/4 Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (Used on 17-120)
*114-218	10-16 x 7/8 Hex Hd. Self-Tap. Screw - Stat. Bronze Flat Washer Att. (2 Mt. 36-674, 36-575 or 36-576)	142-149	Dual Monaural Cartridge (Part of 169-346)
114-351	6-20 x 1/2 Lg. x 1/4 Hex Hd. Self-Tap. Screw - Stat. Bronze (4 join 12-4876 or 12-4877 & 80-2011)	*169-346	4 Speed Record Changer (See Changer Parts List For Components)
114-809	8-18 x 3/16 x 1/4 Hex Hd. Self-Tap. Screw - Stat. Bronze (Joins 83-5604 & 169-347)	188-131	Retaining Ring (Used on ea. 97-811 & 97-821)
114-1074	6-20 x 1/2 x 1/4 Hex Washer Hd. Self-Tap. Screw - Stat. Bronze (Used on 17-120)	188-155	Knob Clamping Ring (Part of 46-6403)
142-149	Dual Monaural Cartridge (Part of 169-347)	188-231	Knob Captivating Ring (Used on 46-6364)
*169-347	Four Speed Record Changer (See Changer Parts List For Components)	*202-3089	Instruction Book
188-131	Retaining Ring (Used on ea. 97-811 & 97-821)	*220-152	Packing Cushioning Material
188-155	Knob Clamping Ring (Part of 46-6402)	*S-78980	45 RPM Adapter Spindle & Name Plate Assembly
*202-3088	Instruction Book	*S-79115	Cabinet Front & Trim Strip Assembly - Model Z508B
*220-152	Packing Cushioning Material	*S-79116	Cabinet Front & Trim Strip Assembly - Model Z508L
*S-78980	45 RPM Adapter Spindle & Name Plate Assembly	*S-79117	Cabinet Front & Trim Strip Assembly - Model Z508P
*S-79115	Cabinet Front & Trim Strip Assembly - Model Z508B		
*S-79116	Cabinet Front & Trim Strip Assembly - Model Z508L		
*S-79117	Cabinet Front & Trim Strip Assembly - Model Z508P		
		*14-8679	Remote Speaker Housing (Part of 14-8681)

MODELS – Z522J & L USING CHASSIS 2ZT21 & 2ZT22

- *12-4876 Pivot Bracket - Left
- *12-4877 Pivot Bracket - Right
- *14-8633 Plastic Cabinet - Rear (Part of 14-8709)
- *14-8634 Plastic Cabinet - Rear (Part of 14-8710)
- *14-8643 Plastic Cabinet - Front (Part of 14-8709)
- *14-8644 Plastic Cabinet - Front (Part of 14-8710)
- *14-8709 Portable Phono Cabinet - Complete - Model Z522J
- *14-8710 Portable Phono Cabinet - Complete - Model Z522L
- *16-3550 Packing Carton
- 17-120 Line Cord Retaining Clamp

PART NO.	DESCRIPTION
*57-6793	Name Plate (Part of 14-8681)
*57-6794	Name Plate (Part of 14-8682)
94-653	Spacer Bushing (2 used on 8YT21)
*94-1497	Spacer Bushing (4 used on 169-288 or 169-350)
101-977	Transistor Layout & Patent Label
112-1557	6-18 x 3/4 Phillips Flat Hd. Self-Tap. Screw - N.P. (2 used on 57-6754 or 57-6755)
*112-1926	6-18 x 5/8 Phillips Truss Hd. Self-Tap. Screw - N.P. (4 used on ea. 139-206 & 139-207)
*112-2018	8-15 x 1 5/8 Phillips Special Hd. Self-Tap. Screw - Bright N.P. (4 used on ea. 169-288 or 169-350 Changer)
*112-2052	6-18 x 5/8 Phillips Truss Hd. Self-Tap. Screw - Stat. Bronze (4 used on ea. 139-208 & 139-209)
*114-1021	8-18 x 1/2 Hex Hd. Self-Tap. Screw - Stat. Bronze (1 used on ea. 17-167)
*114-1078	6-18 x 3/8 Hex Hd. Self-Tap. Screw - N.P. (2 used on 19-513)
125-62	Rubber Grommet (Used on 169-288 or 169-350)
125-148	Rubber Grommet (4 used on 169-288 or 169-350)
*139-206	Speaker Baffle - Upper (Part of 14-8681)
*139-207	Remote Speaker Baffle (Part of 14-8681)
*139-208	Speaker Baffle - Upper (Part of 14-8682)
*139-209	Remote Speaker Baffle (Part of 14-8682)
142-148	Dual Cartridge - .7 Mil. & 3 Mil. Mfd. Sapphire (Part of 169-288 or 169-350)
166-90	Bumper (6 part of 14-8681 or 14-8682)
169-288	Four Speed Record Changer - Model Z540G (See Changer Parts List For Components)
*169-350	Four Speed Record Changer - Model Z540J (See Changer Parts List For Components)
188-155	Knob Clamping Ring (Part of 14-6420 or 14-6421)
*202-3091	Instruction Book
*220-153	Packing Cushioning Material
*812-10	Friction Support - Right Hand - (Part of 14-8681 or 14-8682)
*813-1	Plastic Headed Tack (4 part of 14-8681 or 14-8682)
*853-1	Plastic Headed Tack (2 part of 14-8681 or 14-8682)
*854-10	Tee Nut - Cadmium (2 part of 14-8681 or 14-8682)
*857-68	Retainer - Chrome (2 used on 882-4 or 882-5)
*864-8	Rolled Flange Eyelet - N.P. (Part of 14-8679 or 14-8680)
*864-9	Rolled Flange Eyelet - N.P. (2 part of 14-8679 or 14-8680)
864-24	Closed - End Eyelet (Part of 14-8679 or 14-8680)
*869-3	1/4 - 20 x 3/4" Lg. Ph. Truss Hd. Mach. Screw (2 part of 14-8679 or 14-8680)
*870-2	5 x 3/8" Lg. R.H. Wood Screw (2 Mt. ea. 956-19)
*882-4	Handle Strap (Part of 14-8681)
*882-5	Handle Strap (Part of 14-8682)
*883-17	Trim Strip - Silvatrim (2 part of ea. 14-8679 or 14-8680)
*894-4	"Heyco" Snap Bushing (Part of 14-8679 or 14-8680)
*894-5	"Heyco" Snap Bushing (Part of 14-8679 or 14-8680)
*912-13	8 x 3/4 Lg. R.H. Sheet Metal Screw - Cadmium (1 Mts. ea. 166-90)
*912-111	5 x 9/16" Lg. Phillips Flat Hd. Sheet Metal Screw - N.P. (4 Mt. 812-10)
*912-112	6 x 3/4 Lg. Phillips Flat Hd. Mach. Screw - N.P. (2 used on 169-288 or 169-350)
*912-113	6 x 3/4 Phillips Truss Hd. Mach. Screw - N.P. (2 Mt. ea. 139-206 & 139-207 or 139-208 & 139-209)
*956-19	Catch (1 used on ea. 139-207 or 139-209)
*988-3	Ring - Chrome (2 used on 882-4 or 882-5)
S-72649	45 RPM Adapter

MODEL X560W-1 — CHASSIS PARTS

63-1736	68 Ohm Resistor - 1/2W. 10% (3 required)
63-1757	220 Ohm Resistor - 1/2W. 10% (2 required)
63-1761	270 Ohm Resistor - 1/2W. 10% (2 required)
63-1768	390 Ohm Resistor - 1W. 10% (2 required)
63-1782	820 Ohm Resistor - 1/2W. 10% (4 required)

PART NO.	DESCRIPTION
63-1792	1500 Ohm Resistor - 1/2W. 10% (2 required)
63-1799	2200 Ohm Resistor - 1/2W. 10% (2 required)
63-1803	2700 Ohm Resistor - 1/2W. 10% (4 required)
63-1813	4700 Ohm Resistor - 1/2W. 10% (4 required)
63-1841	22K Ohm Resistor - 1/2W. 10% (2 required)
63-1848	33K Ohm Resistor - 1/2W. 10% (2 required)
63-1873	120K Ohm Resistor - 1/2W. 10% (4 required)
63-1876	150K Ohm Resistor - 1/2W. 10% (2 required)
63-1897	470K Ohm Resistor - 1/2W. 10% (2 required)
63-1911	1 Megohm Resistor - 1/2W. 10% (2 required)
63-4528	4.7 Ohm Resistor - 1/2W. 5% (4 required)
63-5477	68 Ohm Resistor - 2W. 10%
964-8895	Spacer - Transistor (8 required)
964-9196	Lockwasher - Transistor (9 required)
964-9197	6-32 x 5/16 Hex.Nut - Transistor (8 used on 964-10544)
*964-10492-A	Screw (2 required)
964-10544	6 - 32 x 3/8 Screw (2 Mt. ea. 800-257)
964-10545	3/8" Palnut (4 required)
964-16584	1 Ohm Resistor - 2W. 10% (4 required)
964-16684	Mica Washer - Transistor (4 part of 800-257)
964-16685	Solder Lug (5 required)
964-16686	Audio Cable
964-17170	Amp. Terminal (16 required)
964-17443	Rectifier (2 required)
964-18451	Driver Transformer
964-18628	Driver Transformer
964-19612	47 Mfd. Capacitor - 3V. (2 required)
964-19613	.0033 Mfd. Capacitor - 500V. (2 required)
964-19614	.001 Mfd. Capacitor - 500V. (2 required)
964-19638	.05 Mfd. Capacitor - 100V. (2 required)
964-19639	.1 Mfd. Capacitor - 10V. (8 required)
964-19752	.0068 Mfd. Capacitor - 500V. (2 required)
964-19848	Socket Quick Disconnect - Female - Small (Used on 964-19858)
964-19858	Post Quick Disconnect - Male - Small
964-20060-B	100 Mfd. Capacitor - 15V. (2 required)
964-20307	500 Mfd. Capacitor - 25V.
964-20622	Terminal - Male - Large (9 required)
964-20623	Terminal - Female - Large (Used on 906-20622)
964-20737	22 Mfd. Capacitor - 10V. (2 required)
964-20738	Pre-Amp. Transistor (4 required)
964-20739	Driver Transistor (2 required)
964-20743	Power Transformer
964-21108	Bass Control
964-21109	Loudness Control
964-21110	Balance Control
964-21111	Treble Control
964-21274	Chassis Bracket
*964-21300	5 Mfd. Capacitor - 15V. (2 required)
*964-21301	1 Mfd. Capacitor - 15V. (2 required)
*964-21302	200 Mfd. Capacitor - 25V. (2 required)
*964-21442	Electrolytic Capacitor - 2000/500/35V.
205-51	Dow Corning Heat Conductive Grease (Part of 800-257)
*800-257	Output Transistor Assembly - Matched Pair (2 required)

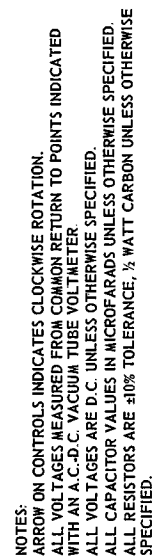
MODEL X560W-1 — CABINET PARTS

964-9197	6 - 32 x 5/16 Hex Nut (2 required)
964-11755-9	Speaker Mounting Screw (4 part of 964-21113)
964-11998-A	Zenith Emblem
964-12128-H	Speaker Mounting Screw (4 part of 964-21113)
964-12399	Palnut (23 required)
964-12961	4 Mf Capacitor (2 used on Speakers)
964-13364-9	Screw (8 required)
964-13621	Amp. Terminal (4 required)
964-13857	4" PM Speaker (2 required)
964-14117	Recessed Nut (2 required)
964-14195-3	Bumper - Changer Tilt Down Stop (2 required)
964-14220	Amp. Plug
964-14649-9C	Control Knob Assembly (4 required)
964-14902A	Closed Eyelet
964-15106	Motorboard Protector (2 required)
964-15821	Cable Clamp (2 required)

