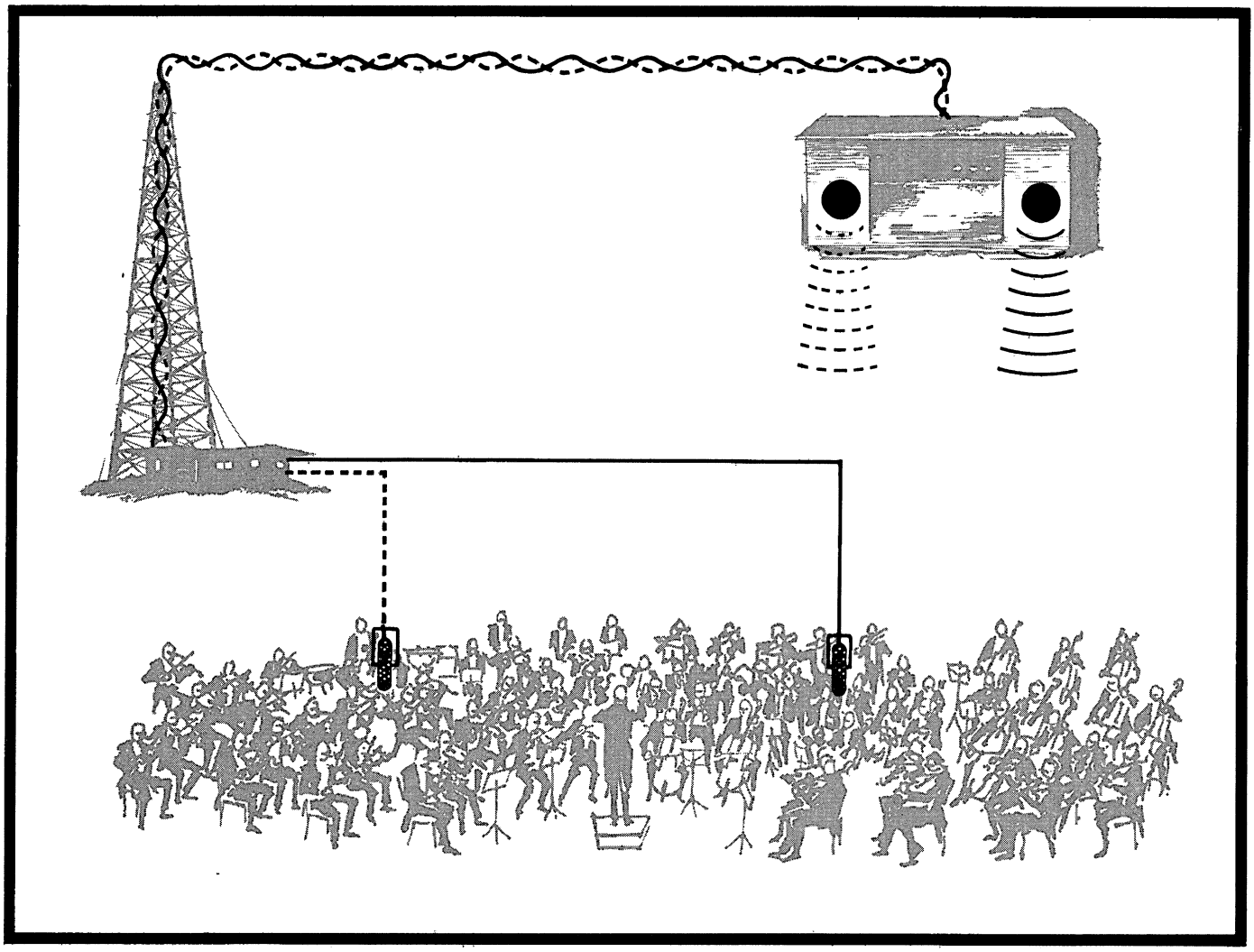
ZENITH®

SERVICE MANUAL



HIGH FIDELITY
AND STEREO FM MODELS

ZENITH RADIO CORPORATION

1900 N. AUSTIN AVENUE CHICAGO, ILLINOIS 60639

PRICE $1.50 SUPPLEMENT TO HF 16 PART NO. 923-508

INDEX

FEATURES OF HIGH FIDELITY & STEREO FM MODELS

MODEL NO.	CABINET				CHASSIS			SPEAKER		
	STYLE	MATERIAL	FINISH	COLOR	MODEL	TYPE	EIA POWER OUTPUT	PART NO.	V.C. IMPEDANCE (IN OHMS)	SIZE (IN INCHES)
Y547C	Table (w/handle) Snap on spkr Enclosures	Metal	Vinyl Clad	Charcoal Lt. Gray	8YT20	8 Transistor Phono Only	2W.	49-1138	22.0	2-4 x 6
Y547L	Table (w/handle) Snap on spkr Enclosures	Metal	Vinyl Clad	Beige & White	8YT20	8 Transistor Phono Only	2W.	49-1138	22.0	2-4 x 6
Y550W	Table (w/handle) Snap on spkr Enclosures	Metal	Vinyl Clad	Walnut	8YT20	8 Transistor Phono Only	2W	49-1139	22.0	2-5 x 7
T2560W	Table Snap on spkr Enclosures	Metal	Vinyl Clad	Walnut	8YT20	8 Transistor Phono Only	2W.	49-1138	22.0	2-4 x 6
Y906W	Console (Lift Lid)	Wood	Wood	Walnut	18YT21Z	Phono-FM-AM	8W.	49-1063 49-1094	16.0 45.0	2-6 x 9 2-3½
Y8530W	Console (Lift Lid)	Wood	Wood	Walnut	20Y1C38 20YT20	Color-TV Phono-FM-AM	30W.	49-1121 49-1094	10. 45.	2-12 6-3½
Y8530W1	Console (Lift Lid)	Wood	Wood	Walnut	20Y1C48 20YT20	Color TV Phono-FM-AM	30W.	49-1121 49-1094	10. 45.0	2-12
Y8548H	Console (Lift Lids)	Wood	Wood	Cherry	20Y1C48 26YT20	Color TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horn
Y8550H	Console (Lift Lids)	Wood	Wood	Cherry	20Y1C48 26YT20	Color TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horn
Y8558H	Console (Lift Lids)	Wood	Wood	Cherry	20Y1C48 26YT20	Color TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horn
Y8570H	Console (Lift Lids)	Wood	Wood	Cherry	20Y1C48 20YT20	Color TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horn
Y8563M	Console (Lift Lids)	Wood	Wood	Maple	20Y1C48 26YT20	Color-TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horn
Y8565M	Console (Lift Lids)	Wood	Wood	Maple	20Y1C48 26YT20	Color TV Phono-FM-AM	70W	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horn
Y8568DE	Console (Lift Lids)	Wood	Wood	Dark Oak	20Y1C48 26YT20	Color TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horns
Y8570DE	Console (Lift Lids)	Wood	Wood	Dark Oak	20Y1C48 26YT20	Color TV Phono-FM-AM	70W.	49-1082 49-1094 49-1042	6.4 45.0 6.4	2-12 2-3½ 2-Horns
S9014W	Table	Wood	Wood	Walnut				49-984 49-1094	6.4 45.0	2-6 x 9 2-3½
S9015	Table	Wood	Wood	Walnut				49-1140	8.	11 x 14
S9017W	Table	Wood	Wood	Walnut				49-1012 49-1004	6.4 8.	12 Horn

NOTES: 1-ALL MODEL S USING VM STYLE RECORD CHANGER ARE EQUIPPED WITH 45 R.P.M. RECORD ADAPTER.

2-ALL RECORD CHANGERS ARE 4 SPEED AUTOMATIC AND USE 2 POLE MOTOR.

3-MODEL Y906W CAN USE REMOTE SPEAKER WITH ADAPTER KIT.

4-MODELS Y8530 THRU Y8570 HAVE PROVISIONS FOR REMOTE SPEAKERS.

FEATURES OF HIGH FIDELITY & STEREO FM MODELS

RECORD CHANGER				INDICATOR LIGHT	TAPE DECK	RECORD STORAGE	REMOTE SPEAKER SEE NOTE
TYPE	MOUNTING	CARTRIDGE	STYLUS				
169-338	Hinged Panel	142-148	S-S 56-528	No	None	None	None
169-339	Hinged Panel	142-148	S-S 56-528	No	None	None	None
169-337	Hinged Panel	142-148	S-S 56-528	No	None	None	None
169-340	Hinged Panel	142-148	S-S 56-528	No	None	None	None
169-348	Shelf	142-164	D-S 56-560	No	None	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes
169-331	Shelf	142-163	D-S S-68567	Yes	Y635	None	Yes

169-331 (VM) Brilliant aluminum and black, large turntable

169-447 (VM) White and dark brown, large turntable

169-338 (VM) Autum haze and white

169-339 (VM) London grey and white

169-340 (VM) White and brown

169-348 (VM) Brilliant aluminum and black large turntable.

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. However, if the technician should desire to use other speakers, it is imperative the total impedance be not less than that impedance indicated on the back of each receiver, adjacent to the speaker terminal board.

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 18YT21Z & 20YT20 connect a V.T.V.M. to the junction of 10K, 4.7 K and C30 5 mfd (test point B).

For chassis 26YT20 connect a V.T.V.M. to the forward AGC input feed-thru terminal at the rear of the FM-RF tuner. (Test point B)

Chassis 18YT21Z and 20YT20

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

Chassis 26YT20

Micro-volts Input	Forward AGC Voltage At Tuner Forward AGC Input Feed-Thru Terminal
0	-1.0
25	-1.01
100	-1.12
200	-1.50
500	-1.81
1 K	*-1.98
5 K	-2.28
50 K	-3.25
100 K	-3.41

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 18YT21Z, 20YT20 AND 26YT20.

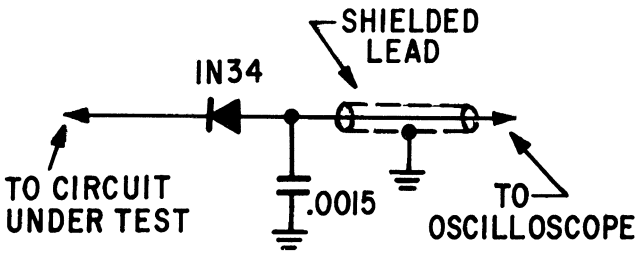
Alignment of these chassis will, in most cases, not be necessary unless an RF or IF transformer is replaced or if someone has tampered with the adjustments.

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.

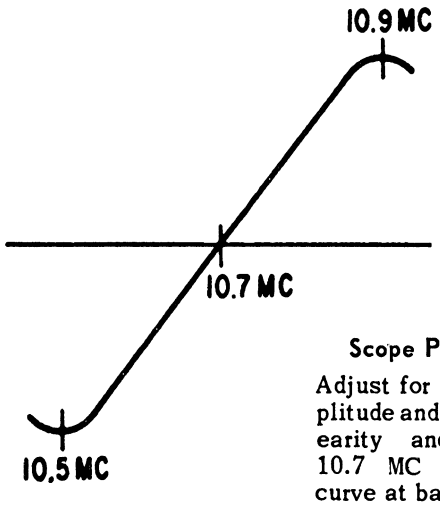
In all alignment procedures, the signal generator output should be kept just high enough to obtain an indication. This is most necessary, since on some chassis we have a zero time constant limiter which will clip the signals if their magnitude is too great, resulting in erroneous waveforms.

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.

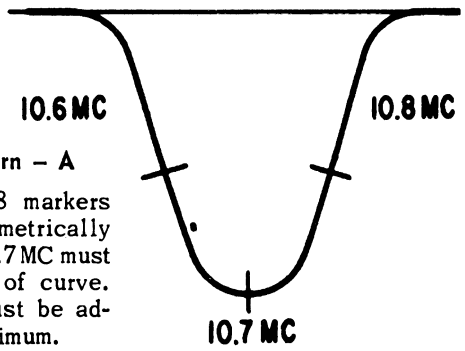
A. On chassis 18YT21Z, 20YT20, and 26YT20 connect scope or V.T.V.M. to junction of 10 ohm resistor and .001 mfd capacitor Test Point (H). The 10 ohm resistor is connected to terminal #6 of the ratio detector transformer.



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 18YT21Z, 20YT20, and 26YT20 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 18YT21Z AND 20YT20

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

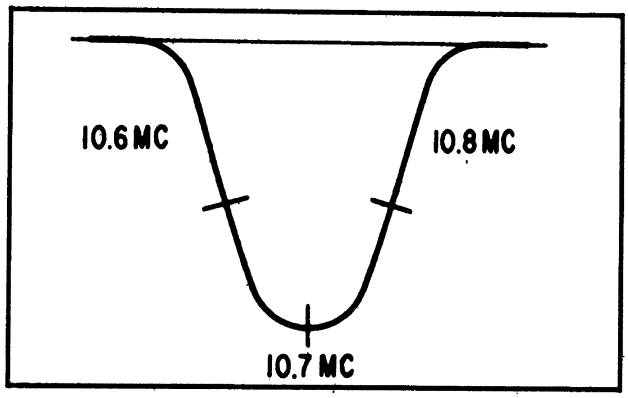
RF AND IF ALIGNMENT PROCEDURE FOR CHASSIS 26YT20

OPERATION	CONNECT GENERATOR TO	DUMMY ANTENNA	INPUT SIGNAL FREQUENCY	SET DIAL TO	ADJUST IRON CORES	PURPOSE
1 A	Term. #3 of T4 4th IF Trans.	47 ohm in shunt with gen. output. Then from hot lead a 27 ohm in series with a .001 MFD capaci tor.	10.7 MHz 400 KHz Deviation	88 MHz	L16	Adjust Primary and secondary of ratio detector for maximum amplitude and symmetry as shown in Scope Pattern "B"
2 A	Term. #3 of T4 4th IF Trans.		10.7 MHz 400 KHz Deviation	88 MHz	L17	
3 B	Term. #3 of T3 3rd IF Trans. Test Point "F"		10.7 MHz 400 KHz Deviation	88 MHz	L14,L15	Align I.F. transformers for maximum output and symmetry. This pattern is not necessarily identical to the overall Scope Pattern "A"
4 B	Term. #3 of T2 2nd IF Trans. Test Point "E"		10.7 MHz 400 KHz Deviation	88 MHz	L12,L13	
5 B	Connect to emitter of TR2 Mixer Test Point #K		10.7 MHz 400 KHz Deviation	88 MHz	L10,L11	
6 B	Connect to emitter of TR2 Mixer Test Point #K		10.7 MHz 400 KHz Deviation	88 MHz	L5,L6	Align I.F. transformers for maximum output and symmetry as indicated in Scope Pattern "A"
7 B	Connect to emitter of TR2 Mixer Test Point #K		10.7 MHz 400 KHz Deviation	88 MHz	Readjust L5, L6,L10,L11, L12,L13,L14, L15	
8 B	FM Antenna Post (Remove Antenna)	300 ohm	98 MHz 400 KHz Deviation	98 MHz	L7	Set oscillator to Dial Scale.
9 B	FM Antenna Post (Remove Antenna)	300 ohm	98 MHz 400 KHz Deviation	98 MHz	L3,L2,L1	Align RF output, RF input and FM Antenna stages for maximum.
10 C	Base of TR9 (23YT124) Base of TR8 (26YT20)	.05 in series with hot lead of gen.	455 KHz 400 Cycle Modulated	600 KHz	L27,L28,L19, L20,L21,L22	Align AM IF for maximum.
11 C	Two turn loop loosely coupled to wave-magnet		1600 KHz 400 Cycle Modulated	1600 KHz	23YT24 C50F 26YT20 C47E	Set oscillator to dial scale.
12 C	Two turn loop loosely coupled to wave-magnet		1400 KHz 400 Cycle Modulated	1400 KHz	23YT124 C50D,C50B 26YT20 C47D,C47B	Align detector and antenna stages.

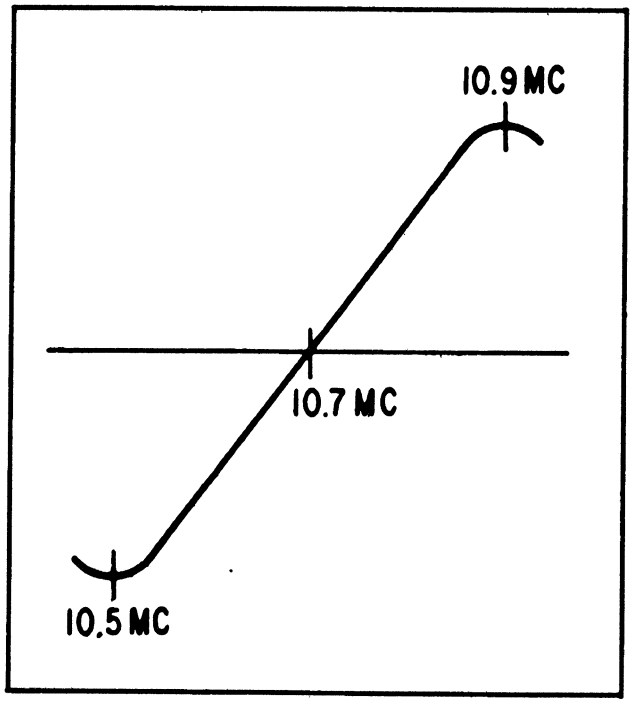
For A, B, C See Page 7 and 8

MULTIPLEX ALIGNMENT PROCEDURE CHASSIS 26YT20

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 terminal #5 Test Point "M" of T10 19KC amplifier transformer, 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 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.
3. Place the stereo-monaural switch in stereo position and short Test Point #T to GND.
4. Adjust T10 19KC amplifier transformer and T11 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. The voltage must be kept at this 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 T12 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 indictive 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 preceeding 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

MODELS Y547C&L USING CHASSIS 8YT20

PART NO.	DESCRIPTION
*12-4776	Chassis Mtg. Bracket
*14-8471	Portable Phono Cabinet-Model Y547C
*14-8472	Portable Phono Cabinet-Model Y547L
*16-3447	Packing Carton
*17-227	Plastic Clamp (3 Required)
*43-930	Speaker Enclosure-Left Side (Part of 14-8471)
*43-931	Speaker Enclosure-Left Side (Part of 14-8472)
*43-934	Speaker Enclosure-Right Side (Part of 14-8471)
*43-935	Speaker Enclosure-Right Side (Part of 14-8472)
*46-6119	Volume Control Knob-Model Y547L (2 Required)
*46-6120	Tone Control Knob
*46-6121	Volume Control Knob-Model Y547C (2 Required)
46-6142	Pull Knob For 169-339 (Part of 14-8471)
46-6143	Pull Knob For 169-338 (Part of 14-8472)
*49-1138	4" x 6" PM Speaker (2 Required)
54-138	6-32 Palnut (2 Mt. Ea. 49-1138) (6 Required)
54-480	Tinnerman Nut (1 Used on Ea. 112-2018)
*57-6528	Name Plate-Zenith-Stereophonic-Solid State (Part of 14-8472)
*57-6529	Name Plate-Zenith-Stereophonic-Solid State (Part of 14-8471)
*80-1985	Lock Spring (2 Part of 14-8471 or 14-8472)
*83-6365	Guide Retainer Strip (2 Part of 14-8471)
*83-6366	Guide Retainer Strip (2 Part of 14-8472)
*83-6369	Slide Strip-Top (Part of 14-8471 or 14-8472)
*83-6370	Slide Strip-Bottom (Part of 14-8471 or 14-8472)
*83-6526	Wood Strip-R.H. (Speaker Enclosure) (2 Required)
*83-6527	Wood Strip-L.H. (Speaker Enclosure) (2 Required)
*94-1497	Spacer Bushing
*101-977	Transistor Layout & Patent Label
112-1639	6-20 x 5/8 Phillips Rd. Hd. Self-Tap. Screw-Nickel Plate (8 Used on 14-8471 or 14-8472)
*112-2016	8-18 x 7/16 Phillips Rd. Hd. Self-Tap. Screw-Nickel Plate (4 Used on 14-8471 or 14-8472)
112-2018	8-15 x 1 5/8 Phillips Special Hd. Self-Tap. Screw-Dull N.P. (4 Used on 169-338 or 169-339)
114-26	8-18 x ¼ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (2 Used on 8YT20)
114-801	8-18 x 5/16 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze
125-62	Rubber/Grommet (Used on 169-338 or 169-339)
125-148	Rubber Grommet (4 Used on 169-338 or 169-339)
*139-197	Baffle (Part of 14-8472)
*139-198	Baffle (Part of 14-8471)
142-148	Stereo Cartridge-.7 Mil Dia. & 3 Mil Mfd. Sapphire (Part of 169-338 or 169-339)
*169-338	Four Speed Record Changer (VM) Model Y547L (See Changer Parts List For Components)
*169-339	Four Speed Record Changer (VM) Model Y547C (See Changer Parts List For Components)
*202-3038	Instruction Book
*220-120	Packing Cushioning Material
*836-112	Cabinet Handle (Part of 14-8471 or 14-8472)
*912-90	6-32 NC x 1" Long Flat Nibbed Head Screw (2 Part of 14-8471 or 14-8472)
S-72649	45 RPM Adapter Assembly

