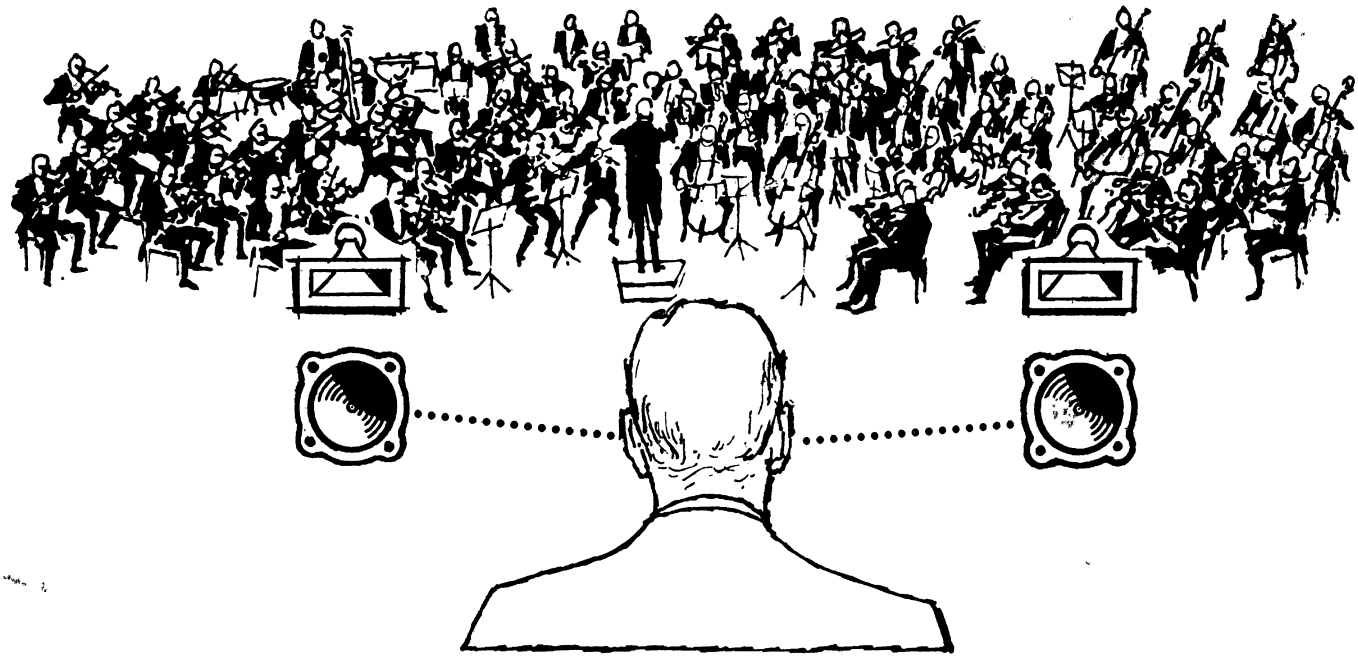
SERVICE MANUAL

Indexed



ZENITH®

1961 HIGH FIDELITY & STEREOPHONIC MODELS

ZENITH RADIO CORPORATION

6001 DICKENS AVENUE CHICAGO 39, ILLINOIS

HF-5

PRICE 60 CENTS

INDEX

FEATURES OF "F" SERIES HIGH

	CABINET				CHASSIS						
MODEL NO.	STYLE	MATERIAL	FINISH	COLOR	MODEL	TYPE	EIA POWER OUTPUT	PRESENCE CONTROL	TAPE INPUT	STEREO TAPE INPUT	SIZE (IN.)
FT11	DROP-IN TUNER				7F20	AM-FM Tuner		No	No	No	
											STEREO PHONO and RADIO
DPS30F	Table (w/handle) (lift lid)	Wood	Leatherette	Mallard Green & White	Waters-Conley	2 Tube Phono only		No	No	No	(2) 4
FPS45B	Table (w/handle) (lift lid)	Wood	Leatherette	Wedgewood Blue & White	Waters-Conley	2 Tube Phono only		No	No	No	(2) 4x6
FPS50	Portable (w/handle) (lift lid)	Durastron	Textured	Brown & White				No	No	No	(2) 6
FPS80	Portable (w/handle) (lift lid)	Durastron	Textured	Charcoal & Light Gray				No	No	No	8 5 1/4
DRS89C	Table (w/handle)	Wood	Leatherette	Charcoal & Ivory	Waters-Conley	3 Tube Remote Spkr.		No	No	No	4 6
SFD660C	Table (w/handle) (lift lid)	Wood	Leatherette	Charcoal & Ivory	5D20	Phono - AM		No	No	No	(2) E/S 7 1/2
SFF2500W	Console (lift lid)	Wood	Grained	Walnut	4D20	Phono only	8.5W	No	No	No	(2) 5 1/4 10
SFF2500R	Console (lift lid)	Wood	Grained	Mahogany	4D20	Phono only	8.5W	No	No	No	(2) 5 1/4 10
SFF2500E	Console (lift lid)	Wood	Grained	Oak	4D20	Phono only	8.5W	No	No	No	(2) 5 1/4 10
*SFF2501WT	Console (lift lid)	Wood	Grained	Walnut	4F20	Phono only	8.5W	No	No	No	(2) 4x6 (2) 10
*SFF2501RT	Console (lift lid)	Wood	Grained	Mahogany	4F20	Phono only	8.5W	No	No	No	(2) 4x6 (2) 10
*SFF2501HT	Console (lift lid)	Wood	Grained	Cherry	4F20	Phono only	8.5W	No	No	No	(2) 4x6 (2) 10
*SFF2501ET	Console (lift lid)	Wood	Grained	Oak	4F20	Phono only	8.5W	No	No	No	(2) 4x6 (2) 10
SFF2601	Identical to SFF2501WT except includes FT11 Drop-In Tuner										
SFF2601R	Identical to SFF2501RT except includes FT11 Drop-In Tuner										
SFF2601H	Identical to SFF2501HT except includes FT11 Drop-In Tuner										
SFF2601E	Identical to SFF2501ET except includes FT11 Drop-In Tuner										
*SFF2503WT	Console (lift lid)	Wood	Grained	Walnut	5F29	Phono only	10W	No	No	No	(2) 5 1/4 (2) 10
*SFF2503RT	Console (lift lid)	Wood	Grained	Mahogany	5F29	Phono only	10W	No	No	No	(2) 5 1/4 (2) 10
*SFF2503ET	Console (lift lid)	Wood	Grained	Oak	5F29	Phono only	10W	No	No	No	(2) 5 1/4 (2) 10

FIDELITY AND STEREOPHONIC MODELS

SPEAKER		RECORD CHANGER								
MAGNET (Wt. Oz.)	PART NO.	TYPE	MOUNTING	CARTRIDGE	STYLUS	CONTROL PANEL	INDICATOR LIGHT	TYPE OF INDENTIFICATION	REMOTE SPEAKER	RADIAL SOUND SPEAKER
						Die-Cast Escutcheon	Yes	ZENITH Crest		
PHONO COMBINATIONS										
.68	WC13969 WC11792	Manual Player	Shelf	142-101	Sapphire Sapphire	Hot Stamped on cabt.	No	ZENITH Stereophonic Crest	Self contained	None
.68		169-137	Shelf	142-113	Sapphire Sapphire	Hot Stamped on cabt.	No	ZENITH Stereophonic Crest	Self contained	None
					Sapphire Sapphire					
					Sapphire Sapphire					
.68 2.15						Metal Strip	Yes	ZENITH Super Stereophonic Crest		
3.16	S-23829 49-849	169-126	Shelf	142-102	Sapphire Sapphire	Hot Stamped on Cabt.	Yes	ZENITH Stereophonic High Fidelity Crest	DRS89C	None
1.47 3.16	49-915 49-914	169-127	Shelf	142-103	Sapphire Sapphire	Metal Plate	No	ZENITH Stereophonic High Fidelity Crest	Not required	None
1.47 3.16	49-915 49-914	169-127	Shelf	142-103	Sapphire Sapphire	Metal Plate	No	ZENITH Stereophonic High Fidelity Crest	Not required	None
1.47 3.16	49-915 49-914	169-127	Shelf	142-103	Sapphire Sapphire	Metal Plate	No	ZENITH Stereophonic High Fidelity Crest	Not required	None
1.47 3.16	49-923 49-924	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103
1.47 3.16	49-923 49-924	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103
1.47 3.16	49-923 49-924	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103
1.47 3.16	49-923 49-924	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103
1.0 6.8	49-896 49-916	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103
1.0 6.8	49-896 49-916	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103
1.0 6.8	49-896 49-916	169-133	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60,FR100, FR101,FR102 FR103

FEATURES OF "F" SERIES HIGH

	CABINET				CHASSIS						
MODEL NO.	STYLE	MATERIAL	FINISH	COLOR	MODEL	TYPE	EIA POWER OUTPUT	PRESENCE CONTROL	TAPE INPUT	STEREO TAPE INPUT	SIZE INCHES
SFF2603W	Identical to SFF2503WT except includes FT11 Drop-In Tuner										
SFF2603R	Identical to SFF2503RT except includes FT11 Drop-In Tuner										
SFF2603E	Identical to SFF2503ET except includes FT11 Drop-In Tuner										
*SFF2505WT	Console (lift lid)	Wood	Grained	Walnut	5F29	Phono only	10W	No	No	No	(2) 5 (2) 12
*SFF2505RT	Console (lift lid)	Wood	Grained	Mahogany	5F29	Phono only	10W	No	No	No	(2) 5 (2) 12
*SFF2505ET	Console (lift lid)	Wood	Grained	Oak	5F29	Phono only	10W	No	No	No	(2) 5 (2) 12
SFF2605W	Identical to SFF2505WT except includes FT11 Drop-In Tuner										
SFF2605R	Identical to SFF2505RT except includes FT11 Drop-In Tuner										
SFF2605E	Identical to SFF2505ET except includes FT11 Drop-In Tuner										
SFF2606W	Console (lift lid)	Wood	Grained	Walnut	5F29	Phono & Drop-In Tuner		No	No	No	
SFF2606R	Console (lift lid)	Wood	Grained	Mahogany	5F29	Phono & Drop-In Tuner		No	No	No	
SFF2607M	Console	Wood	Wood	Maple	5F29	Phono & Drop-In Tuner		No	No	No	
*SFF2515WT	Console (lift lid)	Wood	Grained	Walnut	2F30 7F30 3F21	Phono only	40W	Yes	Yes	Yes	(2) 5 1/4 (2) 12
*SFF2515RT	Console (lift lid)	Wood	Grained	Mahogany	2F30 7F30 3F21	Phono only	40W	Yes	Yes	Yes	(2) 5 1/4 (2) 12
*SFF2515ET	Console (lift lid)	Wood	Grained	Oak	2F30 7F30 3F21	Phono only	40W	Yes	Yes	Yes	(2) 5 1/4 (2) 12
SFF2615W	Identical to SFF2515WT except includes FT11 Drop-In Tuner										
SFF2615R	Identical to SFF2515RT except includes FT11 Drop-In Tuner										
SFF2615E	Identical to SFF2515ET except includes FT11 Drop-In Tuner										
SFF2535R	Console (lift lid) (casters)	Wood	Wood	Mahogany	9F26 3F32	Phono - AM-FM	10W	Yes	Yes	Yes	(2) 5 (2) 12
SFF2535M	Console (lift lid) (casters)	Wood	Wood	Maple	9F26 3F32	Phono- AM-FM	10W	Yes	Yes	Yes	(2) 5 (2) 12
SFF2560W	Console (lift lid)	Wood	Wood	Walnut	9F24 7F33 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) 3 1/2 (2) 5 1/4 (2) 12
SFF2560Y	Console (lift lid)	Wood	Paint	Ebony	9F24 7F33 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) 3 1/2 (2) 5 1/4 (2) 12

FIDELITY AND STEREOPHONIC MODELS

SPEAKER		RECORD CHANGER								
MAGNET (Wt. Oz.)	PART NO.	TYPE	MOUNTING	CARTRIDGE	STYLUS	CONTROL PANEL	INDICATOR LIGHT	TYPE OF IDENTIFICATION	REMOTE SPEAKER	RADIAL SOUND SPEAKER
1.47 6.8	49-856 49-852	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
1.47 6.8	49-856 49-852	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100 FR101, FR102 FR103
1.47 6.8	49-856 49-852	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
	49-856 49-852									
	49-856 49-852									
	49-856 49-852									
1.0 13.0	49-896 -49-903	169-135	Shelf	142-110	Diamond Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	DR60, FR100, FR101, FR102 FR103
1.0 13.0	49-896 49-903	169-135	Shelf	142-110	Diamond Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	DR60, FR100, FR101, FR102 FR103
1.0 13.0	49-896 49-903	169-135	Shelf	142-110	Diamond Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	DR60, FR100, FR101, FR102 FR103
1.47 6.8	49-856 49-852	169-134	Shelf	142-108	Sapphire Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
1.47 6.8	49-856 49-852	169-134	Shelf	142-108	Sapphire Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
.85 1.0 13.0	49-782 49-896 49-903	169-132	Shelf	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	DR60, FR100, FR101, FR102 FR103
.85 1.0 13.0	49-782 49-896 49-903	169-132	Shelf	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	DR60, FR100, FR101, FR102 FR103

FEATURES OF "F" SERIES HIGH

CABINET					CHASSIS						
MODEL NO.	STYLE	MATERIAL	FINISH	COLOR	MODEL	TYPE	EIA POWER OUTPUT	PRESENCE CONTROL	TAPE INPUT	STEREO TAPE INPUT	SIZE INCHES
SFF2570W	Console (doors)	Wood	Wood	Walnut	9F25 7F31 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
SFF2570Y	Console (doors)	Wood	Paint	Ebony	9F25 7F31 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
SFF2570E	Console (doors)	Wood	Wood	Oak	9F25 7F31 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
SFF2575L	Console (doors)	Wood	Wood	Tuscany Walnut	9F25 7F31 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
SFF2580M	Console (doors) (casters)	Wood	Wood	Maple	9F25 7F31 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
SFF2582R	Console (doors) (casters)	Wood	Wood	Mahogany	9F25 7F21 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
SFF2585H	Console (doors)	Wood	Wood	Cherry	9F25 7F31 3F21	Phono - AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
											T. V. - RADIO
F2786W	Console (lift lid)	Grained	Wood	Walnut	16F23 4F20 FT11 (7F20)	TV-Phono AM-FM	8.5W	No	No	No	(2) 3 1/2 (2) 10
F2786R	Console (lift lid)	Grained	Wood	Mahogany	16F23 4F20 FT11 (7F20)	TV-Phono AM-FM	8.5W	No	No	No	(2) 3 1/2 (2) 10
F2786E	Console (lift lid)	Grained	Wood	Oak	16F23 4F20 FT11 (7F20)	TV-Phono	8.5W	No	No	No	(2) 3 1/2 (2) 10
F3388W	Console (lift lid)	Wood	Wood	Walnut	16F23Q 5F29 FT11 (7F20)	TV-Phono AM-FM	10W	No	No	No	(2) 5 1/4 (2) 12
F4000W	Console (doors) (lift lid) (casters)	Wood	Wood	Walnut	16F24Q 7F32 9F27 3F21	TV-Phono AM-FM	40W	Yes	Yes	Yes	(2) Horn (2) 12
											RADIAL
DR60J	Table	Plastic	Plastic	Cordovan Brown							6x9
FR100H	Table	Wood	Grained	Cherry							6x9
FR100L	Table	Wood	Leatherette	Manhattan Tan Colony							6x9
FR101H	Table	Wood	Grained	Cherry							7 1/2
FR101L	Table	Wood	Leatherette	Br. Mahogany Cowhide							7 1/2
FR102H	Table	Wood	Grained	Cherry							3 1/2 6x9
FR102L	Table	Wood	Leatherette	Manhattan Tan Colony							3 1/2 6x9
FR103Y	Table	Wood	Paint	Ebony							2 5 1/4
FR105H	Table	Wood	Wood	Cherry							Horn 6x9
FR105L	Table	Wood	Leather	Antique							Horn 6x9

FIDELITY AND STEREOPHONIC MODELS

SPEAKER		RECORD CHANGER								
MAGNET (Wt. Oz.)	PART NO.	TYPE	MOUNTING	CARTRIDGE	STYLUS	CONTROL PANEL	INDICATOR LIGHT	TYPE OF INDENTIFICATION	REMOTE SPEAKER	RADIAL SOUND SPEAKER
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
4.28 13.0	49-867 49-903	169-132	Pan	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes	ZENITH Extended Stereophonic High Fidelity Crest Reverberation	Not required	FR105
-PHONO COMBINATIONS										
.85 3.16	49-846 49-914	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
.85 3.16	49-846 49-914	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
.85 3.16	49-846 49-914	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest	Not required	DR60, FR100, FR101, FR102 FR103
1.0 6.8	49-852 49-856	169-131	Shelf	142-108	Sapphire Sapphire	Metal Plate	No	ZENITH Extended Stereophonic High Fidelity Crest SPACE COMMAND "400"	Not required	DR60, FR100, FR101, FR102 FR103
4.28 32.0	49-867 49-934	169-136	Shelf	142-110	Diamond Sapphire	Die-Cast Escutcheon	Yes (Radio Phono TV)	ZENITH Stratosphere Stereophonic High Fidelity Crest SPACE COMMAND "1000" Reverberation	Not required	FR105
SPEAKER SYSTEMS										
3.16	49-902						No	None		
3.16	49-902						No	ZENITH Radial Scund		
3.16	49-902						No	ZENITH Radial Sound		
1.47	49-835						No	None		
1.47	49-835						No	None		
.85 3.16	49-782 49-902						No	ZENITH Radial Sound		
.85 3.16	49-782 49-902						No	ZENITH Radial Sound		
.45 3.16	49-938 49-937						No	None		
4.28 3.16	49-867 49-902						No	ZENITH Radial Sound		
4.28 3.16	49-867 49-902						No	ZENITH Radial Sound		

THE STEREO SYSTEM MODELS

SFF2515T, SFF2615, SFF2560, SFF2570, SFF2575, SFF2580, SFF2582 AND SFF2585

Zenith's extended stereo system is basically quite simple and the following information should be sufficient to explain it completely. The block diagram of the extended stereo system is applicable to all the above models. The first portion of this system is the stereo cartridge, which will supply information from the left and right elements. The information from each channel is funnelled to each half of the ganged dual automatic balance control. This automatic balance control then feeds respective portions of the L + R information to the mixer preamplifier stage. Out of the mixer preamplifier stage two types of information are obtained. L + R (sum) information is funnelled to the first audio amplifier of the sum channel. The other type information obtained from the mixer preamplifier is L - R (difference) information and, this is funnelled to the first audio amplifier of the difference channel. Signal from the first audio amplifiers is then passed on to the second audio amplifiers of each channel. At this point we now insert the Monaural-Stereo Switch which utilizes negative feed-back energy from the matrix to control the gain of the sum and difference amplifiers, when we switch from Monaural to Stereo to Extended Stereo. This controlled information from the second audio amplifiers is passed on to the sum and difference output amplifiers and then both are funnelled into the matrix which electronically separates the sum and difference information and feeds this separated information to the left and right speakers of the stereophonic speaker system.