PART NO.	DESCRIPTION
964-16237	3½" PM Speaker (2 required)
964-16246	Label (Stylus Instruction)
964-16374-H	Hole Button - 1¼"
964-16434-9	Line Cord Clip (2 required)
964-16558	Bushing (2 used on Changer Base)
964-16947-H	Hinge - Right Hand - Male - Short (Stat. Bronze)
964-16948-H	Hinge - Right Hand - Female (Stat. Bronze)
964-16950-H	Hinge - Left Hand - Male - Short (Stat. Bronze)
964-16951-H	Hinge - Left Hand - Female (Stat. Bronze)
964-16981	Grommet
964-17170	Amp. Terminal (8 required)
964-17309-3	Bumper (4 part of 964-21113)
964-17445	Cable Clamp (2 required)
964-17948-A	Catch (Part of 964-21113)
964-17949-A	Stops (2 used with 964-17948-A)
964-18016	8" PM Speaker (2 required)
964-18233	Amp. Back (Panel)
964-18240	Cabinet Handle
964-18241	Cabinet Handle Stud (2 required)
964-18242-A	Mach. Screw (4 Mt. 964-18240)
964-18243-5	Line Cord & Plug
964-18268	Nameplate - Zenith - Stereophonic - Solid State
964-18272	Tinnerman Nut (2 required)
964-18340	Remote Speaker Cabinet W/Baffle - Left
964-18341	Remote Speaker Cabinet W/Baffle - Right
964-18342	Grille Cloth - Remote Front (2 required)
964-18343	Grille Cloth - Remote Rear (2 required)
964-18344	15½" Trim Strip - Nickel (2 required)
964-18345	11" Trim Strip - Nickel (2 required)

PART NO.	DESCRIPTION
964-18348	54" Trim Strip - Nickel
964-18366-H	Hinge - L.H.-Male - Long Pin W/Detent (Stat. Bronze)
964-18367-H	Hinge - R.H. - Male - Long Pin W/Detent (Stat. Bronze)
964-18368-H	Hinge - L.H. - Female - W/Detent (Stat. Bronze)
964-18369-H	Hinge - R.H. - Female W/Detent (Stat. Bronze)
964-18402	Handle Covering Strip
964-18562	Cord Clamp (2 required)
964-18586-9	45 RPM Adapter Clamp
964-18857	Control Plate - Balance - Loudness - Treble - Bass Stereophonic
964-20623	Socket Quick Disconnect (4 required)
964-20746-5	Remote Cable Assembly (2 required)
*964-21112	Cable Assembly
964-21113	Cabinet Assembly W/Hardware & Motorboard
*964-21693	8 Lug Terminal Strip
16-3215	Packing Carton
80-1840	Stylus Turret Spring (Part of 142-163)
101-1077	Transistor Layout & Patent Label
142-163	Dual Pickup Cartridge - 2G. - .7 Mil. Daimond & 3 Mil. Mfd. Sapphire (Part of 169-345)
169-345	4 Speed Record Changer (See Changer Parts List For Components)
202-3044	Instruction Book
S-68567	Stylus Assembly - .7 Mil. Diamond & 3 Mil. Mfd. Sapphire (Part of 142-163)
S-69287	45 RPM Adapter Assembly
	"OPTIONAL AT EXTRA COST"
S-75801	Stylus Assembly - .7 Mil. Dual Diamond

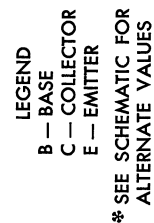
NOTES



 INDICATES $\pm 20\%$ TOLERANCE
 DENOTES COMMON RETURN B.
 DENOTES CHASSIS



1YT20Z SCHEMATIC



22ZT22 – CHASSIS WIRING AND COMPONENTS VIEWED FROM FOIL SIDE

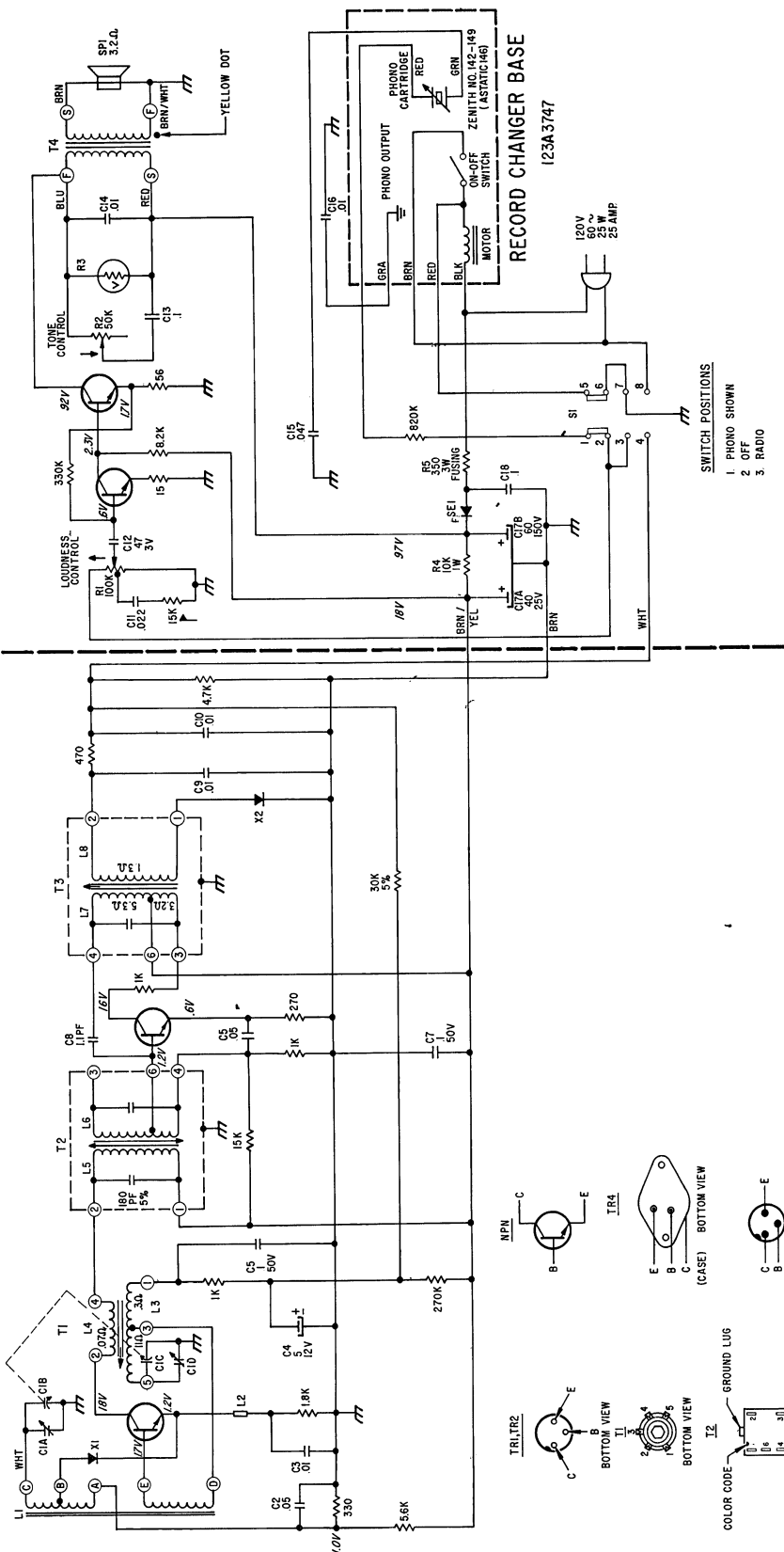
2ZT22

2ZT21

TR1
121-638
CONVERTER

TR3
121-433
DRIVER

TR4
121-436
OUTPUT



NOTES:

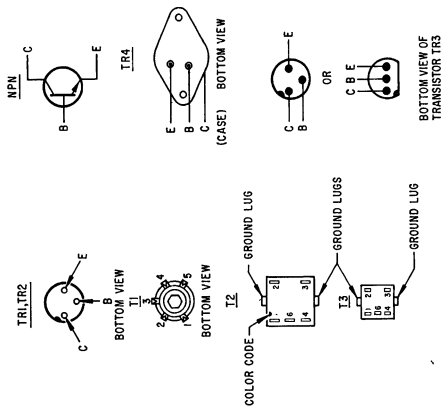
1. I.F. TRANSFORMER NUMBERING STARTS WITH #1 TERMINAL AS FIRST TERMINAL CLOCKWISE FROM MARKER CODE TERMINAL AS VIEWED FROM BOTTOM OF CHASSIS.
2. I.F. FREQUENCY 455 KC. - TUNING RANGE 535-1620 KC.
3. ALL RESISTORS $\pm 10\%$ TOLERANCE, $\frac{1}{2}$ WATT, CARBON UNLESS OTHERWISE SPECIFIED.
4. RESISTANCE VALUES IN OHMS, CAPACITANCE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
5. ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
6. D.C. VOLTAGES SHOWN ARE MEASURED WITH NO SIGNAL USING A VACUUM TUBE VOLTMETER.
7. VIEWED FROM THE FRONT ARROW ON VOLUME CONTROL INDICATES CLOCKWISE ROTATION.