MODEL Y550W USING CHASSIS 8YT20

PART NO.	DESCRIPTION
*12-4776	Chassis Mtg. Bracket (Part of 14-8475)
*14-8475	Portable Phono Cabinet
*16-3447	Packing Carton
*17-227	Plastic Clamp (3 Required)
*43-930	Speaker Enclosure-Left Side (Part of 14-8475)
*43-934	Speaker Enclosure-Right Side (Part of 14-8475)
*46-6117	Volume Control Knob (2 Required)
*46-6118	Tone Control Knob
*46-6144	Pull Knob For 169-337 (Part of 14-8475)
*49-1138	4" x 6" PM Speaker (2 Required)
*52-1438	Three Conductor Cable
54-138	6-32 Palnut (2 Mt. Ea. 49-1138) (6 Required)
54-480	Tinnerman Nut (1 Used on Ea. 112-2018)
57-6528	Name Plate-Zenith-Stereophonic-Solid State (Part of 14-8475)
80-1985	Lock Spring (2 Part of 14-8475)
83-6367	Guide Retainer Strip (2 Part of 14-8475)
83-6369	Slide Strip-Top (Part of 14-8475)
83-6370	Slide Strip-Bottom (Part of 14-8475)
*83-6371	Trim Strip-Zenith-Solid State-Stereophonic (Part of 14-8475)
*94-1497	Spacer Bushing (4 Required)
*101-977	Transistor Layout & Patent Label
112-1639	6-20 x 5/8 Phillips Rd. Hd. Self-TAp. Screw-Nickel Plate (8 Used on 14-8475)
*112-2016	8-18 x 7/16 Phillips Rd. Hd. Self-Tap. Screw-Nickel Plate (4 Join S-77507 & 14-8475)
*112-2018	8-15 x 1-5/8 Phillips Special Hd. Self-Tap. Screw-Dull N.P. (4 Used on 169-337)
114-26	8-18 x ¼ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (2 Join 8YT20 & S-77507)
114-801	8-18 x 5/16 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze
125-62	Rubber Grommet (Used on 169-337)
125-148	Rubber Grommet (4 Used on 169-337)
*139-196	Baffle (2 Part of 14-8475)
142-148	Stereo Cartridge-.7 Mil Diamond & 3 Mil Mfd. Sapphire (Part of 169-337)
*169-337	Four Speed Record Changer (VM) (See Changer Parts List For Components)
*202-3038	Instruction Book
*220-120	Packing Cushioning Material
*836-113	Cabinet Handle (Part of 14-8475)
*912-90	6-32 NC x 1" Long Flat Nibbed Hd. Screw (2 Part of 14-8475)
S-72649	45 RPM Adapter Assembly
*S-77507	Mounting Panel & Trim Strip Assembly

MODEL T2560W USING CHASSIS 8YT20

*12-4776	Chassis Mounting Bracket
*14-8473	Portable Phono Cabinet
*16-3447	Packing Carton
*17-227	Plastic Clamp (3 Required)
19-513	Retaining Clip
19-551	Latch Clip (4 Part of 14-8473)
*43-930	Speaker Enclosure-Left Side (Part of 14-8473)
*43-934	Speaker Enclosure-Right Side (Part of 14-8473)
*46-6119	Volume Control Knob (2 Required)
*46-6121	Tone Control Knob
*46-6239	Pull Knob For 169-340 (Part of 14-8473)
*49-1139	5" x 7" PM Speaker (2 Required)
54-138	6-32 Palnut (2 Mt. Ea. 49-1139 & 8YT20)
56-528	Needle-.7 Mil. & 3 Mil. Mfd. Sapphire (Part or 142-148)
*57-6528	Name Plate

*Indicates parts not previously used

PART NO.	DESCRIPTION
*80-1985	Lock Spring (2 Part of 14-8473)
*83-6365	Guide Retaining Strip (2 Required)
*83-6369	Slide Strip-Top (Part of 14-8473)
*83-6370	Slide Stop-Bottom (Part of 14-8473)
83-6526	Wood Strip-R.H.-Speaker Enclosure (2 Required)
83-6527	Wood Strip-L.H.-Speaker Enclosure (2 Required)
*94-1497	Spacer Bushing (4 Used on 169-340)
*101-977	Transistor Layout & Patent Label
*112-2016	8-18 x 7/16 Phillips Rd. Hd. Self-Tap. Screw-N.P. (6 Used on 14-8473)
*112-2018	8-15 x 1-5/8 Phillips Special Hd. Self-Tap Screw-Dull N.P. (4 Used on 169-340)
*112-2051	6-20 x 1" Phillips Rd. Hd. Self-Tap. Screw-N.P. (8 Used on 14-8473)
114-26	8-18 x ¼ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (2 Used on 8YT20)
114-344	6-20 x ¼ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (2 Required)
114-801	8-18 x 5/16 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (Used on 17-227)
125-62	Rubber Grommet (Used on 169-340)
125-148	Rubber Grommet (4 Used on 169-340)
*139-199	Speaker Baffle (2 Required)
142-148	Dual Cartridge-.7 Mil & 3 Mil. Mfd. Sapphire (Part of 169-340)
*169-340	Four Speed Record Changer (See Changer Parts List For Components)
188-147	Retaining Ring (4 Part of 14-8473)
188-155	Knob Retaining Ring (Part of 46-6119 or 46-6121)
*202-3058	Instruction Book
*220-120	Packing Cushioning Material
836-112	Cabinet Handle (Part of 14-8473)
912-90	No. 6-32 NC x 1" Long Flat Nibbed Hd. Screw (2 Part of 14-8473)
S-72649	45 RPM Adapter Assembly

CHASSIS 8YT20

11-183	AC Line Cord
12-4779	Chassis Bracket
*19-552	Clip-Heat Sink (6 Required)
22-3414	.0047 MF Disc Capacitor-25V. (2 Required)
22-3448	10 MF Electrolytic Capacitor-15V. (2 Required)
22-3598	.022 MF Capacitor-50V. (2 Required)
22-5475	500 MF Electrolytic Capacitor-25V.
*22-5507	22 PF Disc Capacitor-500V. (2 Required)
*22-5509	.22 MF Disc Capacitor-3V. (2 Required)
*22-5510	100 MF Electrolytic Capacitor-25V.
*22-5511	100 MF Electrolytic Capacitor-15V. (3 Required)
*22-5512	250 MF Electrolytic Capacitor-15V. (2 Required)
23-23	Wire Connector
43-519	Housing
63-1722	33 Ohm Resistor-½W. 10% (2 Required)
63-1750	150 Ohm Resistor-½W. 10% (3 Required)
63-1768	390 Ohm Resistor-½W. 10% (2 Required)
63-1778	680 Ohm Resistor-½W. 10% (2 Required)
63-1785	1K Ohm Resistor-½W. 10%
63-1792	1500 Ohm Resistor-½W. 10% (2 Required)
63-1813	4700 Ohm Resistor-½W. 10% (2 Required)
63-1880	180K Ohm Resistor-½W. 10% (2 Required)
63-1908	820K Ohm Resistor ½W. 10% (2 Required)
63-1911	1 Meg Ohm Resistor-½W. 10%
63-1915	1.2 Meg Ohm Resistor-½W. 10% (2 Required)
63-4529	4.7 Ohm Resistor-½W. 10% (4 Required)
*63-7383	Dual Tone Control
*63-7384	Volume Control (2 Required)
79-174-12	No. 18 Sleeving-Yellow-1-½"
86-329	Connector Terminal (4 Used on Speaker Lead)
86-334	Connector Terminal (3 Required)

PART NO.	DESCRIPTION
95-2573	Power Transformer
114-657	8-18 x 5/16 x ¼ Hex Washer Hd. Self-Tap. Screw-Stat. Bronze (Used on 95-2573)
*121-632	Transistor-Driver (2 Required)
*121-633	Transistor-Pre-Driver (2 Required)
205-51	Dow Corning Heat Conductive Grease (Part of 800-209)
212-71	Rectifier
800-209	Output Transistor Assembly (2 Required)
*S-77483	Phono Cable & Plug Assembly
*S-78037	Chassis Control Panel Assembly
*S-78038	Chassis Bracket Assembly

18YT21Z CHASSIS PARTS

11-106	Line Cord & Plug
12-4009	Tuner Bracket
12-4228	Heat Sink (2 Required)
12-4411	Antenna Mtg. Bracket
*12-4899	Stereo Light 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 Disc Capacitor-500V. (2 Required)
22-2428	1.8 Pf Gimmick Capacitor-500V. (2 Required)
22-2704	.0068 Mf Disc Capacitor-500V. (2 Required)
22-2729	.001 Mf Disc Capacitor-25V.
22-2884	5 Mf Electrolytic Capacitor-12V. (8 Required)
22-3010	.01 Mf Disc Capacitor-25V.
22-3014	820 Pf Mica Capacitor-500V. (2 Required)
22-3033	.02 Mf Disc Capacitor-25V.
22-3034	.05 Mf Disc Capacitor-25V. (15 Required)
22-3035	12 Pf Disc Capacitor-500V.
22-3177	390 Pf Disc Capacitor-500V. (2 Required)
22-3400	3.9 Pf Gimmick Capacitor-500V.
22-3448	10 Mf Electrolytic Capacitor-15V.
22-3550	3.3 Pf Gimmick Capacitor-500V.
22-3621	22 Pf Disc Capacitor-500V.
22-3630	.068 Mf Mylar Capacitor-50V. (2 Required)
22-3645	1000 Pf Mica Capacitor-100V.
22-3675	10 Pf Disc Capacitor-500V.
22-3710	.22 Mf Capacitor-50V. (2 Required)
22-3892	.01 Mf Capacitor-100V. (2 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)
22-4620	Electrolytic Capacitor-25V.
22-4674	Two Section Variable Capacitor
22-5018	.47 Mf Mylar Capacitor-50V.
22-5037	.005 Mf Disc Capacitor-25V. (3 Required)
22-5130	8 Pf Disc Capacitor-500V.
22-5131	6 Pf Disc Capacitor-500V.
22-5167	1000 Mf Electrolytic Capacitor-30V.
22-5175	200 Mf Electrolytic Capacitor-25V. (2 Required)
22-5182	.033 Mfd. Disc Capacitor-50V. (2 Required)
22-5188	.1 Mfd. Mylar Capacitor-50V.
22-5321	36 Pf Disc Capacitor-500V.
22-5438	20 Pf Disc Capacitor-500V.
22-5487	.47 Mf Disc Capacitor-3V. (2 Required)
24-1473	Tuner Cover
*26-1582	Dial Scale (Part of S-79184)
43-519	Contact Housing
*46-6410	Tuning Knob
*46-6411	Tone Control Knob
*46-6412	Dual Loudness Control Knob
*46-6413	Balance Control Knob
*46-6414	Bandswitch Knob
52-1241	Three Conductor Cable-Approx. 43½"
54-139	3/8-32 x 9/16 Palnut-Cadmium (1 Used on Ea. 63-6853, 63-6854, 63-7551 & 85-919)
54-522	Tinnerman Speed Nut (Used on 171-61)
54-549	Tinnerman Speed Nut (6 Used on 192-389)

*Indicates parts not previously used

PART NO.	DESCRIPTION
54-633	Transistor Socket Retaining Nut (1 Used on Ea. 78-1442 & 78-1770)
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%
63-1740	82 Ohm Resistor - ½W. 10% (2 req'd.)
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% (2 req'd)
63-1768	390 Ohm Resistor - ½W. 10% (2 req'd.)
63-1771	470 Ohm Resistor - ½W. 10% (8 req'd.)
63-1772	470 Ohm Resistor - ½W. 20% (3 req'd.)
63-1775	560 Ohm Resistor - ½W. 10%
63-1778	680 Ohm Resistor - ½W. 10% (2 req'd.)
63-1782	820 Ohm Resistor - ½W. 10% (2 req'd.)
63-1785	1000 Ohm Resistor - ½W. 10% (3 req'd.)
63-1789	1200 Ohm Resistor - ½W. 10%
63-1792	1500 Ohm Resistor - ½W. 10% (3 req'd.)
63-1796	1800 Ohm Resistor - ½W. 10% (2 req'd.)
63-1799	2200 Ohm Resistor - ½W. 10%
63-1803	2700 Ohm Resistor-½W. 10%
63-1806	3300 Ohm Resistor - ½W. 10% (2 req'd.)
63-1813	4700 Ohm Resistor - ½W. 10% (4 req'd.)
63-1817	5600 Ohm Resistor - ½W. 10%
63-1820	6800 Ohm Resistor - ½W. 10% (3 req'd.)
63-1824	8200 Ohm Resistor - ½W. 10% (2 req'd.)
63-1828	10K Ohm Resistor - ½W. 20%
63-1831	12K Ohm Resistor - ½W. 10%
63-1834	15K Ohm Resistor - ½W. 10% (2 req'd.)
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% (4 req'd.)
63-1855	47K Ohm Resistor - ½W. 10% (6 req'd.)
63-1859	56K Ohm Resistor - ½W. 10%
63-1869	100K Ohm Resistor - ½W. 10% (4 req'd.)
63-1880	180K Ohm Resistor - ½W. 10% (2 req'd.)
63-1883	220K Ohm Resistor - ½W. 10% (2 req'd.)
63-1897	470K Ohm Resistor - ½W. 10%
63-1908	820K Ohm Resistor - ½W. 10% (2 req'd.)
63-1912	1 Megohm Resistor - ½W. 20%
63-1932	3.3 Megohm Resistor - ½W. 10%
63-3238	Potentiometer
63-4122	33 Ohm Resistor-¼W. 10%
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 req'd.)
63-4526	3.9 Ohm Resistor - ½W. 10% (4 req'd.)
63-4533	5.6 Ohm Resistor - ½W. 10%
63-5614	47 Ohm Resistor - 2W. 10%
63-6049	330 Ohm Resistor - 1W. 10% (2 req'd.)
63-6063	680 Ohm Resistor - 1W. 10%
63-6495	Potentiometer
63-6853	Dual Treble Control
63-6854	Dual Loudness Control
*63-7551	Dual Bass Control & Switch
76-1403	Tuner Guide Shaft
76-1734	Tuning Shaft
*78-1226	Four Contact Transistor Socket
78-1378	Four Contact Transistor Socket
78-1442	Transistor Socket
78-1489	Stereo Indicator Light Socket & Wire
78-1622	3 Contact Transistor Socket (7 req'd.)
79-209-8	No. 22 Sleeving - Yellow - 1" (4 Part of 800-205)
79-210-8	No. 22 Sleeving - Green - 1" (4 Part of 800-205)
79-211-8	No. 22 Sleeving - Blue - 1" (4 Part of 800-205)

PART NO.	DESCRIPTION
80-209	Drive Cord Tension Spring
80-1140	Drive Cord Tension Spring
80-1467	Shaft Retaining Spring
80-1468	Grounding Spring
80-1763	Retaining Spring (2 Part of S-61711)
80-1914	Ground Spring
80-1951	Retaining Spring (2 req'd.)
83-3561	Cable Retaining Strip
83-4633	Felt Strip
83-5170	Three Lug Terminal Strip
83-5171	Insulating Strip
83-5286	Eight Lug Terminal Strip
83-5287	Ten Lug Terminal Strip
83-5327	Fifty-two Lug Terminal Strip
83-5328	Eleven Lug Terminal Strip
83-5386	Nine Lug Terminal Strip
83-5430	Nine Lug Terminal Strip
83-5431	Insulating Strip
83-5748	Rubber Channel Strip (2 req'd.)
83-5749	Rubber Channel Strip (2 req'd.)
83-5771	Five Lug Terminal Strip
83-5772	Insulating Strip
83-5773	Three Lug Terminal Strip
83-5785	Single Lug Terminal Strip
83-6087	Twenty-Four Lug Terminal Strip
*83-6682	Trim Strip (Part of S-79185)
85-919	Five Position Bandswitch
86-328	Wire Retaining Terminal (4 req'd.)
86-334	Socket Terminal (3 required)
86-388	Connector Terminal (2 required)
*86-496	Insertion Terminal (8 required)
93-966	No. 5 Internal Shakeproof Lockwasher-Cadmium (1 Used on Ea. S-73228 & S-73229)
94-613	Iron Core Retaining Bushing (2 req'd.)
94-1466	Tuning Shaft Bushing
95-2233	1st I.F. Transformer - AM
95-2234	2nd I.F. Transformer - AM
95-2236	1st I.F. Transformer - FM
95-2313	Doubler Mixer Transformer
95-2315	Input Mixer Transformer
95-2316	Trap Coil
95-2324	Ratio Detector Transformer
95-2353	Power Transformer
95-2430	Driver Transformer (2 req'd.)
95-2436	3rd I.F. Transformer - AM
95-2437	2nd I.F. Transformer - FM
95-2438	3rd I.F. Transformer - FM
95-2439	38KHz Transformer
100-384	Stereo Indicator Bulb
103-23	Diode (5 required)
103-47	Silicon Diode
103-74	Crystal Diode
103-96	Diode
105-78	R/C Network
113-10	6-32 x 3/16 x 1/4 Hex Hd. Mach. Screw-Cadmium - Internal Shakeproof Lockwasher (3 req'd.)
113-12	6-32 x 5/32 x 1/4 Slotted Hex Hd. Mach. Screw - N.P. - Internal Shakeproof Lockwasher
114-390	8-18 x 7/16 x 1/4 Hex Hd. Self-Tap Screw - Stat. Bronze (4 Used on S-79185)
114-638	6-20 x 3/8 Hex Hd. Self-Tap. Screw - Stat. Bronze - Flat Washer Att.
114-801	8-18 x 5/16 x 1/4 Hex Hd. Self-Tap. Screw - Stat. Bronze (18 req'd.)
121-381	Transistor - AM - Conv.
121-428	Transistor - FM - Conv.
121-433	Transistor - Pre-Amp. (2 required)
121-496	Transistor - Stereo - Ind. Sw. (4 req'd.)
121-610	Transistor - Driver (2 required)
*121-697	Transistor - FM - RF
*121-698	Transistor-AM-FM (3 req'd)
125-26	Rubber Grommet
125-140	Strain Relief Grommet
126-1207	Shield (FM Tuner)