MIXER PREAMPLIFIER CIRCUIT

At first glance a system of this type may seem highly complex; however, when clarified, one can readily see that although ingenious in conception it is rather simple. The stereophonic cartridge consists of two ceramic elements each of which supplies a voltage created by the Piezo Electric effect. This information is fed to an automatic balance control which consists of two potentiometers ganged together physically using a common shaft. The information from the left channel goes to the arm of one potentiometer and the information from the right channel goes to the arm of the other potentiometer. These potentiometers are connected to the grids of the two triode halves of a 6CG7. The arms on these potentiometers are so ganged that when the energy is increased at the grid of one triode, the energy is reduced at the grid of the other. In this manner, a satisfactory balance can be obtained. In addition to being preamplifiers, these two triodes also act as a mixer system from which we obtain sum and difference information.

LEFT PREAMPLIFIER

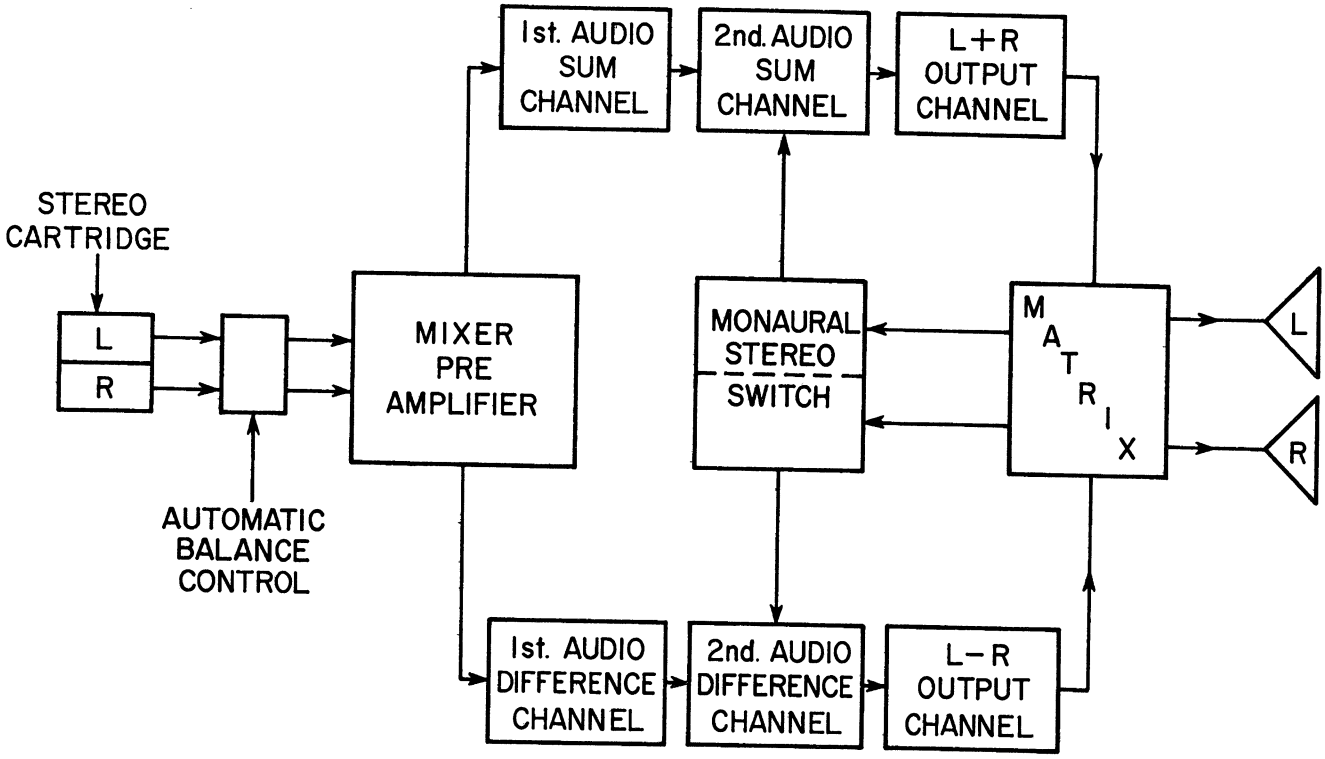
Closely examine the path of the signal in the left channel preamplifier, assuming we have a negative L signal supplied by the left cartridge; then at the plate of the left preamplifier, we will have positive L information, as a result of phase reversal within the tube. For simplification in explaining the mixing action, assume that the left preamplifier has a gain of three; then we will have a positive 3L at the plate of this left preamplifier, and this arrives at the junction of the 27K and the 220K which constitute a voltage divider for this 3L; 2L continues on through the 220K. This 2L information is fed to the junction of the .047 and 330K resistor. Back at the junction of the 27K and 220K resistors connected to the plate of the left preamplifier 1L of the 3L information flows down through the 27K resistor on through the network of the .0022 MFD, 220 MMFD. and the 15 meg resistor to the top of the right balance control.

RIGHT PREAMPLIFIER

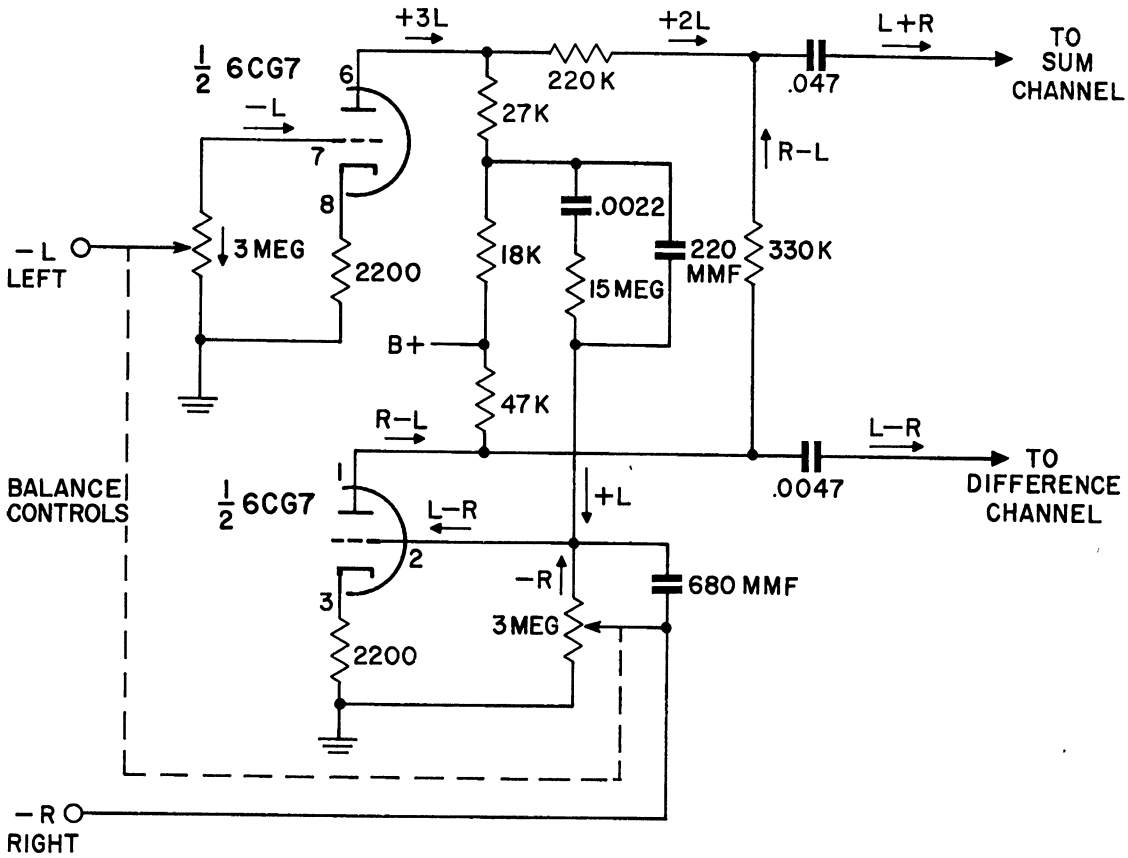
Simultaneously, with the action in the left preamplifier negative R information is supplied by the right cartridge element and this goes to the right half of the balance control. At the high side of the right balance control L information and R information mix and we have a composite L-R voltage impressed on the grid of the right preamplifier. Since this voltage information is subjected to phase reversal through the tube at the plate of the right preamplifier, we have R-L information. The R-L information is channelled into two paths. At the junction of the 330K resistor and .0047 MFD condensor some R-L information is fed to the difference channel. Also some R-L information goes up through the 330K resistor to the .047 MFD condenser at which point 2L information is already available. The two mix with their resultant being L + R and this is fed to the sum channel.

MONAURAL STEREO SWITCH

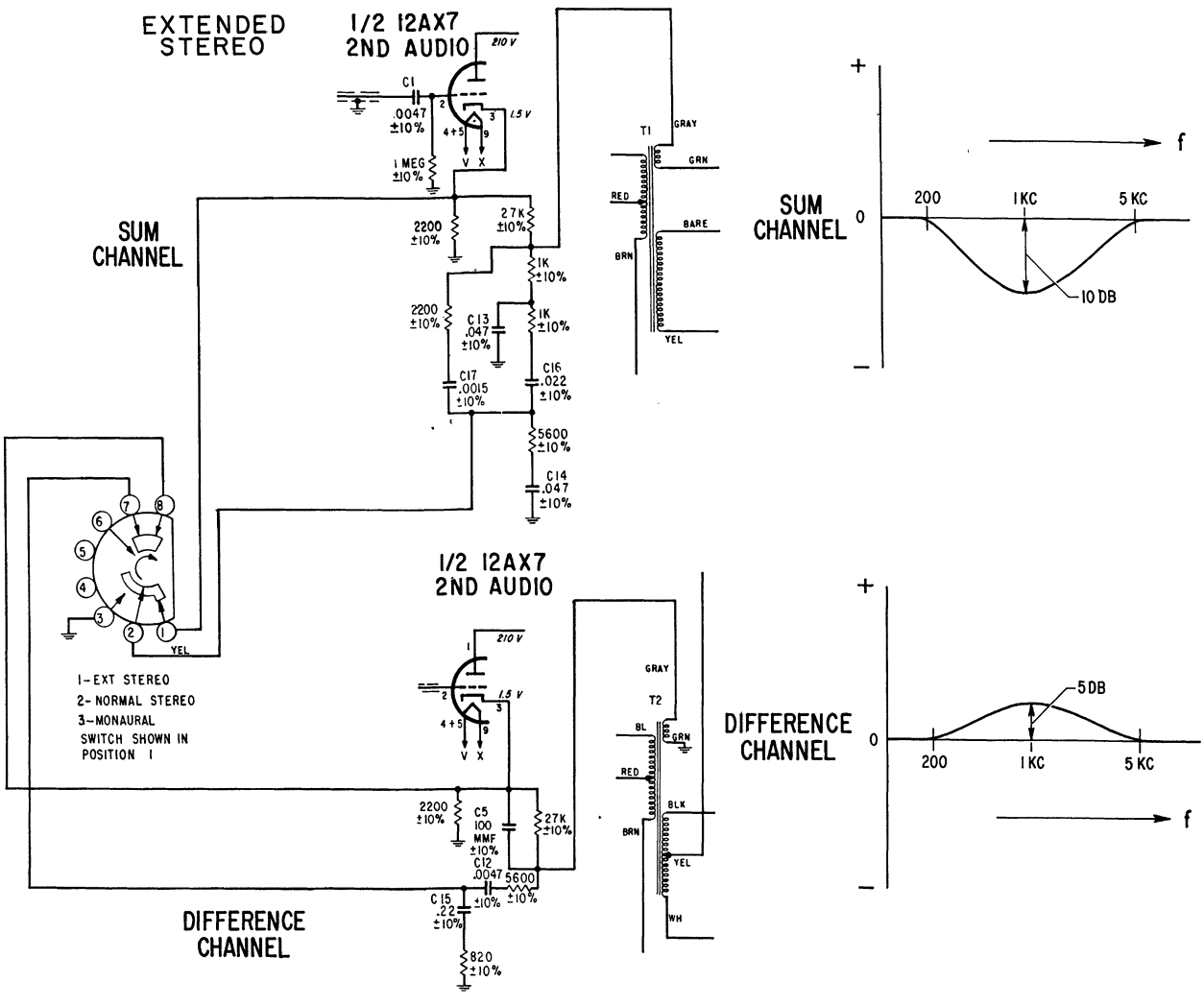
Through research it has been determined that the best extended stereo effects can be obtained by accenting a group of frequencies between 200 and 5,000 cycles with the peak being at approximately 1000 cycles. For this effect to be outstanding the output of the difference channel should be approximately 15 db greater than the sum channel. It would be most difficult to obtain 15 db gain over a narrow band of audio frequencies, on one channel. However, since all things are relative and also since we really only need a 15 db difference between the sum and difference signals, we can obtain the 15 db difference by reducing the output of one channel and increasing the output of the other. This has been done and we have attenuated the sum channel by 10 db and have obtained 5 db of gain in the difference channel with a resulting relative difference of 15 db which is required. This is accomplished by regulating the amount of negative feed-back supplied to the second audio amplifier of both the sum and difference channels. With the Monaural Stereo Switch in Monaural position, the output of the 12AX7 second audio tube in the difference amplifier is grounded, thus cutting off the difference amplifier and only allowing the sum amplifier to operate as is normal



Block Diagram For Extended Stereo Equipment



Basic Mixer Preamplifier Circuit



Negative Feed Back Switching For Extended Stereo

during monaural operation. When the Monaural-Stereo Switch is in Stereo position, then both the sum amplifier and difference amplifiers operate with equal gain. When the Monaural Stereo Switch is in Extended Stereo Position, then negative feed-back voltage is supplied to the cathode circuitry of the 12AX7 second audio triodes in such a manner so the second audio sum channel is attenuated 10 db through the frequency range of 200 to 5,000 cycles and the gain of the second audio difference amplifier is raised 5 db through the frequency range of 200 to 5,000 cycles. In this manner we obtain the required 15 db difference between the two channels.

MATRIX

At this point, we must digress and explain the matrix system. Basically, the matrix consists of two output transformers. The secondary winding of the L-R transformer is center tapped. To this center tapped secondary winding, we connect the secondary winding of the L + R transformer. We now have two windings that are in series aiding or in series opposition. The three possible operating conditions of the matrix circuit, are as follows:

(1) For monaural operation the L-R (difference channel) is cut off and without any L-R signal both speakers will receive only L + R signal from the matrix.

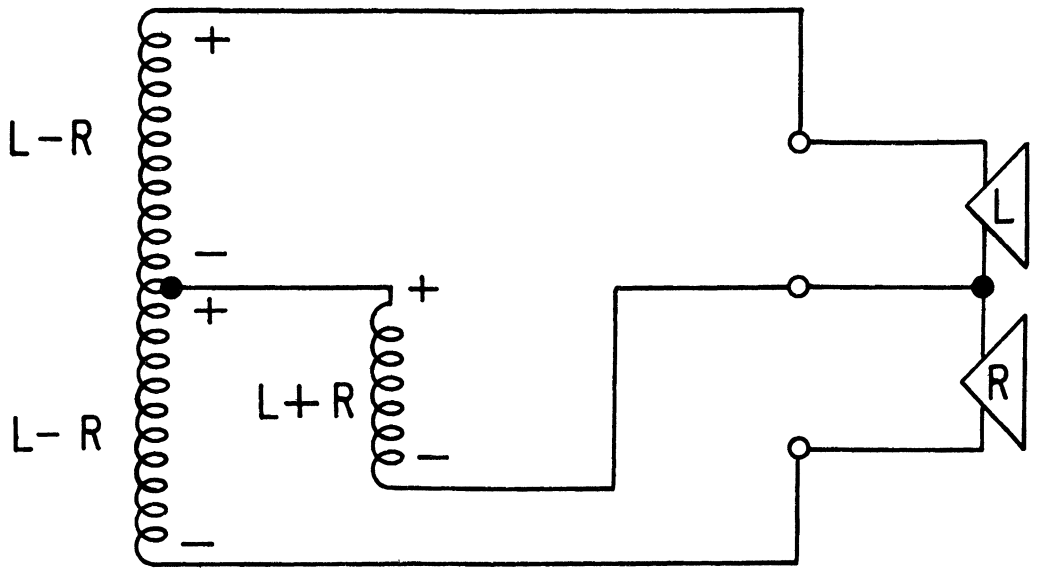
(2) For standard stereo operation, the output of the L-R (difference channel) is equal to the L+R (sum channel) and therefore by summation of the voltages from the secondary of the output transformers, which are connected in series aiding or in series opposition, L information is channelled to the L speaker and R information is channelled to the R speaker. The summation of these voltages would be as follows:

Series Aiding -

$(L + R) + (L - R) =$

$L + R + L - R =$

$L + \cancel{R} + L - \cancel{R} = 2L$ to the left speaker



Basic Matrix Circuit

Series Opposition -

(L + R) - (L -R) =

L + R - L + R =

L + R - L + R = 2R to the right speaker

(3) For extended stereo operation, the output of the L-R (difference channel) is greater than the output of the L+R (sum channel). Let us assume that we have twice the energy in the L-R channel than we have in the L+R channel. We can express this 2 (L-R).