8. PENOTES B- AND CHASSIS

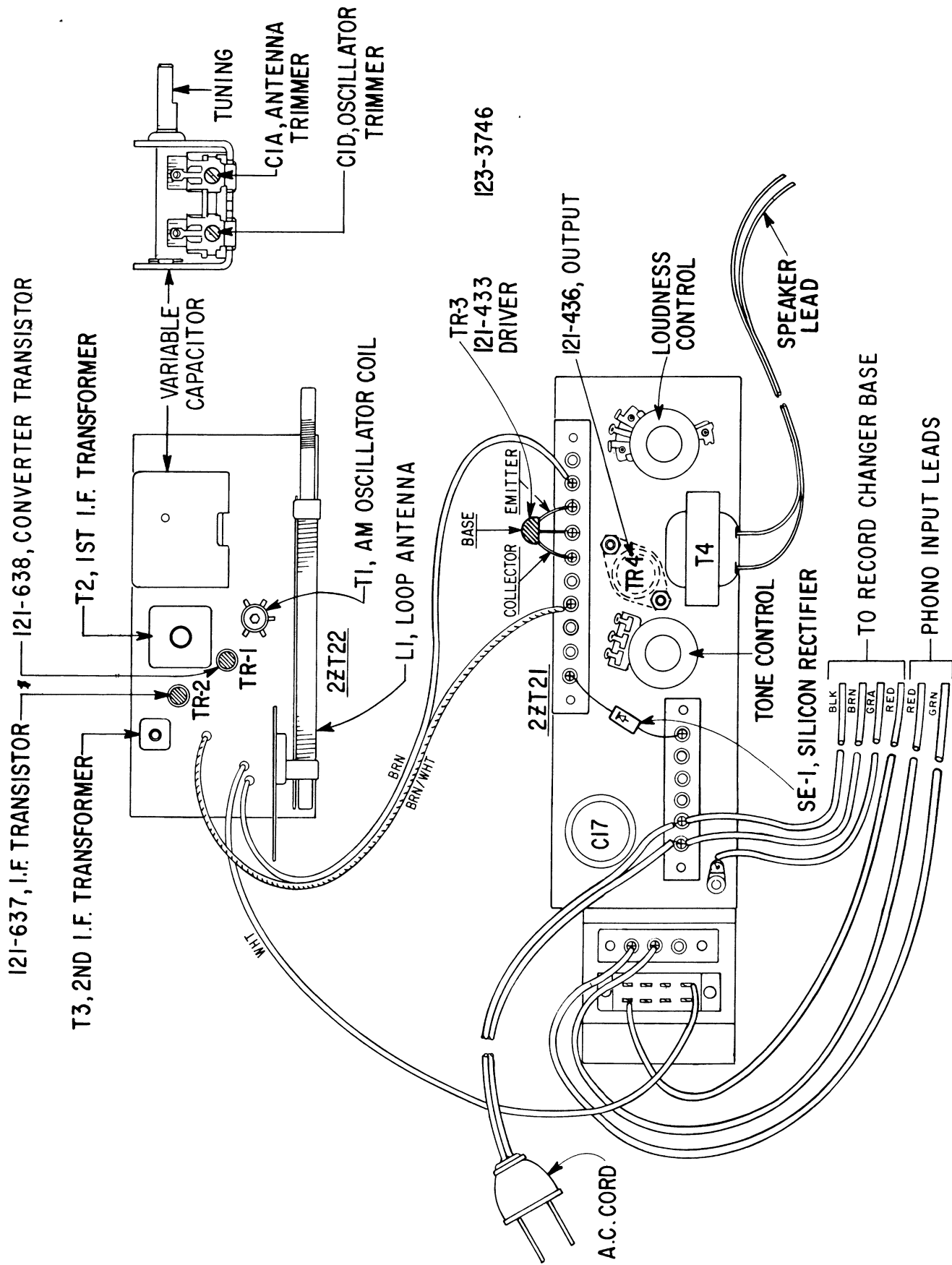
INDICATES $\pm 20\%$ TOLERANCE

INDICATES RECORD CHANGER BASE

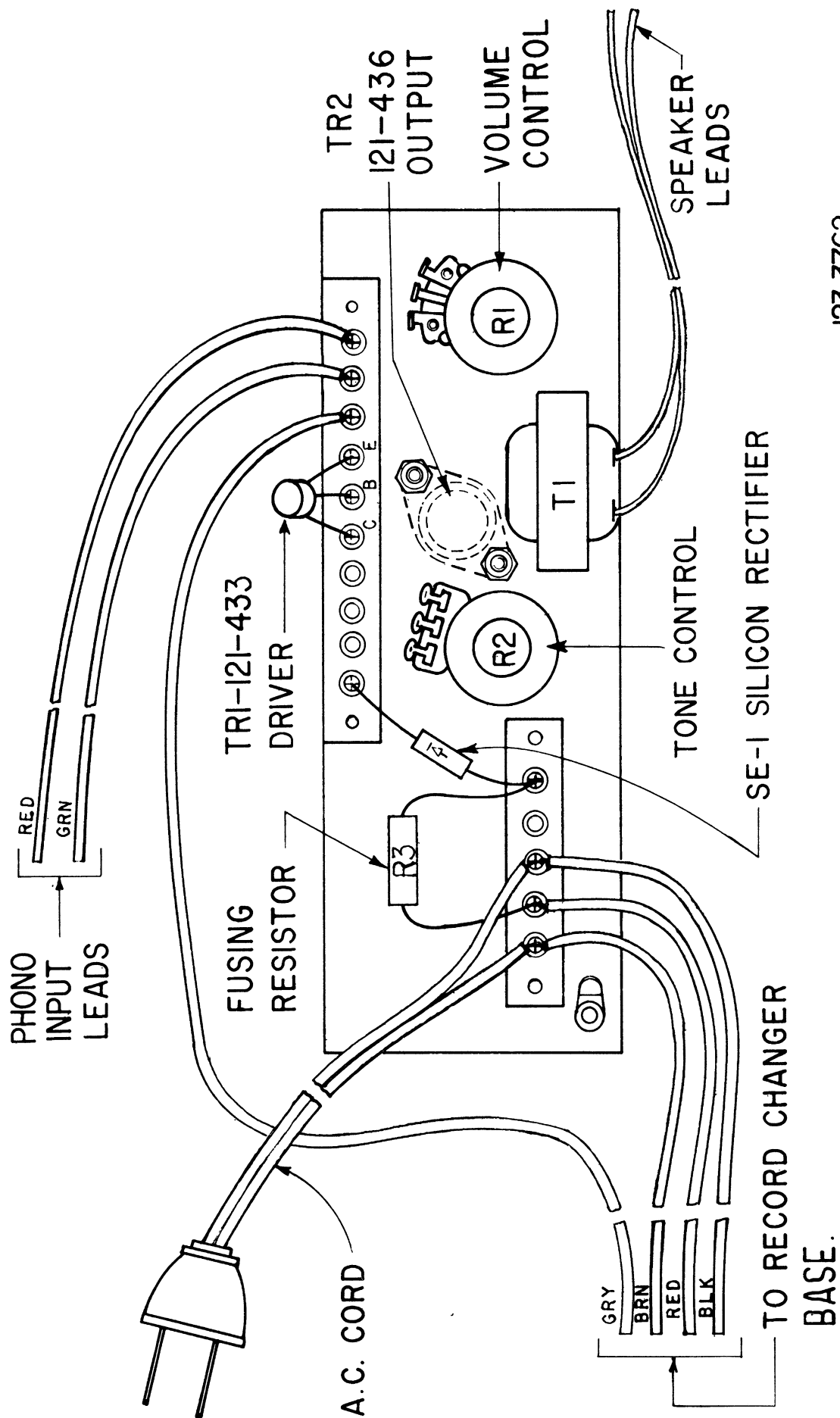
INDICATES COLLECTOR OF TRANSISTOR



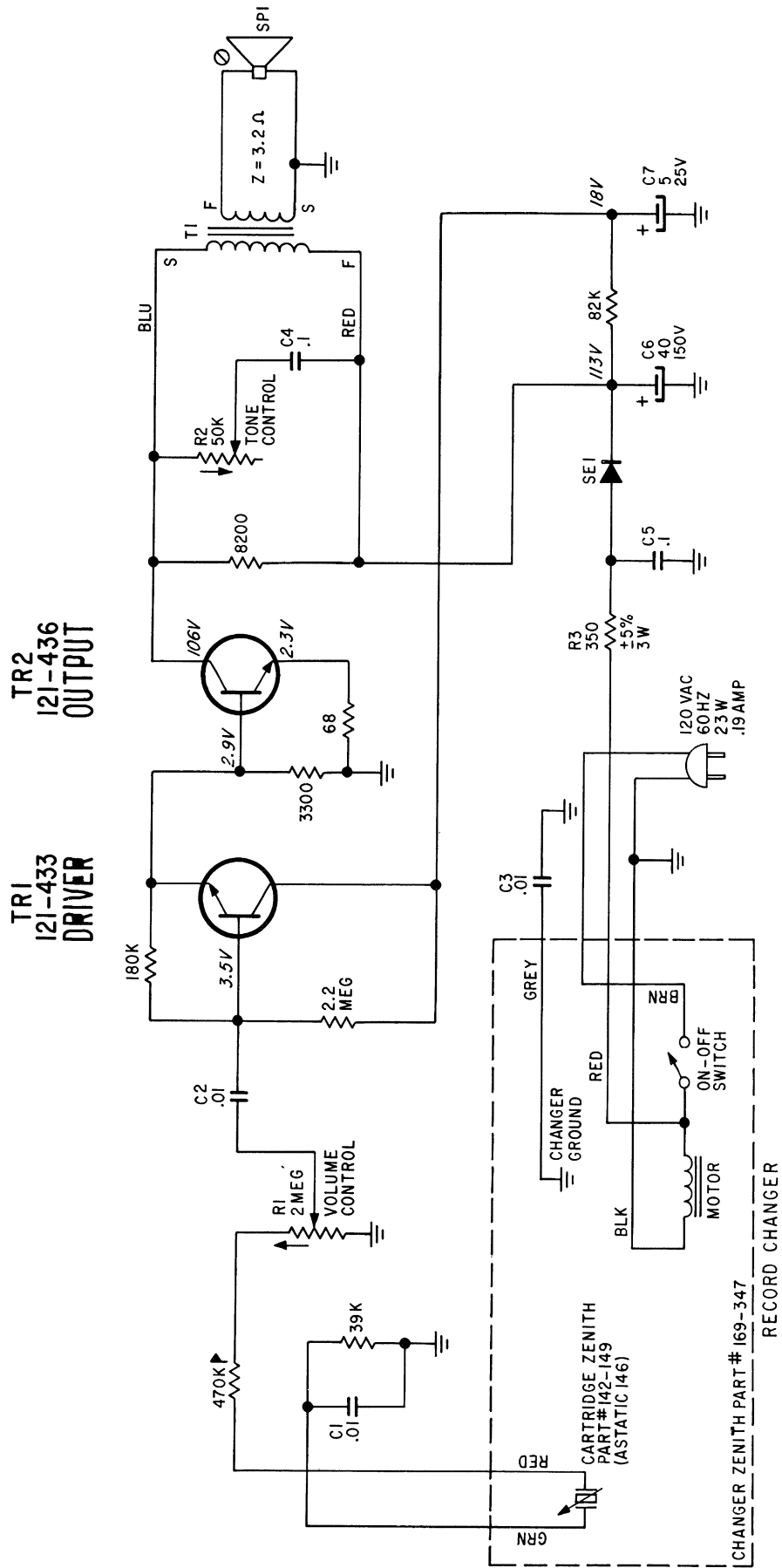
2ZT21 AND 2ZT22 - SCHEMATIC



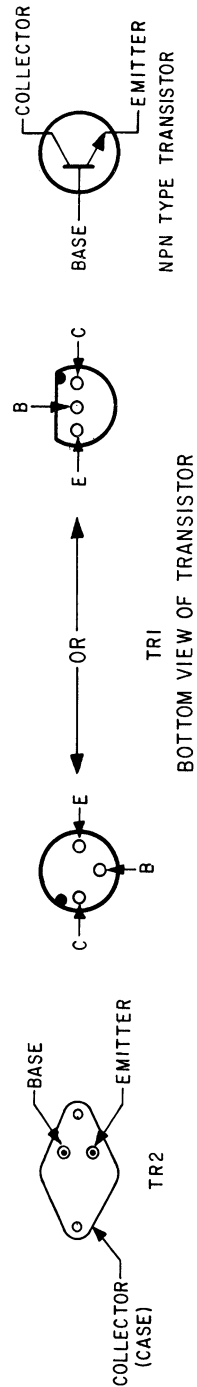
2ZT21 AND 2ZT22 - CHASSIS LAYOUT



123-3762



123A3758



NOTES:

ALL RESISTORS ARE $\frac{1}{2}W$ $\pm 10\%$ UNLESS OTHERWISE SPECIFIED.

ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

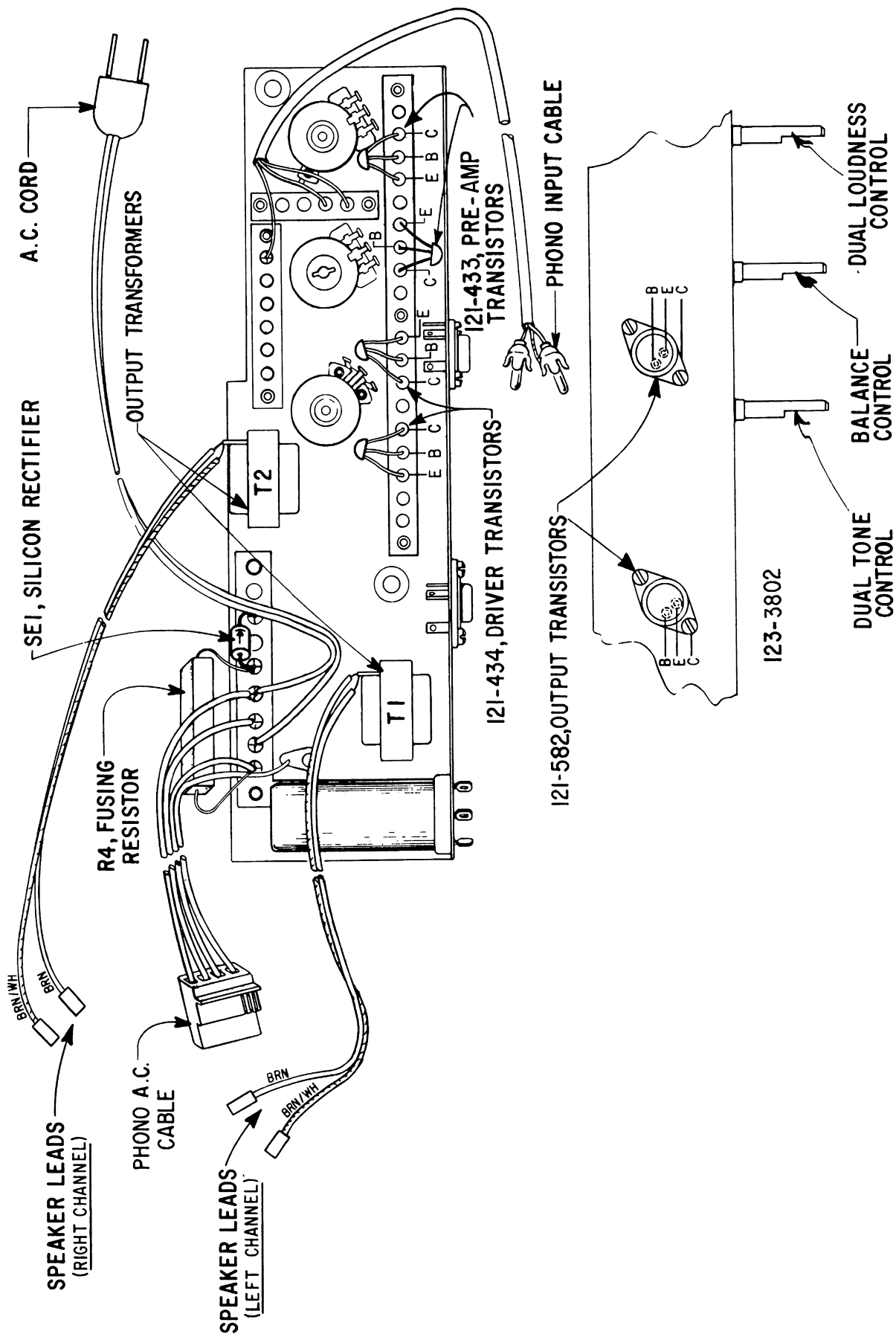
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION.