*Indicates parts not previously used

PART NO.	DESCRIPTION
149-211	Iron Core (Part of S-66580)
149-333	Iron Core Sleeve (2 required)
149-368	Iron Core & Spring
149-385	Iron Core & Spring
171-61	Stereo Lens
188-54	Knob Clamping Ring (Part of 46-6412)
188-120	Knob Clamping Ring (Part of 46-6413)
188-155	Knob Clamping Ring (Part of 46-6411 or 46-6414)
188-441	Knob Clamping Ring (Part of 46-6410)
192-389	Dial Crystal
205-51	Dow Corning Heat Conductive Grease (Part of 800-205)
212-71	Silicon Rectifier (2 required)
800-205	Transistor - Power Amp. - Matched Pair (2 required)
S-54511	Shielded Lead & Plug Assembly
S-61711	Pointer Support Strip & Retaining Spring Assembly (2 required)
S-62887	FM Oscillator Coil Assembly
S-66580	AM Oscillator Coil Assembly
S-68976	FM Detector Coil Assembly
S-73228	Chassis Mounting Bracket Assembly (L. H.)
S-73229	Chassis Mounting Bracket Assembly (R. H.)
S-73230	Control Panel Assembly
S-73306	Drive Cord & Eyelet Assembly
S-74744	FM Oscillator Coil & Capacitor Assembly
S-74745	FM Detector Coil & Capacitor Assembly
S-78099	FM Antenna Coil Assembly
S-78179	Drive Cord & Eyelet Assembly
S-78180	Drive Cord & Eyelet Assembly
*S-79184	Background Strip & Dial Scale Assembly
*S-79185	Escutcheon Assembly

CHASSIS 20YT20

11-106	Line Cord
12-4009	Tuner Bracket
12-4409	Switch Mtg. Bracket
19-238	Coil Mtg. Clip (Used on S-66580)
19-322	Coil Mtg. Clip (3 required)
20-1256	Trap Coil
20-1424	Trap Coil
22-3 or 22-4617	.01 MF Disc Capacitor - 500V. (3 req'd.)
22-13	.0033 MF Disc Capacitor - 500V. (2 req'd)
22-14	.0047 MF Disc Capacitor - 500V. (2 req'd.)
22-2376	47 PF Disc Capacitor - 500 V. (2 req'd.)
22-2428	1.8 PF Gimmick Capacitor (2 req'd.)
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. (16 req'd.)
22-3177	390 PF Disc Capacitor - 500V. (3 req'd.)
22-3255	330 PF Disc Capacitor - 500V. (2 req'd.)
22-3400	3.9 PF Gimmick Capacitor
22-3415	.0068 MF Disc Capacitor - 25V. (2 req'd.)
22-3448	10 MF Electrolytic Capacitor - 15V.
22-3550	3.3 PF Gimmick Capacitor
22-3599	.015 MF Capacitor - 50V. (2 required)
22-3621	22 PF Disc Capacitor - 500V.
22-3645	1000 PF Mica Capacitor - 100V.
22-3675	10 PF Disc Capacitor - 500V.
22-3687	1 MF Capacitor - 50V. (4 required)
22-3879	1000 MF Electrolytic Capacitor - 50V.
22-3896	5 MF Electrolytic Capacitor - 25V. (4 req'd.)
22-3973	100 MF Electrolytic Capacitor - 25V.
22-4523	1.1 PF Gimmick Capacitor (2 req'd.)
22-4613	Feed-Thru Capacitor - 500V. (5 req'd.)
22-4674	Two Section Variable Capacitor
22-5012	.15 MF Capacitor - 50V. (4 required)
22-5018	.47 MF Capacitor - 50V. (3 required)
22-5037	.005 MF Disc Capacitor - 25V. (3 req'd.)
22-5056	.02 MF Disc Capacitor - 25V. (2 req'd.)
22-5130	8 PF Disc Capacitor - 500V.

PART NO.	DESCRIPTION
22-5167	1000 MF Electrolytic Capacitor - 30V.
22-5188	.1 MF Capacitor - 50V.
22-5249	.1 MF Capacitor - 100V. (2 req'd.)
22-5315	300 MF Electrolytic Capacitor - 50V. (2 required)
22-5316	500 MF Electrolytic Capacitor - 50V.
22-5321	36 PF Disc Capacitor - 500V.
24-1473	Tuner Cover
*26-1406	Dial Scale (Part of S-75976)
43-519	Contact Housing
46-5155	Bandswitch Knob
46-5157	Tuning Knob
46-5158	Loudness Control Knob
46-5217	Balance Control Knob
46-5559	Bass Tone Control Knob
46-5560	Treble Tone Control Knob
*46-5648	Push Button, Stereo-Monaural
52-1212	Two Conductor Shielded Lead
52-1241	Three Conductor Cable
52-1336	Two Conductor Shielded Lead
54-139	3/8-32 x 9/16 Palnut - Cadmium (1 used on ea. 63-6861, 63-6854, 63-6889 & 85-920)
54-549	Tinnerman Speed Nut (6 used on 192-389)
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 used on S-54511)
59-824	Dial Pointer
63-1701	10 Ohm Resistor - ½W. 10%
63-1743	100 Ohm Resistor - ½W. 10% (3 req'd.)
63-1747	120 Ohm Resistor - ½W. 10% (2 req'd.)
63-1754	180 Ohm Resistor - ½W. 10%
63-1761	270 Ohm Resistor - ½W. 10%
63-1764	330 Ohm Resistor - ½W. 10% (3 req'd.)
63-1768	390 Ohm Resistor - ½W. 10% (2 req'd.)
63-1771	470 Ohm Resistor - ½W. 10% (7 req'd.)
63-1772	470 Ohm Resistor - ½W. 20% (3 req'd.)
63-1775	560 Ohm Resistor - ½W. 10% (2 req'd.)
63-1778	680 Ohm Resistor - ½W. 10% (2 req'd.)
63-1782	820 Ohm Resistor - ½W. 10% (2 req'd.)
63-1789	1200 Ohm Resistor - ½W. 10%
63-1785	1 K Ohm Resistor - ½W. 10% (3 req'd.)
63-1792	1500 Ohm Resistor - ½W. 10% (7 req'd.)
63-1799	2200 Ohm Resistor ½W. 10% (3 req'd.)
63-1803	2700 Ohm Resistor - ½W. 10%
63-1806	3300 Ohm Resistor - ½W. 10% (2 req'd.)
63-1813	4700 Ohm Resistor - ½W. 10% (4 req'd.)
63-1817	5600 Ohm Resistor - ½W. 10%
63-1820	6800 Ohm Resistor - ½W. 10% (2 req'd.)
63-1824	8200 Ohm Resistor - ½W. 10% (2 req'd.)
63-1827	10 K Ohm Resistor - ½W. 10% (2 req'd.)
63-1828	10 K Ohm Resistor - ½W. 20%
63-1834	15 K Ohm Resistor - ½W. 10% (6 req'd.)
63-1841	22 K Ohm Resistor - ½W. 10%
63-1845	27 K Ohm Resistor - ½W. 10%
63-1848	33 K Ohm Resistor - ½W. 10% (3 req'd.)
63-1852	39 K Ohm Resistor - ½W. 10% (2 req'd.)
63-1855	47 K Ohm Resistor - ½W. 10% (4 req'd.)
63-1859	56 K Ohm Resistor - ½W. 10%
63-1867	100 K Ohm Resistor - ½W. 10% (2 req'd.)
63-1873	120 K Ohm Resistor - ½W. 10% (2 req'd.)
63-1880	180 K Ohm Resistor - ½W. 10% (2 req'd.)
63-1883	220 K Ohm Resistor - ½W. 10% (4 req'd.)
63-1897	470 K Ohm Resistor - ½W. 10%
63-1911	1 Megohm Resistor - ½W. 10%
63-1912	1 Megohm Resistor - ½W. 20%
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	12 K Ohm Resistor - ¼W. 10%
63-4297	470 K Ohm Resistor - ¼W. 10%
63-4533	5.6 Ohm Resistor - ½W. 10% (5 req'd.)
63-5325	1 Ohm Resistor - 1 W. 10% (4 req'd.)
63-5638	180 Ohm Resistor - 2 W. 10%

*Indicates parts not previously used

PART NO.	DESCRIPTION
63-6010	39 Ohm Resistor - 1 W. 10%
63-6045	270 Ohm Resistor - 1 W. 10%
63-6059	560 Ohm Resistor - 1 W. 10% (2 req'd.)
63-6063	680 Ohm Resistor - 1 W. 10% (2 req'd.)
63-6066	820 Ohm Resistor - 1 W. 10%
63-6495	Potentiometer
63-6854	Dual Loudness Control
63-6861	Dual Treble Control
63-6889	Dual Bass Control
*76-1734	Tuning Shaft
78-1347	Electrolytic Wafer Socket
78-1378	Four Contact Transistor Socket (2 req'd.)
78-1442	Transistor Socket
78-1486	Transistor Socket (4 required)
78-1488	Dial Light Socket & Wire
78-1489	Stereo Indicator Light Socket & Wire
78-1622	Three Contact Transistor Socket (4 req'd.)
78-1677	Four Contact Transistor Socket (3 req'd.)
80-209	Drive Cord Tension Spring
80-1140	Drive Cord Tension Spring
80-1467	Shaft Retaining Spring
80-1468	Grounding Spring
80-1763	Retaining Spring (1 part of ea. S-61711)
80-1914	Ground Spring
80-1951	Retaining Spring (2 req'd.)
83-3561	Cable Retaining Strip
83-3826	Two Lug Terminal Strip
83-4194	Five Lug Terminal Strip
83-5170	Three Lug Terminal Strip
83-5171	Insulating Strip (Used on 83-5170)
83-5277	Insualting Strip (1 part of ea. 121-418)
83-5284	Five Lug Terminal Strip
83-5286	Eight Lug Terminal Strip
83-5287	Ten Lug Terminal Strip
83-5291	Insulating Strip
83-5328	Eleven Lug Terminal Strip
83-5386	Nine Lug Terminal Strip
83-5748	Rubber Channel Strip – Long (2 part of S-75974)
83-5749	Rubber Channel Strip - Short (2 part of S-75974)
83-5773	Three Lug Terminal Strip (2 req'd.)
83-5785	Single Lug Terminal Strip
83-5796	Four Lug Terminal Strip (2 req'd.)
83-5797	Insulating Strip (1 used on ea. 83-5796)
83-5798	Eleven Lug Terminal Strip
83-5799	Insulating Strip (Used on 83-5798)
83-5800	Six Lug Terminal Strip
83-5801	Insulating Strip (Used on 83-5800)
83-5802	Fifty-seven Lug Terminal Strip
*83-6132	Trim Strip (Part of S-75974)
85-892	Stereo-Monaural Switch
85-920	Six Position Bandswitch
86-334	Socket Terminal (3 used on 52-1241)
86-388	Connector Terminal (2 used on 78-1489)
93-966	No. 5 Internal Shakeproof Lockwasher - Cadmium (2 required)
93-1730	Spring Washer (Used on 171-50)
93-1756	Fibre Washer (2 required)
94-613	Iron Core Retaining Bushing (2 used on 12-4009)
*94-1466	Tuning Shaft Bushing (Used on 76-1734)
95-2233	1st I.F. Transformer (AM)
95-2234	2nd I.F. Transformer (AM)
95-2236	1st I.F. Transformer (FM)
95-2313	Doubler Mixer Transformer
95-2315	Input Mixer Transformer
95-2316	Trap Coil
95-2324	Ratio Detector Transformer
95-2431	Driver Transformer (2 required)
95-2433	Power Transformer
95-2436	3rd I.F. Transformer (AM)
95-2437	2nd I.F. Transformer (FM)
95-2438	3rd I.F. Transformer (FM)
95-2439	38 KC Transformer
100-249	Pilot Light Bulb (2 required)
100-384	Stereo Indicator Bulb

PART NO.	DESCRIPTION
103-23	Diode (5 required)
103-47	Diode
103-74	Diode
103-96	Zener Diode
105-78	R/C Network
113-8	6-32 x ¼ x ¼ Hex Hd. Mach. Screw-Internal Shakeproof Lockwasher (2 Mt. 85-892)
113-10	6-32 x 3/16 x ¼ Hex Hd. Mach. Screw-Internal Shakeproof Lockwasher (3 join 12-4674, 83-3561 and S-73228)
113-12	6-32 x 5/32 x ¼ Slotted Hex Hd. Mach. Screw-Internal Shakeproof Lock-washer (Joins S-73253 & 22-4674)
114-638	6-20 x 3/8 Hex Hd. Self-Tap. Screw-Stat. Bronze-Flat Washer Attached (Used on S-73253)
114-335	8-18 x ½ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (4 used on S-75974)
114-801	8-18 x 5/16 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (2 used on S-75976)
114-995	6-32 x 3/8 Hex Washer Hd. Special Self-Tap. Screw (4 used on ea. S-73228 & S-73229, 2 used on ea. 95-2433, S-73557 and 12-4409)
114-803	6-20 x ¼ x ¼ Hex Washer Hd. Self-Tap. Screw-Stat. Bronze (Used on S-73562)
121-381	Transistor-AM-Conv.
121-383	Transistor-FM-RF
121-414	Transistor-AF-FM
121-415	Transistor-AM-FM (2 required)
121-418	Transistor-Power Amp. -Matched Pair (2 required)
121-428	Transistor-FM-Conv.
121-430	Transistor-Pre-Driver (2 required)
121-433	Transistor-Pre-Amp. (2 required)
121-442	Transistor-Driver (2 required)
*121-496	Transistor-Stereo Ind. S.W. (4 req'd)
125-26	Rubber Grommet
125-140	Strain Relief Grommet
126-1207	Shield (FM Tuner)
126-1262	Light Shield
149-211	Iron Core (Part of S-66580)
149-333	Ferrite Sleeve (2 required)
149-368	Iron Core & Spring
149-385	Iron Core & Spring
171-50	Stereo Lens (Part of S-75976)
192-389	Dial Crystal (Part of S-75974)
212-71	Rectifier (2 required)
205-51	Silicone Grease (Part of 121-418)
S-54511	Shielded Lead & Plug Assembly
S-61711	Pointer Support Strip & Retaining Spring Assembly (2 required)
S-62887	FM Oscillator Coil Assembly
S-66580	AM Oscillator Coil Assembly
S-68976	FM Detector Coil Assembly
S-71997	FM Antenna Coil Assembly
S-73228	Chassis Mtg. Bracket Assembly (L.H.)
S-73229	Chassis Mtg. Bracket Assembly (R.H.)
S-73253	AM Antenna Assembly
S-73306	Drive Cord & Eyelet Assembly
S-73307	Drive Cord & Eyelet Assembly
S-73548	Heat Sink & Socket Assembly (2 req'd)
S-73555	Control Panel Assembly
S-73562	Tape Jack & Bracket Assembly
S-74552	Dial Light Reflector Assembly
S-74744	FM Oscillator Coil & Capacitor Assem.
S-74745	FM Detector Coil & Capacitor Assem.
*S-75974	Escutcheon Assembly
*S-75976	Background Strip & Dial Scale Assem.
*S-76227	Drive Cord & Eyelet Assembly

*Indicates parts not previously used

CHASSIS 26YT20

PART NO.	DESCRIPTION
12-4209	Chassis Mtg. Bracket (2 req'd)
12-4210	Shutter Bracket
12-4211	Variable Capacitor Mtg. Bracket
12-4254	Bottom Plate Mtg. Bracket (6 required)
19-238	Coil Mtg. Clip (1 part of ea. S-76316 & S-72828)
19-464	Coil Mtg. Clip (Part of S-76317)
19-485	Cable Retaining Clip (Used on S-69382)
20-2033	Peaking Coil
22-3	.01 MF Disc Capacitor-500V.
22-13	.0033 MF Disc Capacitor-500V. (2 req'd)
22-17	.001 MF Disc Capacitor-1KV (2 req'd)
22-18	.0022 MF Disc Capacitor-500V. (2 req'd)
22-2434	2 PF Gimmick Capacitor-500V.
22-2655	.01 MF Disc Capacitor-1400V.
22-2720	1 PF Gimmick Capacitor-500V. (3 req'd)
22-2729	.001 MF Disc Capacitor-25V.
22-2884	5 MF Electrolytic Capacitor (6 req'd)
22-3010	.01 MF Disc Capacitor-25V.
22-3034	.05 MF Disc Capacitor-25V. (22 req'd)
22-3177	390 PF Disc Capacitor-500V. (2 req'd)
22-3255	330 PF Disc Capacitor-200V. (4 req'd)
22-3448	10 MF Electrolytic Capacitor-50V.
22-3527	.22 MF Disc Capacitor-12V.
22-3588	.47 MF Disc Capacitor-12V. (2 req'd)
22-3595	.33 MF Mylar Capacitor-50V. (4 req'd)
22-3630	.68 MF Mylar Capacitor-50V. (2 req'd)
22-3652	.1 MF Disc Capacitor-10V.
22-3675	10 PF Disc Capacitor-500V.
22-3678	.047 MF Capacitor-100V. (2 req'd)
22-3710	.22 MF Mylar Capacitor-50V. (2 req'd)
22-3826	.022 MF Capacitor-100V. (2 req'd)
22-3879	1000 MF Electrolytic Capacitor-50V.
22-3944	.0047 MF Capacitor-25V.
22-4110	.033 MF Mylar Capacitor-200V. (4 req'd)
22-4343	.047 MF Capacitor-200V.
22-4628	2 x 100 MF Electrolytic Capacitor
22-4665	4300 PF Mica Capacitor-300V.
*22-4808	Three Section Variable Capacitor
22-5011	500 MF Electrolytic Capacitor-50V. (2 required)
22-5012	.15 MF Capacitor-50V. (2 required)
22-5018	.47 MF Capacitor-50V. (3 required)
22-5162	Three Section Electrolytic Capacitor
22-5167	1000 MF Electrolytic Capacitor
22-5187	.0047 MF Disc Capacitor-1KV.
44-48	Connector Jack (4 part of S-69382)
46-4491	Push Button-On-Off & Monaural (2 required)
46-5109	Tuning Knob
46-5193	Tone Control Knob-Bass & Treble (2 required)
46-5195	Bandswitch Knob
46-5196	Balance Control Knob
46-5197	Loudness Control Knob
52-1103	Two Conductor Cable (used on S-59959)
52-1335	Two Conductor Shielded Lead (used on S-69382)
52-1336	Two Conductor Shielded Lead (used on S-69382)
54-139	3/8-32 x 9/16 Palnut-Cadmium (1 used on ea. 63-6361, 63-6362, 63-6363 & 85-923)
54-522	Tinnerman Speed Nut
54-549	Tinnerman Speed Nut (4 Mt. 192-410)
54-633	Transistor Socket Retaining Nut (6 used on 78-1442, 7 used on 78-1677, 5 used on 78-1622 & 1 used on 78-1621)
56-426	Roll Pin (2 part of S-72985)
57-5377	Chassis Bottom Plate
57-5928	Trim Plate
*57-6365	Control Mtg. Plate (part of S-76319)
58-246	Two Prong Plug-AC (Part of S-59959)
*59-719	Dial Pointer
62-28	Fuse Holder
63-1701	10 Ohm Resistor-½W. 10%
63-1736	68 Ohm Resistor-½W. 10% (3 req'd)
63-1743	100 Ohm Resistor-½W. 10%
63-1750	150 Ohm Resistor-½W. 10%
63-1757	220 Ohm Resistor-½W. 10% (3 req'd)
63-1761	270 Ohm Resistor-½W. 10%
63-1764	330 Ohm Resistor-½W. 10% (7 req'd)
63-1771	470 Ohm Resistor-½W. 10% (10 req'd)
63-1775	560 Ohm Resistor-½W. 10% (3 req'd)
63-1778	680 Ohm Resistor-½W. 10% (3 req'd)
63-1782	820 Ohm Resistor-½W. 10% (2 req'd)
63-1785	1K Ohm Resistor-½W. 10% (13 req'd)
63-1789	1200 Ohm Resistor-½W. 10%
63-1792	1500 Ohm Resistor-½W. 10%
63-1796	1800 Ohm Resistor-½W. 10% (3 req'd)
63-1799	2200 Ohm Resistor-½W. 10% (3 req'd)
63-1803	2700 Ohm Resistor-½W. 10%
63-1806	3300 Ohm Resistor-½W. 10%
63-1810	3900 Ohm Resistor-½W. 10% (4 req'd)
63-1813	4700 Ohm Resistor-½W. 10% (5 req'd)
63-1817	5600 Ohm Resistor-½W. 10%
63-1820	6800 Ohm Resistor-½W. 10%
63-1824	8200 Ohm Resistor-½W. 10%
63-1825	9100 Ohm Resistor-½W. 5%
63-1826	10K Ohm Resistor-½W. 5%
63-1827	10K Ohm Resistor-½W. 10% (3 req'd)
63-1842	22K Ohm Resistor-½W. 20%
63-1848	33K Ohm Resistor-½W. 10% (4 req'd)
63-1855	47K Ohm Resistor-½W. 10% (2 req'd)
63-1859	56K Ohm Resistor-½W. 10%
63-1862	68K Ohm Resistor-½W. 10% (5 req'd)
63-1869	100K Ohm Resistor-½W. (3 req'd)
63-1870	100K Ohm Resistor-½W. 20%
63-1873	120K Ohm Resistor-½W. 10%
63-1876	150K Ohm Resistor-½W. 10%
63-1880	180K Ohm Resistor-½W. 10% (2 req'd)
63-1890	330K Ohm Resistor-½W. 10%
63-1912	1Meg Ohm Resistor-½W. 20% (2 req'd)
63-3238	Mute Control
63-4519	2.7 Ohm Resistor-½W. 10% (4 req'd)
63-4533	5.6 Ohm Resistor-½W. 10%
63-5305	.51 Ohm Resistor-5W. 5% (4 req'd)
63-5635	150 Ohm Resistor-2W. 10%
63-5652	390 Ohm Resistor-2W. 10%
63-5656	470 Ohm Resistor-2W. 10% (2 req'd)
63-5663	680 Ohm Resistor-2W. 10%
63-6045	270 Ohm Resistor-1W. 10% (2 req'd)
63-6361	Dual Loudness Control
63-6362	Dual Bass Control
63-6363	Dual Treble Control
63-6376	Potentiometer
63-6377	50 Ohm Resistor-3W. 10%
78-402	Four Contact Socket
78-1099	Three Contact Socket
78-1347	Electrolytic Socket (2 required)
78-1429	Triple Light Socket & Wire
78-1442	Three Contact Transistor Socket (6 required)
78-1486	Power Transistor Socket (2 Part Of Ea. S-73214)
78-1621	Three Contact Transistor Socket
78-1622	Three Contact Transistor Socket (5 req'd)
78-1677	Four Contact Transistor Socket (7 req'd)
*78-1736	Stereo Indicator Light Socket & Wire
80-1140	Tension Spring (Pointer)
80-1188	Tension Spring (Gang)
80-1763	Retaining Spring (1 Used On Ea. 83-5307)
80-1863	Shutter Bracket Return Spring
*80-1963	Idler Pulley Cantilever Spring
83-3641	Five Lug Terminal Strip
83-3652	Three Lug Terminal Strip
83-5277	Insulating Strip (2 Part Of Ea. 800-196)