Series Aiding -

(L + R) +2 (L - R) =

L + R + 2L - 2R =

L + R + 2L - 2R = 3L-R to the left speaker

Series Opposition -

(L + R) -2 (L - R) =

L + R - 2L + 2R =

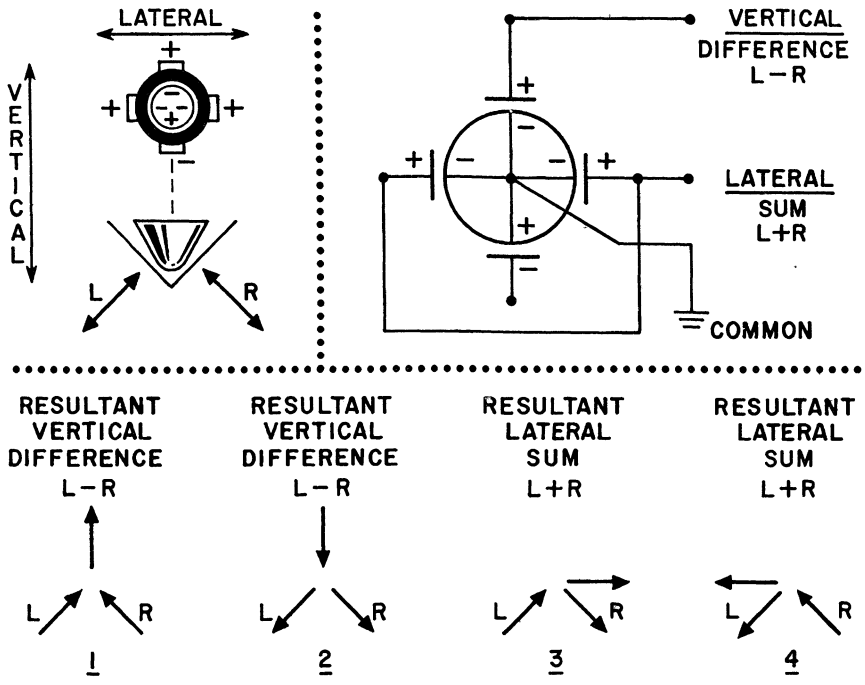
L + R - 2L + 2R = 3R-L to the right speaker

From these equations you can see in the extended stereo position, the left speaker system receives an out of phase component of right information and simultaneously the right speaker system receives an out of phase component of left information. The magnitude and of course the frequency of these out of phase components is what determines the spread of the extended stereo system.

THE STEREO SYSTEM MODELS

SFF2501T, SFF2503T, SFF2505T, SFF2601, SFF2603 SFF2605, SFF2606, SFF2607 CABINET PARTS

These models use either chassis 4F20 or 5F29, and either a 142-108 or 142-109 vertical lateral cartridge which produces sum and difference information without the aid of an electronic mixer preamplifier. Perhaps the best method in which to explain how this cartridge operates is to first explain its construction One must visualize a ceramic cylinder (tube) with silver plating on its inner surface and four longitudinal strips of silver plating spaced at 90 degrees from each other on its outer periphery. We now have a ceramic tube containing all the requisites of four piezo electric elements. Each longitudinal strip and the ceramic between it and the inner surface of the cylinder constitute one piezo electric element. We must now polarize these individual ceramic elements so they can be utilized for our purposes. (See the left top portion of the illustration). To polarize these four ceramic elements, it is only necessary to impress a voltage from the center silver contact area to each of the outer silver contact strips. As you can see, the left, top, and right ceramic elements are polarized identically, however, the bottom ceramic element is polarized opposite to the other three elements. The equivalent circuit in the Right top portion of the illustration depicts the method in which the ceramic elements are inter-connected.



Mechanical & Electrical Diagram 142-108

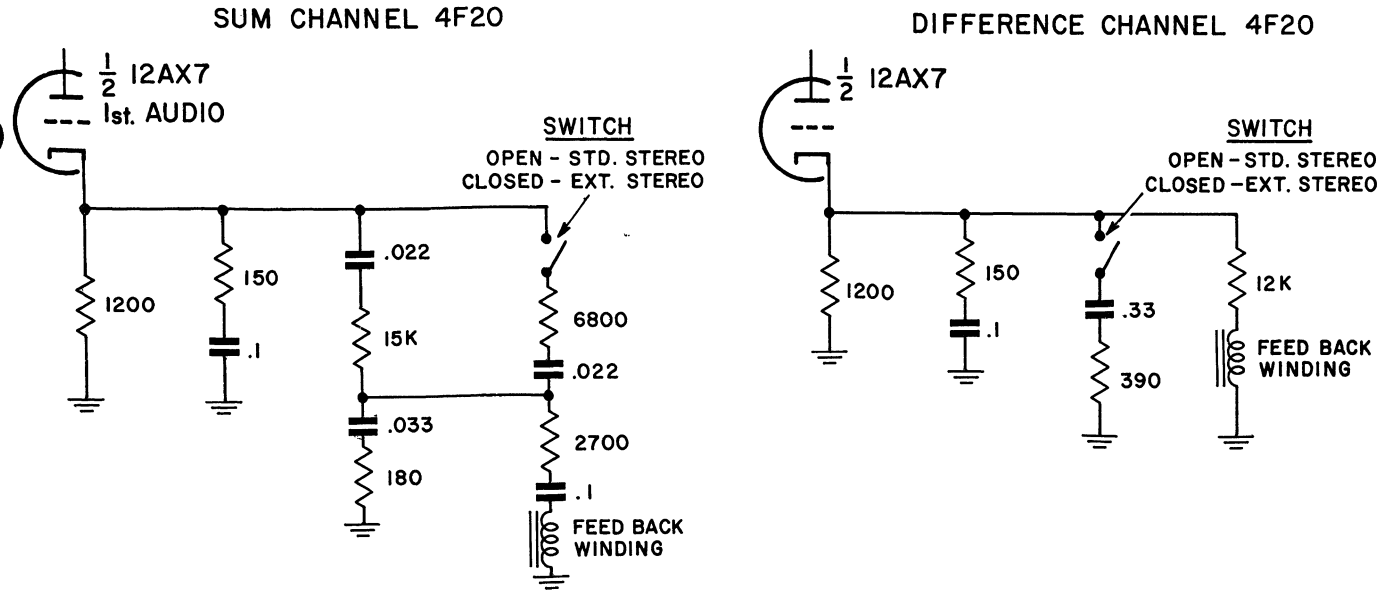
The center silver surface is used as a common return for all four elements. The left element and right elements are connected in parallel to obtain a lower source impedance and thereby improve the bass response of the amplifier. All information obtained from these two ceramic elements is obtained from the lateral cut and this information can be considered sum information and, is fed to the sum channel. All difference information has been cut vertically and consequently all vertical information then obtained by this ceramic element is difference information and is fed to the difference channel.

Perhaps this would be the opportune time to explain the four simplest motions of the stylus. (Refer to examples 1,2,3 and 4 at the bottom half of the illustration). If at an instant in time the stylus comes in contact with hills of equal magnitude on either side of the cutting groove, then the right force vector will be upward 45 degrees to the left and the left force vector will be upward 45 degrees to the right. The resultant motion will be vertical and up. The converse of this is true (see example 2) and would be at an instant of time when the stylus hits two valleys of equal magnitude. It is then acted upon by a downward 45 degree force to the right and a downward 45 degree force to the left, with the resultant motion being vertical in a downward direction. Since all L-R (difference) information has previously been recorded vertically, then the corresponding motion of the pickup stylus will deliver difference information. The other two simplest examples are when the left record groove has a hill and the right record groove has a valley of equal magnitude.

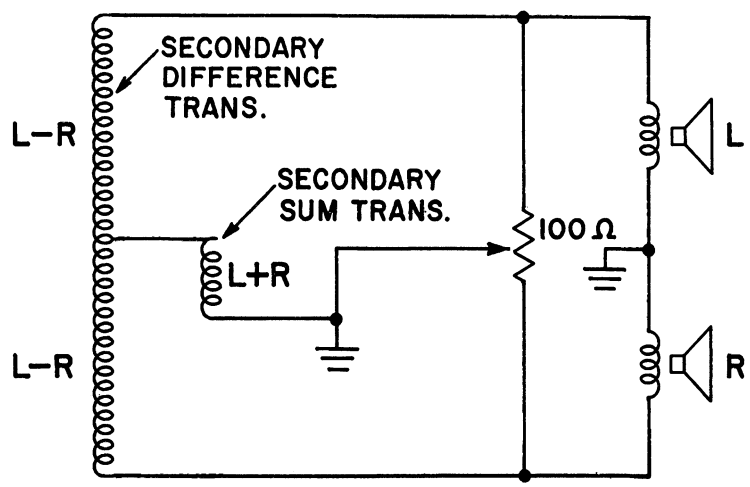
This will create lateral motion (or L + R sum information) to the right. (See example 3) The converse of this is true when the right groove has a hill and the left groove has a valley of the same magnitude (See example 4) The resultant will be lateral motion (L + R sum information) to the left. Since in the original recording all sum information was recorded laterally then all lateral motion obtained by the pickup stylus will be L + R (sum) information.

From here on the operation of chassis 4F20 and 5F29 is quite similar to the previous group that has been already explained. The two circuits indicate how the inverse feed-back voltage is changed on the first audio amplifier of both the sum and difference channels to control the gain of these amplifiers and obtain, in this case, a relative difference in amplitude between the sum and difference amplifiers of approximately 12 db. Again, during monaural operation, the input of the 6BQ5 difference power amplifier is grounded and the difference channel is no longer in operation.

Since the cartridge output on these two chassis is sum and difference information and also since we do not have a balance control feeding a mixer preamplifier, it is necessary to devise a method by which we can balance the speaker outputs (i.e. control for any slight differences in cartridge output voltage). To accomplish speaker balance, a 100 ohm 1 watt balance control is placed across the output of the white-orange winding of T2. (See 4F20 schematic) The center of this control is grounded. In this manner rotating the balance control will enable you to shift the speaker output and obtain proper speaker balance. The best method to balance the speaker system is to play a monaural record, place the stereo monaural switch in the stereo position, and adjust the balance control (located at the back of the cabinet) until the sound appears to come from a point midway between the two speaker systems.



Switching Circuits For Stereo-Extended Stereo Chassis 4F20



$(L+R)+(L-R)=2L$

$(L+R)-(L-R)=2R$

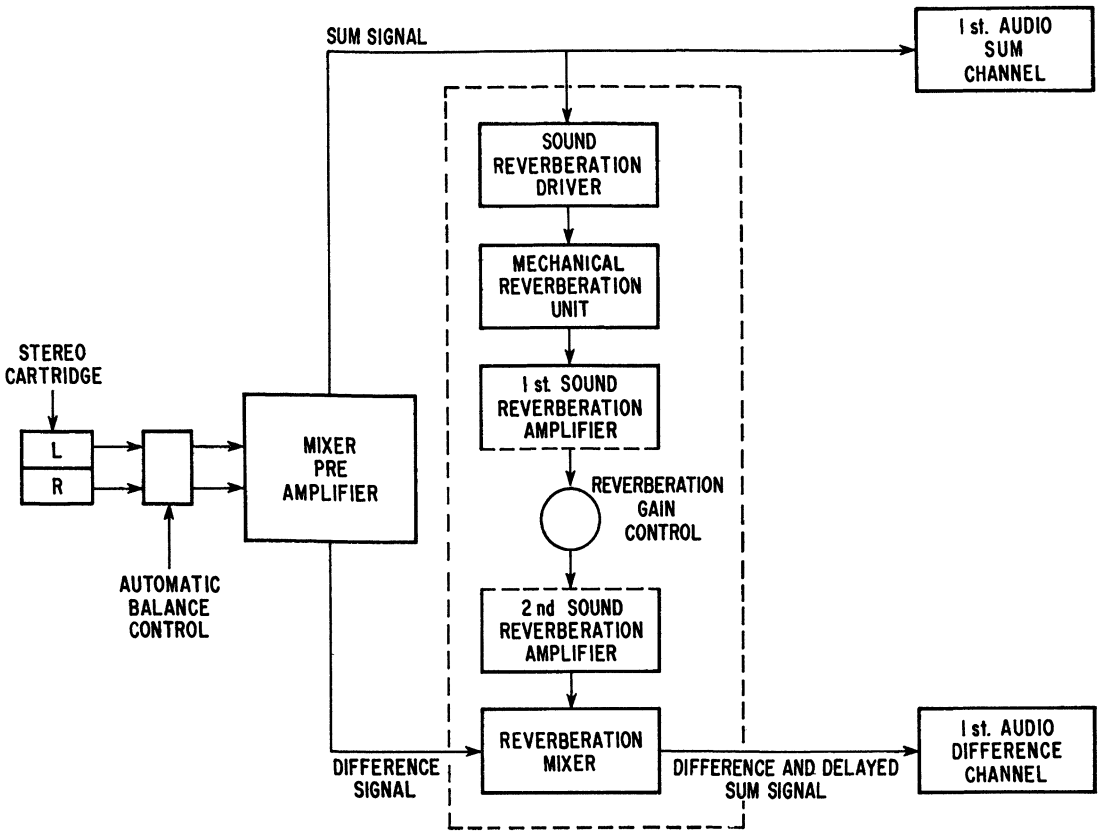
Balance Control Circuit For Chassis 4F20

SOUND REVERBERATION

The Electro-Mechanical Sound Reverberation System will enable you to adventure into a whole new area of tonal accents and echo spatial effects so necessary for concert hall realism. When the Sound Reverberation System is not in operation, the extended stereo system will operate in the normal manner. Therefore, its operation can be explained in detail separately from the extended stereo system.

It functions in the following manner;

A portion of the sum signal coming from the 6CG7 mixer preamplifier and going to the first audio sum channel is taken off and fed to a sound reverberation driver. This tube in turn drives a reverberation unit which consists of two transducers and two spring-like delay lines. The input (driver) transducer creates mechanical rotation of the springs from a voltage impressed on its field coil. The output (pickup) transducer must be more sensitive than the input transducer since its function is to pick up minute rotational motions that are passed on down the spring. Each of the transducers consist of a field coil, laminated metal strips as in a motor or transformer to guide and form the magnetic field, and two ceramic magnets which support the delay springs and act as motor armatures. We use two delay springs so the reverberation (echo) effects can be

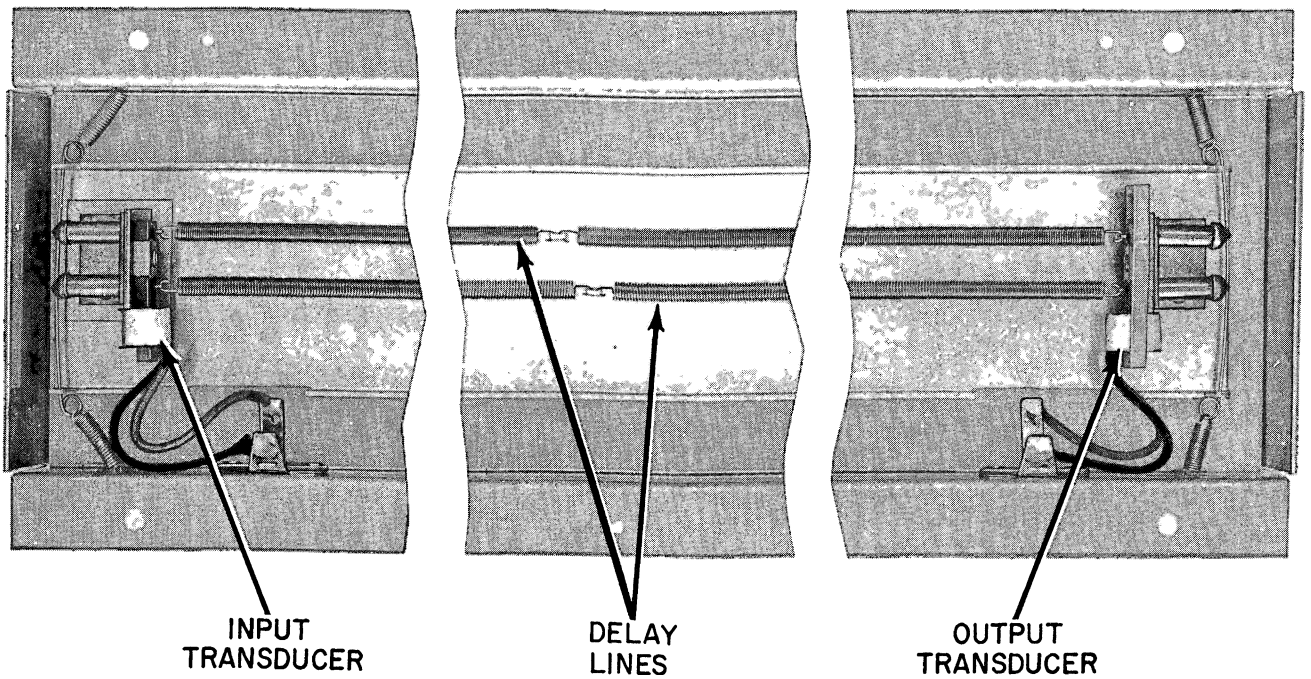


Block Diagram For Sound Reverberation System

smoothed out rather than being abrupt as would be the case if only one spring were used. The remainder of the reverberation unit consists of an outer case for mounting and protection purposes and an inner mounting channel suspended on springs to prevent external vibrations from affecting the operation of the reverberation system. The input (driver) transducer has an impedance of 1525 ohms at 1000 cycles per second with a DC resistance of 180 ohms. The output (pickup) transducer has an impedance of 2250 ohms at 1000 cycles with a DC resistance of 180 ohms. The frequency response of the system is from 30 to 5,000 cycles per second. The decay (reverberation) time from original signal strength to 60 db. down is approximately 2 seconds at 200 cycles per second. The delay time or travel time for a pulse from one end to the other in the long spring is 37 milliseconds and in the short spring, 29 milliseconds.

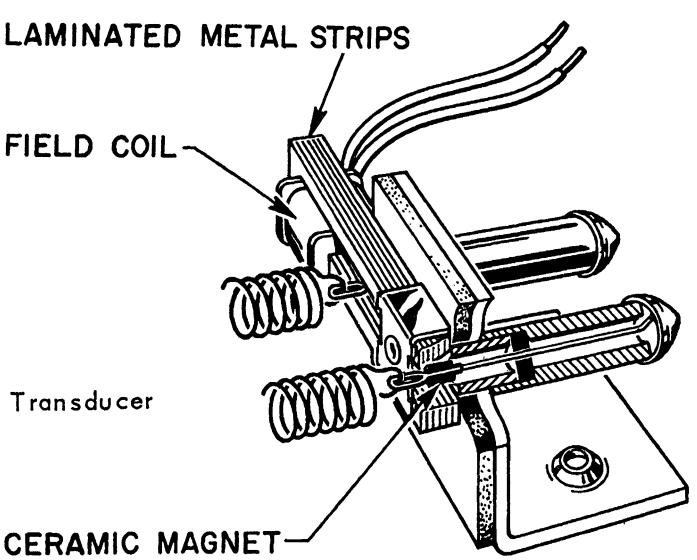
For the sake of simplicity, we shall explain the method in which time delay is created when using a single pulse and will then compare it to echo development in a large hall.