⊗ INDICATES SPEAKER POLARITY

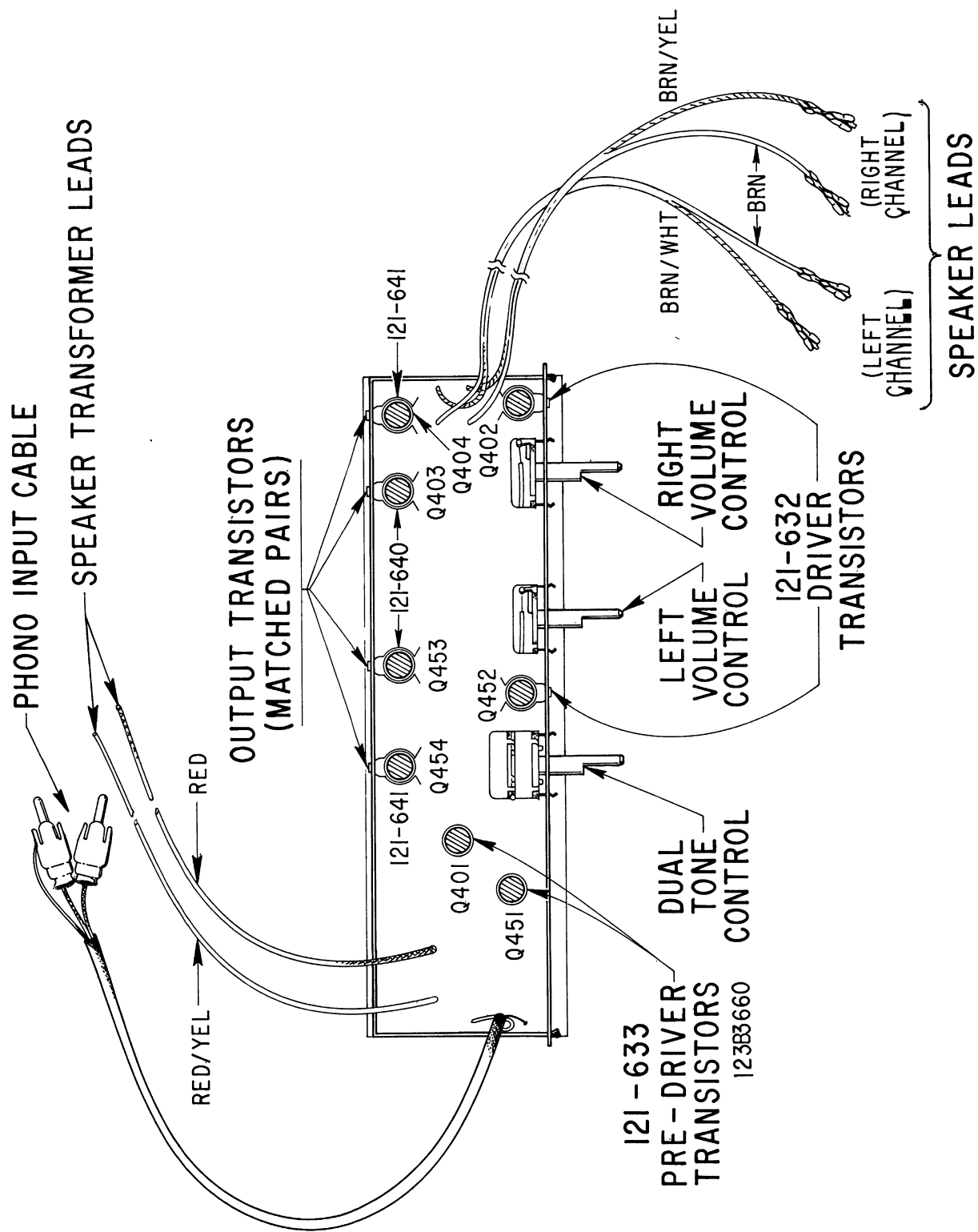
ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED AND ARE MEASURED FROM B- TO ALL POINTS INDICATED WITH A V.T.V.M.

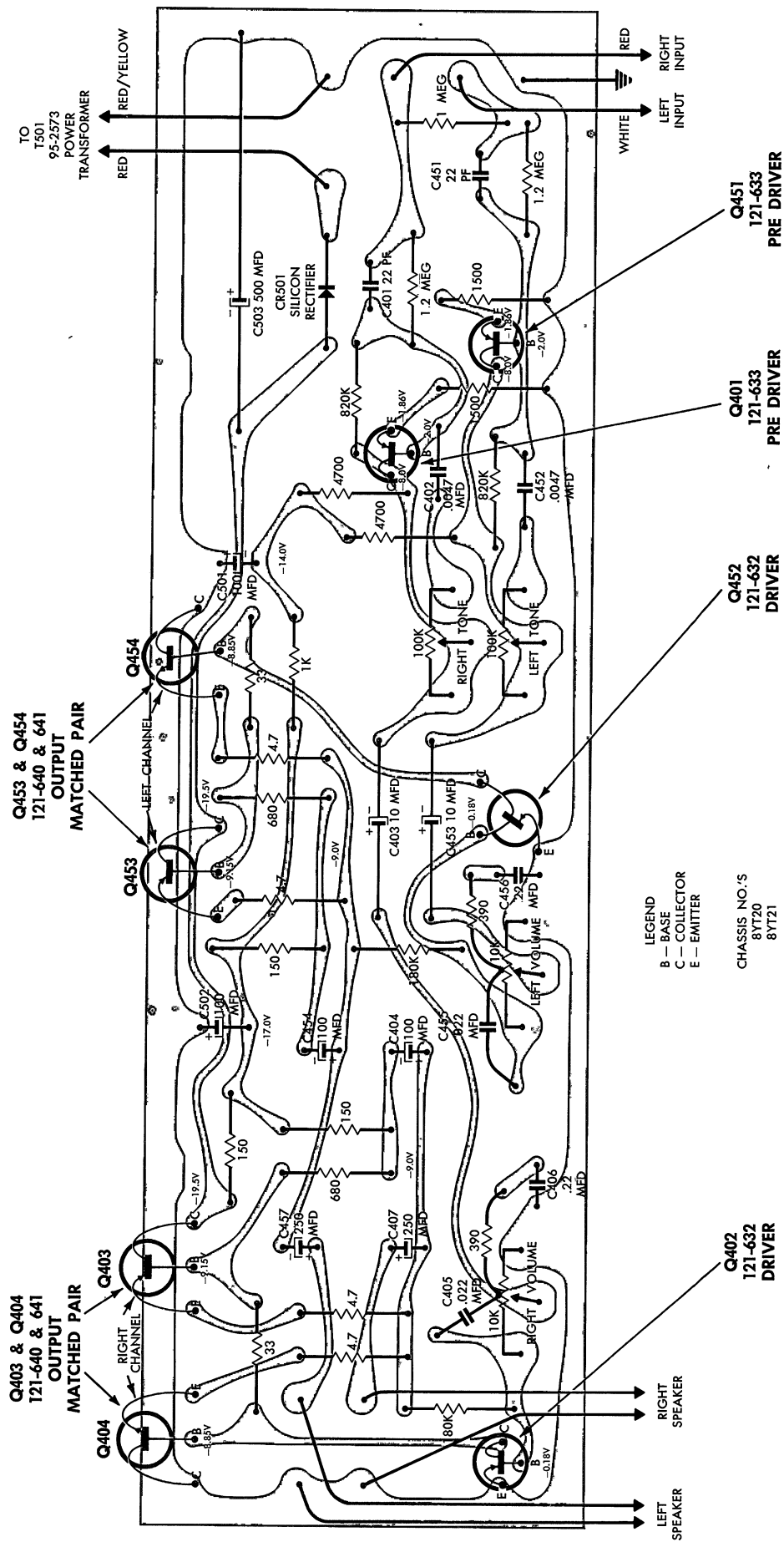
DENOTES AMPLIFIER CHASSIS BASE AND B—●

INDICATES 20% TOLERANCE.