*Indicates parts not previously used

PART NO.	DESCRIPTION
83-5284	Five Lug Terminal Strip
83-5286	Eight Lug Terminal Strip
83-5288	Thirteen Lug Terminal Strip
83-5289	Fifteen Lug Terminal Strip (2 required)
83-5291	Insulating Strip
83-5307	Pointer Support Strip (2 required)
83-5309	Thirty Lug Terminal Strip
83-5328	Eleven Lug Terminal Strip (2 required)
83-5399	Four Lug Terminal Strip
83-5881	Two Lug Terminal Strip
83-6234	Rubber Channel Strip (2 Part Of 192-410)
*83-6235	Trim Strip-Tone Control (Part Of S-76322)
*83-6236	Trim Strip-Bandswitch (Part of S-76322)
*83-6237	Trim Strip-Push Button (Part Of S-76322)
83-6326	Insulating Strip
85-891	A.C. Switch
85-892	Stereo-Monaural Switch
85-923	Five Position Bandswitch
86-328	Wire Retaining Terminal
86-388	Connector Terminal (2 Used On 78-1736)
*94-1480	Nylon Bushing
95-2313	Doubler Mixer Transformer
95-2314	Detector Mixer Transformer
95-2315	Input Mixer Transformer
95-2316	Trap Coil
95-2324	Ratio Detector Transformer
95-2325	1st I.F. Transformer (AM)
95-2326	2nd I.F. Transformer (AM)
95-2327	3rd I.F. Transformer (AM)
95-2328	2nd & 4th I.F. Transformer (FM) (2 required)
95-2330	Driver Transformer (2 required)
95-2335	Power Transformer
95-2387	3rd I.F. Transformer (FM)
100-249	Pilot Light Bulb (3 required)
100-384	Stereo Indicator Bulb
102-6296	Speaker Label
102-9748	Fuse Label
103-23	Diode (3 required)
103-96	Diode
105-93	38KC Filter (2 required)
113-8	6-32 x ¼ x ¼ Hex Hd. Mach. Screw-Int. Shakeproof Lockwasher (4 Used S-76319 & 2 Used On 12-4211)
114-335	8-18 x ½ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (4 Join S-76322 & Chassis)
114-344	6-20 x ¼ x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (3 Mt. 126-1150)
114-654	6-20 x 3/8 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (4 Mt. Ea. S-73214 & 2 Used On S-76319)
114-709	8-18 x 1-1/8 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (Joins S-76322 & Chassis)
114-711	4-24 x 7/32 Hex Hd. Self-Tap. Screw-Stat. Bronze-Flat Washer Attached (Used On 12-4210)
114-801	8-18 x 5/16 x ¼ Hex Hd. Self-Tap. Screw-Stat. Bronze (6 Used On S-76319, 4 Used On And 2 Used On Ea. 95-2330 & 22-4808)
114-804	8-18 x ½ Hex Hd. Self-Tap. Screw-Stat. Bronze-Flat Washer Attached (4 Used On Ea. 95-2335 & S-72985)
114-823	6-20 x ½ Hex Hd. Self-Tap. Screw-Stat. Bronze Flat Washer Attached (6 Mt. 57-5377)
114-995	6-32 x 3/8 Hex Wahser Hd. Special-Self-Tap. Screw (4 Used On 800-196)
121-305	Transistor-Pre-Driver (2 required)
121-306	Transistor-Pre-Amp (2 required)

PART NO.	DESCRIPTION
121-333	Transistor-AM-RF-AM Mixer (2 required)
121-335	Transistor-AM Osc.
121-347	Transistor- Bi-Plex Detector
121-399	Transistor-Driver (2 required)
121-414	Transistor-FM & AM 1st I.F.
121-415	Transistor-FM & AM 2nd I.F.-FM 3rd I.F.-FM 4th I.F. (3 required)
121-496	Transistor-Comp. Amp. -19KC Amp.-38KC Amp.-Stereo Ind. S.W. (4 req'd)
121-497	Transistor-A.G.C. Amp.
125-117	Rubber Grommet (4 Used On S-72985)
126-1106	Heat Dissipator (2 required)
126-1150	Light Shield
*126-1277	Stereo Indicator Shield
149-211	Iron Core (1 Part Of Ea. S-76316 & S-72828)
149-370	Iron Core (Part Of S-76317)
159-154	Plug Button (4 Part Of S-76333)
*171-61	Stereo Indicator Lens
188-422	Clamping Ring (Part of S-72985)
*192-410	Dial Crystal
199-405	Shielded Paper Sleeve
205-51	Silicon Grease (Part Of 800-196)
212-61	Rectifier (2 required)
800-196	Power Output Transistor-Matched Pair (2 required)
S-49418	Drive Cord & Eyelet Assembly (Pointer)
S-59959	A.C. Interlock & Bracket Assembly
S-61578	Drive Cord & Eyelet Assembly (Gang)
S-69382	Tape Jack & Bracket Assembly
S-71057	Drive Cord & Eyelet Assembly (Gang)
S-71060	Drive Cord & Eyelet Assembly (Pointer)
S-71214	Bracket & Terminal Strip Assembly
S-72586	FM Tuner Assembly (See FM Tuner Parts List For Components)
S-72985	FM Tuner & Pin Assembly
S-72828	Oscillator Coil Assembly
S-73214	Heat Sink & Socket Assembly (2 req'd)
S-76316	Detector Coil Assembly-Wiring
*S-76317	Antenna Coil Assembly-Wiring
*S-76319	Control Panel Assembly
*S-76322	Escutcheon Assembly
*S-76333	Shield & Strip Assembly

S-72586-F.M. TUNER COMPONENTS

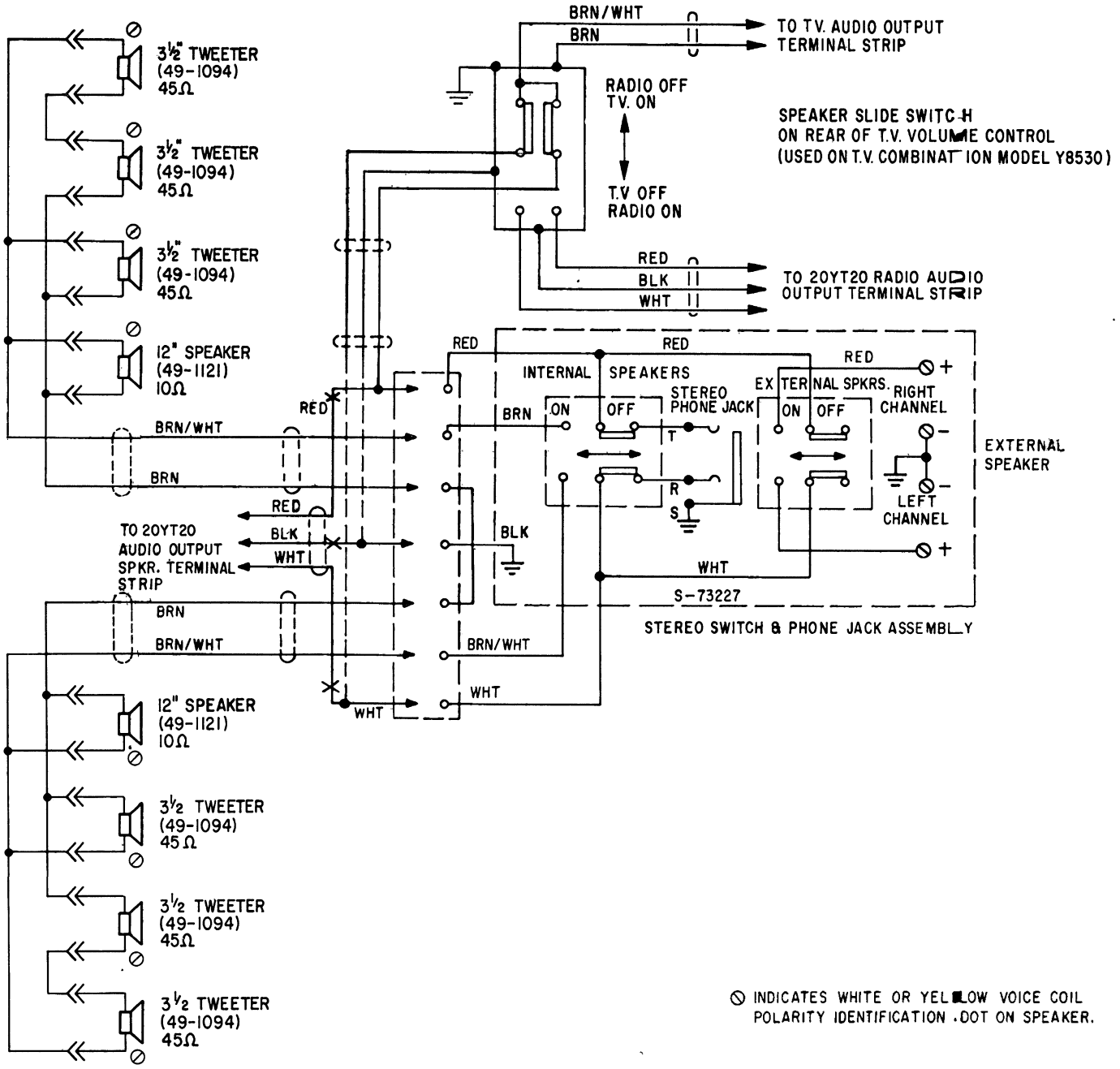
12-4192	Tuner Guide Bracket
12-4193	Coil Mtg. Bracket
19-322	Coil Mtg. Clip (4 required)
20-1256	Trap Coil
22-2374	6 Pf Disc Capacitor
22-2424	1.5 Pf Gimmick Capacitor
22-2642	15 Pf Disc Capacitor
22-3258	34 Pf Disc Capacitor (3 required)
22-3393	.01 Mf Disc Capacitor-25V. (6 required)
*22-3479	2.2 Pf Disc Capacitor
22-3604	5 Pf Disc Capacitor
22-3621	22 Pf Disc Capacitor
22-3652	.1 Mf Disc Capacitor-10V.
22-4613	Feed-Thru Capacitor (5 required)
22-5164	1.2 Pf Gimmick Capacitor
*24-1372	Tuner Cover
44-48	Antenna Jack
56-426	Roll Pin (4 required)
57-5333	Bearing Plate
63-4143	100 Ohm Resistor-¼W. 10%
63-4157	220 Ohm Resistor-¼W. 10% (3 req'd)
63-4171	470 Ohm Resistor-¼W. 10%
63-4178	680 Ohm Resistor-¼W. 10%
63-4185	1K Ohm Resistor-¼W. 10%
63-4192	1500 Ohm Resistor-¼W. 10% (2 req'd)
63-4199	2200 Ohm Resistor-¼W. 10%
63-4210	3900 Ohm Resistor-¼W. 10%
63-4227	10K Ohm Resistor-¼W. 10%
63-4241	22K Ohm Resistor-¼W. 10%

*Indicates parts not previously used

PART NO.	DESCRIPTION
63-4283	220K Ohm Resistor-¼W. 10%
63-4297	470K Ohm Resistor-¼W. 10%
76-1541	Guide Shaft (2 required)
76-1542	Drive Shaft
*78-1378	Transistor Socket (3 required)
79-1774-12	No. 18 Sleeving-Yellow-1-½ inch
80-1467	Shaft Retaining Spring
80-1853	Transformer Retaining Spring
83-3829	Two Lug Terminal Strip
86-331	Insulated Feed-Thru Terminal (3 req'd)
94-6113	Iron Core Bushing (4 Used On 12-4192)
95-2322	1st I.F. Transformer (FM)
103-39	Diode
113-26	6-32 x ¼ x ¼ AF Hex Hd. Mach. Screw-Nickel Plate - External Lockwasher Attached (2 Mt. 12-4193 & 2 Mt. 57-5333)

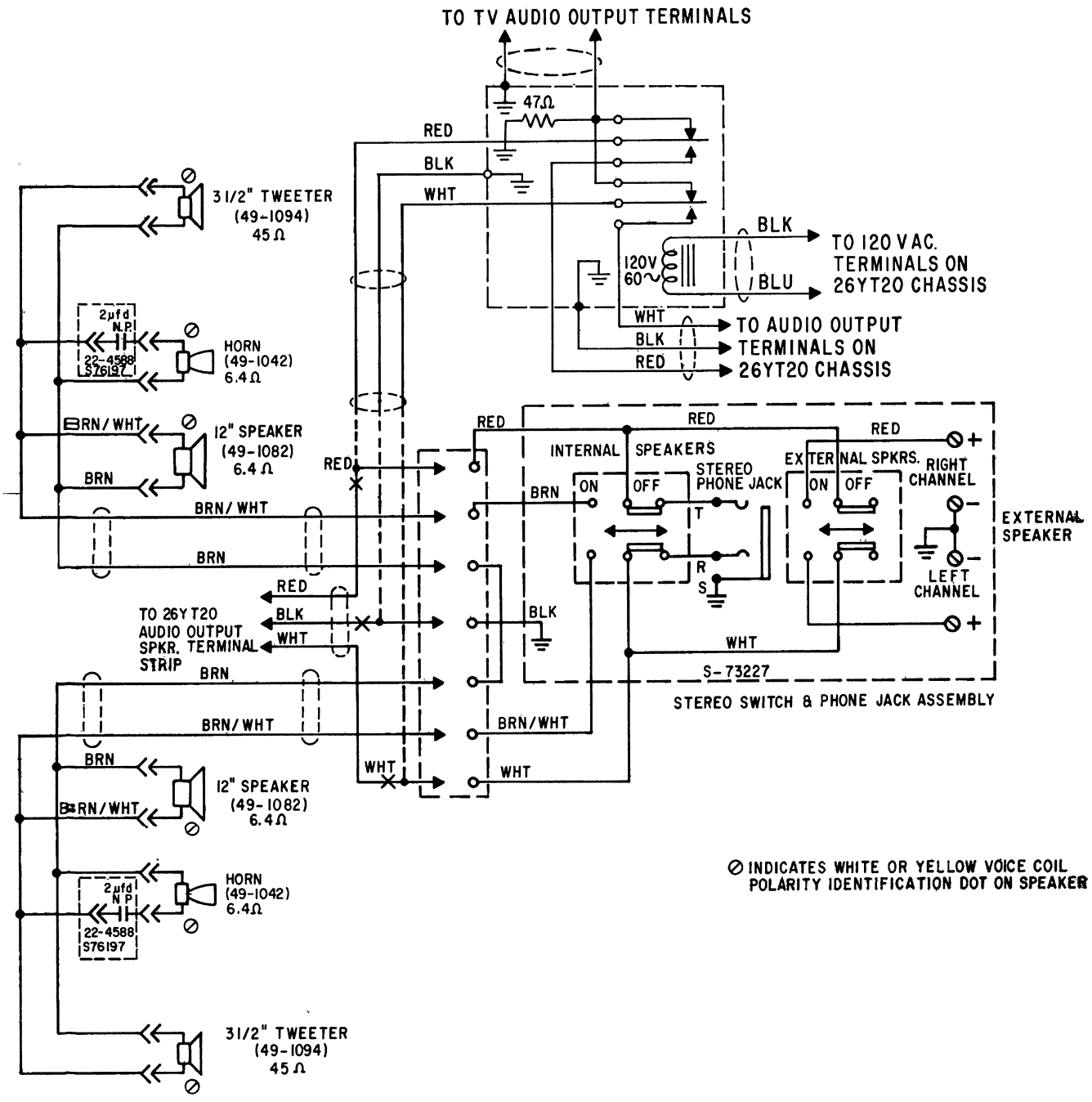
PART NO.	DESCRIPTION
121-383	Transistor
*121-428	Transistor
*121-432	Transistor
126-1141	Coil Shield (Side)
126-1142	Coil Shield (Center)
149-368	Iron Core & Spring (3 required)
*149-385	Iron Core & Spring
188-232	Retaining Ring (4 required)
S-62887	FM Coil Winding Assembly - Detector Coil, Antenna Coil, R.F. Input Coil & Oscillator Coil (4 req'd)
S-69085	Shield & Terminal Strip Assembly