The output from the reverberation driver is fed to the coil of the input (driver) transducer. The electromagnetic field set up in the coil and laminations acts on the magnetic field of the ceramic magnets which can be considered motor armatures, to create rotational motion in the springs. This movement travels down the spring to the output (pickup) transducer and upon arriving here 37 milliseconds later, the spring in motion causes the ceramic magnet to be rotated. Movement of this ceramic magnet within the laminations of the output (pickup) transducer, creates a voltage in the output coil and this voltage is then passed on to the first reverberation amplifier. At the instant the pulse arrives at the ceramic magnet of the output (pickup) transducer, a portion of it is reflected back down the spring and travels to the other end. When it arrives at the input (driver) transducer, it is reflected back towards the output (pickup) transducer and when it again arrives there some 74 milliseconds later it, too, will create electrical energy by rotating the ceramic magnet. The information is also passed on to the first reverberation amplifier. At this point, it would be interesting to explain normal echo development in a big hall. Assume a single sound of generous magnitude is created at one end of a hall ... the fundamental portion of this sound comes directly to to your ears. Part of the original sound bounces off one of the walls or the ceiling of this hall, and then arrives at your ears. This reflected sound is delayed



Mechanical Reverberation Unit

in time by the additional distance it had to travel. At the same time that this occurs, there are many other sounds coming to your ears from the many other reflecting surfaces of the room ... the farther the sound has to travel the more the delay. We reproduce these same time delay conditions mechanically with the spring-like delay lines of the reverberation unit. The original or fundamental signal arriving at your ears is the sum signal that goes right on through the final sum amplifier. The first delayed signal (echo) you will hear is the first delayed signal arriving at the output (pickup) transducer (with 37 milliseconds delay). The second delayed signal (echo) will be 74 milliseconds later than the first, etc. These reflections continue up and down the spring and contribute to the (echo) effect until their strength has been reduced by 60 db.

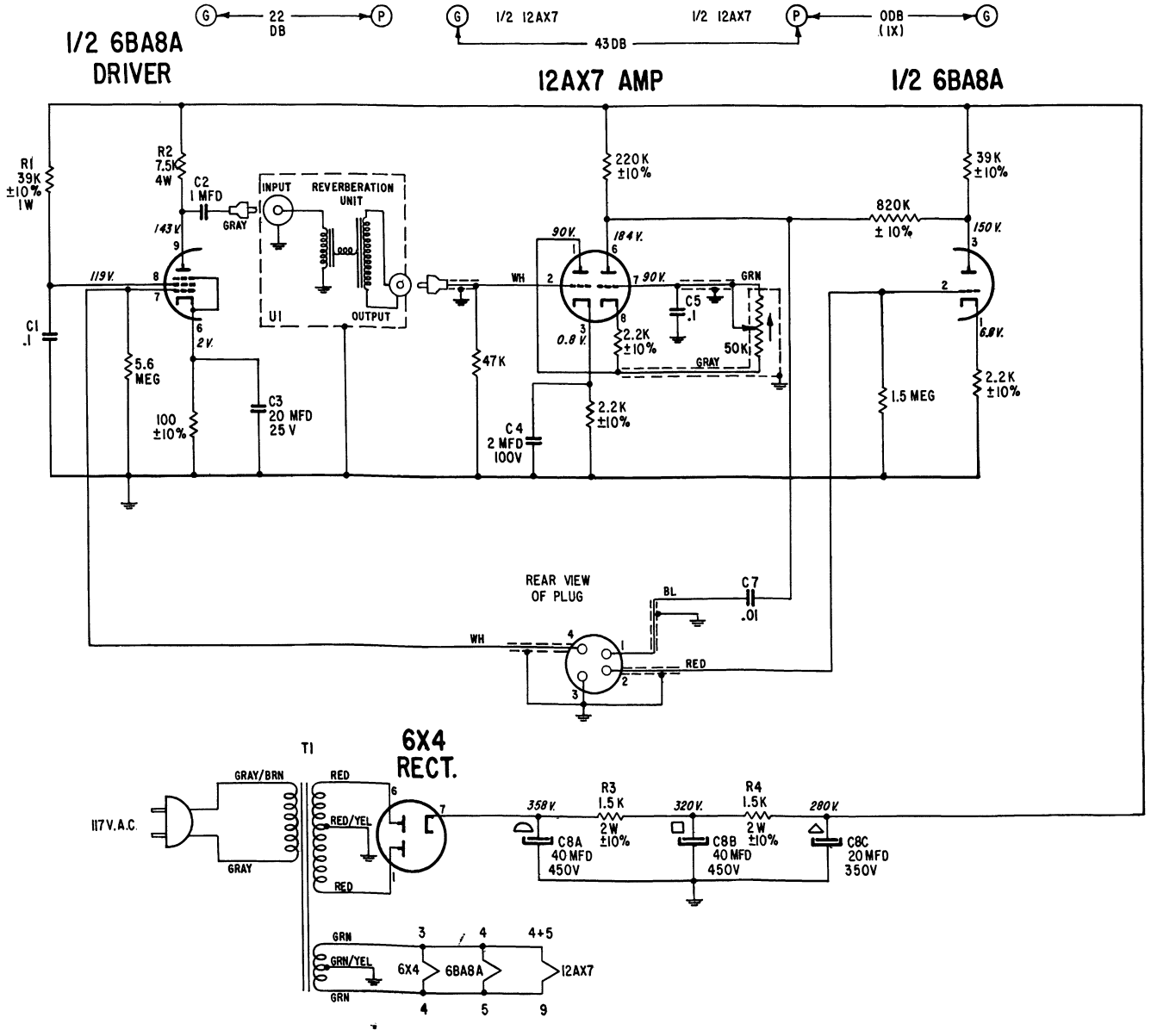


As a result of the attenuation in the mechanical reverberation unit, its output must be once again amplified and this is done in the 1st sound reverberation amplifier. Since more gain is required than that which can be obtained from one amplifier, there is a 2nd sound reverberation amplifier and, a reverberation gain control for this 2nd amplifier. Turning the reverberation gain control, located on the front panel, fully clockwise will give maximum sound reverber- and turning it fully counter-clockwise will reduce the sound reverberation to zero. After passing through the second sound reverberation amplifier, the delayed sum signal is then fed to the grid of the reverberation mixer. The difference information from the 6CG7 mixer preamplifier is fed to the cathode of this same reverberation mixer. Here the two signals are combined and fed out to the first audio difference channel. The sound reverberation system will function normally with stereo records, an AM-FM tuner, or monaural records. However, in the latter two cases it will be necessary to move the monaural-stereo switch to either stereo or extended stereo position to obtain the reverberation effects. This is necessary since the reverberation system requires that both sum and difference amplifier systems be operating.

FV20 SOUND REVERBERATION KIT

FOR MODELS SFF2501T, SFF2601, SFF2503T, SFF2603, SFF2505T, SFF2605, SFF2606, SFF2607 AND SFF2535

The FV20 sound reverberation system using chassis 3F22 operates in much the same manner as the reverberation system used with the 40 watt amplifiers. However, since the input to the 6BA8A driver is actually a portion of the output of the sum section of the cartridge, we are forced to use a higher gain pentode type driver. The reverberation unit is identical to that used in the 40 watt instruments. After the sum signal has been delayed and of course attenuated in the reverberation unit, we again need high gain with as little tube noise as possible, therefore, we have used the two triodes of the 12AX7 as a cascode amplifier. The difference signal from the cartridge is fed to the grid of the 6BA8A triode which acts as an amplifier and impedance matching device. Its output goes through the 820 K voltage divider to mix with the delayed sum signal from the plate of the second 12AX7 triode. This mixed difference and delayed sum information is then passed on in the normal manner to the difference amplifier.



3F22 Schematic

RADIAL SOUND SYSTEM

Should you have a room that will accommodate a larger speaker system and wish to improve the stereophonic reproduction, Zenith engineers have created a supplemental sound system that can be used in conjunction with these stereophonic instruments.

This equipment is the Zenith Radial Sound System, and its operation is based on the acoustical phenomena that all frequencies below 300 cycles are non-directional and that all directional properties of sound which contribute to the stereophonic spatial effect result from frequencies above 300 cycles and/or harmonics of the 300 cycles or lower frequencies that are greater than 300 cycles. As a result, all bass frequencies (300 cycles or lower) will be reproduced in the main chassis with all other frequencies coming from the two Radial Speakers.

Perhaps a review of the manner in which our ears operate as a direction finding device will be appropriate at this time. One's ability to determine direction depends entirely on the fact, that there are two ears situated on the opposite sides of the head. It is indeed fortunate that they are so located for their task.

Time Difference

A typical example of their ability to determine direction would be as you are walking towards some friend that may be somewhat to the right of you and he shouts, your head will immediately turn to the right. Since sound travels approximately 1100 feet per second and your ears are perhaps 6 inches apart, consequently your right ear may have heard the shout 1/2000 of a second sooner than your left ear. This is only four hundred and fifty millionths of a second or 450 micro-seconds, but it will supply plenty of information with which your direction finding mechanism can work. Normal human ears can detect time differences as small as 6 micro-seconds. As we all know, our intricate mental computers read the amounts and type of delay and tell us almost instantly the direction of the sound source.

PHASE

Phase Discrimination

Another important characteristic of sound is its wavelength. Sound travels approximately 1100 feet per second. Assume we have a thousand cycle frequency, we therefore have one thousand compressions and decompressions per second. Then the distance in air between two compressions must be just a little more than 1 foot. This is the wavelength of a thousand cycle. frequency. Plainly the wavelength varies inversely with frequency. A frequency of 100 cycles per second has a wavelength of 11 feet. A frequency of 300 cycles per second has a wavelength of 3.66 feet. Since the wavelength of frequencies 300 cycles or lower is 3.66 feet and greater, then the difference in air compression or rarefaction at the two ears separated by only inches will be infinitestimal compared to the change over a full cycle. This method of locating sounds is phase discrimination. It is ineffective at frequencies below 300 cycles and very effective between 300 to approximately 1600 cycles per second.

Intensity

Somewhat below the upper limit of 1600 cycles per second another characteristic of sound begins to furnish information. Sound will normally flow around an object when the object is much smaller than the wavelength of the sound, however, when the wavelength of the sound approaches or becomes smaller than the object, then the side of the object away from the sound is in shadow and the intensity becomes less at the far side. The ear on the side of the head away from the sound source is in shadow and receives the sound less intensely.

Our ears do not use these various facilities singly but simultaneously. The fact that both Time Difference and Phase Discrimination both fail with continouus low frequency sound is the basis on which the Radial Sound System functions.

Now that some of the various factors upon which Zenith's Radial Sound is based have been explained, we shall compare a dual channel full stereophonic amplifier to a similar model equipped with the Radial Sound System. On the model SFF2505, each audio display system will be equipped with a 12 inch woofer and a 5 inch tweeter. However, each channel will in addition have a special socket to accept a Radial Sound System.

The customer will purchase the SFF2505 without the Radial Sound System, and will use it as a standard stereophonic instrument. Then if he wishes to convert to the Radial Sound System, he can purchase the two supplementary speaker systems and connect them to the sockets provided on the SFF2505. When they are connected, the tweeter speakers in the master or bass unit SFF2505 are disconnected, and the filtering in the supplementary speaker system will only feed frequencies 300 cycles or lower to the woofer speakers in the SFF2505.

All frequencies above 300 cycles and all harmonics of the 300 cycle or lower frequencies that are greater than 300 cycles are funnelled to the new supplementary speakers. A system of this type will greatly enhance the stereophonic effect and will eliminate the need for the usual small area center listening position.

GENERAL

Automatic Frequency Control AFC

Some of 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 turn the band 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 bandswitch 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.

AM and FM Alignment

The AM and FM IF transformers in these receivers are of the new permeability tuned type. The advantage of an IF transformer of this type is its extreme stability under various humidity and temperature conditions. The upper coil is the secondary and the lower the primary. When adjusting these IF transformers the tuning wrench 68-26 can be inserted into the top slug, rotated until maximum output is obtained and then dropped down to the lower slug and the same operation repeated. The tuning wrench is so designed that turning one slug does not effect the adjustment of the other.

FM IF Alignment

Because of the wide band pass, it is desirable to use a FM signal generator and a cathode ray oscilloscope when aligning the FM IF channel. The instruction book for the Zenith Model 800 Signal Generator (Form Z8001) covers complete FM alignment procedure. If visual alignment equipment is unavailable reasonably accurate alignment can be made by following the procedure outlined below.

FM Discriminator Alignment

When the secondary of the discriminator is aligned use sufficient signal input to get a good positive and negative indication before setting the slug for zero reading. A center zero indicating meter is recommended for this adjustment, but is not absolutely necessary. Reversing the leads of a non-zero center meter, or observing closely when the meter starts to go to the left (negative) of zero will give the same results.

FM RF Alignment

The tuning slugs are attached to threaded shafts and the slugs are varied in the field of the coils by turning the shafts clockwise or counterclockwise. After adjustment the shafts must be secured with a drop of speaker cement.

IMPORTANT

Alignment of this chassis will in most cases by unnecessary unless an IF or RF transformer is replaced or the adjustments have been tampered with.

Correct alignment can only be made by using the following procedure:

A vacuum tube voltmeter with an isolation resistor of 2,000,000 ohms in series with the hot lead will serve for FM adjustments. This lead should be shielded.

An AC output meter connected across the primary or secondary of the output transformer will be satisfactory for all AM adjustments.

The signal generator output should be kept just high enough to get an indication on the meter.

(a) Vacuum Tube Voltmeter Lug 7 on discriminator transformer to chassis (half discriminator load).

(b) Vacuum Tube Voltmeter Lug 5 on discriminator transformer to chassis (full discriminator load).

(c) Vacuum Tube Voltmeter from limiter grid to chassis.

(d) Loosen slugs by applying a hot iron to the cement.

Automatic Balance Control

To obtain equal audio output from each channel adjust the automatic balance control in the following manner:

1. Move the Monaural-Stereo Switch to stereo position.

2. Play a monophonic record.

3. Adjust the automatic balance control so the sound appears to come from a point midway between the two speakers.

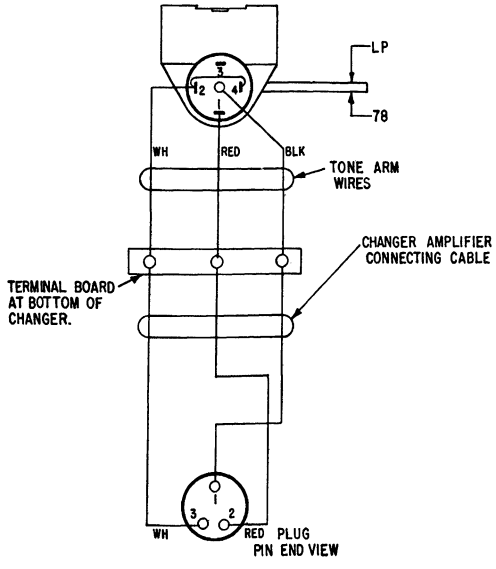
6BQ5 Balance Control

On some chassis if one or both of the 6BQ5 output tubes in each final audio amplifier are replaced, it will be necessary to connect a DC volt meter across the balance terminals and adjust the balance control for minimum voltage.

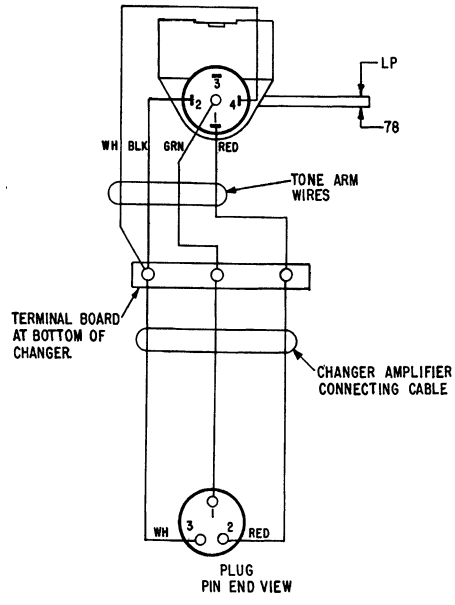
Speaker Phasing

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 to determine if the speaker groups are in phase is to play a monaural record as described under Automatic Balance Control.

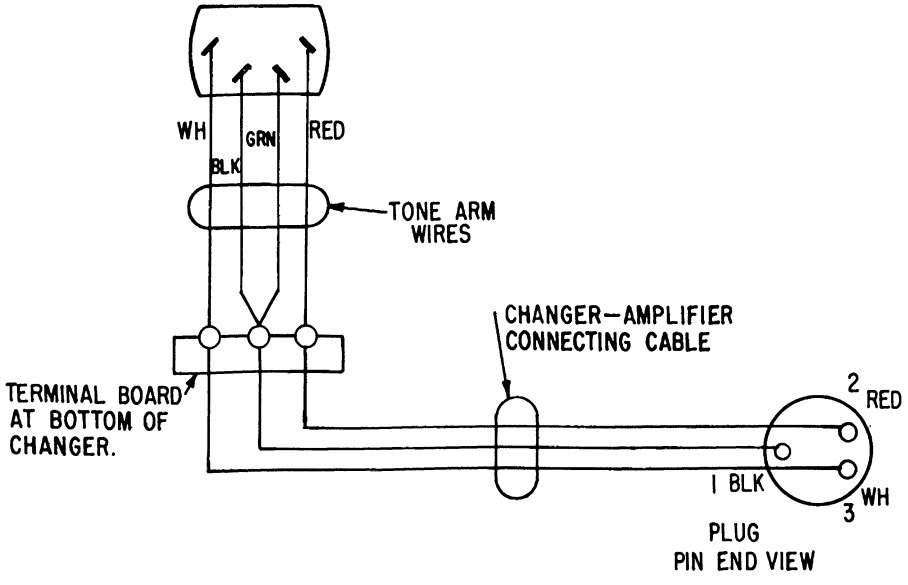
Under these conditions the sound should appear to come from a point midway between the two speaker groups. If the sound comes from any other point than midpoint, then one speaker group is out of phase with the other and you should check polarity. One of the easiest methods of checking polarity within 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.