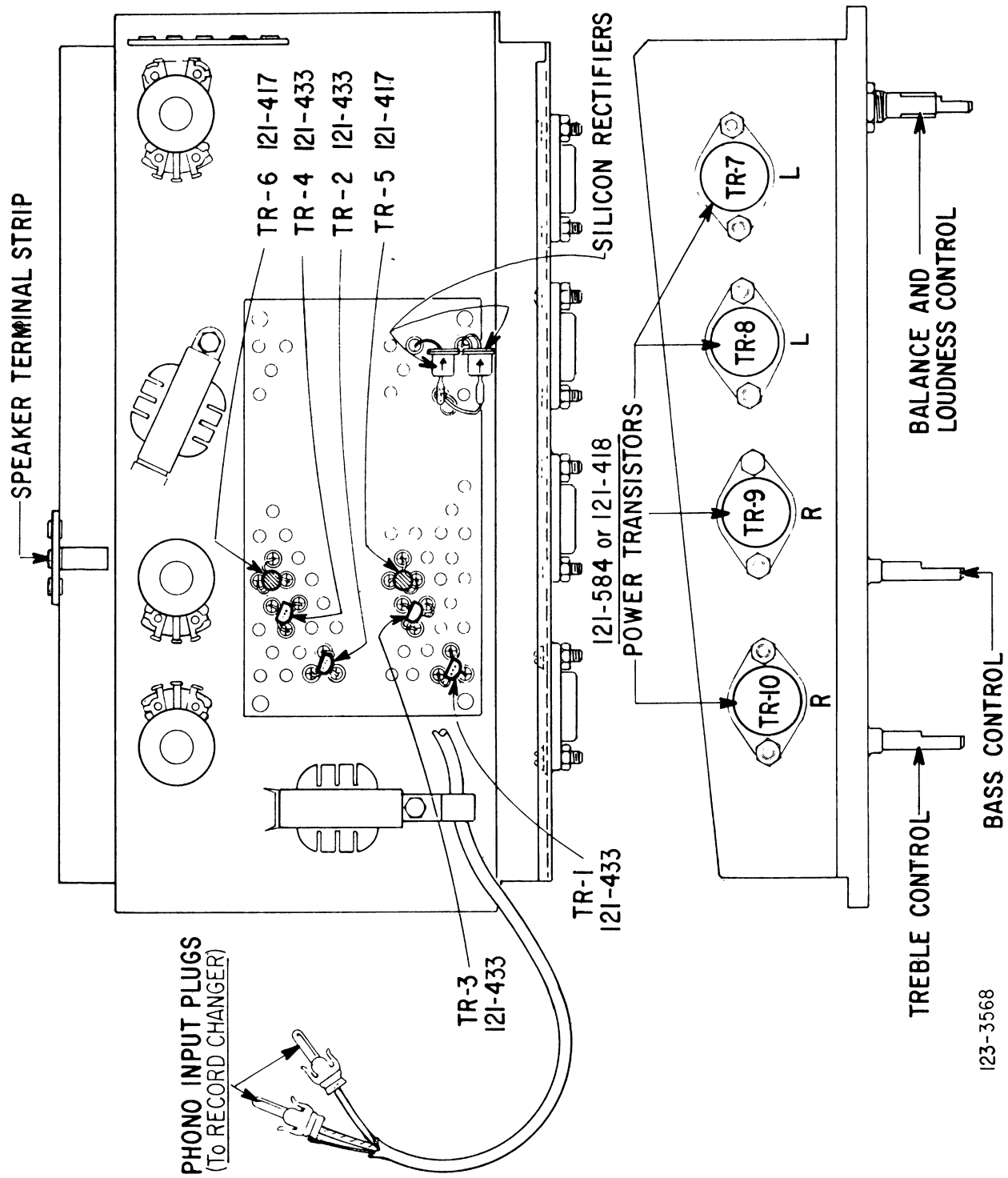


6ZT21 - CHASSIS LAYOUT

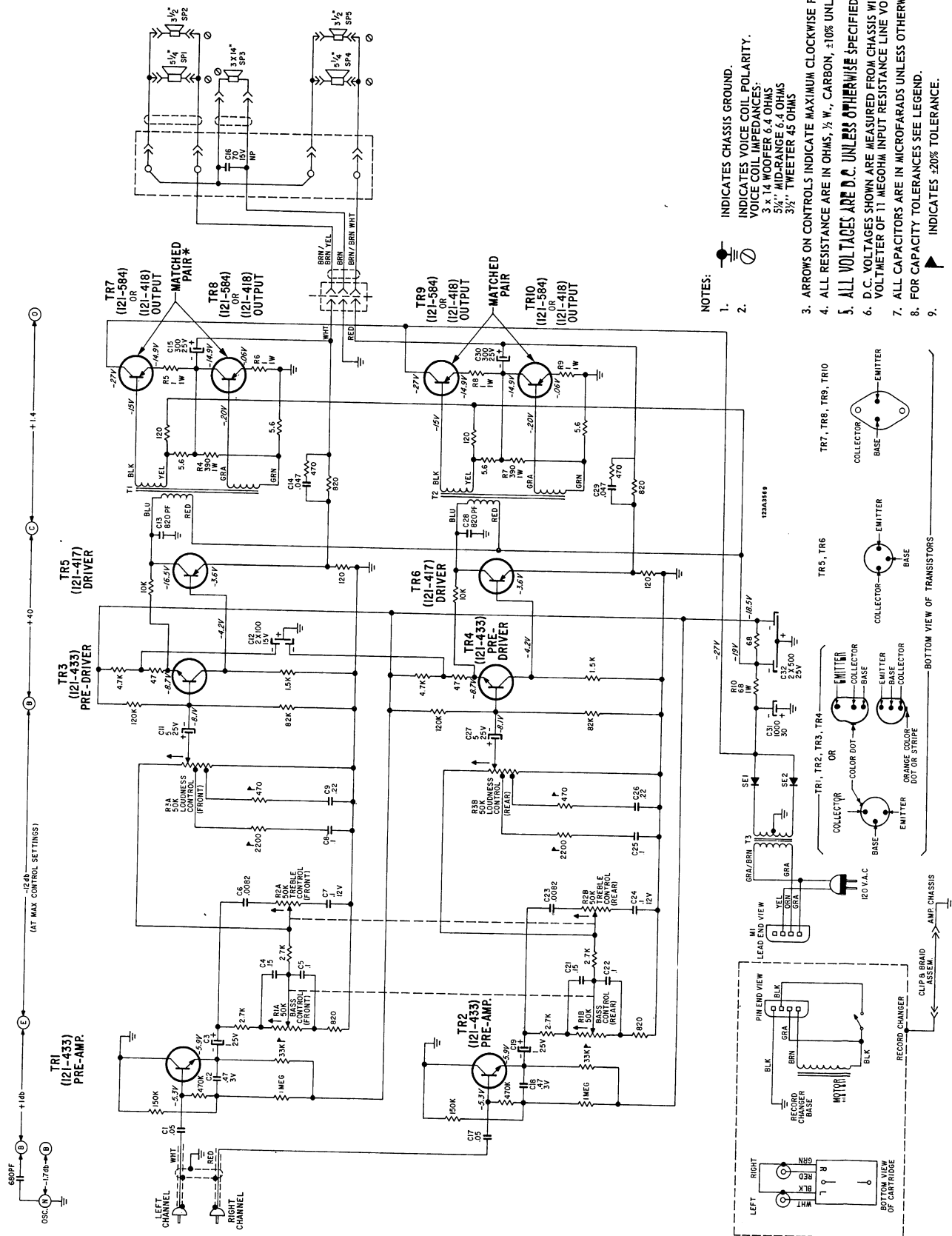




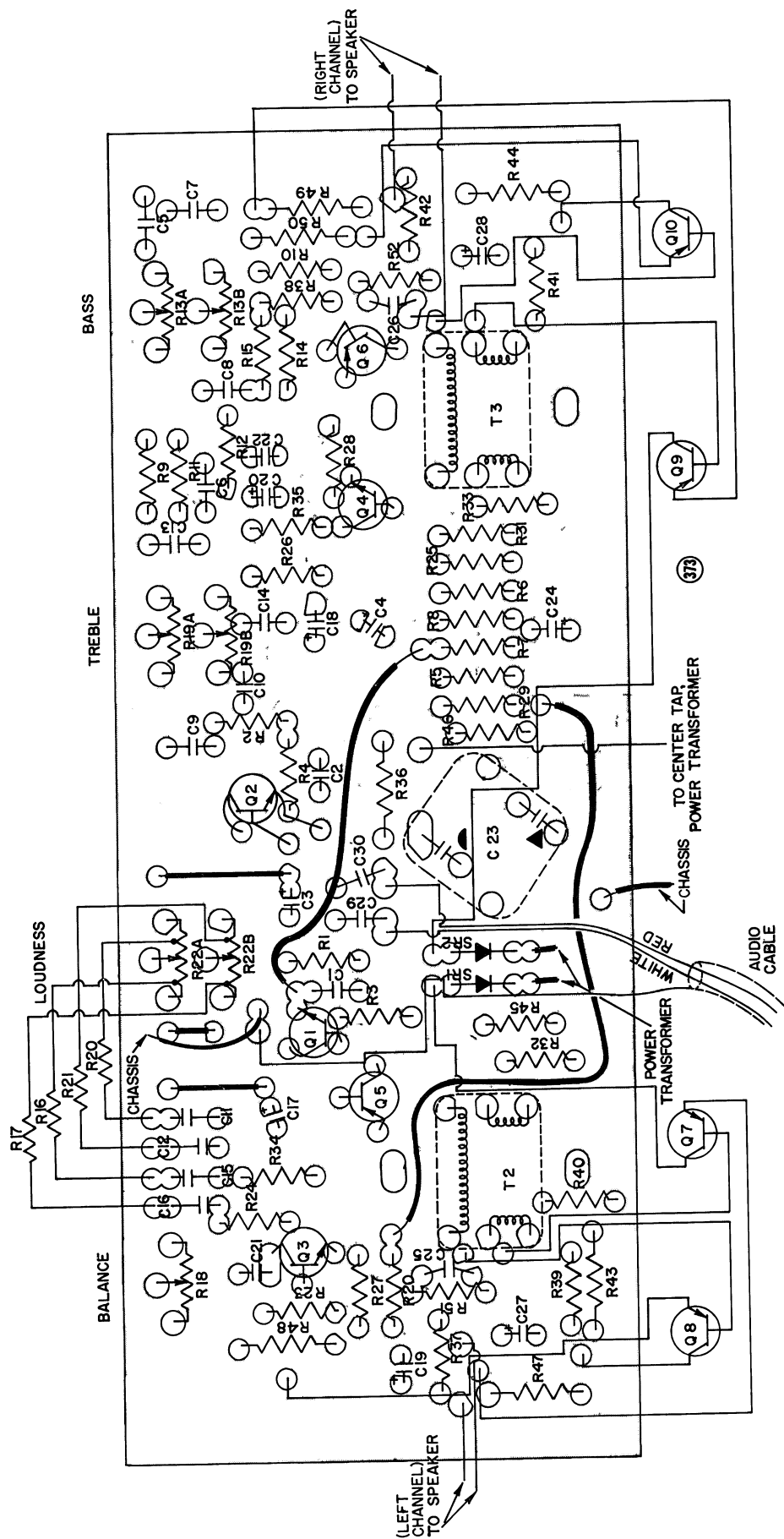
8YT20 AND 8YT21 — CHASSIS WIRING AND COMPONENTS VIEWED FROM FOIL SIDE