*Indicates parts not previously used



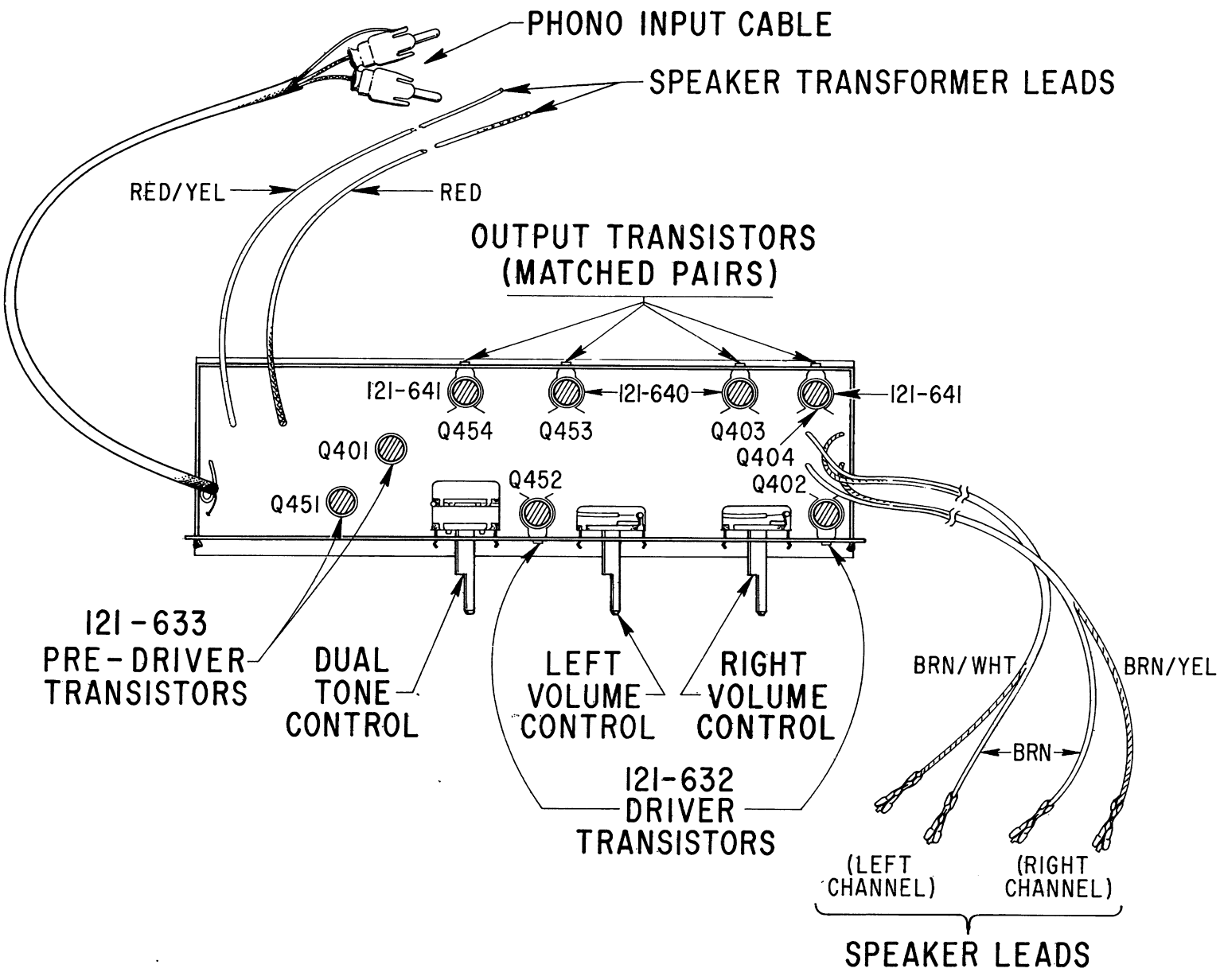
SPEAKER WIRING FOR
MODEL Y8530W & Y8530W-1

S-77018 SPEAKER
SWITCHING RELAY
WIRING DIAGRAM
USED ON TV
COMBINATIONS ONLY.
(RELAY PART NO. 195-41)

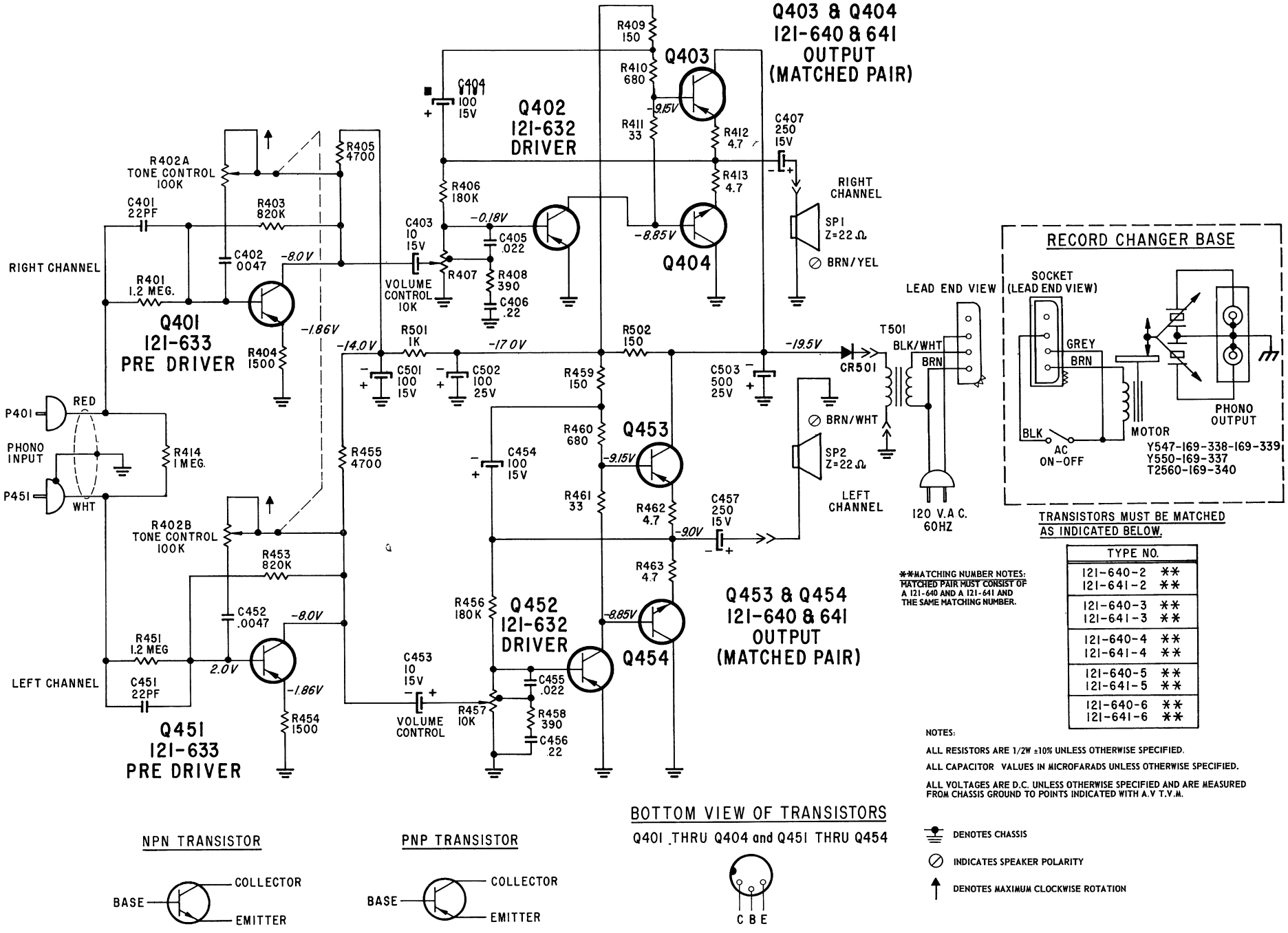


⊘ INDICATES WHITE OR YELLOW VOICE COIL POLARITY IDENTIFICATION DOT ON SPEAKER

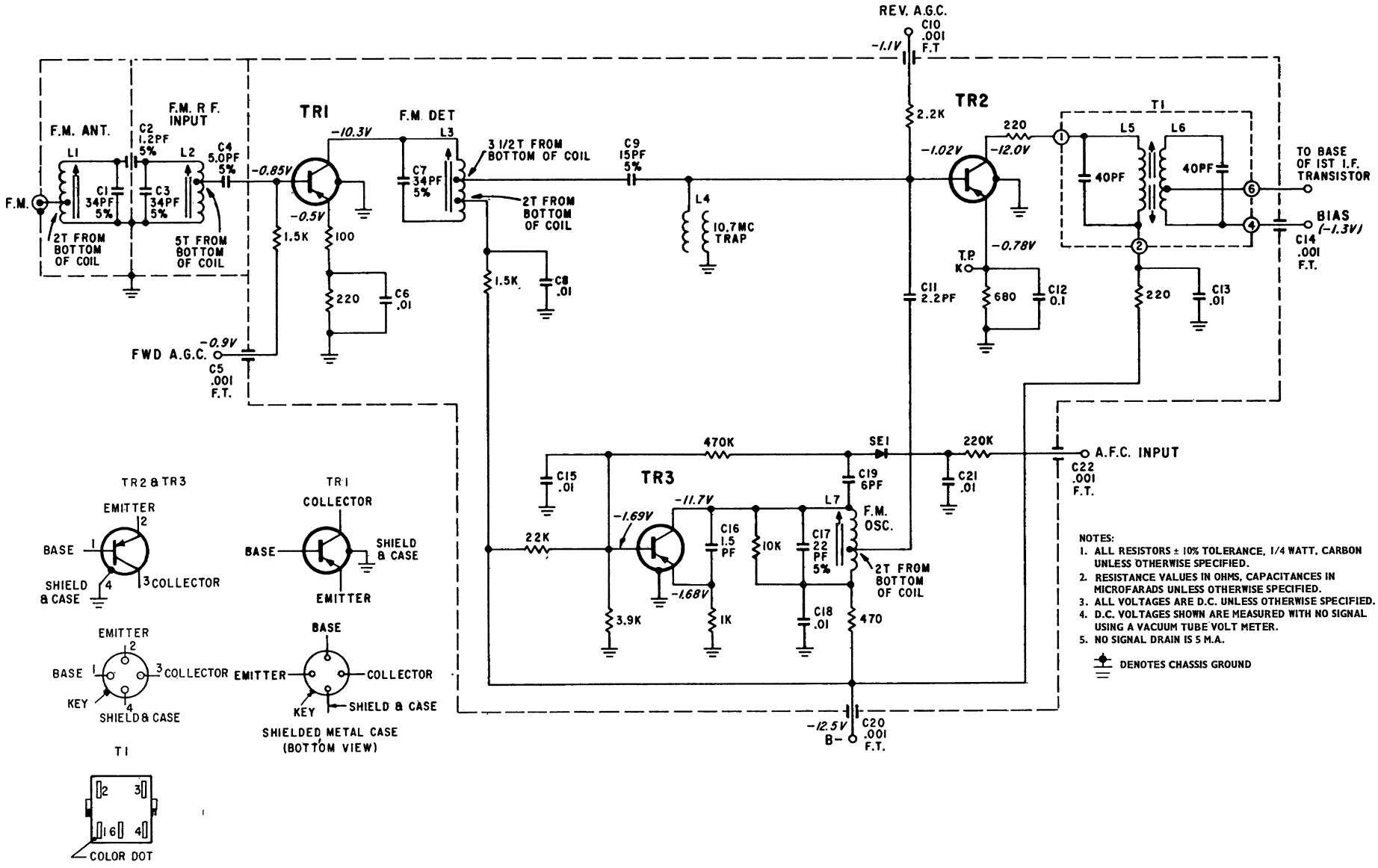
SPEAKER WIRING FOR TV COMBINATION
MODELS Y8550, Y8560, Y8570, Y8548,
Y8563, Y8565, Y8568, Y8558



8YT20 AND 8YT21 CHASSIS LAYOUT



8YT20 AND 8YT21 SCHEMATIC



NOTES:
1. ALL RESISTORS ± 10% TOLERANCE, 1/4 WATT, CARBON UNLESS OTHERWISE SPECIFIED.
2. RESISTANCE VALUES IN OHMS, CAPACITANCES IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
3. ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
4. D.C. VOLTAGES SHOWN ARE MEASURED WITH NO SIGNAL USING A VACUUM TUBE VOLT METER.
5. NO SIGNAL DRAIN IS 5 M.A.

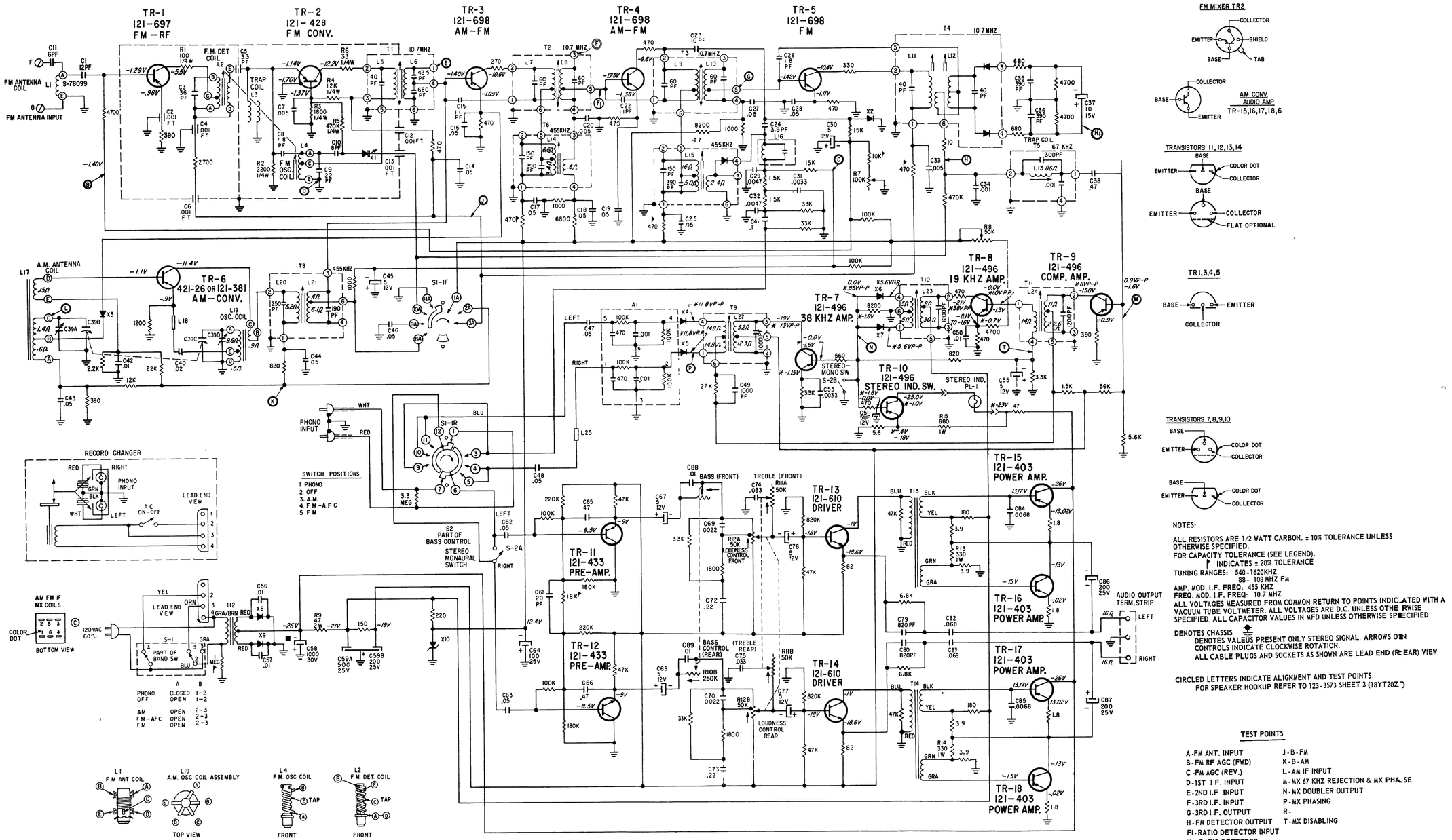
DENOTES CHASSIS GROUND

S72586 FM TUNERS

NOTES

NOTES

NOTES



NOTES:

ALL RESISTORS ARE 1/2 WATT CARBON. ± 10% TOLERANCE UNLESS OTHERWISE SPECIFIED.
FOR CAPACITY TOLERANCE (SEE LEGEND).
▶ INDICATES ± 20% TOLERANCE
TUNING RANGES: 540-1620KHZ
88-108 MHZ FM
AMP. MOD. I.F. FREQ: 455 KHZ
FREQ. MOD. I F. FREQ: 10.7 MHZ
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
DENOTES VALUES PRESENT ONLY STEREO SIGNAL. ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION.
ALL CABLE PLUGS AND SOCKETS AS SHOWN ARE LEAD END (REAR) VIEW

CIRCLED LETTERS INDICATE ALIGNMENT AND TEST POINTS.
FOR SPEAKER HOOKUP REFER TO 123-3573 SHEET 3 (18YT20Z)

TEST POINTS

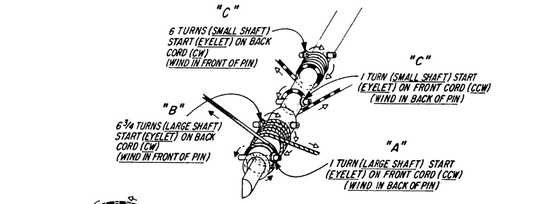
A-FM ANT. INPUT	J-B-FM
B-FM RF AGC (FWD)	K-B-AM
C-FM AGC (REV.)	L-AM IF INPUT
D-1ST I.F. INPUT	M-MX 67 KHZ REJECTION & MX PHASE
E-2ND I.F. INPUT	N-MX DOUBLER OUTPUT
F-3RD I.F. INPUT	P-MX PHASING
G-3RD I.F. OUTPUT	R-
H-FM DETECTOR OUTPUT	T-MX DISABLING
FI-RATIO DETECTOR INPUT	
H+-RATIO DETECTOR PRIMARY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

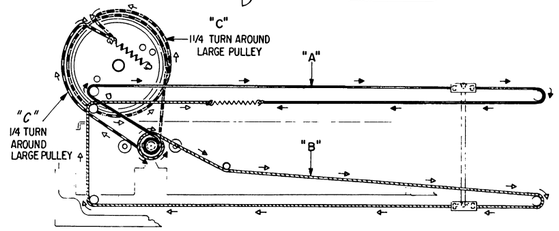
* TR13 & TR14, 121-434, USED ON EARLIER MODELS