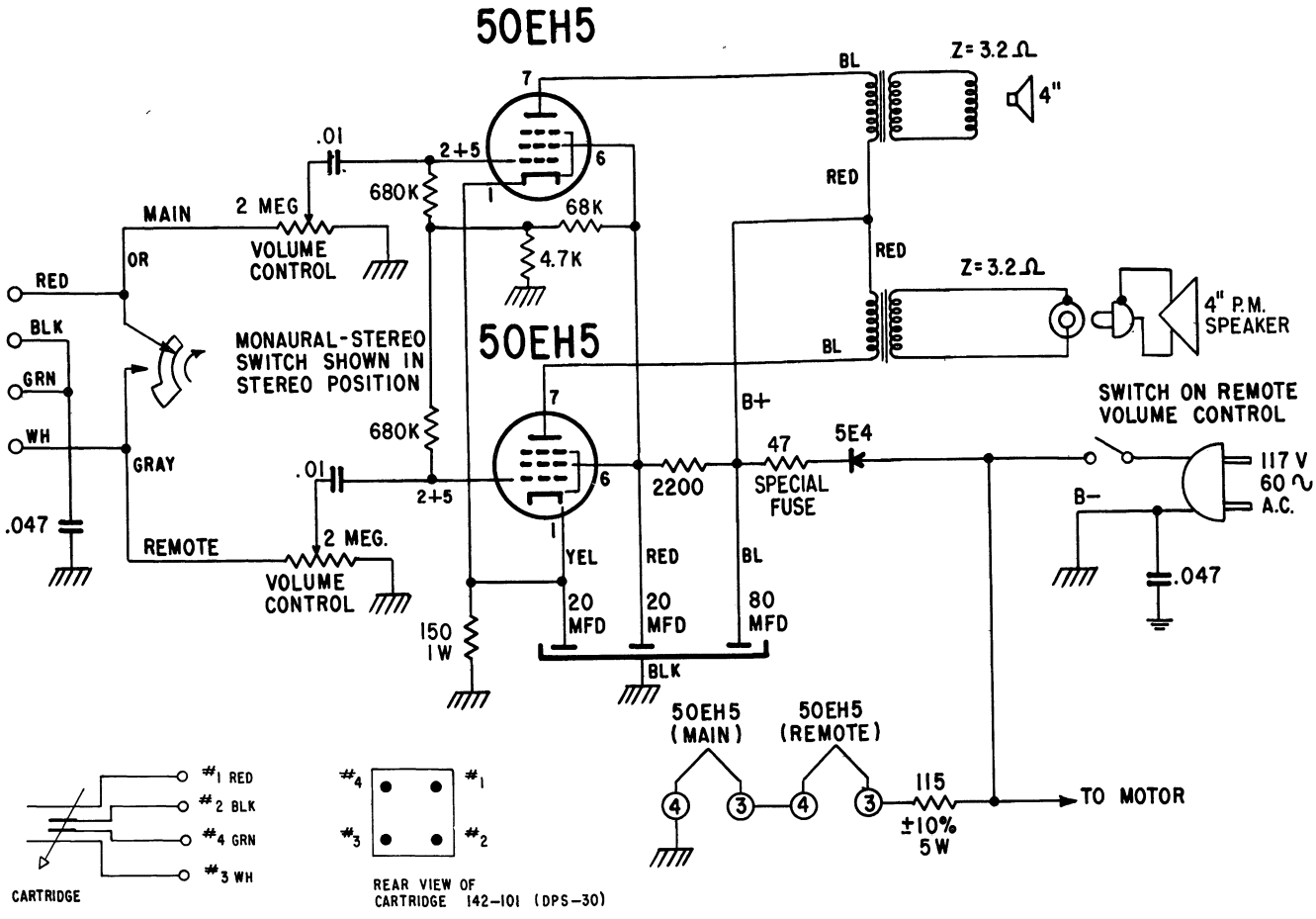
142-108,-109 Cartridge Connections Rear View Initial Production



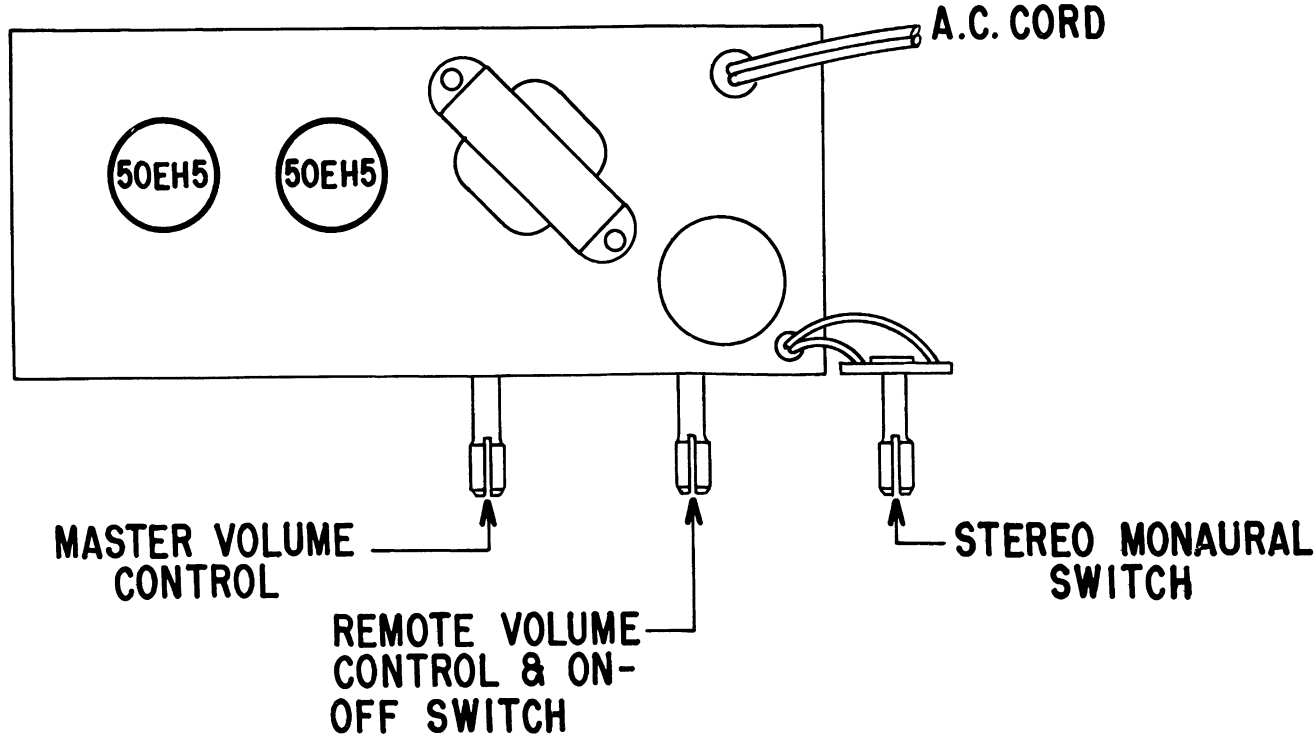
142-108,-109 Cartridge Connections Rear View Later Production



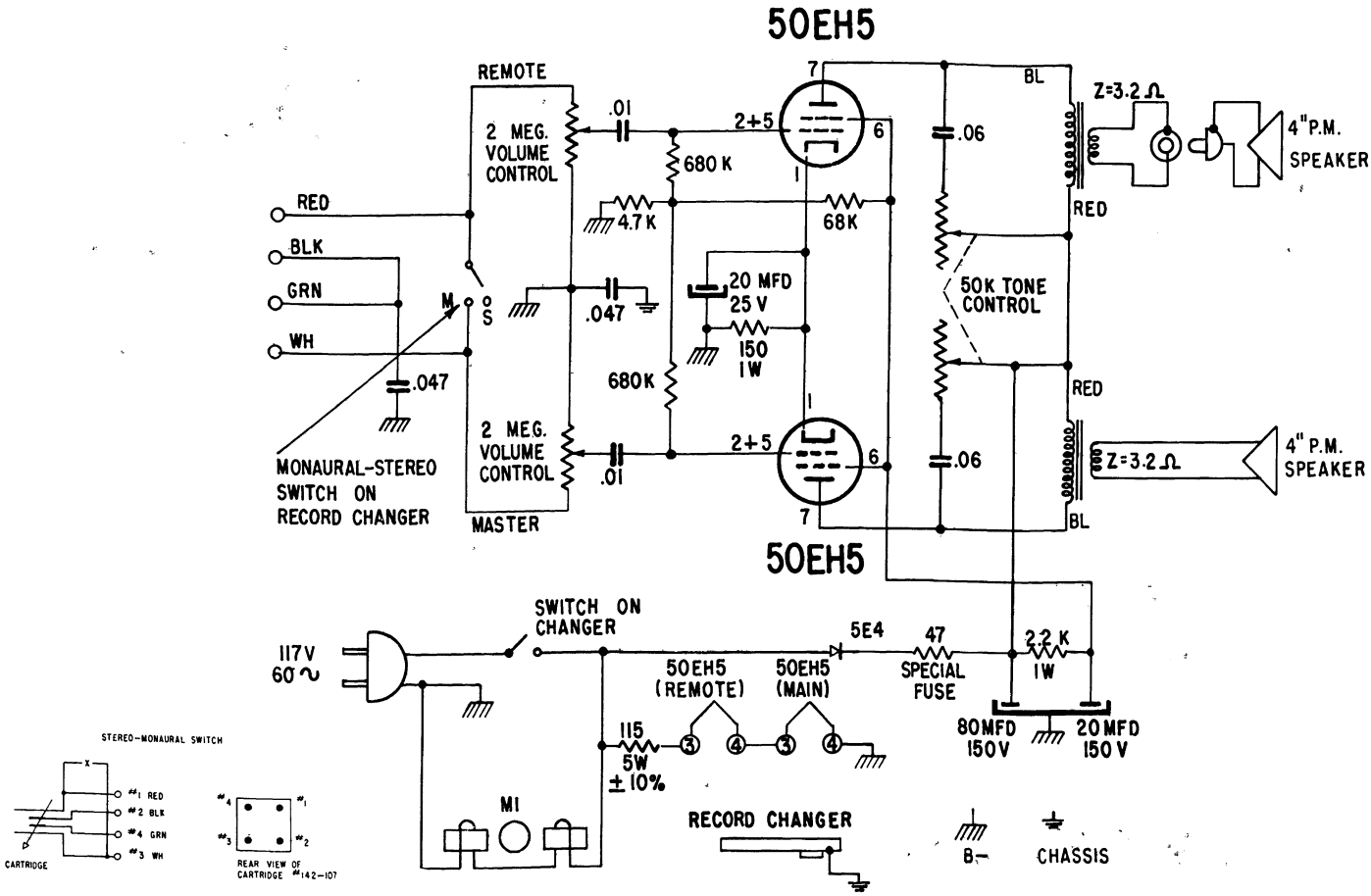
142-110,-111 Cartridge Connections Rear View