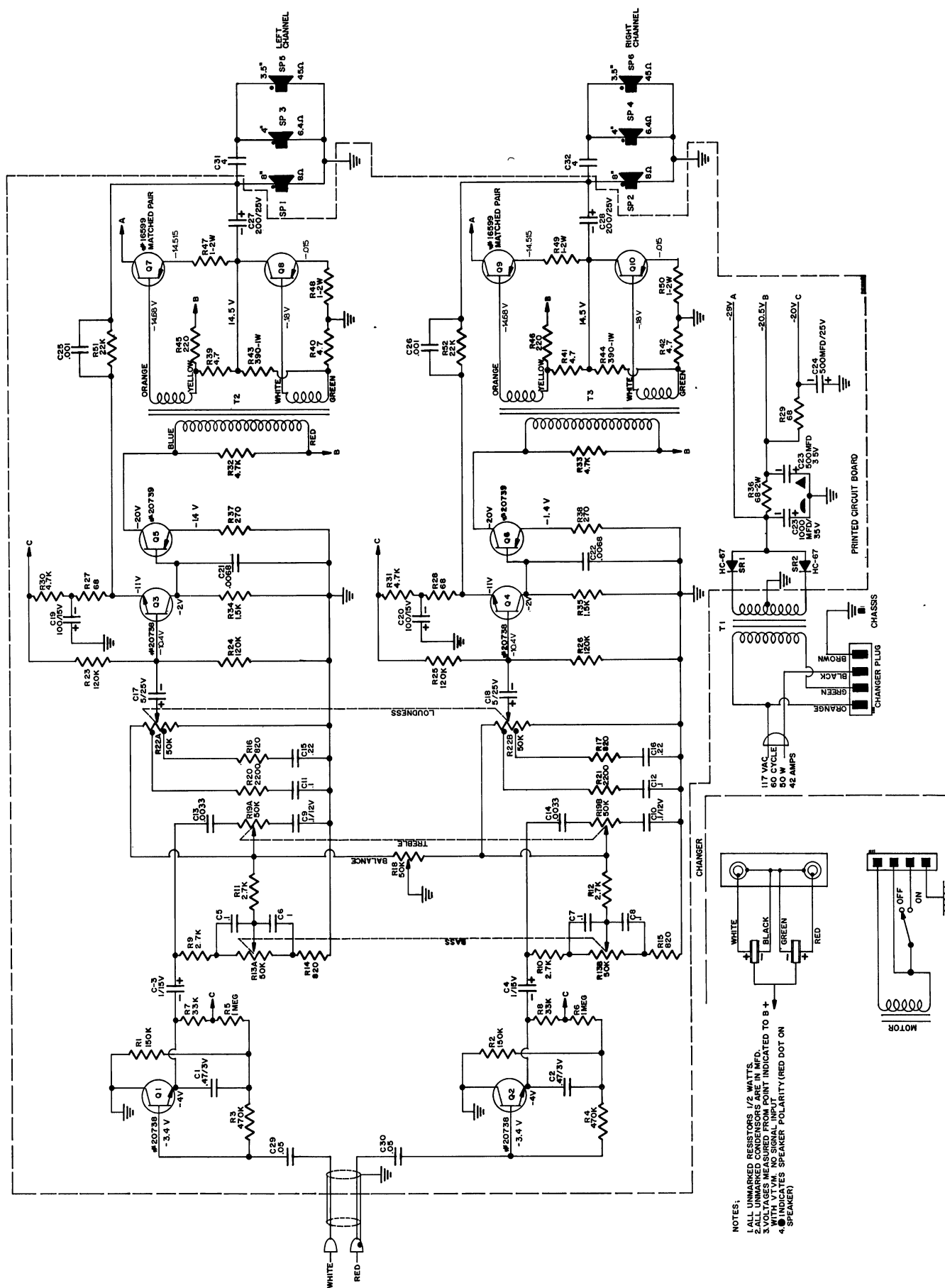
10NT01Z - CHASSIS LAYOUT

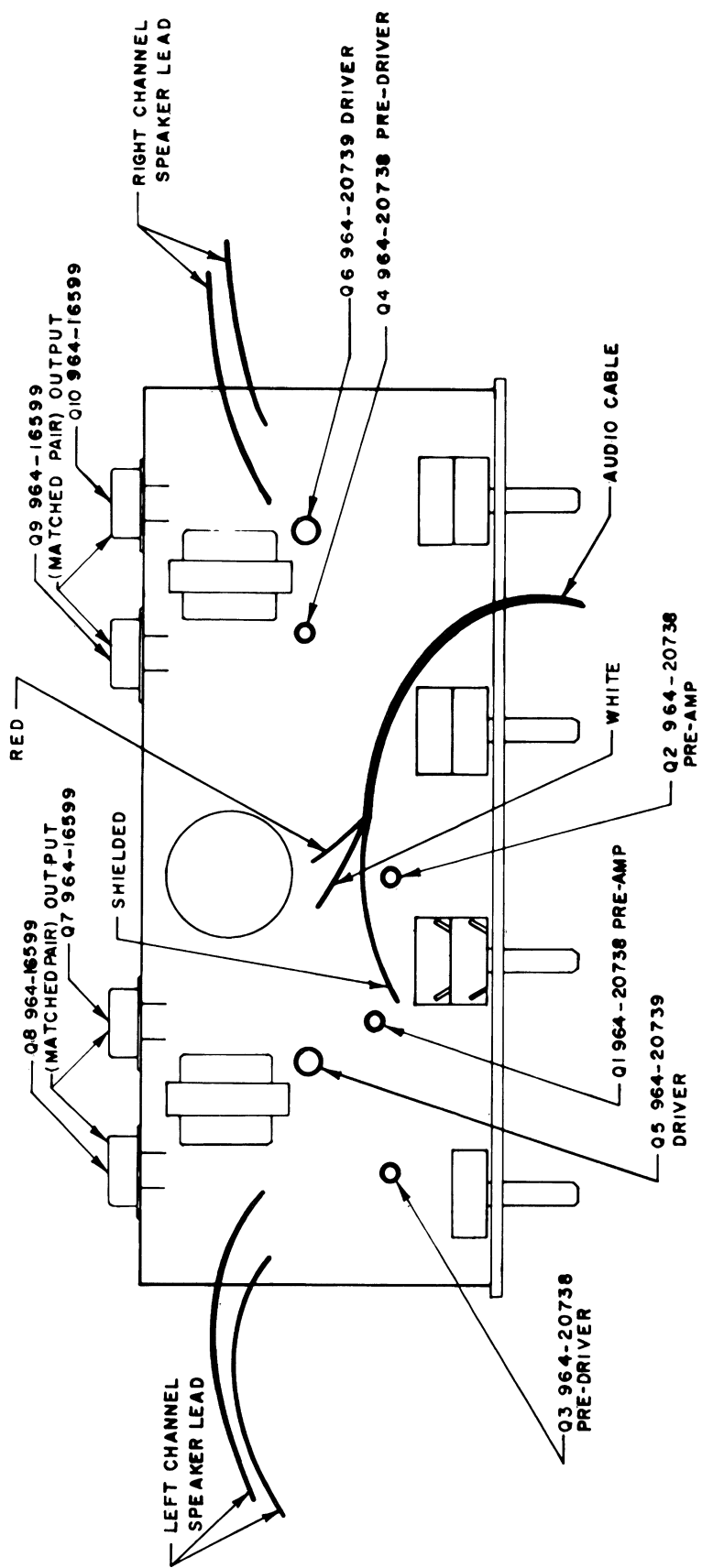


10NT01Z - SCHEMATIC



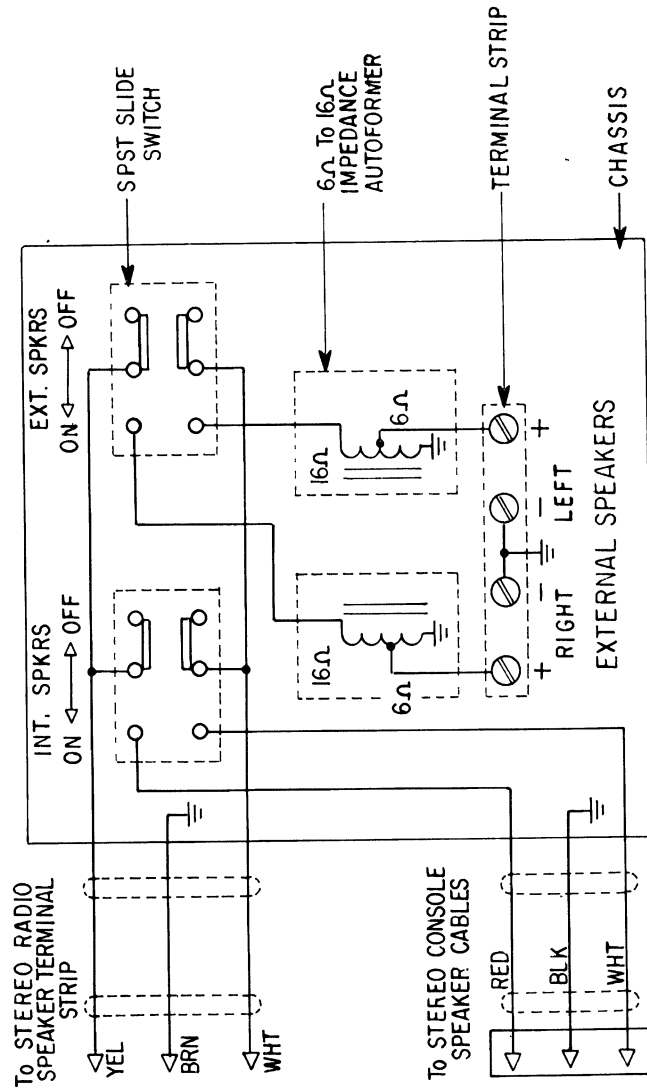
MODEL X560-1 - CIRCUIT WIRING AND COMPONENTS VIEWED FROM FOIL SIDE