18YT21Z SCHEMATIC

ITEM NO.	PART NO.	DESCRIPTION	
C1	22-3035	12 PF DISC. ±5%	500 V
C2	22-4613	.001 F.T.	500 V
C3	22-5321	36 PF DISC. ±5%	500 V
C4	22-4613	.001 F.T. ±20%	500 V
C5	22-3550	3.3 PF GIMMICK ±10%	500 V
C6	22-4613	.001 F.T.	500 V
C7	22-5037	.005 MFD. DISC. ±20%	25 V
C8	22-2428	1.8 PF GIMMICK ±10%	500 V
C9	22-3621	22 PF DISC. ±5%	500 V
C10	22-5130	8 PF DISC. ±5%	500 V
C11	22-5131	6 PF ±5% DISC.	500 V
C12	22-4613	.001 F.T.	500 V
C13	22-4613	.001 F.T.	500 V
C14	22-3034	.05 MFD. DISC.	25 V
C15	22-4523	1.1 PF GIMMICK ±10%	500 V
C16	22-3034	.05 MFD. DISC.	25 V
C17	22-3034	.05 MFD. DISC.	25 V
C18	22-3034	.05 MFD. DISC.	25 V
C19	22-3034	.05 MFD. DISC.	25 V
C20	22-5037	.005 DISC. ±20%	25 V
C21			
C22	22-4523	1.1 PF GIMMICK ±10%	500 V
C23	22-3675	10 PF DISC. ±5%	500 V
C24	22-3400	3.9 PF GIMMICK ±10%	500 V
C25	22-3034	.05 MFD. DISC.	25 V
C26	22-2428	1.8 PF GIMMICK ±10%	500 V
C27	22-3034	.05 MFD. DISC.	25 V
C28	22-3034	.05 MFD. DISC.	25 V
C29	22-14	.0047 MFD. DISC. ±10%	500 V
C30	22-2884	5 MFD. ELECTROLYTIC	12 V
C31	22-13	.0033 MFD. DISC. ±10%	500 V
C32	22-14	.0047 MFD. DISC. ±10%	500 V
C33	22-5037	.005 DISC. ±20%	25 V
C34	22-2729	.001 DISC. ±20%	25 V
C35	22-3177	390 PF DISC. ±10%	500 V
C36	22-3177	390 PF DISC. ±10%	500 V
C37	22-3448	10 MFD. ELECTROLYTIC	15 V
C38	22-5018	.40 MFD. ±10% MYLAR	50 V
C39A	22-4674	AM ANT. TRIMMER	
C39B	22-4674	AM ANT. TUNING	
C39C	22-4674	AM OSC. TUNING	
C39D	22-4674	AM OSC. TRIMMER	
C40	22-3033	.02 MFD. DISC. ±20%	25 V
C41	22-5188	.1 MFD. ±10% MYLAR	50 V
C42	22-3010	.01 MFD. DISC.	25 V
C43	22-3034	.05 DISC.	25 V
C44	22-3034	.05 DISC.	25 V
C45	22-2884	5 MFD. ELECTROLYTIC	12 V
C46	22-3034	.05 MFD. DISC.	25 V
C47	22-3034	.05 MFD. DISC.	25 V
C48	22-3034	.05 MFD. DISC.	25 V
C49	22-3645	1000 PF MICA. CAP. ±10%	100 V
C50	22-3393	.01 MFD. DISC.	25 V
C51	22-2884	5 MFD. ELECTROLYTIC	12 V
C52			
C53	22-13	.0033 MFD. DISC. ±10%	500 V
C54			
C55	22-2884	5 MFD. ELECTROLYTIC	12 V
C56	22-4617	.01 MFD. DISC.	500 V
C57	22-4617	.01 MFD. DISC.	500 V
C58	22-5167	1,000 MFD. ELECTROLYTIC	30 V
C59A	22-4620	500 MFD. ELECTROLYTIC	25 V
C59B	22-4620	200 MFD. ELECTROLYTIC	25 V
C60			
C61	22-5438	20 PF DISC. ±10%	500 V
C62	22-3034	.05 MFD. DISC.	25 V
C63	22-3034	.05 MFD. DISC.	25 V
C64	22-3973	100 MFD. ELECTROLYTIC	25 V
C65	22-5487	.47 MFD. DISC.	3 V
C66	22-5487	.47 MFD. DISC.	3 V
C67	22-2884	5 MFD. ELECTROLYTIC	12 V
C68	22-2884	5 MFD. ELECTROLYTIC	12 V
C69	22-18	.0022 MFD. DISC.	500 V
C70	22-18	.0022 MFD. DISC.	500 V
C71			
C72	22-3710	.22 MFD. DISC. ±10%	50 V
C73	22-3710	.22 MFD. DISC. ±10%	50 V
C74	22-5182	.033 MFD. DISC.	50 V
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	.0068 MFD. MYLAR	50 V
C83	22-3630	.0068 MFD. MYLAR	50 V
C84	22-2704	.0068 MFD. DISC.	500 V
C85	22-2704	.0068 MFD. DISC.	500 V
C86	22-5175	200 MFD. ELECTROLYTIC	25 V
C87	22-5175	200 MFD. ELECTROLYTIC	25 V
C88	22-3892	.01 MFD.	100 V
C89	22-3892	.01 MFD.	100 V

ITEM NO.	PART NO.	DESCRIPTION	
R1	63-4143	100 OHMS ±10%	1/4 W
R2	63-4199	2.2K OHMS ±10%	1/4 W
R3	63-4196	1.8K OHMS ±10%	1/4 W
R4	63-4231	12K OHMS ±10%	1/4 W
R5	63-4297	470K OHMS ±10%	1/4 W
R6	63-4122	33 OHMS ±10%	1/4 W
R7	63-6495	POTENTIOMETER	
R8	63-3238	POTENTIOMETER 50K	
R9	63-5614	47 OHMS ±10%	2 W
R10A	63-7551	DUAL BASS CONTROL & SWITCH (S2)	
R10B	63-7551		
R11A	63-6853	DUAL TREBLE CONTROL	
R11B	63-6853		
R12A	63-6854	DUAL LOUDNESS CONTROL	
R12B	63-6854		
R13	63-6049	330 OHMS ±10%	1 W
R14	63-6049	330 OHMS ±10%	1 W
R15	63-6063	680 OHMS ±10%	1 W
T1	95-2236	1ST I.F. TRANSFORMER F.M. 10.7 MC	
T2	95-2437	2ND I.F. TRANSFORMER F.M. 10.7 MC	
T3	95-2438	3RD I.F. TRANSFORMER F.M. 10.7 MC	
T4	95-2324	RATIO DETECTOR TRANSFORMER 10.7 MC	
T5	95-2316	TRAP COIL 67KC	
T6	95-2234	2ND I.F. TRANSFORMER A.M. 455KC	
T7	95-2436	3RD I.F. TRANSFORMER A.M. 455KC	
T8	95-2233	1ST I.F. TRANSFORMER A.M. 455KC	
T9	95-2439	38 KC TRANSFORMER	
T10	95-2313	DOUBLER MIXER TRANSFORMER	
T11	95-2315	INPUT MIXER TRANSFORMER 19 KC	
T12	95-2353A	POWER TRANSFORMER	
T13	95-2430	DRIVER TRANSFORMER	
T14	95-2430	DRIVER TRANSFORMER	
L1	S-78099	FM ANTENNA COIL ASSEMBLY	
L2	S-68976	FM DETECTOR COIL ASSEMBLY	
L3	20-1256	TRAP COIL	
L4	S-62887	FM OSCILLATOR COIL ASSEMBLY	
L5	IN T1	1ST I.F. PRI. 10.7 MC	
L6	IN T1	1ST I.F. SEC. 10.7 MC	
L7	IN T2	2ND I.F. PRI. 10.7 MC	
L8	IN T2	2ND I.F. SEC. 10.7 MC	
L9	IN T3	3RD I.F. PRI. 10.7 MC	
L10	IN T3	3RD I.F. SEC. 10.7 MC	
L11	IN T4	RATIO DET. PRI. 10.7 MC	
L12	IN T4	RATIO DET. SEC. 10.7 MC	
L13	IN T5	TRAP COIL MIXER	
L14	IN T6	2ND I.F. A.M. 455 KC	
L15	IN T7	3RD I.F. A.M. 455 KC	
L16	20-1422	FM COIL	
L17	S-79128	AM ANTENNA ASSEMBLY	
L18	149-333	IRON CORE SLEEVE	
L19	S-66580	AM OSCILLATOR COIL ASSEMBLY	
L20	IN T8	1ST AM I.F. PRI. 455 KC	
L21	IN T8	1ST AM I.F. SEC. 455 KC	
L22	IN T9	38KC TRANSFORMER	
L23	IN T10	DOUBLE MIXER TRANSFORMER	
L24	IN T11	INPUT MIXER TRANSFORMER	
L25	149-333	IRON CORE SLEEVE	
PL1	100-384	STEREO IND. BULB	
S1	85-919	5 POSITION BAND SWITCH	
A1	105-78	R/C NETWORK	
X1	103-47	SILICON DIODE	
X2	103-23	DIODE	
X3	103-74	CRYSTAL DIODE	
X4	103-23	DIODE	
X5	103-23	DIODE	
X6	103-23	DIODE	
X7	103-23	DIODE	
X8	212-71	SILICON RECTIFIER	
X9	212-71	SILICON RECTIFIER	
X10	103-96	ZENER DIODE	



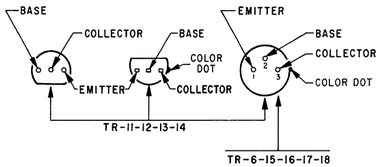


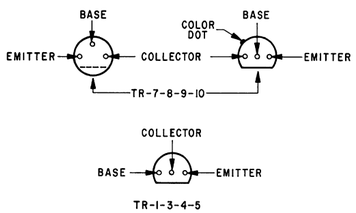
DIAL CORD DRIVE

SHOWN IN COUNTERCLOCKWISE POSITION

A
B
C

(CCW) COUNTERCLOCKWISE
(CW) CLOCKWISE



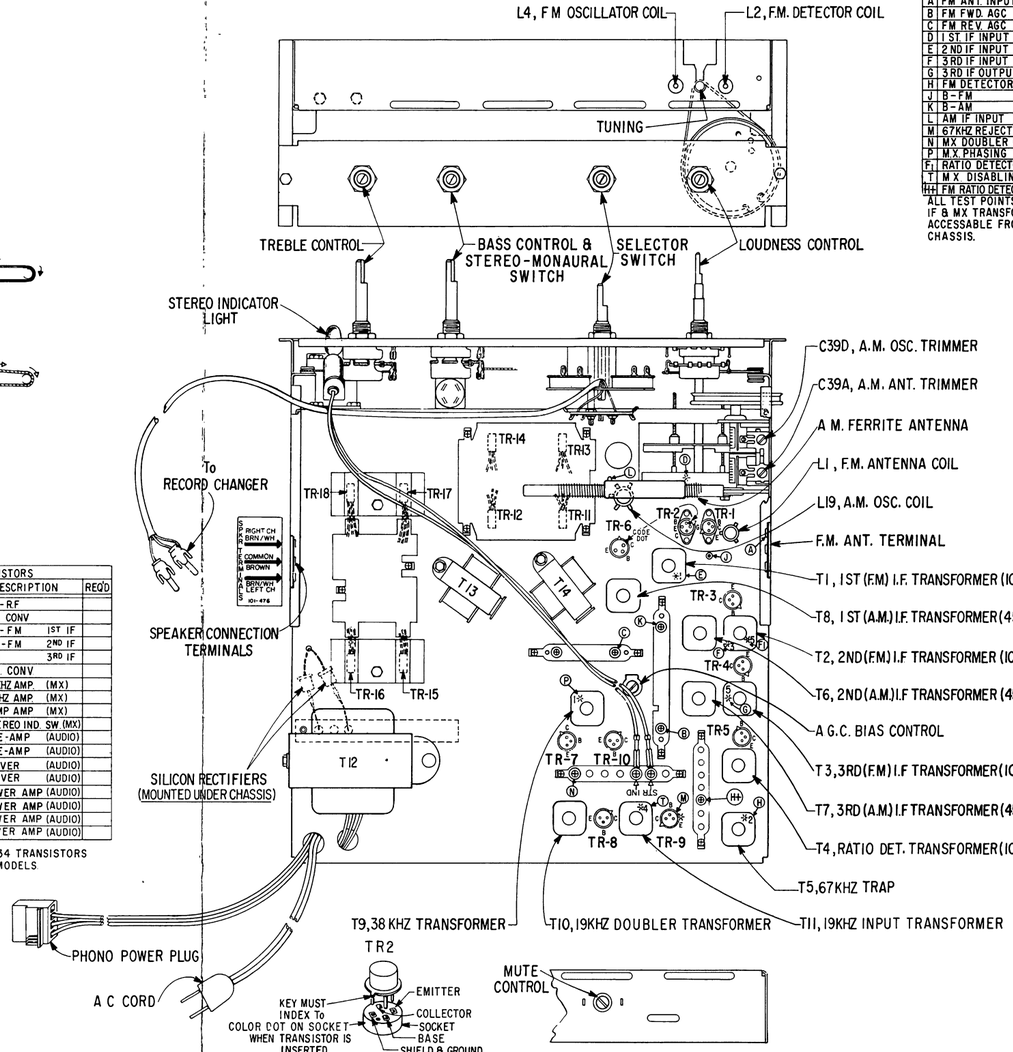


TRANSISTORS			
No.	PART No.	DESCRIPTION	REQ'D
TR 1	121-697	F.M. - R.F.	
TR 2	121-428	F.M. CONV.	
TR 3	121-698	A.M. - F.M. 1ST I.F.	
TR 4	121-698	A.M. - F.M. 2ND I.F.	
TR 5	121-698	F.M. 3RD I.F.	
TR 6	121-381	A.M. CONV.	
TR 7	121-496	38 KHZ AMP. (MX)	
TR 8	121-496	19KHZ AMP. (MX)	
TR 9	121-496	COMP AMP. (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)	

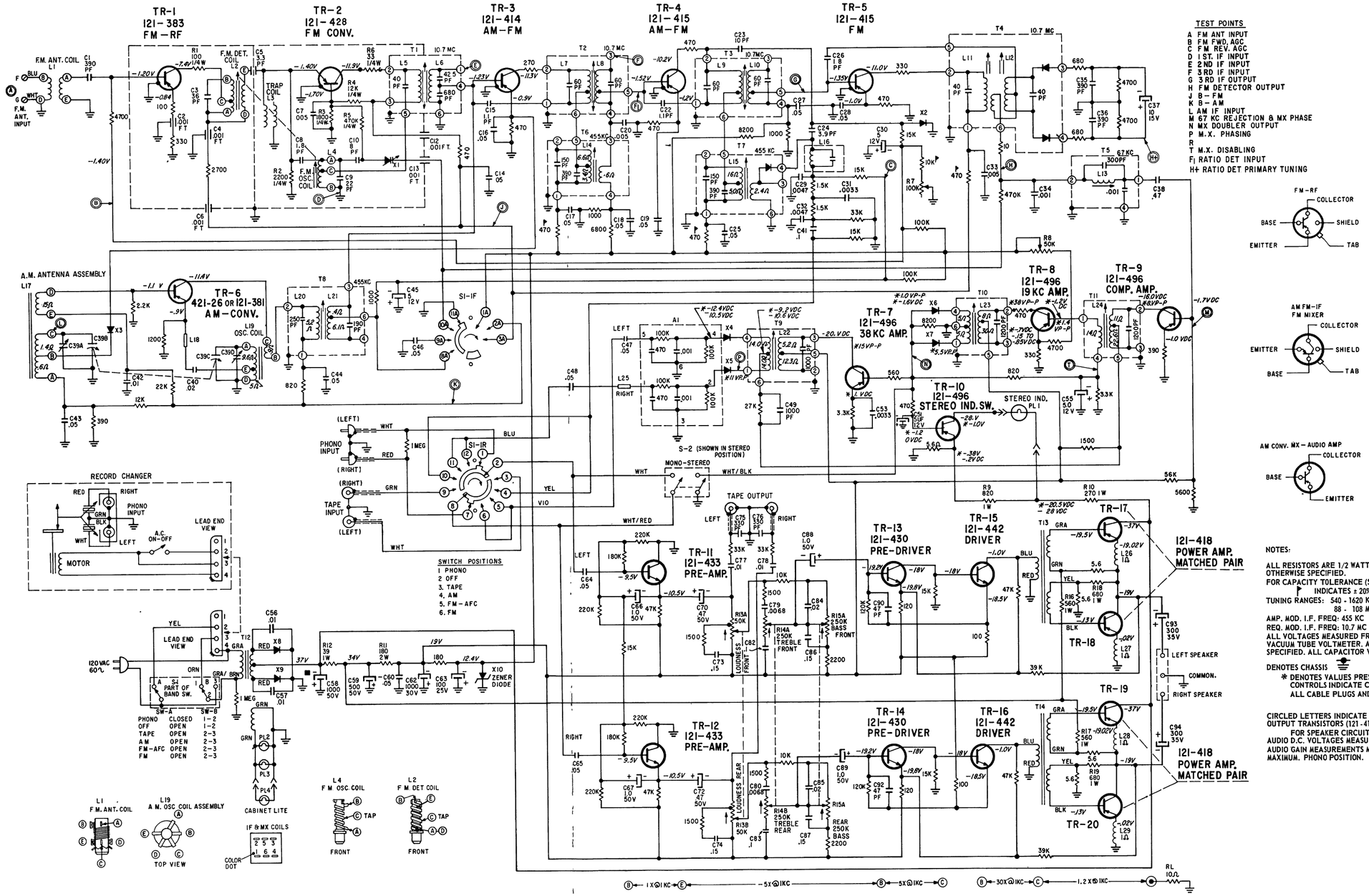
* TR-13, TR-14, 121-434 TRANSISTORS USED ON EARLIER MODELS

TEST POINTS
A FM ANT. INPUT
B FM FWD. AGC
C FM REV. AGC
D 1 ST IF INPUT
E 2 ND IF INPUT
F 3 RD IF INPUT
G 3 RD IF OUTPUT
H FM DETECTOR OUTPUT
J B - FM
K B - AM
L AM IF INPUT
M 67KHZ REJECTION & MX PHASE
N MX DOUBLER OUTPUT
P MX PHASING
F1 RATIO DETECTOR INPUT
T MX DISABLING
HH FM RATIO DETECTOR PRIMARY TUNING