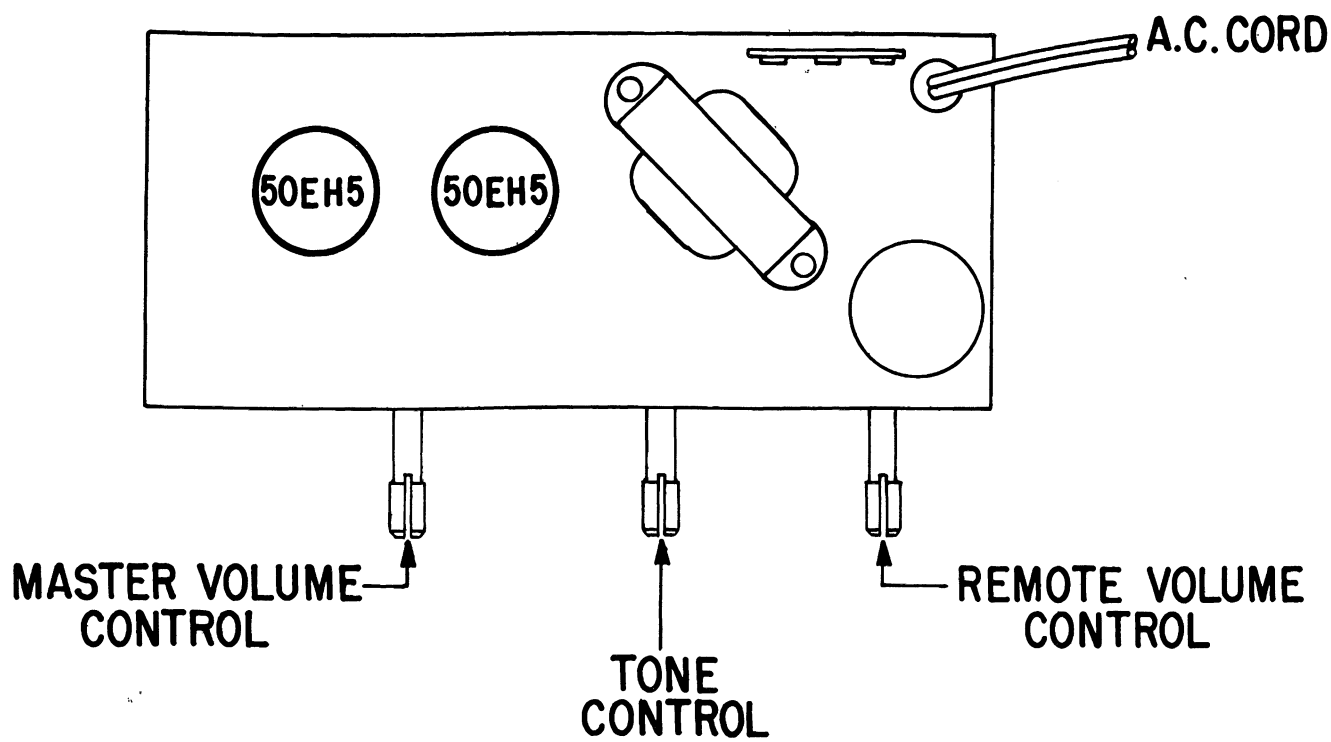
FPS30 Schematic



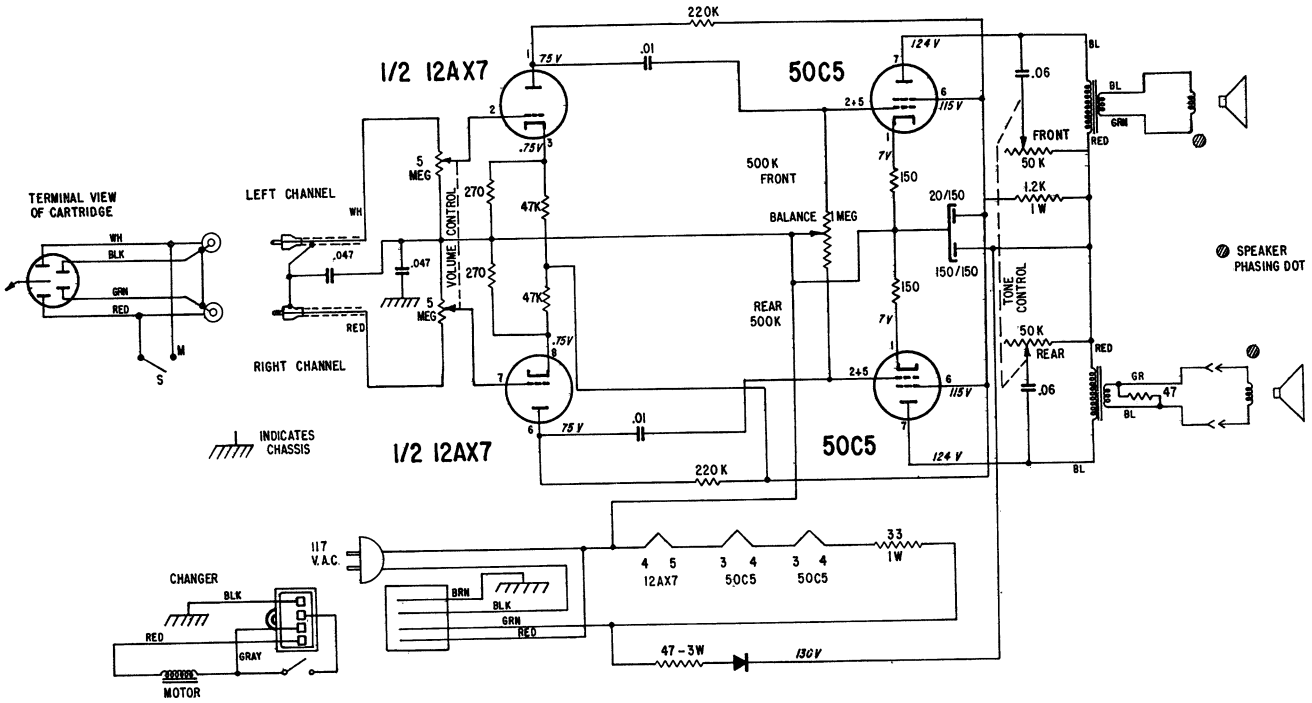
FPS30 Tube & Control Layout



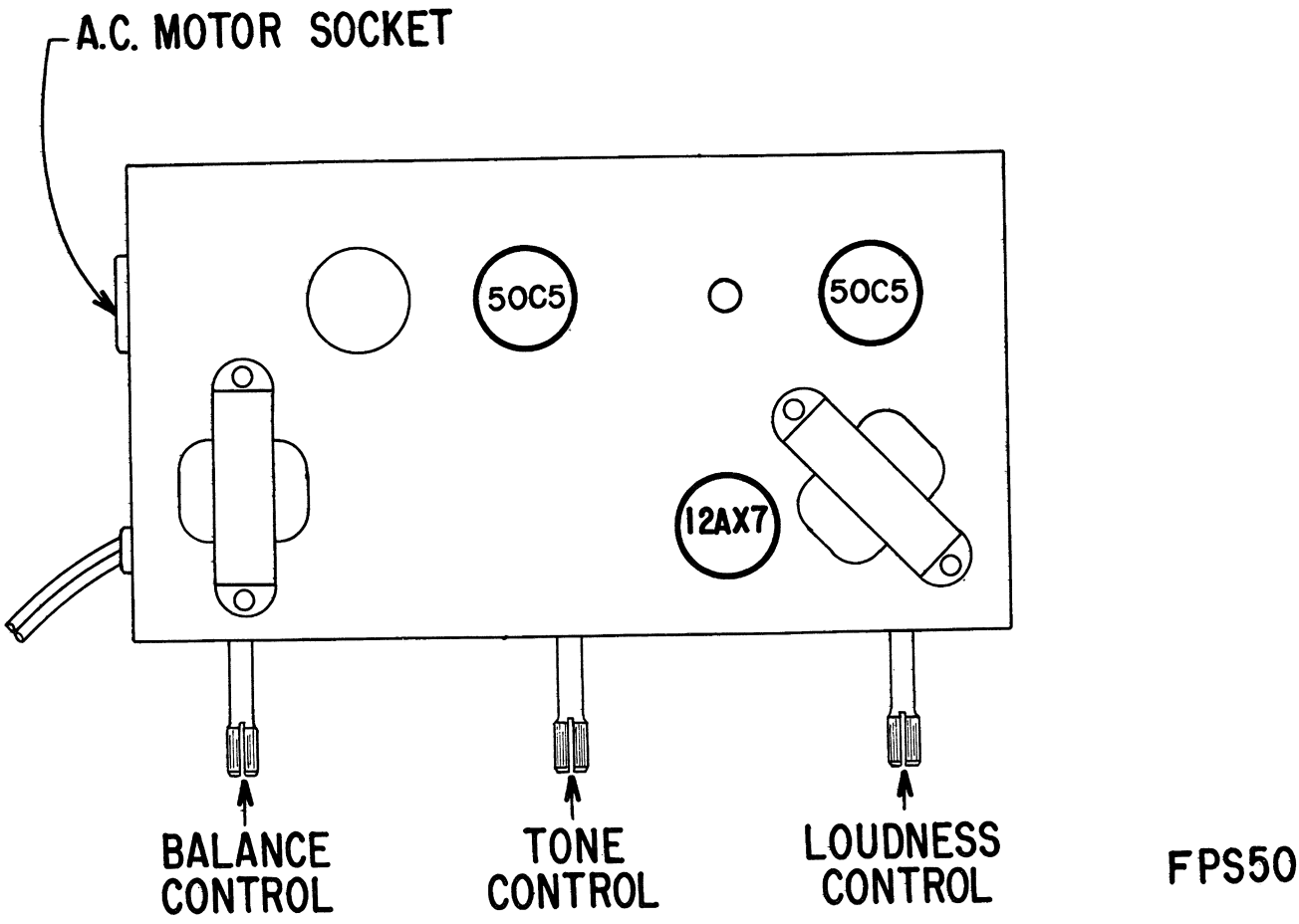
FPS45 Schematic



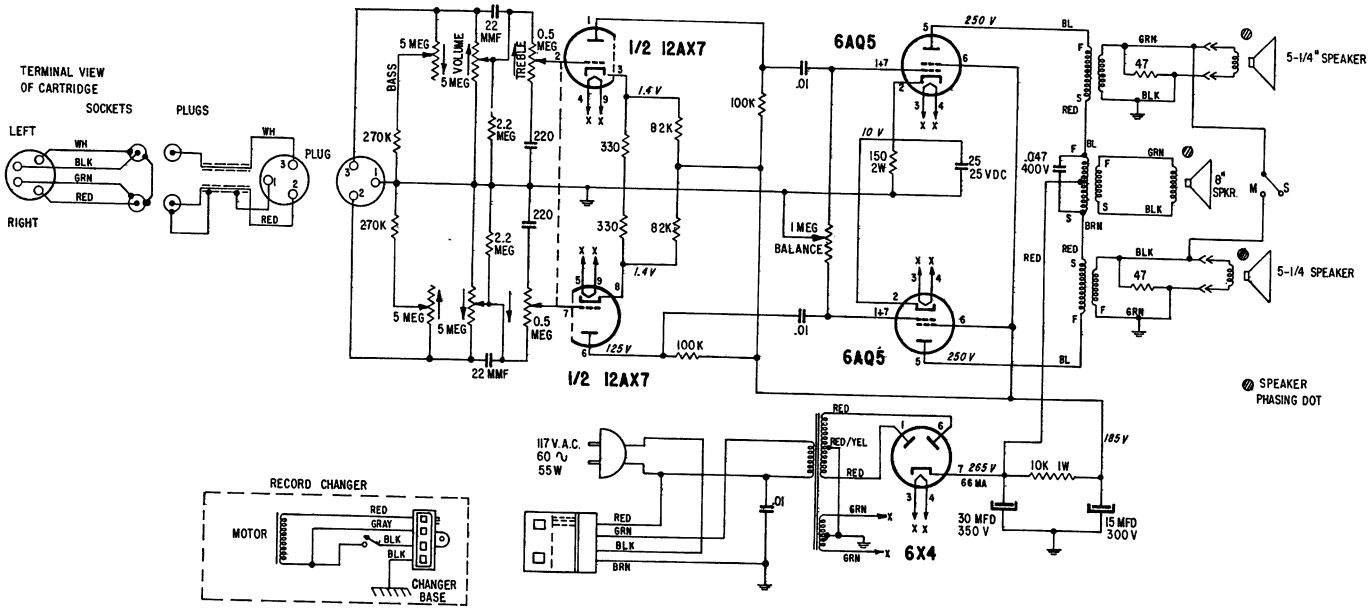
FPS45 Tube & Control Layout



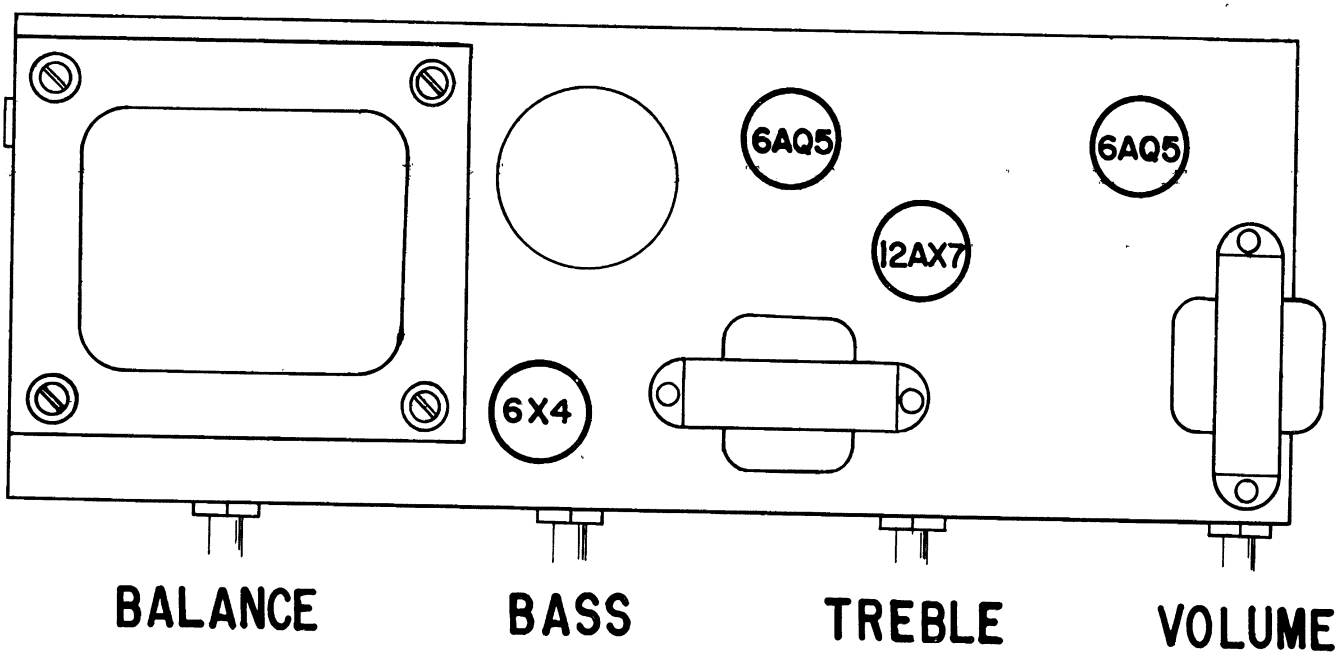
FPS50 Schematic



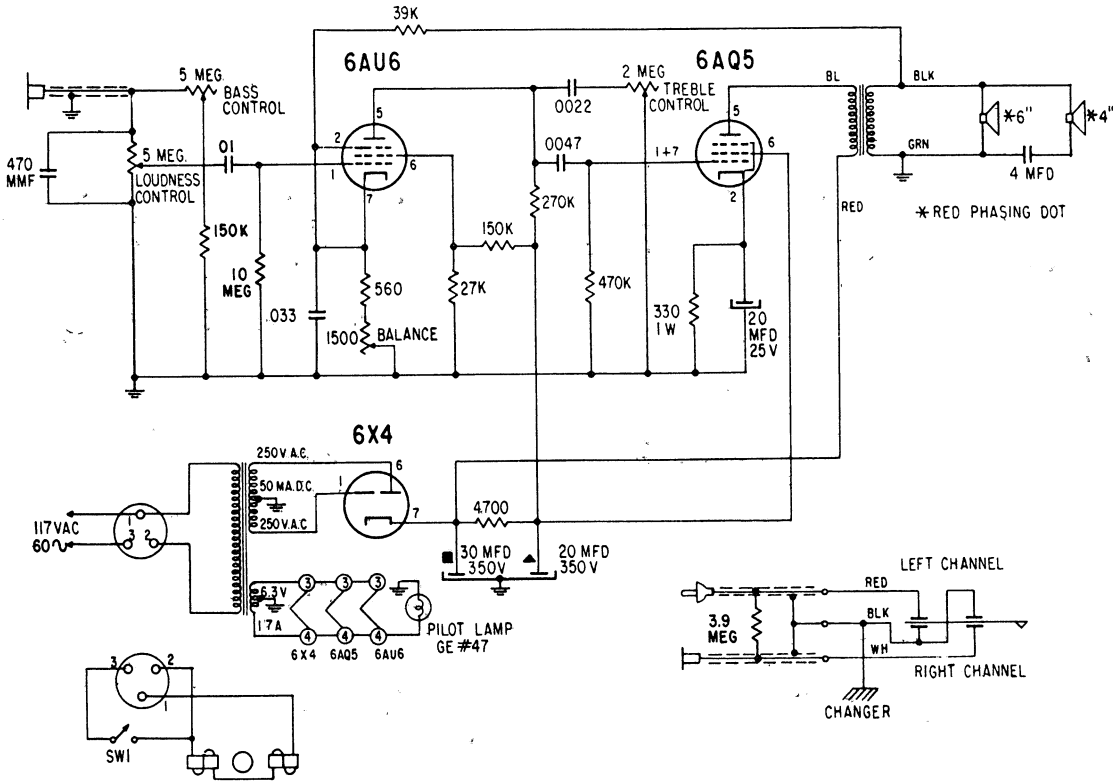
FPS50 Tube & Control Layout



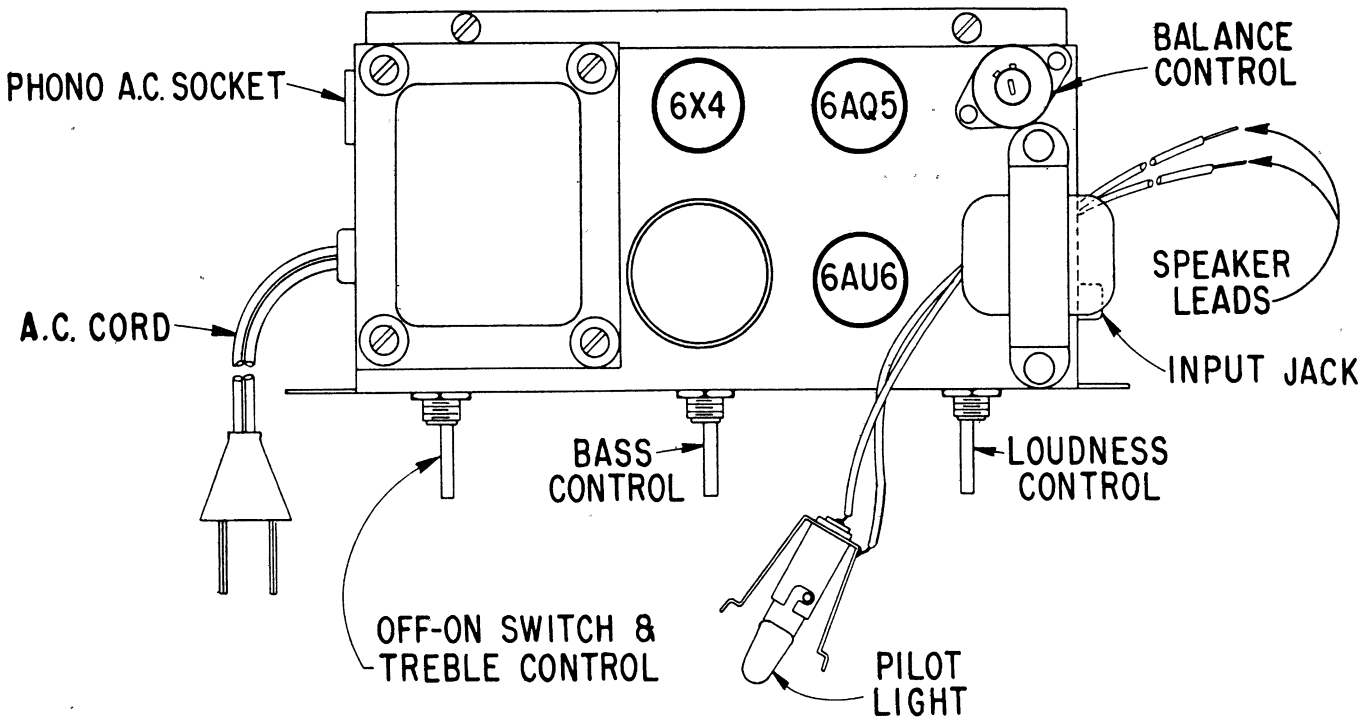
FPS80 Schematic



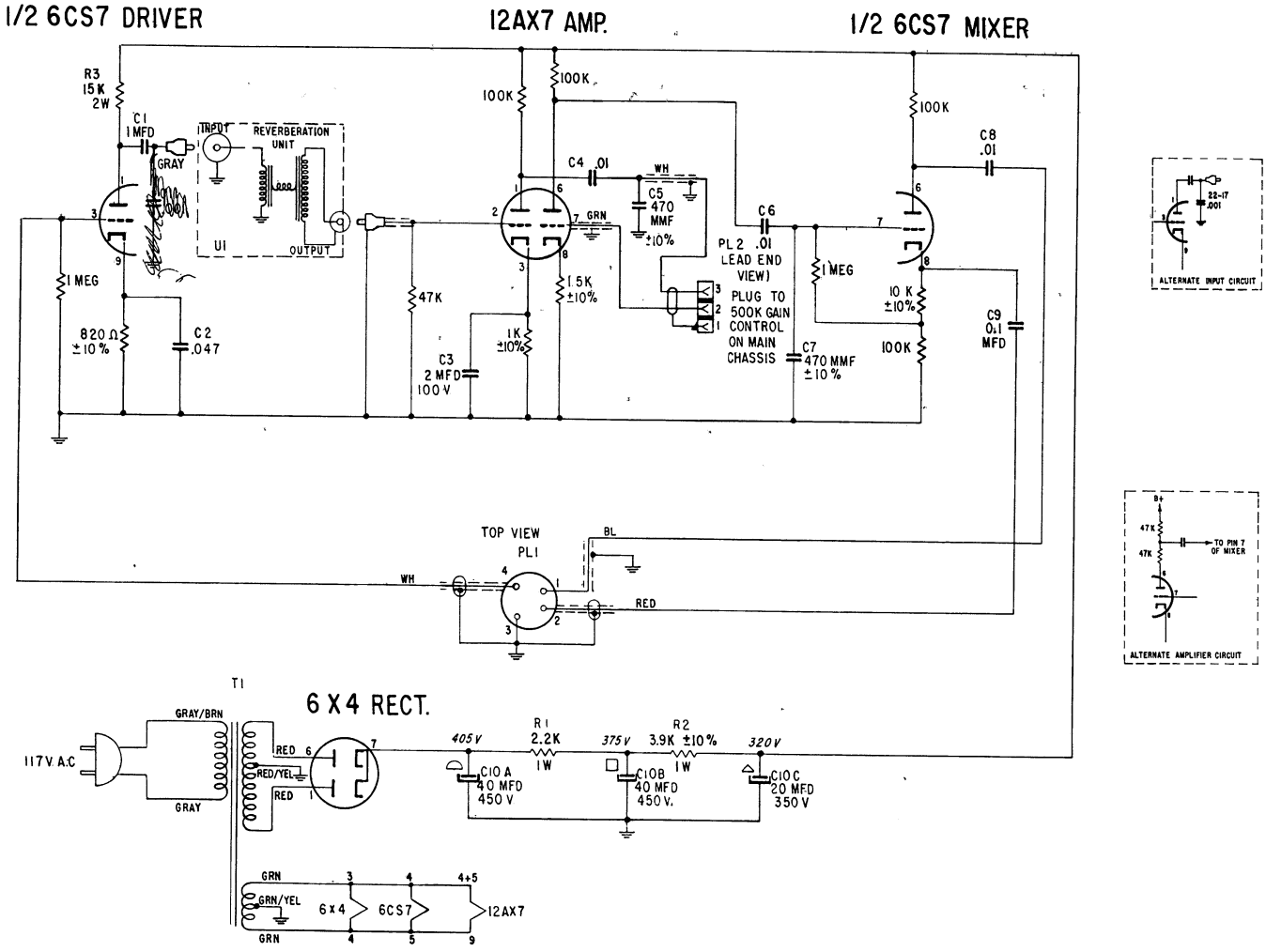
FPS80 Tube & Control Layout



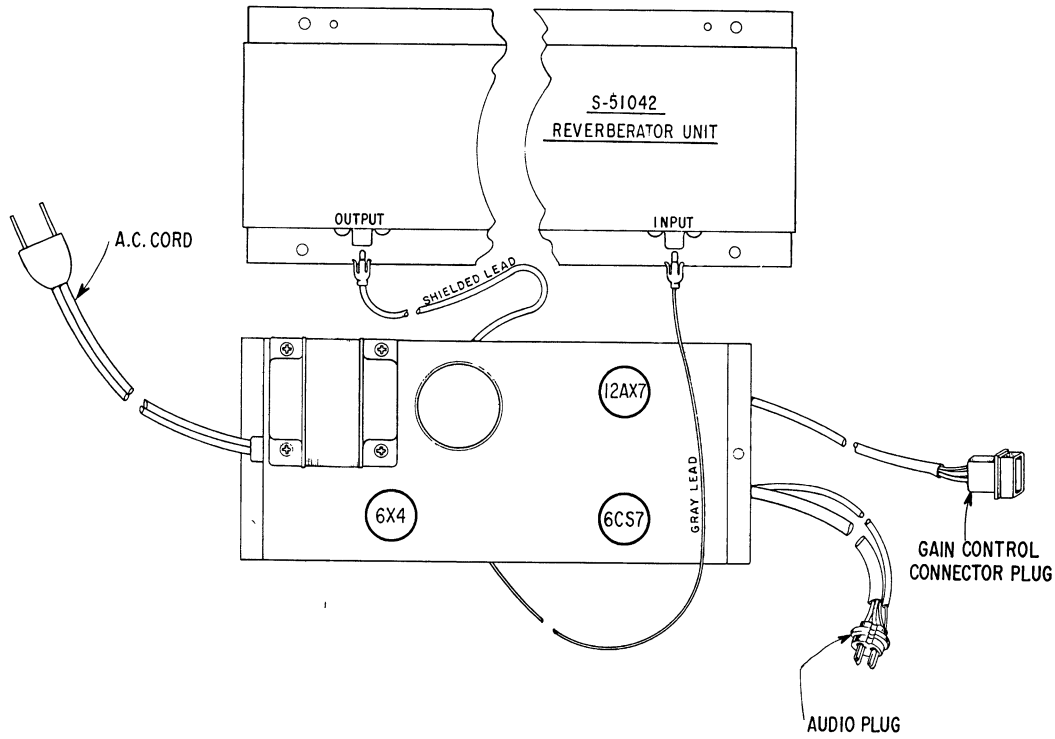
DRS89 Schematic