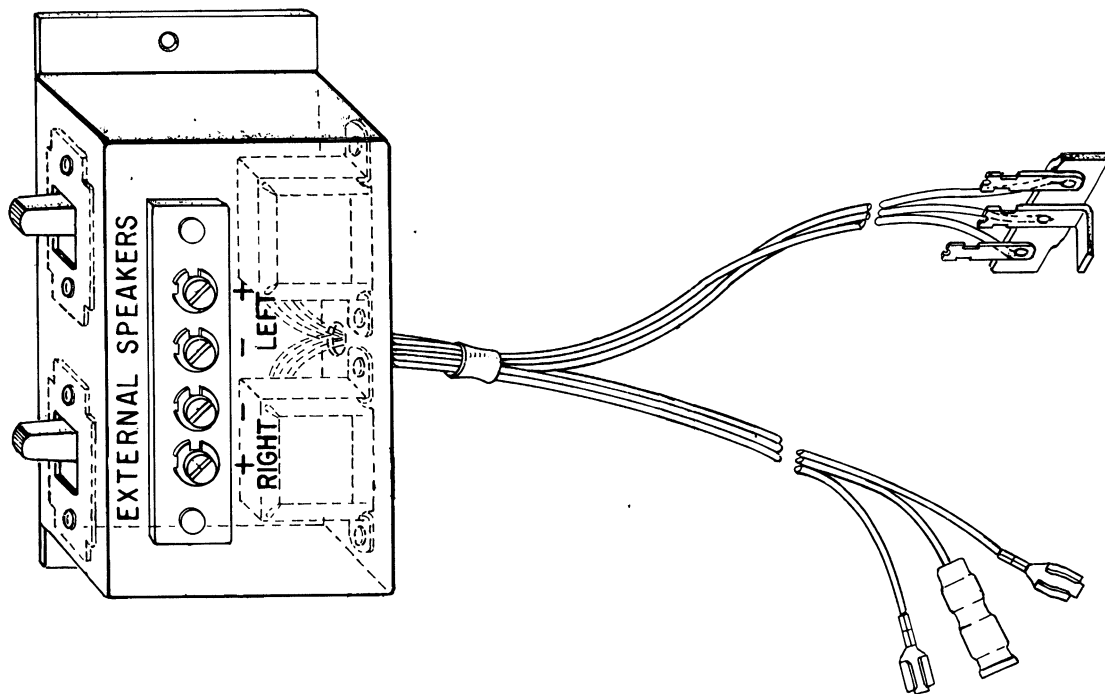


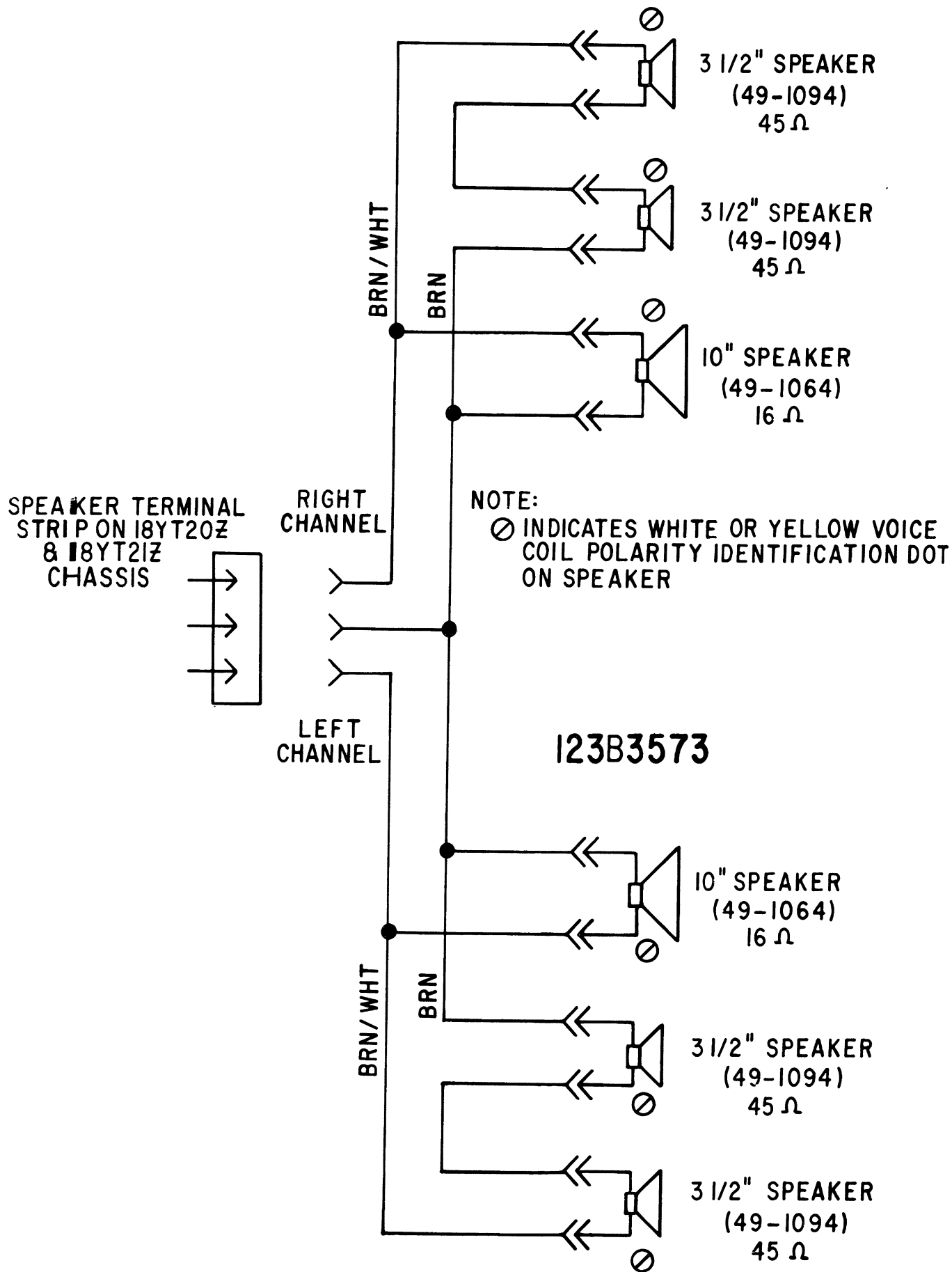
TRANSISTOR LAYOUT

MODEL X560-1 - CHASSIS LAYOUT

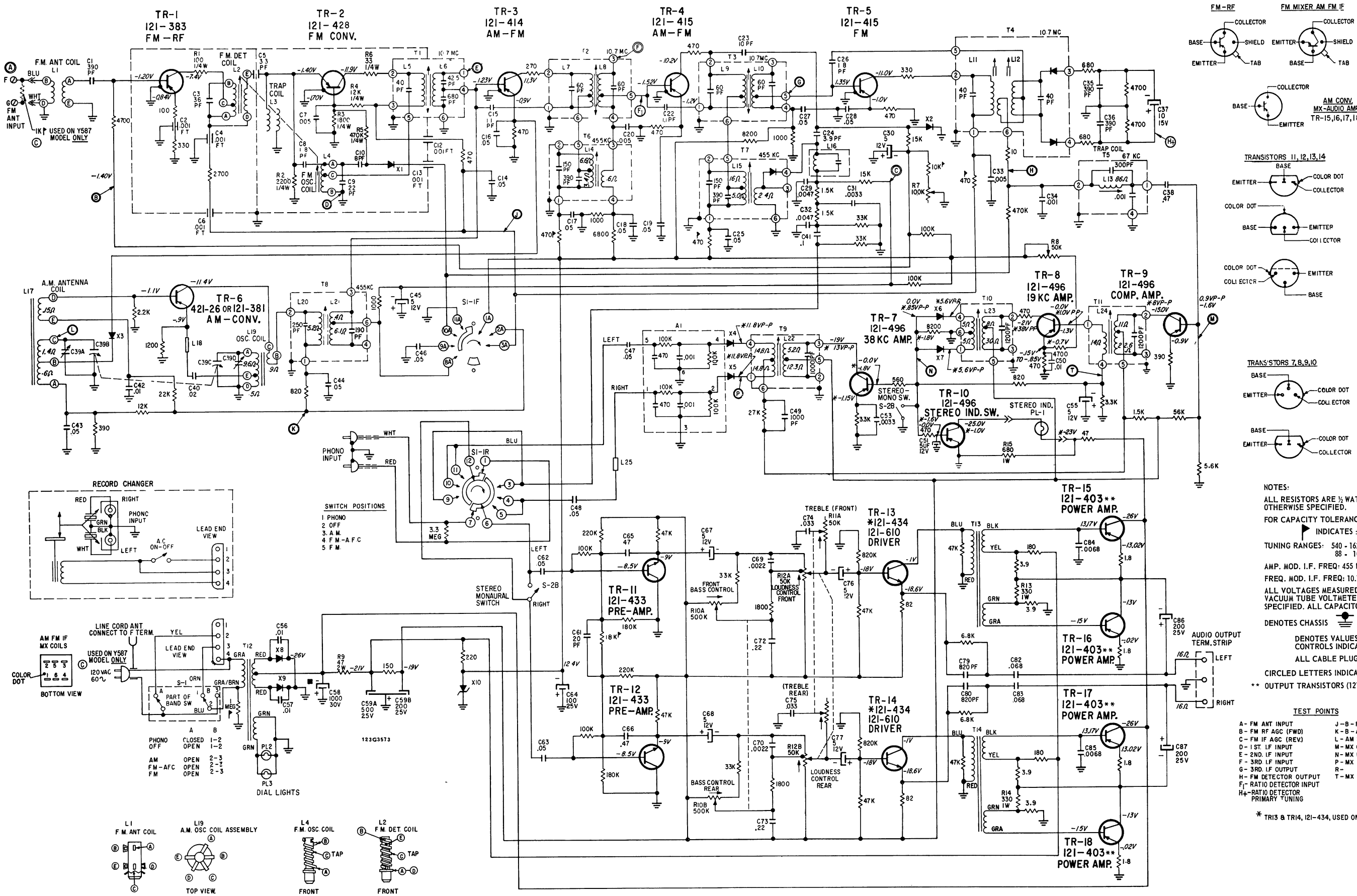


REMOTE SPEAKER SWITCHING ASSEMBLY S-74538 FOR USE WITH MODELS GA50-10 AND GA50-12.





SPEAKER WIRING FOR MODELS GA50-10 AND GA50-12



NOTES:
 ALL RESISTORS ARE 1/2 WATT CARBON, ±10% TOLERANCE UNLESS OTHERWISE SPECIFIED.
 FOR CAPACITY TOLERANCES (SEE LEGEND).
 INDICATES ±20% TOLERANCE.
 TUNING RANGES: 540 - 1620 KC STD. AM
 88 - 108 MC FM
 AMP. MOD. I.F. FREQ: 455 KC
 FREQ. MOD. I.F. FREQ: 10.7 MC
 ALL VOLTAGES MEASURED FROM COMMON RETURN TO POINTS INDICATED WITH A VACUUM TUBE VOLTMETER. ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED. ALL CAPACITOR VALUES IN MFD UNLESS OTHERWISE SPECIFIED.
 DENOTES CHASSIS

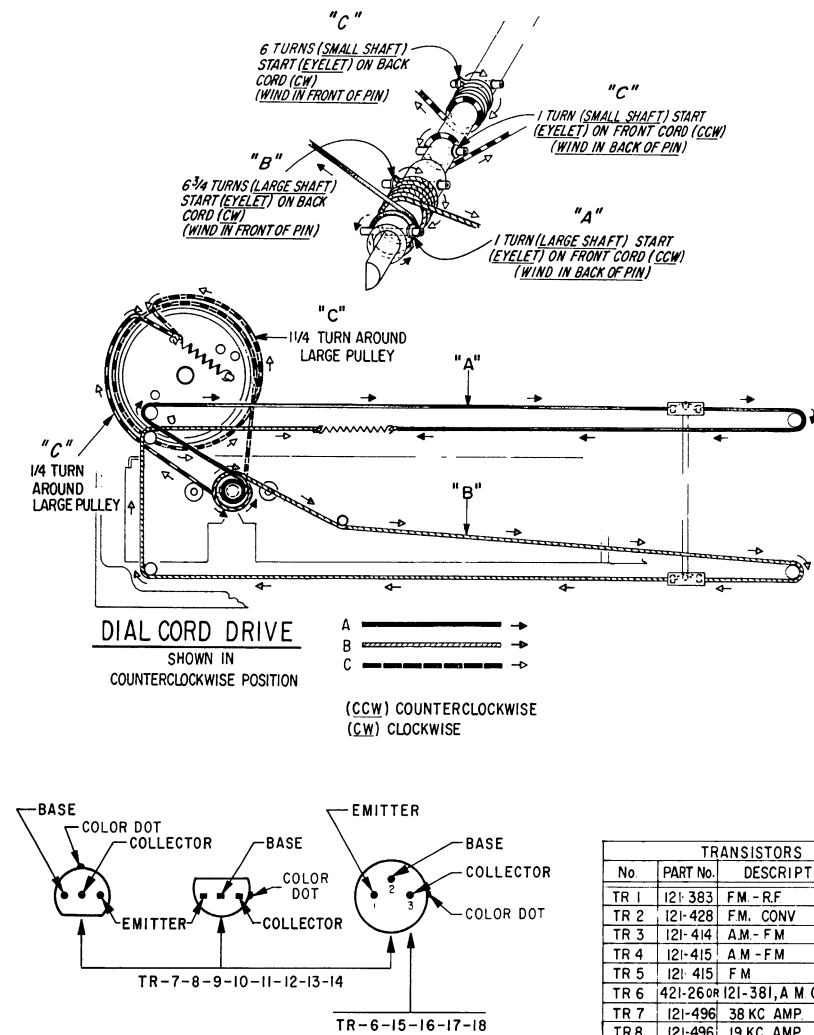
TEST POINTS

A - FM ANT INPUT	J - B - FM
B - FM RF AGC (FWD)	K - B - AM
C - FM IF AGC (REV)	L - AM IF INPUT
D - ST. IF INPUT	M - MX 67 KC REJECTION & MX PHASE
E - 2ND. IF INPUT	N - MX DOUBLER OUTPUT
F - 3RD. IF INPUT	P - MX PHASING
G - 3RD. IF OUTPUT	R -
H - FM DETECTOR OUTPUT	T - MX DISABLING
I - RATIO DETECTOR INPUT	
H ₁ - RATIO DETECTOR PRIMARY TUNING	