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



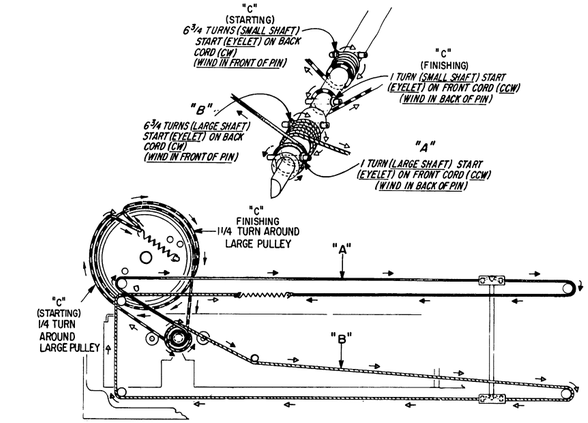
18YT21Z CHASSIS LAYOUT

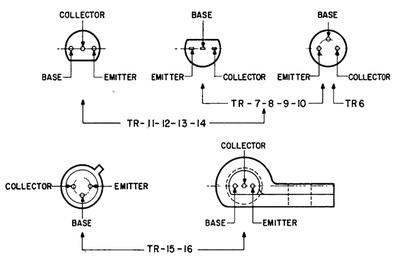


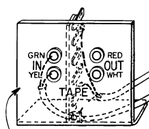
20YT20 SCHEMATIC

ITEM NO.	PART NO.	DESCRIPTION	
C1	22-3177	390 PF DISC ±10%	500 V
C2	22-4613	.001 F.T.	500 V
C3	22-5321	36 PF DISC ±5%	500 V
C4	22-4613	.001 F.T. ±20%	500 V
C5	22-3550	3.3 PF GIMMICK ±10%	
C6	22-4613	.001 F.T.	500 V
C7	22-5037	.005 MFD DISC ±20%	25 V
C8	22-2428	1.8 PF GIMMICK ±10%	
C9	22-3621	22 PF DISC ±5%	500 V
C10	22-5130	8 PF DISC ±5%	500 V
C11			
C12	22-4613	.001 F.T.	500 V
C13	22-4613	.001 F.T.	500 V
C14	22-3034	.05 MFD DISC ±20%	25 V
C15	22-4523	1.1 PF GIMMICK ±10%	
C16	22-3034	.05 MFD DISC ±20%	25 V
C17	22-3034	.05 MFD DISC ±20%	25 V
C18	22-3034	.05 MFD DISC ±20%	25 V
C19	22-3034	.05 MFD DISC ±20%	25 V
C20	22-5038	.005 DISC ±20%	25 V
C21			
C22	22-4523	1.1 PF GIMMICK ±10%	
C23	22-3675	10 PF DISC ±10%	500 V
C24	22-3400	3.9 PF GIMMICK ±10%	
C25	22-3034	.05 MFD DISC ±20%	25 V
C26	22-2428	1.8 PF GIMMICK ±10%	
C27	22-3034	.05 MFD DISC ±20%	25 V
C28	22-3034	.05 MFD DISC ±20%	25 V
C29	22-14	.0047 MFD DISC ±10%	500 V
C30	22-3896	5 MFD ELECTROLYTIC	25 V
C31	22-13	.0033 MFD DISC ±10%	500 V
C32	22-14	.0047 MFD DISC ±10%	500 V
C33	22-5037	.005 DISC±20%	25 V
C34	22-2729	.001 DISC ±20%	25 V
C35	22-3177	390 PF DISC ±10%	500 V
C36	22-3177	390 PF DISC ±10%	500 V
C37	22-3448	10 MFD ELECTROLYTIC	15 V
C38	22-5018	.47 MFD ±10%	50 V
C39A	22-4674	TWO SECTIONS VARIABLE CAPACITOR	
C39B	22-4674	TWO SECTIONS VARIABLE CAPACITOR	
C39C	22-4674	TWO SECTIONS VARIABLE CAPACITOR	
C39D	22-4674	TWO SECTIONS VARIABLE CAPACITOR	
C40	22-3033	.02 MFD DISC ±20%	25 V
C41	22-5188	.1 MFD ±10%	50 V
C42	22-3010	.01 MFD DISC ±20%	25 V
C43	22-3034	.05 DISC ±20%	25 V
C44	22-3034	.05 DISC ±20%	25 V
C45	22-3896	5 MFD ELECTROLYTIC	25 V
C46	22-3034	.05 MFD DISC ±20%	25 V
C47	22-3034	.05 MFD DISC ±20%	25 V
C48	22-3034	.05 MFD DISC ±20%	25 V
C49	22-3645	1000 PF MICA CAP ±10%	100 V
C50			
C51	22-3896	5 MFD ELECTROLYTIC	25 V
C52			
C53	22-13	.0033 MFD DISC±10%	500 V
C54			
C55	22-3896	5 MFD ELECTROLYTIC	25 V
C56	22-4121	.047 MFD DISC	200 V
C57			
C58	22-3879	1000 MFD ELECTROLYTIC	50 V
C59	22-5316	500 MFD ELECTROLYTIC	50 V
C60	22-3034	.05 MFD DISC ±20%	25 V
C61			
C62	22-5167	1000 MFD ELECTROLYTIC	30 V
C63	22-3973	100 MFD ELECTROLYTIC	25 V
C64	22-3034	.05 MFD DISC ±20%	25 V
C65	22-3034	.05 MFD DISC ±20%	25 V
C66	22-3687	1 MFD ELECTROLYTIC	50 V
C67	22-3687	1 MFD ELECTROLYTIC	50 V
C68			
C69			
C70	22-5018	.47 MFD CAPACITOR ±10%	50 V
C71			
C72	22-5018	.47 MFD CAPACITOR ±10%	50 V
C73	22-5012	.15 MFD ±10%	50 V
C74	22-5012	.15 MFD ±10%	50 V
C75	22-3255	330 PF ±10%	500 V
C76	22-3255	330 PF ±10%	500 V
C77	22-3599	.015 MFD ±10%	50 V
C78	22-3599	.015 MFD ±10%	50 V
C79	22-3415	.0068 MFD ±10%	25 V
C80	22-3415	.0068 MFD ± 10%	25 V
C81			
C82	22-5249	.1 MFD ± 20%	100 V
C83	22-5249	.1 MFD ± 20%	100 V
C84	22-5056	.002 MFD DISC ± 20%	25 V
C85	22-5056	.002 MFD DISC ± 20%	25 V
C86	22-5012	.75 MFD ± 10%	50 V
C87	22-5012	.75 MFD ± 10%	50 V
C88	22-3687	1 MFD ELECTROLYTIC	50 V
C89	22-3687	1 MFD ELECTROLYTIC	50 V
C90	22-2376	4.7 PF ± 10%	500 V
C91			
C92	22-2376	4.7 PF ± 10%	500 V
C93	22-5315	300 MFD ELECTROLYTIC	35 V
C94	22-5315	300 MFD ELECTROLYTIC	35 V
R1	63-4143	100 OHMS ± 10%	1/4 W
R2	63-4213	2.2K OHMS ± 10%	1/4 W
R3	63-4196	1.8K OHMS ± 10%	1/4 W
R4	63-4231	12K OHMS ± 10%	1/4 W
R5	63-4297	470K OHMS ± 10%	1/4 W
R6			

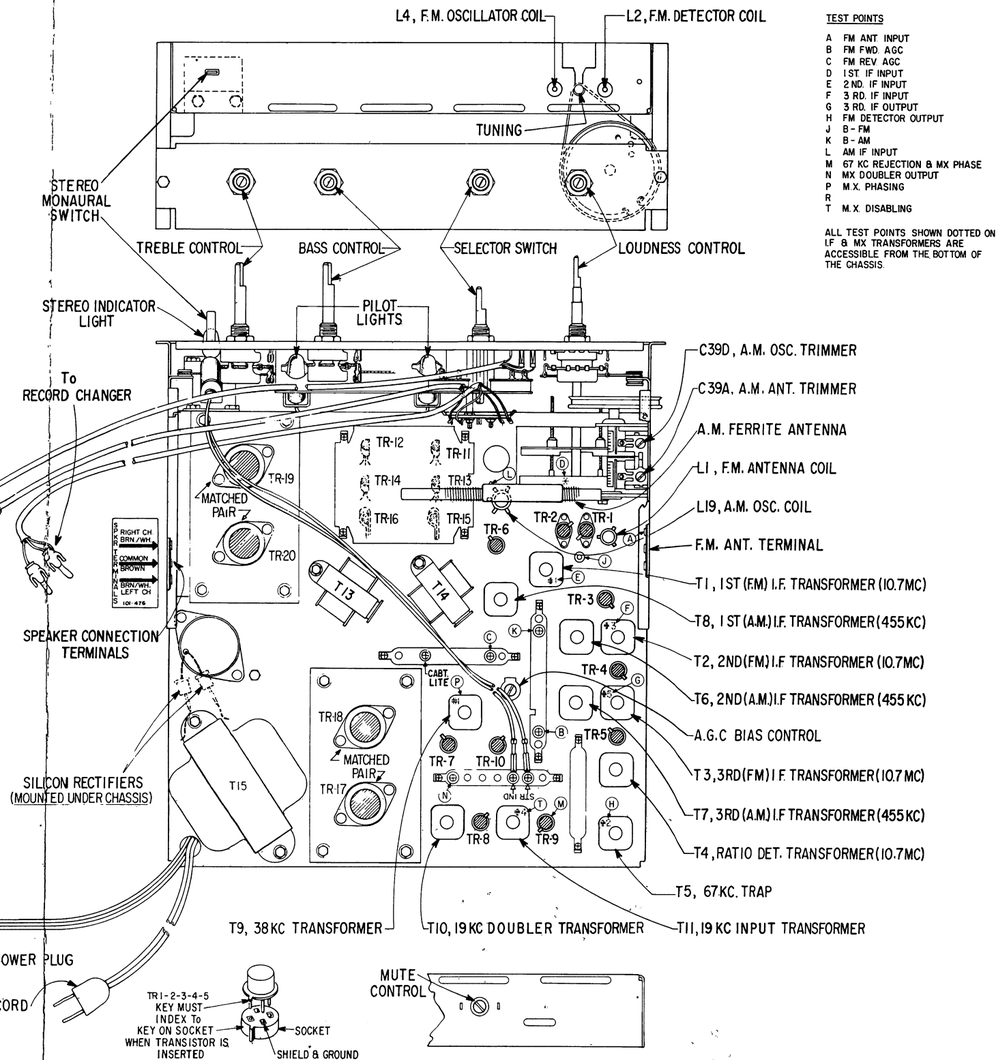
ITEM NO.	PART NO.	DESCRIPTION	
R7	63-6495	POTENTIOMETER	
R8	63-3238	POTENTIOMETER 50K	
R9	63-6066	820 OHMS ± 10%	1 W
R10	63-6045	270 OHMS ± 10%	1 W
R11	63-5638	180 OHMS ± 10%	2 W
R12	63-6010	39 OHMS ± 10%	1 W
R13A	63-6854	DUAL LOUDNESS CONTROL	
R13B	63-6854		
R14A	63-6861	TREBLE FRONT	
R14B	63-6861	TREBLE REAR	
R15A	63-6889	DUAL BASS CONTROL	
R15B	63-6889		
R16	63-6059	560 OHMS ± 10%	1 W
R17	63-6059	560 OHMS ± 10%	1 W
R18	63-6063	680 OHMS ± 10%	1 W
R19	63-6063	680 OHMS ± 10%	1 W
R20	63-5325	1 OHM ± 10%	1 W
R21			
R22	63-5325	1 OHM ± 10%	1 W
R23	63-5325	1 OHM ± 10%	1 W
R24	63-5325	1 OHM ± 10%	1 W
T1	95-2236	1ST I.F. TRANSFORMER F.M. 10.7 MC	
T2	95-2437	2ND I.F TRANSFORMER F.M. 10.7 MC	
T3	95-2438	3RD I.F. TRANSFORMER F.M. 10.7 MC	
T4	95-2324	RATIO DETECTOR TRANSFORMER 10.7	
T5	95-2316	TRAP COIL	
T6	95-2234	2ND I.F. TRANSFORMER A.M. 455 KC	
T7	95-2436	3RD I.F. TRANSFORMER A.M. 455 KC	
T8	95-2233	1ST I.F. TRANSFORMER A.M. 455 KC	
T9	95-2439	38 KC TRANSFORMER	
T10	95-2313	DOUBLER MIXER TRANSFORMER	
T11	95-2315	INPUT MIXER TRANSFORMER	
T12	95-2433	POWER TRANSFORMER	
T13	95-2431	DRIVER TRANSFORMER	
T14	95-2431	DRIVER TRANSFORMER	
L1	S-71997	FM ANTENNA COIL ASSEMBLY	
L2	S-68976	FM DETECTOR COIL ASSEMBLY	
L3	20-1256	TRAP COIL	
L4	S-62887	FM OSCILLATOR COIL ASSEMBLY	
L5	IN T1	1ST I.F. PRI. 10.7 MC	
L6	IN T1	1ST I.F. SEC. 10.7 MC	
L7	IN T2	2ND I.F. PRI. 10.7 MC	
L8	IN T2	2ND I.F. SEC. 10.7 MC	
L9	IN T3	3RD I.F. PRI. 10.7 MC	
L10	IN T3	3RD I.F. SEC. 10.7 MC	
L11	IN T4	RATIO DET. PRI. 10.7 MC	
L12	IN T4	RATIO DET. SEC. 10.7 MC	
L13	IN T5	TRAP COIL MIXER	
L14	IN T6	2ND I.F. A.M. 455 KC	
L15	IN T7	3RD I.F. A.M. 455 KC	
L16	20-1422	TRAP COIL 10.7 MC	
L17	S-73253	AM ANTENNA ASSEMBLY	
L18	149-333	IRON CORE SLEEVE	
L19	S-66580	AM OSCILLATOR COIL ASSEMBLY	
L20	IN T8	1ST AM I.F. PRI. 455 KC	
L21	IN T8	1ST AM I.F. SEC. 455 KC	
L22	IN T9	38 KC TRANSFORMER	
L23	IN T10	DOUBLER MIXER TRANSFORMER	
L24	IN T11	INPUT MIXER TRANSFORMER	
L25	149-333	IRON CORE SLEEVE	
PL 1	100-384	STEREO IND. BULB	
PL 2	100-249	PILOT LIGHT #1847	
PL 3	100-249	PILOT LIGHT #1847	
PL 4	100-249	PILOT LIGHT #1847	
S1	85-920	6 POSITION BAND SWITCH	
S2	85-892	STEREO MONAURAL SWITCH	
A1	105-78	R/C NETWORK	
X1	103-47	SILICON DIODE	
X2	103-23	DIODE	
X3	103-74	CRYSTAL DIODE	
X4	103-23	DIODE	
X5	103-23	DIODE	
X6	103-23	DIODE	
X7	103-23	DIODE	
X8	212-71	SILICON RECTIFIER	
X9	212-71	SILICON RECTIFIER	
X10	103-96	ZENER DIODE	







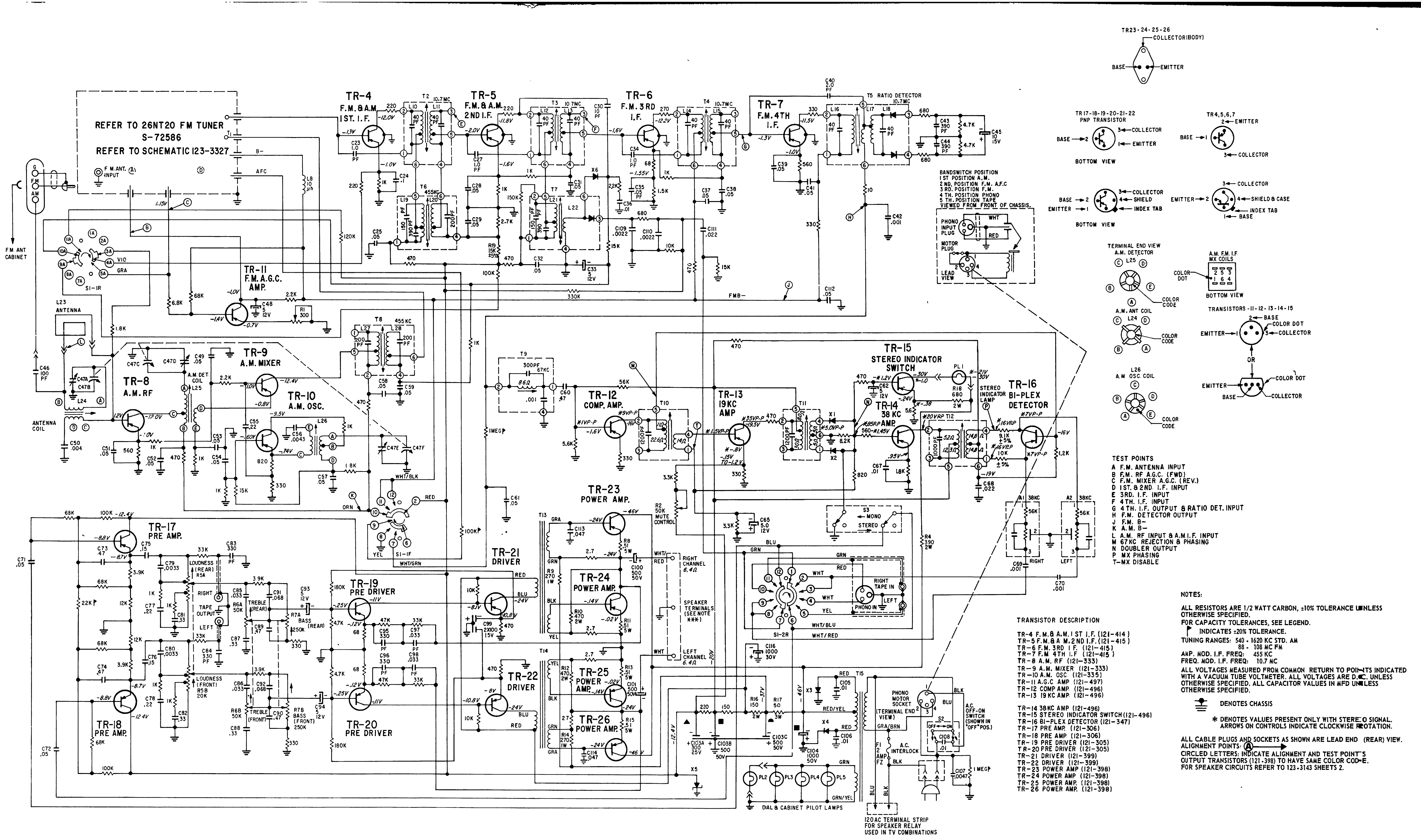
TRANSISTORS			
No.	PART No.	DESCRIPTION	REQ'D
TR 1	121-383	FM-RF	
TR 2	121-428	FM. CONV	
TR 3	121-414	A.M.-FM 1ST IF	
TR 4	121-415	A.M.-FM 2ND IF	
TR 5	121-415	FM 3RD IF	
TR 6	421-26 OR 121-381	A.M. CONV	
TR 7	121-496	38 KC AMP (MX)	
TR 8	121-496	19 KC AMP (MX)	
TR 9	121-496	COMP AMP (MX)	
TR 10	121-496	STEREO IND. SW (MX)	
TR 11	121 433	PRE-AMP (AUDIO)	
TR-12	121-433	PRE-AMP (AUDIO)	
TR-13	121-430	PRE-DRIVER (AUDIO)	
TR-14	121-430	PRE-DRIVER (AUDIO)	
TR-15	121-442	DRIVER (AUDIO)	
TR-16	121-442	DRIVER (AUDIO)	
TR-17	121 418	POWER AMP (AUDIO)	
TR-18	121-418	POWER AMP (AUDIO)	
TR-19	121-418	POWER AMP (AUDIO)	
TR 20	121-418	POWER AMP (AUDIO)	



TEST POINTS

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

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



TEST POINTS

A F.M. ANTENNA INPUT
B F.M. RF A.G.C. (FWD)
C F.M. MIXER A.G.C. (REV.)
D 1ST. & 2ND. I.F. INPUT
E 3RD. I.F. INPUT
F 4TH. I.F. INPUT
G 4TH. I.F. OUTPUT & RATIO DET. INPUT
H F.M. DETECTOR OUTPUT
J F.M. B−
K A.M. B−
L A.M. RF INPUT & A.M.I.F. INPUT
M 67KC REJECTION & PHASING
N DOUBLER OUTPUT
P MX PHASING
T-MX DISABLE

TRANSISTOR DESCRIPTION

TR-4 F.M.& A.M. 1ST I.F. (121-414)
TR-5 F.M.& A M. 2ND I.F. (121-415)
TR-6 F.M. 3RD I.F. (121-415)
TR-7 F.M 4TH I.F (121-415)
TR-8 A.M. RF (121-333)
TR-9 A.M. MIXER (121-333)
TR-10 A.M. OSC. (121-335)
TR-11 A.G.C AMP (121-497)
TR-12 COMP AMP. (121-496)
TR-13 19 KC AMP. (121-496)

TR-14 38KC AMP. (121-496)
TR-15 STEREO INDICATOR SWITCH (121-496)
TR-16 BI-PLEX DETECTOR (121-347)
TR-17 PRE AMP. (121-306)
TR-18 PRE AMP. (121-306)
TR-19 PRE DRIVER (121-305)
TR-20 PRE DRIVER (121-305)
TR-21 DRIVER (121-399)
TR-22 DRIVER (121-399)
TR-23 POWER AMP (121-398)
TR-24 POWER AMP. (121-398)
TR-25 POWER AMP. (121-398)
TR-26 POWER AMP. (121-398)

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

* DENOTES VALUES PRESENT ONLY WITH STEREO SIGNAL.
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION.

ALL CABLE PLUGS AND SOCKETS AS SHOWN ARE LEAD END (REAR) VIEW.
ALIGNMENT POINTS: (A)→
CIRCLED LETTERS: INDICATE ALIGNMENT AND TEST POINTS
OUTPUT TRANSISTORS (121-398) TO HAVE SAME COLOR CODE.
FOR SPEAKER CIRCUITS REFER TO 123-3143 SHEETS 2.