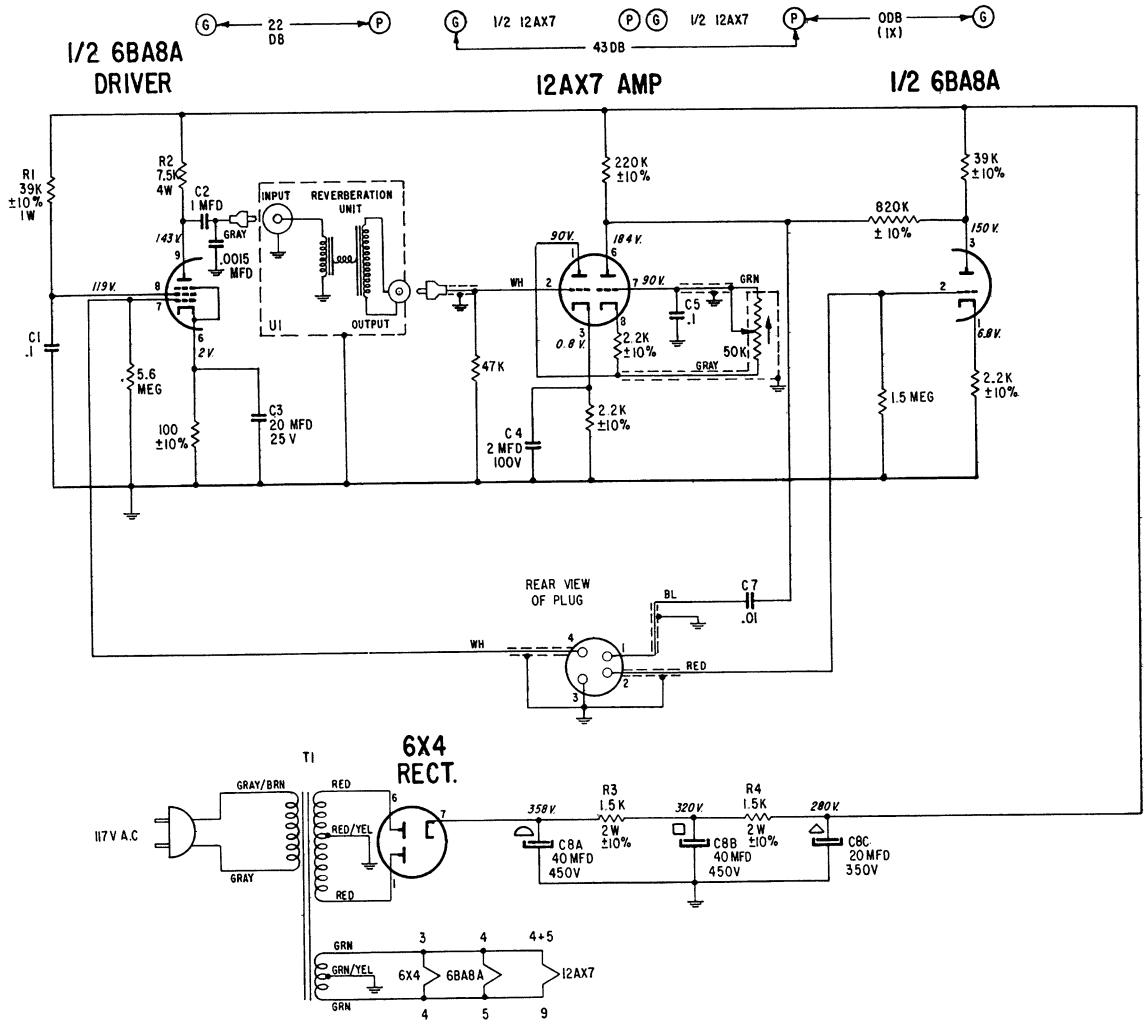
DRS89 Tube & Control Layout



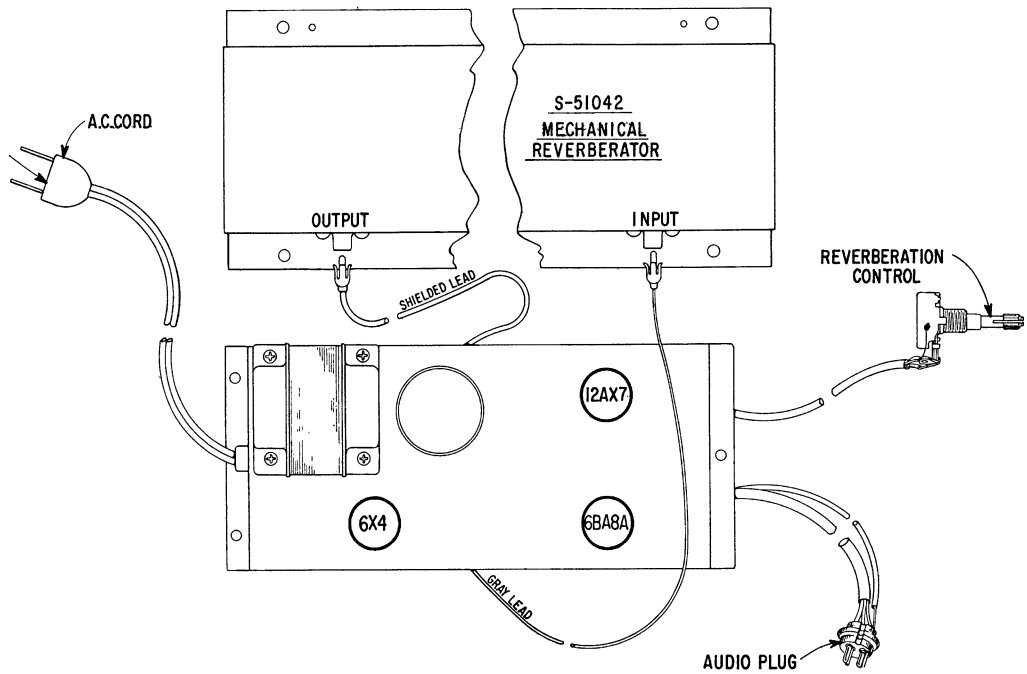
3F21 Schematic For Early Production Reverberation Amplifier



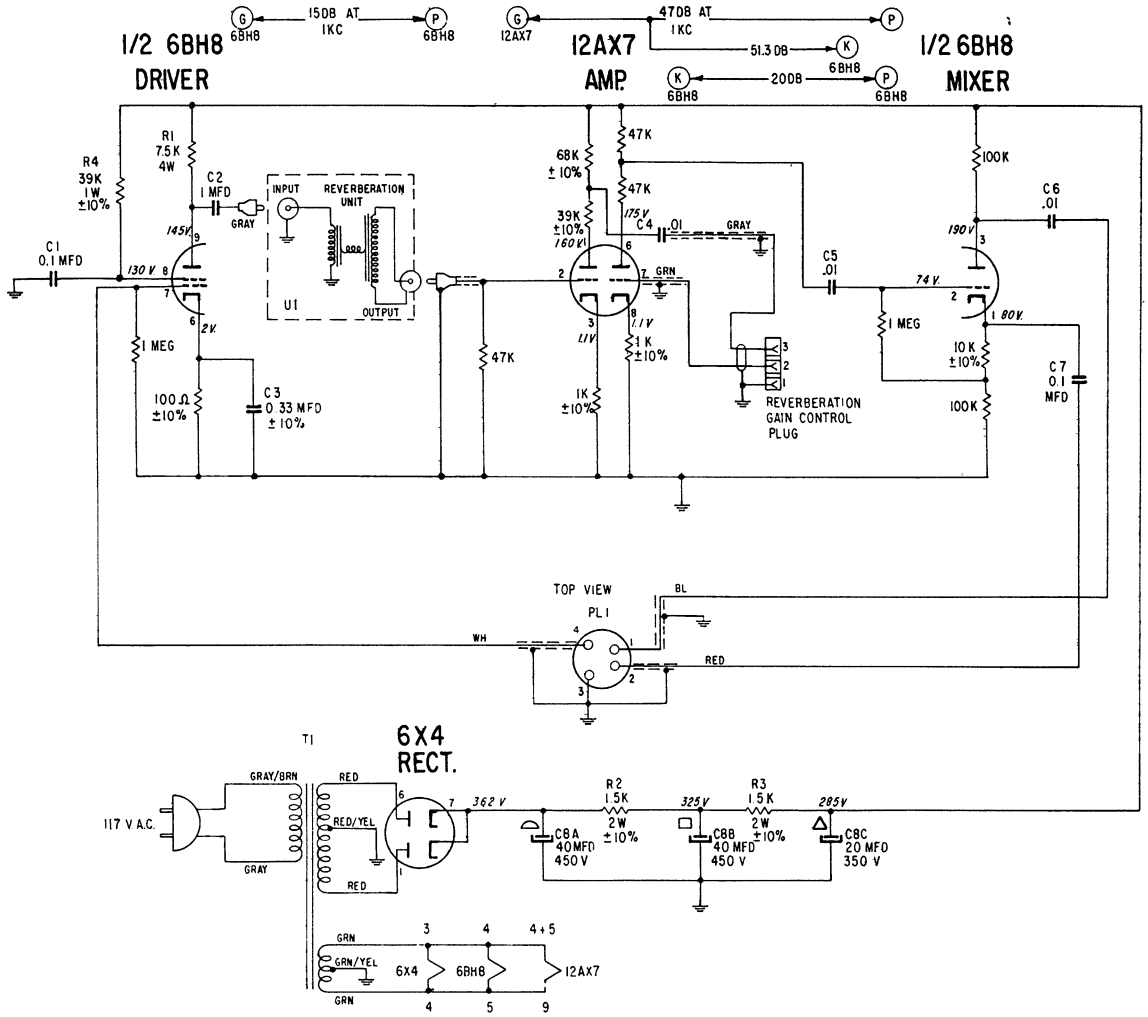
3F21 Tube Layout For Early Production Reverberation Amplifier



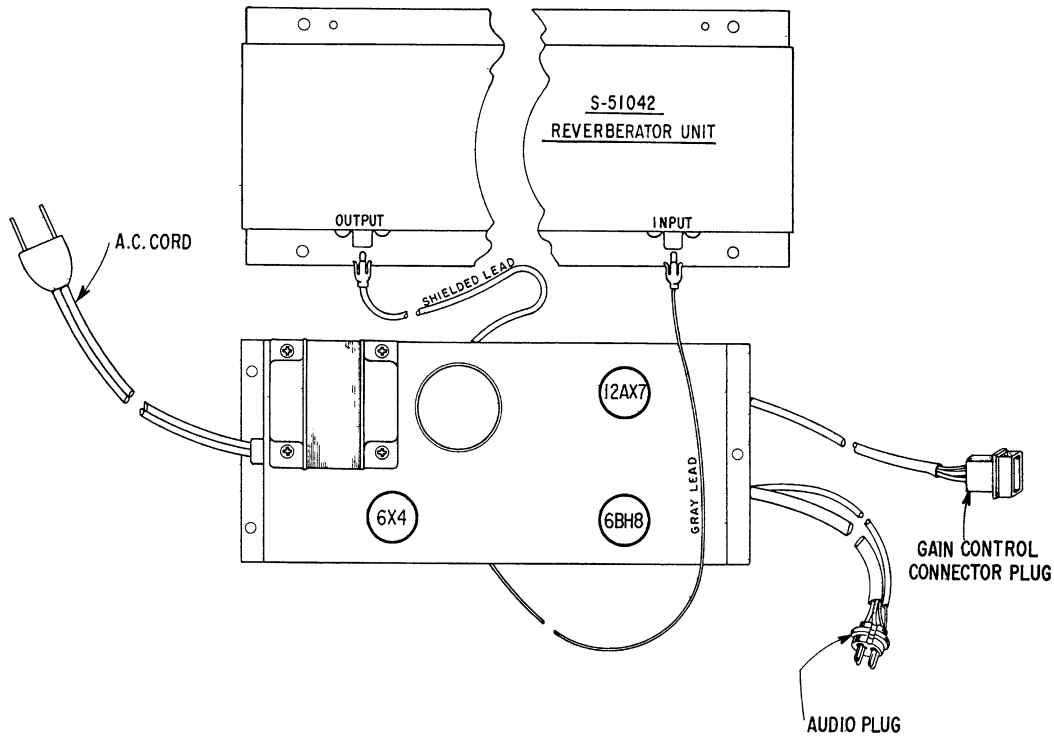
3F22 Schematic For FV20 Reverberation Amplifier



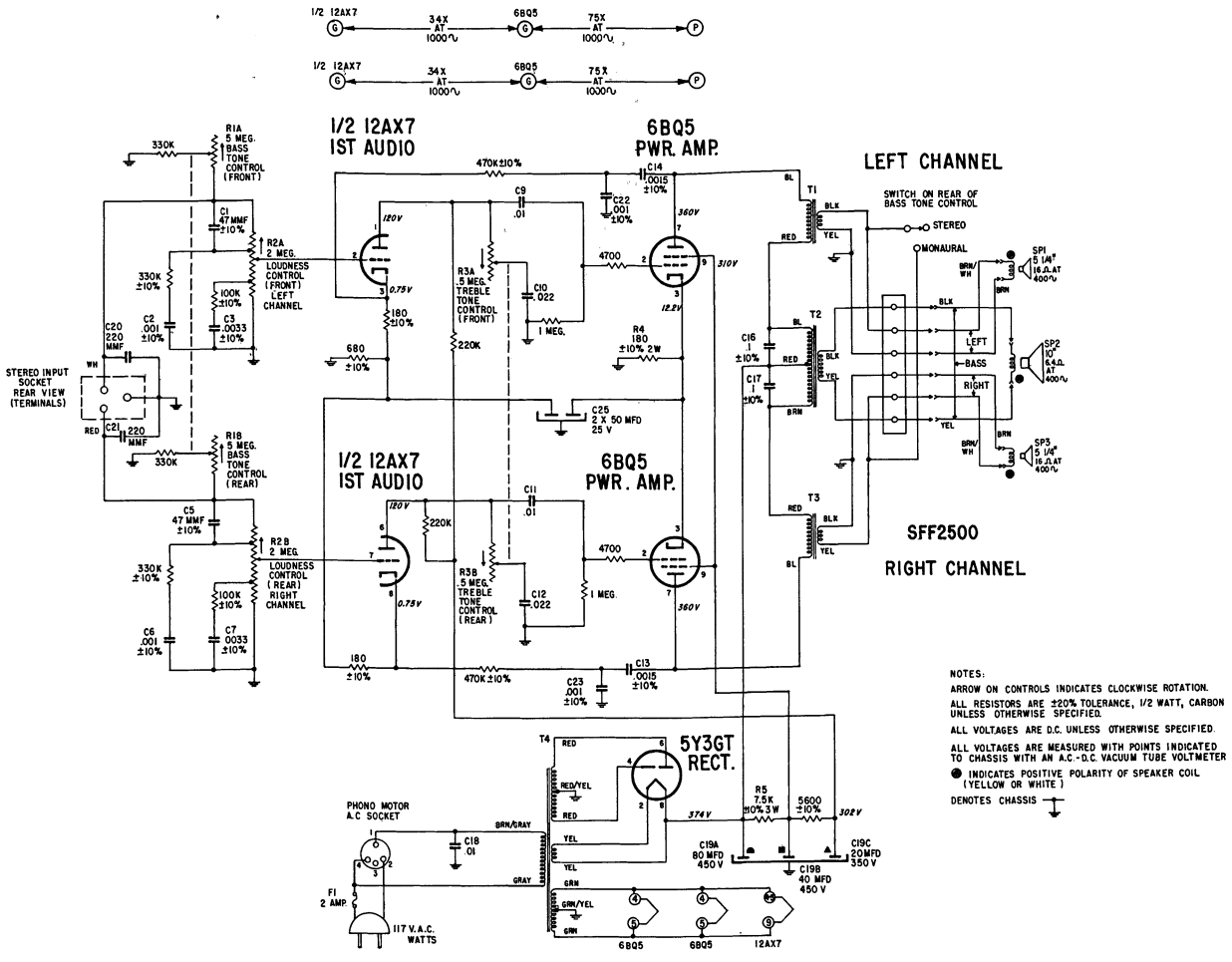
3F22 Tube Layout & Cable Connections For FV20 Reverberation Amplifier



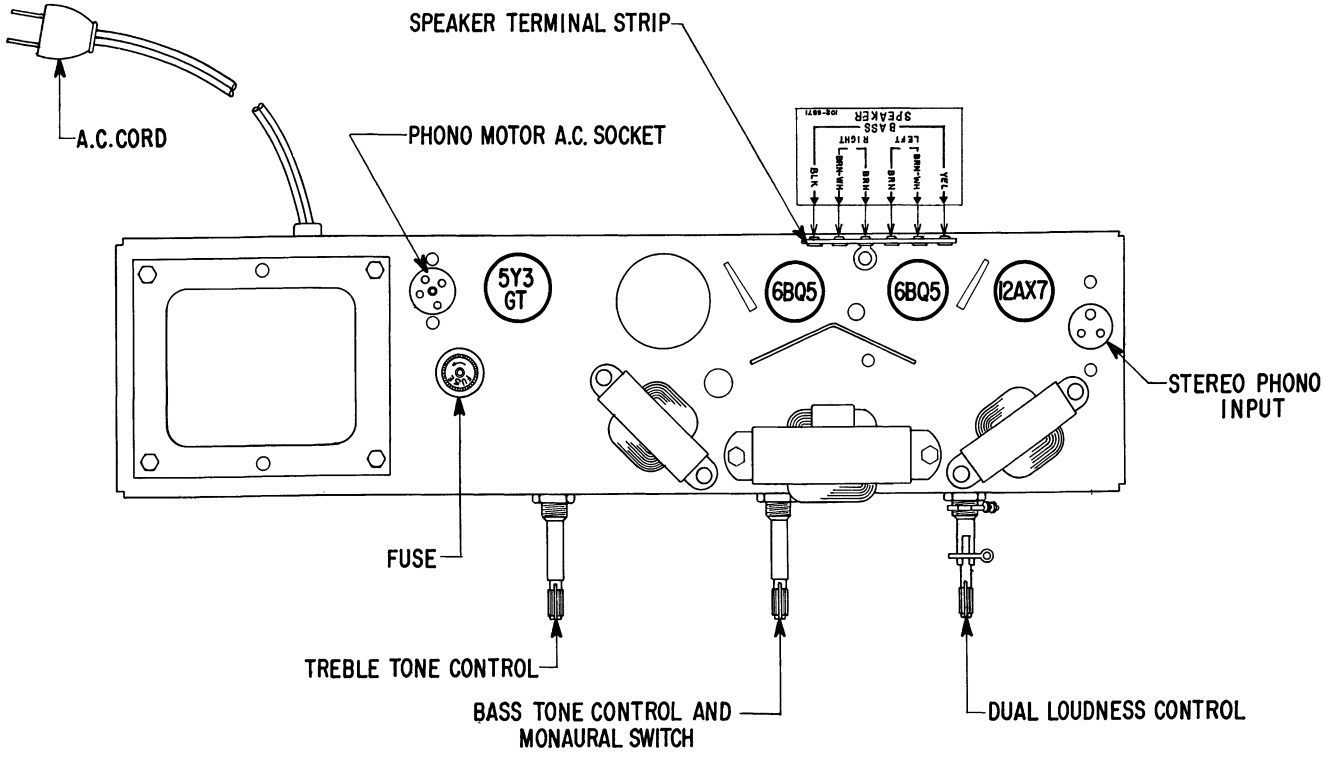
3F23 Schematic For Later Production & FV22 Reverberation Amplifier