* TR13 & TR14, 121-434, USED ON EARLIER MODELS

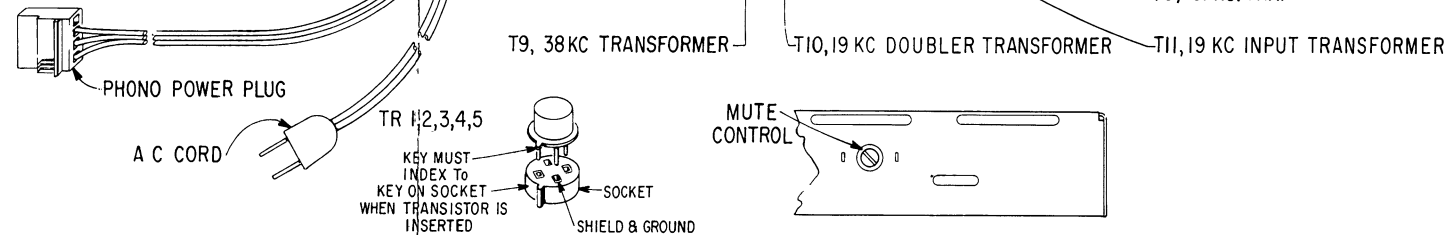
18YT20Z SCHEMATIC

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
C1	22-3177	390 PF DISC ±10%	500 V	C84	22-2704 .0068 MFD DISC 500 V
C2	22-4613	.001 F.T.	500 V	C85	22-2704 .0068 MFD DISC 500 V
C3	22-5321	36 PF DISC ±5%	500 V	C86	22-5175 200 MFD ELECTROLYTIC 25 V
C4	22-4613	.001 F.T. ±20%	500 V	C87	22-5175 200 MFD ELECTROLYTIC 25 V
C5	22-3550	3.3 GIMMICK ±10%	500 V	R1	63-4143 100 OHMS ±10% 1/4 W
C6	22-4613	.001 F.T.	500 V	R2	63-4199 2.2K OHMS ±10% 1/4 W
C7	22-5037	.005 MFD DISC ±20%	25 V	R3	63-4196 1.8K OHMS ±10% 1/4 W
C8	22-2428	1.8 PF GIMMICK ±10%	500 V	R4	63-4231 12K OHMS ±10% 1/4 W
C9	22-3621	22 PF DISC ±5%	500 V	R5	63-4297 470K OHMS ±10% 1/4 W
C10	22-5130	8 PF DISC ±5%	500 V	R6	63-4122 33 OHMS ±10% 1/4 W
C11				R7	63-4495 POTENTIOMETER
C12	22-4613	.001 F.T.	500 V	R8	63-3238 POTENTIOMETER 50K
C13	22-4613	.001 F.T.	500 V	R9	63-5614 47 OHMS ±10% 2 W
C14	22-3034	.05 MFD DISC ±20%	25 V	R10A	63-6855 DUAL BASS CONTROL
C15	22-4523	1.1 PF GIMMICK ±10%	500 V	R10B	63-6855 DUAL TREBLE CONTROL
C16	22-3034	.05 MFD DISC ±20%	25 V	R11A	63-6853 DUAL LOUDNESS CONTROL
C17	22-3034	.05 MFD DISC ±20%	25 V	R11B	63-6853 DUAL LOUDNESS CONTROL
C18	22-3034	.05 MFD DISC ±20%	25 V	R12A	63-6854 DUAL LOUDNESS CONTROL
C19	22-3034	.05 MFD DISC ±20%	25 V	R12B	63-6854 DUAL LOUDNESS CONTROL
C20	22-5037	.005 MFD DISC ±20%	25 V	R13	63-6049 330 OHMS ±10% 1 W
C21				R14	63-6049 330 OHMS ±10% 1 W
C22	22-4523	1.1 PF GIMMICK ±10%	500 V	R15	63-6063 680 OHMS ±10% 1 W
C23	22-3675	10 PF DISC ±10%	500 V	T1	95-2236 1ST I.F. TRANSFORMER F.M. 10.7 MC
C24	22-3400	3.9 PF GIMMICK ±10%	500 V	T2	95-2437 2ND I.F. TRANSFORMER F.M. 10.7 MC
C25	22-3034	.05 MFD DISC ±20%	25 V	T3	95-2438 3RD I.F. TRANSFORMER F.M. 10.7 MC
C26	22-2428	1.8 PF GIMMICK ±10%	500 V	T4	95-2324 RATIO DETECTOR TRANSFORMER 10.7 MC
C27	22-3034	.05 MFD DISC ±20%	25 V	T5	95-2316 TRAP COIL 67KC
C28	22-3034	.05 MFD DISC ±20%	25 V	T6	95-2234 2ND I.F. TRANSFORMER A.M. 455KC
C29	22-14	.0047 MFD DISC ±10%	500 V	T7	95-2436 3RD I.F. TRANSFORMER A.M. 455KC
C30	22-2884	5 MFD ELECTROLYTIC	12 V	T8	95-2233 1ST I.F. TRANSFORMER A.M. 455KC
C31	22-13	.0033 MFD DISC ±10%	500 V	T9	95-2439 38 KC TRANSFORMER
C32	22-14	.0047 MFD DISC ±10%	500 V	T10	95-2313 DOUBLER MIXER TRANSFORMER
C33	22-5037	.005 DISC ±20%	25 V	T11	95-2315 INPUT MIXER TRANSFORMER 19KC
C34	22-2729	.001 DISC ±20%	25 V	T12	95-2432 POWER TRANSFORMER
C35	22-3177	390 PF DISC ±10%	500 V	T13	95-2430 DRIVER TRANSFORMER
C36	22-3177	390 PF DISC ±10%	500 V	T14	95-2430 DRIVER TRANSFORMER
C37	22-3448	10 MFD ELECTROLYTIC	15 V	L1	S-71997 FM ANTENNA COIL ASSEMBLY
C38	22-5018	.47 MFD ±10% MYLAR	50 V	L2	S-68976 FM DETECTOR COIL ASSEMBLY
C39A	22-4674	TWO SECTIONS VARIABLE CAPACITOR		L3	20-1256 TRAP COIL
C39B	22-4674	TWO SECTIONS VARIABLE CAPACITOR		L4	S-62887 FM OSCILLATOR COIL ASSEMBLY
C39C	22-4674	TWO SECTIONS VARIABLE CAPACITOR		L5	1N T1 1ST I.F. PRI. 10.7 MC
C39D	22-4674	TWO SECTIONS VARIABLE CAPACITOR		L6	1N T1 1ST I.F. SEC. 10.7 MC
C40	22-3033	.02 MFD DISC ±20%	25 V	L7	1N T2 2ND I.F. PRI. 10.7 MC
C41	22-5188	.1 MFD ±10% MYLAR	50 V	L8	1N T2 2ND I.F. SEC. 10.7 MC
C42	22-3010	.01 MFD DISC ±20%	25 V	L9	1N T3 3RD I.F. PRI. 10.7 MC
C43	22-3034	.05 DISC ±20%	25 V	L10	1N T3 3RD I.F. SEC. 10.7 MC
C44	22-3034	.05 DISC ±20%	25 V	L11	1N T4 RATIO DET. PRI. 10.7 MC
C45	22-2884	5 MFD ELECTROLYTIC	12 V	L12	1N T4 RATIO DET. SEC. 10.7 MC
C46	22-3034	.05 MFD DISC ±20%	25 V	L13	1N T5 TRAP COIL MIXER
C47	22-3034	.05 MFD DISC ±20%	25 V	L14	1N T6 2ND I.F. A.M. 455 KC
C48	22-3034	.05 MFD DISC ±20%	25 V	L15	1N T7 3RD I.F. A.M. 455 KC
C49	22-3645	1000 PF MICA CAP ±10%	100 V	L16	20-1422 FM COIL
C50	22-3010	.01 MFD DISC	25 V	L17	S-73253 AM ANTENNA ASSEMBLY
C51	22-2884	5 MFD ELECTROLYTIC	12 V	L18	149-333 IRON CORE SLEEVE
C52				L19	S-66580 AM OSCILLATOR COIL ASSEMBLY
C53	22-13	.0033 MFD DISC ±10%	500 V	L20	1N T8 1ST AM I.F. PRI. 455KC
C54				L21	1N T8 1ST AM I.F. SEC. 455KC
C55	22-2884	5 MFD ELECTROLYTIC	12 V	L22	1N T9 38KC TRANSFORMER
C56	22-3	.01 MFD DISC	500 V	L23	1N T10 DOUBLER MIXER TRANSFORMER
C57	22-3	.01 MFD DISC	500 V	L24	1N T11 INPUT MIXER TRANSFORMER
C58	22-5167	1000 MFD ELECTROLYTIC	30 V	L25	149-333 IRON CORE SLEEVE
C59A	22-4620	500 MFD ELECTROLYTIC	25 V	PL1	100-384 STEREO IND. BULB
C59B	22-4620	200 MFD ELECTROLYTIC	25 V	PL2	100-249 PILOT LIGHT #1847
C60				PL3	100-249 PILOT LIGHT #1847
C61	22-5438	20 PF DISC ±10%	500 V	S1	85-919 5 POSITION BAND SWITCH
C62	22-3034	.05 MFD DISC	25 V	S2A	
C63	22-3034	.05 MFD DISC	25 V	S2B	85-892 STEREO MONAURAL SWITCH
C64	22-3973	100 MFD ELECTROLYTIC	25 V	A1	105-78 R/C NETWORK
C65	22-5487	.47 MFD DISC	3 V	X1	103-47 SILICON DIODE
C66	22-5487	.47 MFD DISC	3 V	X2	103-23 DIODE
C67	22-2884	5 MFD ELECTROLYTIC	12 V	X3	103-74 CRYSTAL DIODE
C68	22-2884	5 MFD ELECTROLYTIC	12 V	X4	103-23 DIODE
C69	22-18	.0022 MFD DISC	500 V	X5	103-23 DIODE
C70	22-18	.0022 MFD DISC	500 V	X6	103-23 DIODE
C71				X7	103-23 DIODE
C72	22-3710	.22 MFD DISC ±10%	50 V	X8	212-71 SILICON RECTIFIER
C73	22-3710	.22 MFD DISC ±10%	50 V	X9	212-71 SILICON RECTIFIER
C74	22-5182	.033 MFD DISC	50 V	X10	103-96 ZENER DIODE
C75	22-5182	.033 MFD DISC	50 V		
C76	22-2884	5 MFD ELECTROLYTIC	12 V		
C77	22-2884	5 MFD ELECTROLYTIC	12 V		
C78					
C79	22-3014	820 PF MICA	500 V		
C80	22-3014	820 PF MICA	500 V		
C81					
C82	22-3630	.068 MFD MYLAR	50 V		
C83	22-3630	.068 MFD MYLAR	50 V		



No	PART NO.	DESCRIPTION	REQD
TR 1	121-383	FM - RF	
TR 2	121-428	FM. CONV	
TR 3	121-414	A.M. - F.M. 1ST IF	
TR 4	121-415	A.M. - F.M. 2ND IF	
TR 5	121-415	F.M. 3RD IF	
TR 6	421-26 or 121-381	A.M. CONV	
TR 7	121-496	38 KC AMP. (MX)	
TR 8	121-496	19 KC AMP. (MX)	
TR 9	121-496	COMP AMP. (MX)	
TR 10	121-496	STEREO IND. SW. (MX)	
TR 11	121-433	PRE-AMP. (AUDIO)	
TR 12	121-433	PRE-AMP. (AUDIO)	
TR 13	121-610	DRIVER (AUDIO)	
TR 14	121-610	DRIVER (AUDIO)	
TR 15	121-403	POWER AMP. (AUDIO)	
TR 16	121-403	POWER AMP. (AUDIO)	
TR 17	121-403	POWER AMP. (AUDIO)	
TR 18	121-403	POWER AMP. (AUDIO)	

* TR-13, TR-14, 121-434 TRANSISTORS USED ON EARLIER MODELS



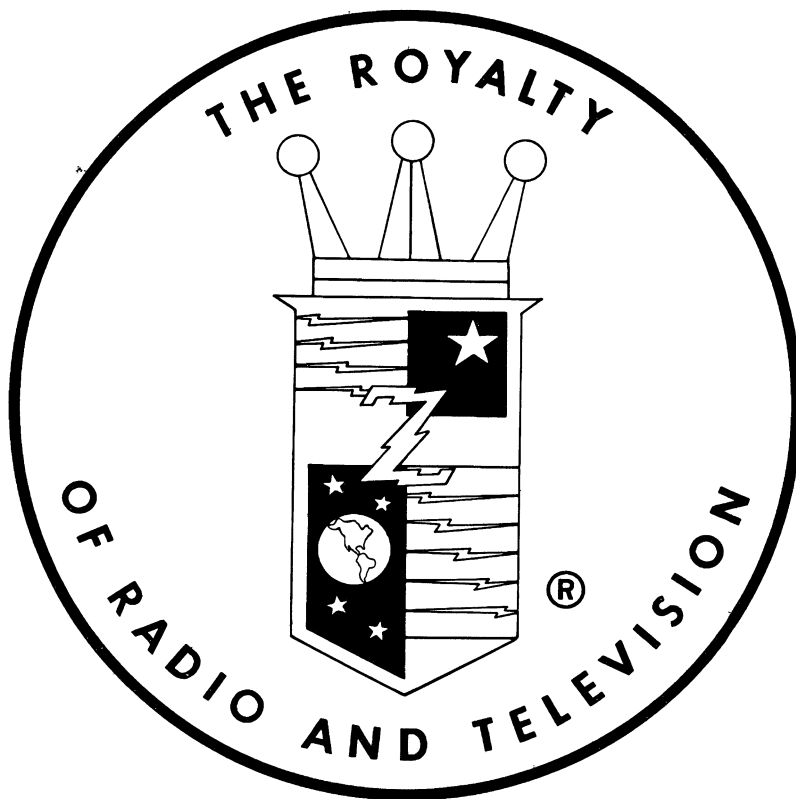
TEST POINTS	
A	FM ANT INPUT
B	FM FWD AGC
C	FM REV AGC
D	1ST IF INPUT
E	2ND IF INPUT
F	3RD IF INPUT
G	3RD IF OUTPUT
H	FM DETECTOR OUTPUT
J	B-FW
K	B-AM
L	AM IF INPUT
M	67 KC REJECTION & MX PHASE
N	MX DOUBLER OUTPUT
P	MX PHASING
R	
T	MX DISABLING

ALL TEST POINTS SHOWN DOTTED ON IF & MX TRANSFORMERS ARE ACCESSIBLE FROM BOTTOM OF THE CHASSIS.



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HIGH FIDELITY AND STEREO FM MODELS

ZENITH RADIO CORPORATION

1900 N. AUSTIN AVENUE

CHICAGO, ILLINOIS 60639

Specifications subject to change without notice.