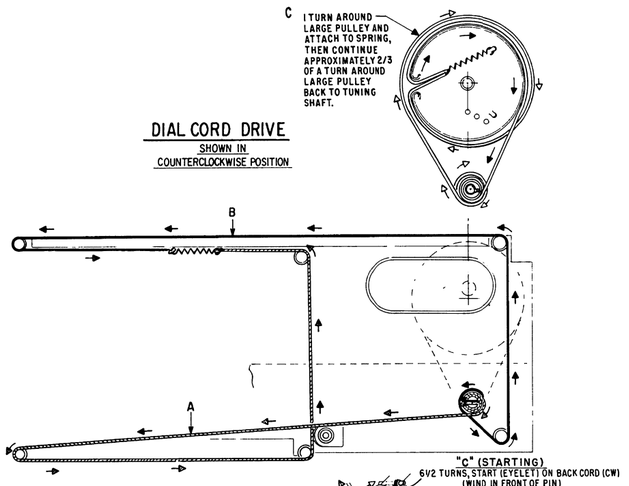
26YT20 SCHEMATIC

ITEM NO.	PART NO.	DESCRIPTION	
C23	22-2720	1 PF GIMMICK ±10%	500 V
C24	22-3652	.1 MFD DISC	10 V
C25	22-3034	.05 MFD DISC	25 V
C26			
C27	22-2720	1 PF GIMMICK ±10%	500 V
C28	22-3034	.05 MFD DISC	25 V
C29	22-3034	.05 MFD DISC	25 V
C30	22-3675	10 PF DISC ±5%	500 V
C31	22-3034	.05 MFD DISC	25 V
C32	22-3034	.05 MFD DISC	25 V
C33	22-2884	5 MFD ELECTROLYTIC	25 V
C34	22-2720	1 PF GIMMICK ±10%	500 V
C35	22-3034	.05 MFD DISC	25 V
C36	22-3	.01 MFD DISC	500 V
C37	22-3034	.05 MFD DISC	25 V
C38	22-3034	.05 MFD DISC	25 V
C39	22-3034	.05 MFD DISC	25 V
C40	22-2434	2 PF GIMMICK ±10%	500 V
C41	22-3034	.05 MFD DISC	25 V
C42	22-2729	.001 MFD DISC	25 V
C43	22-3177	390 PF DISC ±10%	500 V
C44	22-3177	390 PF DISC ±10%	500 V
C45	22-3448	10 MFD ELECTROLYTIC	15 V
C46	22-9	1000 PF DISC 10%	500 V
C47A		ANTENNA TUNING	
C47B		ANTENNA TRIMMER	
C47C		DETECTOR TUNING	
C47D	22-4808	DETECTOR TRIMMER	
C47F		OSCILLATOR TUNING	
C47E		OSCILLATOR TRIMMER	
C48	22-2884	5 MFD ELECTROLYTIC	12 V
C49	22-3034	.05 MFD DISC	25 V
C50	22-3944	.0047 MFD DISC	25 V
C51	22-3034	.05 MFD DISC	25 V
C52	22-3034	.05 MFD DISC	25 V
C53	22-3034	.05 MFD DISC	25 V
C54	22-3034	.05 MFD DISC	25 V
C55	22-3527	.22 MFD DISC	12 V
C56	22-4665	.0043 MFD DUREZ ±10%	300 V
C57	22-3034	.05 MFD DISC	25 V
C58	22-3034	.05 MFD DISC	25 V
C59	22-3034	.05 MFD DISC	25 V
C60	22-5018	.47 MFD MYLAR ±10%	50 V
C61	22-3034	.05 MFD DISC	25 V
C62	22-2884	5 MFD ELECTROLYTIC	12 V
C63			
C64			
C65	22-2884	5 MFD ELECTROLYTIC	12 V
C66			
C67	22-3010	.01 MFD DISC	25 V
C68	22-3826	.022 MFD MYLAR ±10%	100 V
C69	22-17	.001 MFD DISC	500 V
C70	22-17	.001 MFD DISC	500 V
C71	22-3034	.05 MFD DISC	25 V
C72	22-3034	.05 MFD DISC	25 V
C73	22-3588	.47 MFD DISC	12 V
C74	22-3588	.47 MFD DISC	12 V
C75	22-5012	.15 MFD MYLAR ±10%	50 V
C76	22-5012	.15 MFD MYLAR	50 V
C77	22-3710	.22 MFD MYLAR ±10%	50 V
C78	22-3710	.22 MFD MYLAR ±10%	50 V
C79	22-13	.0033 MFD DISC ±10%	500 V
C80	22-13	.0033 MFD DISC ±10%	500 V
C81	22-3595	.33 MFD DISC MYLAR ±10%	50 V
C82	22-3595	.33 MFD DISC MYLAR ±10%	50 V
C83	22-3255	330 PF DISC ±10%	500 V
C84	22-3255	330 PF DISC ±10%	500 V
C85	22-4110	.033 MFD MYLAR ±10%	200 V
C86	22-4110	.033 MFD MYLAR ±10%	200 V
C87	22-3595	.33 MFD MYLAR ±10%	50 V
C88	22-3595	.33 MFD MYLAR ±10%	50 V
C89	22-5018	.47 MFD MYLAR ±10%	50 V
C90	22-5018	.47 MFD MYLAR ±10%	50 V
C91	22-3630	.0068 MFD MYLAR ±10%	50 V
C92	22-3630	.0068 MFD MYLAR ±10%	50 V
C93	22-2884	5 MFD ELECTROLYTIC	25 V
C94	22-2884	5 MFD ELECTROLYTIC	25 V
C95	22-3255	330 PF DISC ±10%	500 V
C96	22-3255	330 PF DISC ±10%	500 V
C47	22-4110	.033 MFD MYLAR ±10%	200 V
C98	22-4110	.033 MFD MYLAR ±10%	200 V
C99	22-4628	2 = 100 MFD ELECTROLYTIC	15 V
C100	22-5011	5000 ELECTROLYTIC	50 V
C101	22-5011	5000 ELECTROLYTIC	50 V
C102			
C103A		3000 ELECTROLYTIC	25 V
C103B	22-5162	5000 ELECTROLYTIC	50 V
C103C		5000 ELECTROLYTIC	25 V
C104	22-3879	10000 MFD ELECTROLYTIC	50 V
C105	22-4343	.047 MFD	200 V
C106			
C107	22-5187	.047 MFD DISC	1 KV
C108	22-2655	.01 MFD DISC ±10%	1400 V
C109	22-18	.0022 MFD DISC ±10%	500 V
C110	22-18	.0022 MFD DISC ±10%	500 V
C111	22-3826	.022 MFD DISC ±10%	100 V
C112	22-3034	.05 MFD DISC	25 V
C113	22-3678	.047 MFD ±10%	100 V
C114	22-3678	.047 MFD ±10%	100 V
C115			
C116	22-5167	10000 MFD ELECTROLYTIC	30 V
R1	63-6376	POTENTIOMETER	
R2	63-3238	POTENTIOMETER (MUTING)*	
R3			

ITEM NO.	PART NO.	DESCRIPTION	
R4	63-5652	390 OHMS ±10%	2 W
R5A	63-6361	LOUDNESS CONTROL (REAR)	
R5B		LOUDNESS CONTROL (FRONT)	
R6A	63-6363	TREBLE CONTROL (REAR)	
R6B		TREBLE CONTROL (FRONT)	
R7A	63-6362	BASS CONTROL (REAR)	
R7B		BASS CONTROL (FRONT)	
R8	63-5305	.51 OHMS ±5%	5 W
R9	63-6045	270 OHMS ±10%	1 W
R10	63-5656	470 OHMS ±10%	2 W
R11	63-5305	.51 OHMS ±5%	5 W
R12	63-5656	470 OHMS ±10%	2 W
R13	63-5305	.51 OHMS ±5%	5 W
R14	63-6045	270 OHMS ±10%	1 W
R15	63-5305	.51 OHMS ±5%	5 W
R16	63-5635	150 OHMS ±10%	2 W
R17	63-6377	50 OHMS ±10%	3 W
R18	63-5663	680 OHMS ±10%	2 W
R19	63-1833	15 OHMS ±5%	
L8	20-2033	R.F. CHOKE COIL	
L9			
L10	IN T2	2ND I.D. TRANSFORMER (FM) PRI	
L11	IN T2	2ND I.D. TRANSFORMER (FM) SEC.	
L12	IN T3	3RD I.F. TRANSFORMER (AM) PRI.	
L13	IN T3	3RD I.F. TRANSFORMER (AM) SEC.	
L14	IN T4	4TH I.F. TRANSFORMER (FM) PRI.	
L15	IN T4	4TH I.F. TRANSFORMER (FM) SEC.	
L16	IN T5	RATIO DETECTOR TRANSFORMER PRI.	
L17	IN T5	RATIO DETECTOR TRANSFORMER SEC.	
L18	IN T5	RATIO DETECTOR TRANSFORMER 3RD	
L19	IN T6	2ND I.F. TRANSFORMER (AM) PRI.	
L20	IN T6	2ND I.F. TRANSFORMER (AM) SEC.	
L21	IN T7	3RD I.F. TRANSFORMER (FM) PRI.	
L22	IN T7	3RD I.F. TRANSFORMER (FM) SEC.	
L23	S-64803	A.M. ANTENNA (CABINET)	
L24	S-74470	ANTENNA COIL ASSEMBLY (AM)	
L25	S-69165	DETECTOR COIL ASSEMBLY (AM)	
L26	S-72828	OSCILLATOR COIL ASSEMBLY (AM)	
L27	IN T8	1ST. I.F. TRANSFORMER (AM) PRI.	
L28	IN T8	1ST AM FM TRANSFORMER (AM) SEC.	
A1	105-93	38 KC FILTER	
A2	105-93	38 KC FILTER	
F1	136-40	2 AMP FUSE	
PL1	100-384	STEREO INDICATOR LIGHT	
PL2	100-249	STEREO LIGHT #1847	
PL3	100-249	PILOT LIGHT #1847	
PL4	100-249	PILOT LIGHT #1847	
PL5	100-249	PILOT LIGHT #1847	
S1	85-923	FIVE POSITION BANDSWITCH	
S2	85-891	A.C. SWITCH	
S3	85-892	STEREO MONAURAL SWITCH	
T2	95-2328	2ND I.F. TRANSFORMER (FM)	
T3	95-2387	3RD I.F. TRANSFORMER (FM)	
T4	95-2328	4TH I.F. TRANSFORMER (FM)	
T5	95-2324	RATIO DETECTOR TRANSFORMER	
T6	95-2326	2ND I.F. TRANSFORMER (AM)	
T7	95-2327	3RD I.F. TRANSFORMER (AM)	
T8	95-2325	1ST AM I.F. TRANSFORMER	
T9	95-2316	TRAP COIL 67 KC	
T10	95-2315	19 KC MULTIPLEX TRANSFORMER	
T11	95-2313	19 KC DOUBLER TRANSFORMER	
T12	95-2314	38 KC DETECTOR TRANSFORMER	
T13	95-2330	DRIVER TRANSFORMER	
T14	95-2330	DRIVER TRANSFORMER	
T15	95-2335	POWER TRANSFORMER	
X1	103-23	DIODE	
X2	103-23	DIODE	
X3	212-61	RECTIFIER	
X4	212-61	RECTIFIER	
X5	103-96	DIODE (ZENER	
X6	103-23	DIODE	

DIAL CORD DRIVE

SHOWN IN COUNTERCLOCKWISE POSITION

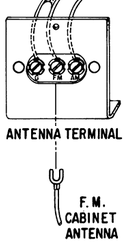


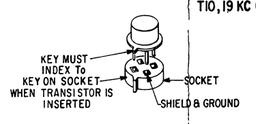
TRANSISTORS			
NO.	PART N	DESCRIPTION	REQ'D
TR-4	121-414	A.M. F.M. IST I.F.	1
TR-5	121-415	A.M. F.M. 2ND I.F.	3
TR-6	121-415	3RD F.M. I.F.	
TR-7	121-415	4TH F.M. I.F.	
TR-8	121-333	A.M. R.F.	2
TR-9	121-333	A.M. MIXER	
TR-10	121-335	A.M. OSCILLATOR	1
TR-11	121-497	A.G.C. AMP	1
TR-12	121-496	COMPOSITE AMP	4
TR-13	121-496	19KC AMP	
TR-14	121-496	38KC AMP	
TR-15	121-496	STEREO IND. CONTROL	
TR-16	121-347	BI-PLEX DET.	1
TR-17	121-306	PRE AMP	2
TR-18	121-306	PRE AMP	
TR-19	121-305	PRE-DRIVER	2
TR-20	121-305	PRE-DRIVER	
TR-21	121-399	DRIVER	2
TR-22	121-399	DRIVER	
TR-23	121-398	POWER AMP	4
TR-24	121-398	POWER AMP	
TR-25	121-398	POWER AMP	
TR-26	121-398	POWER AMP	

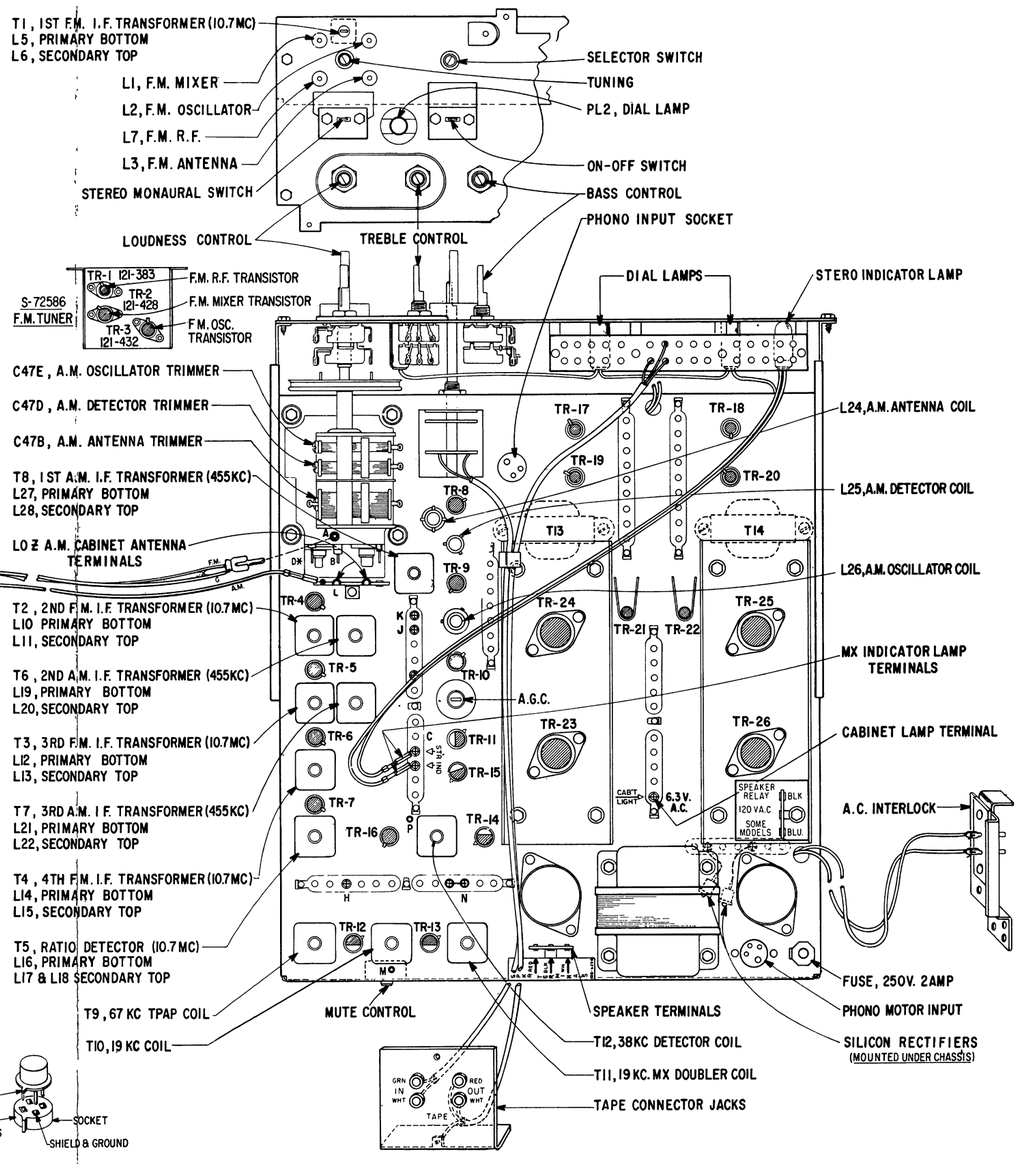
TEST POINTS	
A	F.M. ANTENNA INPUT
B	F.M.-R.F. A.G.C. (FWD)
C	F.M. MIXER A.G.C. (REV)
D	1st & 2nd I.F. INPUT
H	F.M. DET OUTPUT
J	F.M. B-
K	A.M. B-
L	A.M. R.F. INPUT + and A.M. I.F. INPUT
M	67KC REJECTION and PHASING
N	DOUBLER OUTPUT
P	PHASING

(1st & 2nd I.F. INPUT)

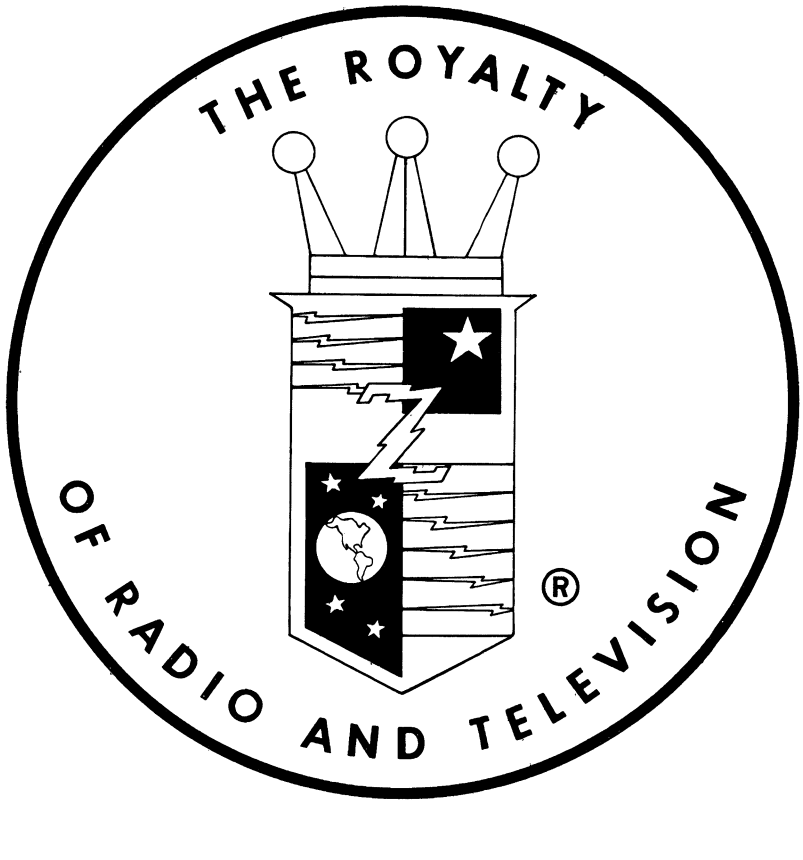
* MIXER EMITTER TEST POINT BROUGHT OUT OF SOCKET EYELET







26YT20 CHASSIS LAYOUT



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923-508 HF16 SUPP. RR 126730M

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