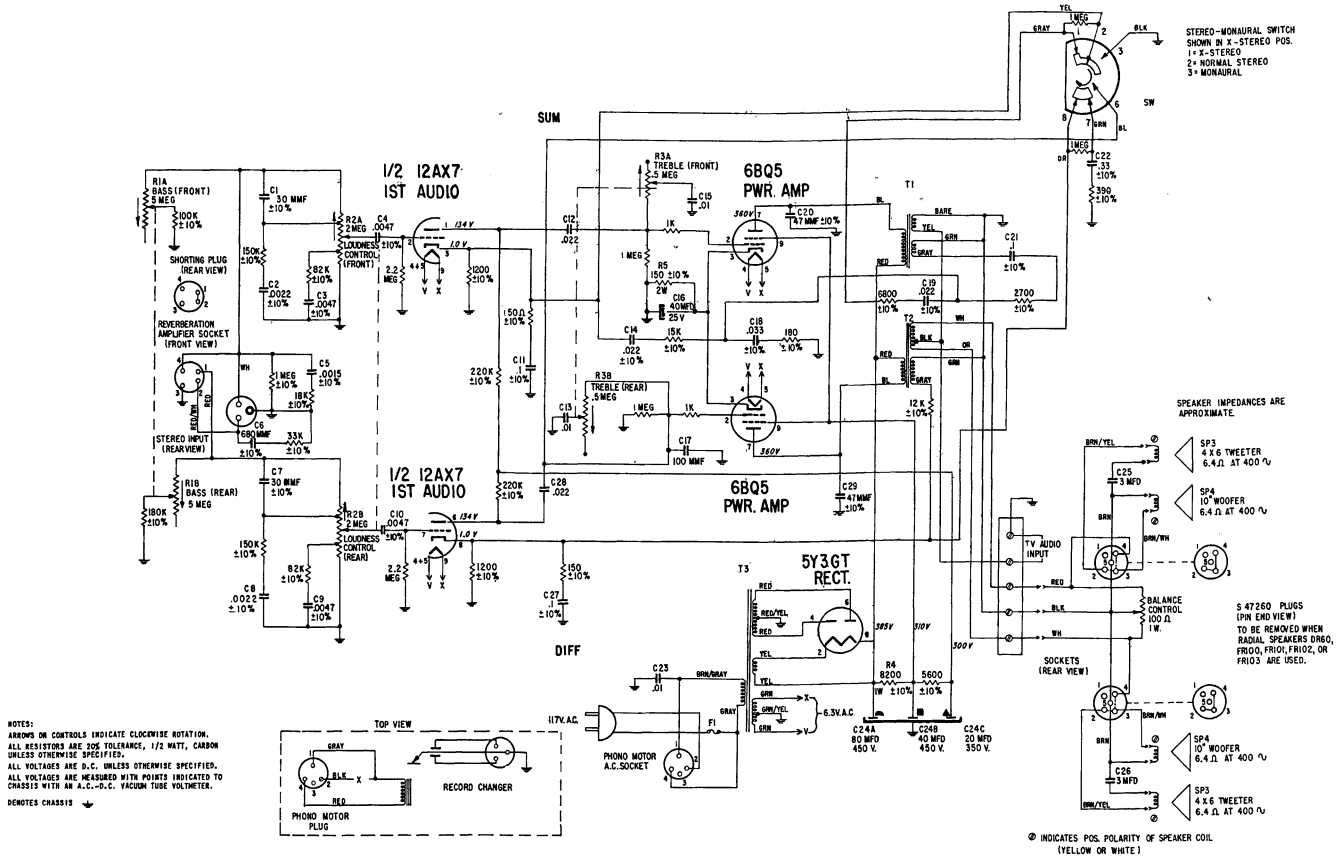
3F23 Tube Layout & Cable Connections For Later Production & FV22 Reverberation Amplifier



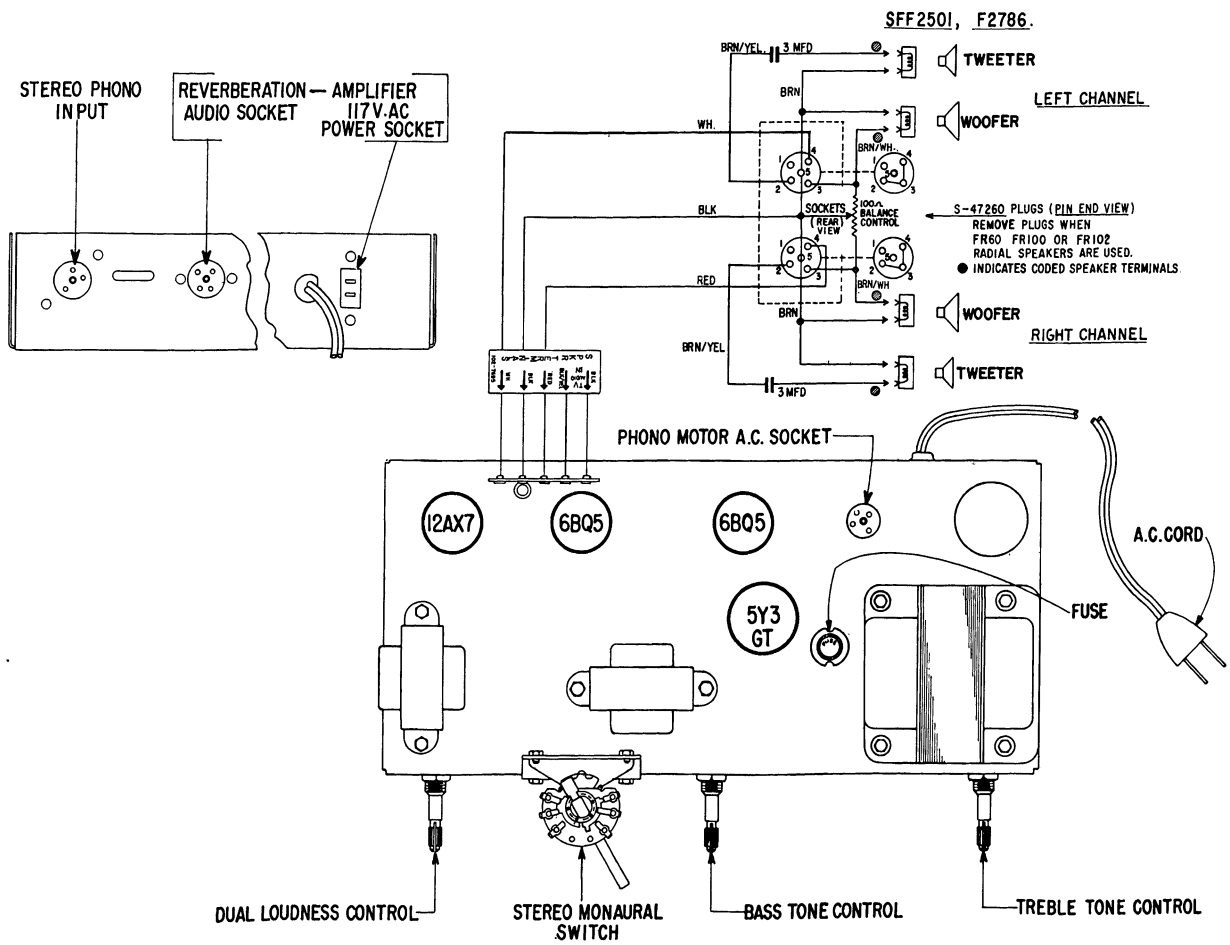
4D20 Schematic For Model SFF2500



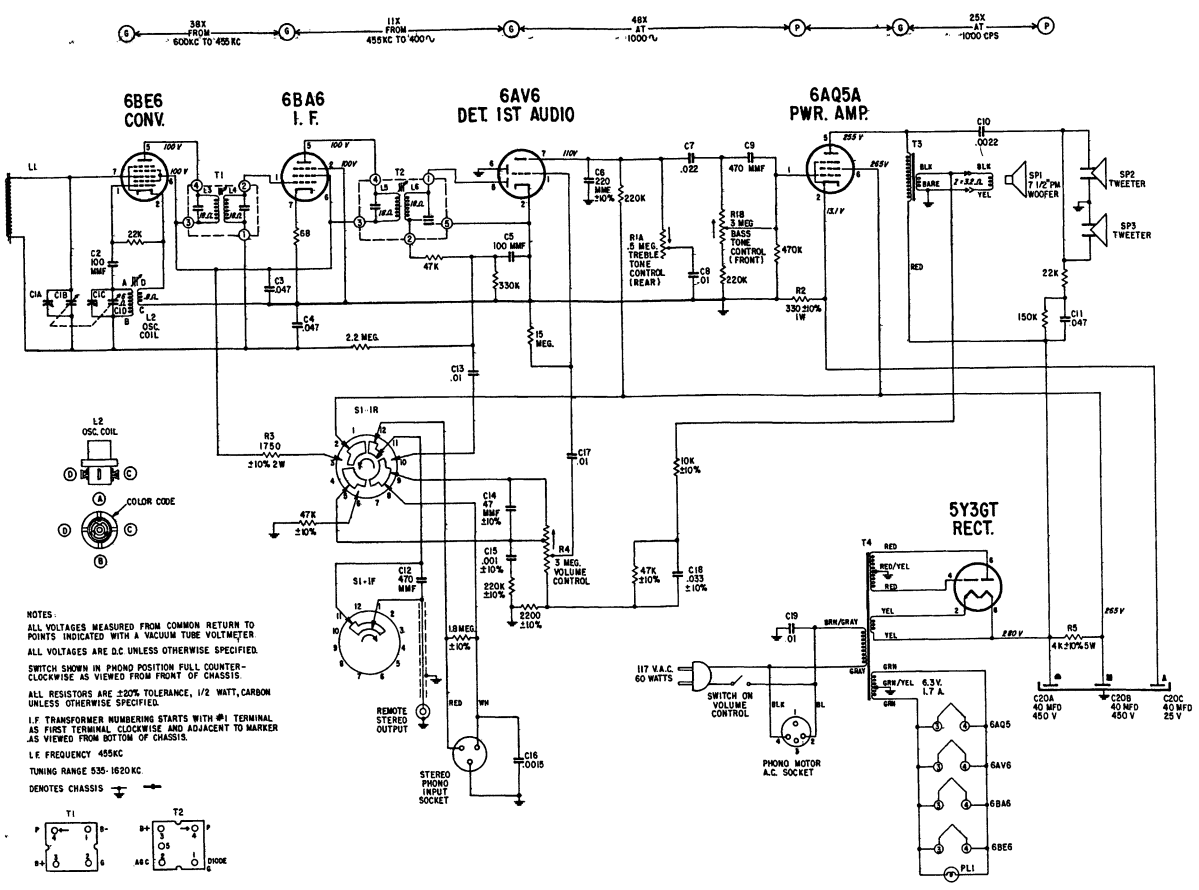
4D20 Tube Layout For Model SFF2500



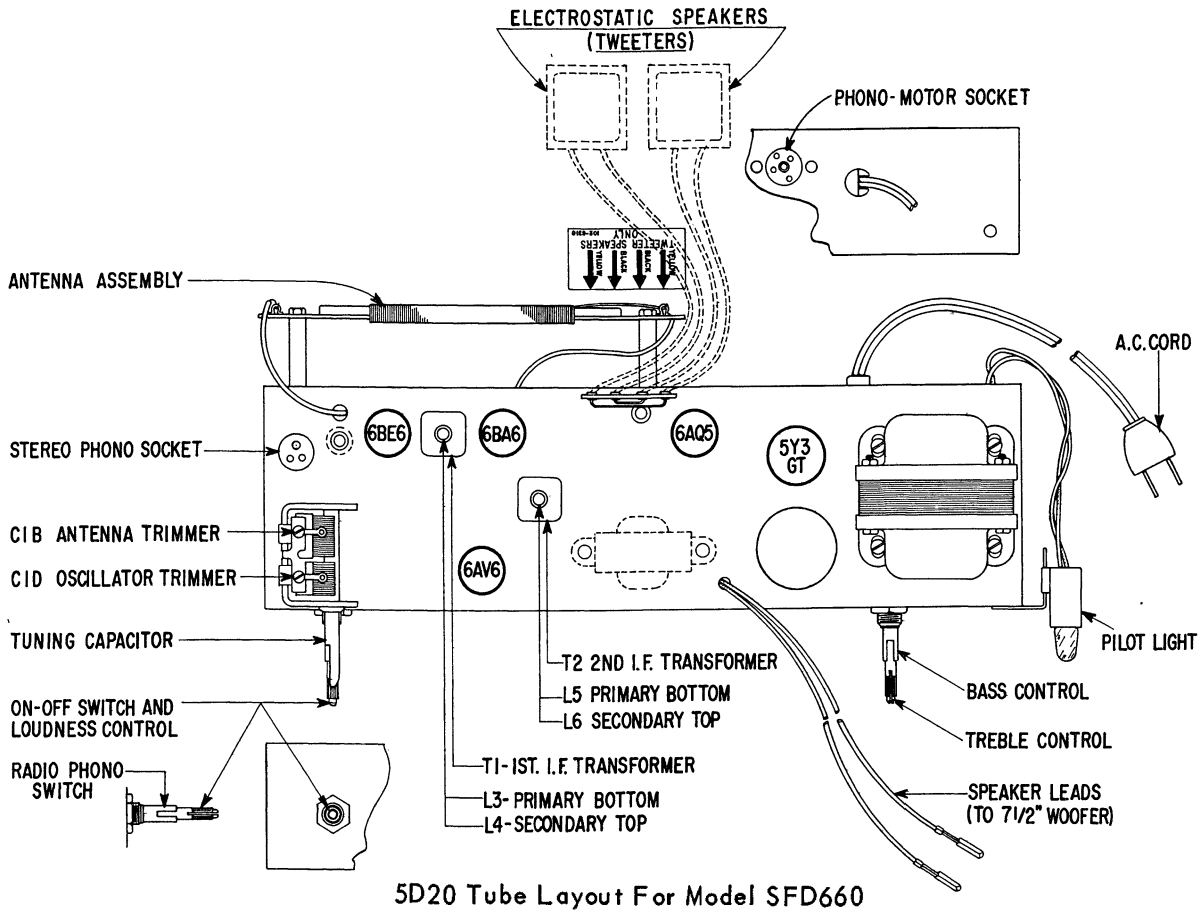
4F20 Schematic For Models SFF2501T, SFF2601



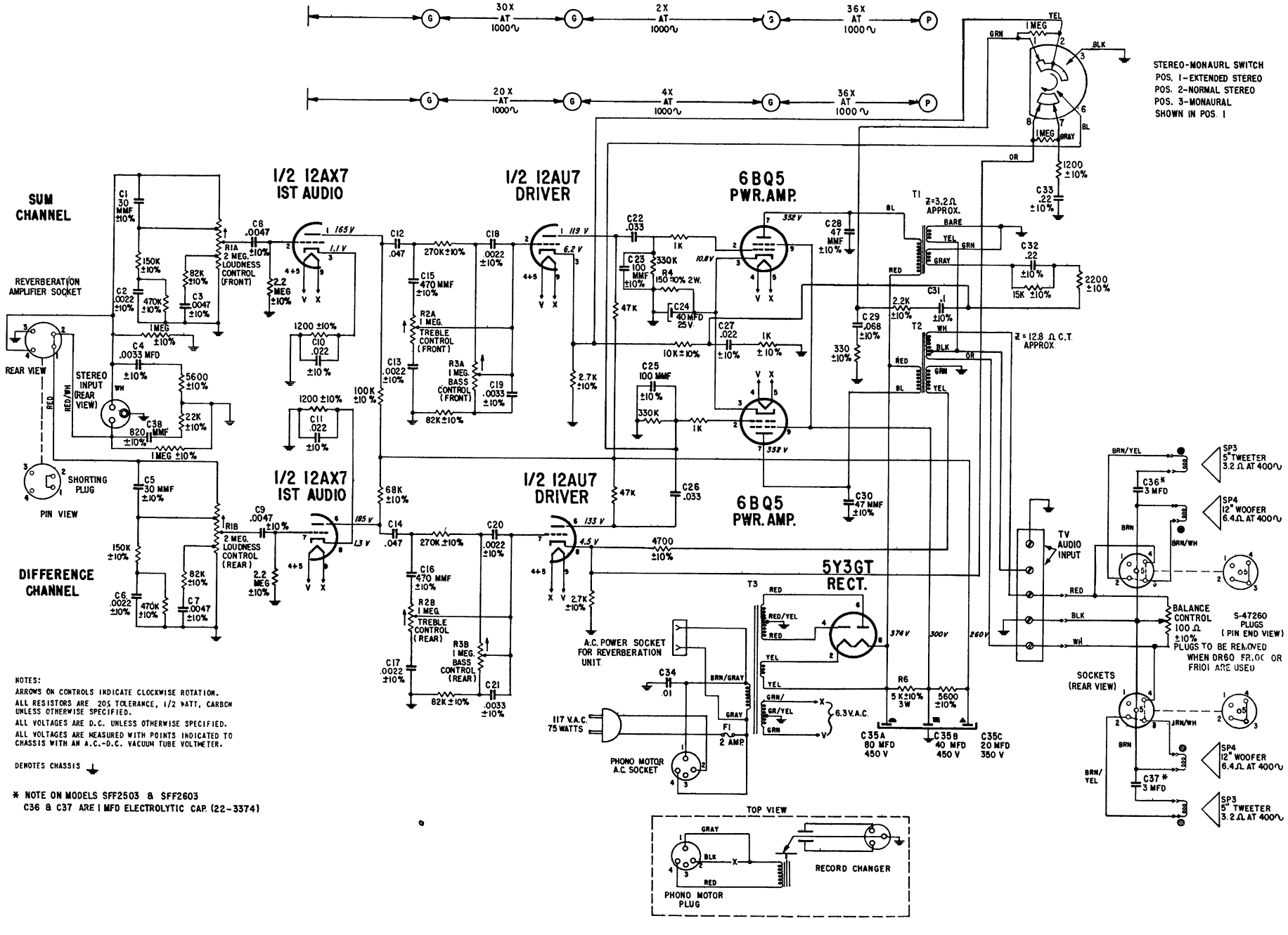
4F20 Tube Layout For Models SFF2501T, SFF2601



5D20 Schematic For Model SFD660



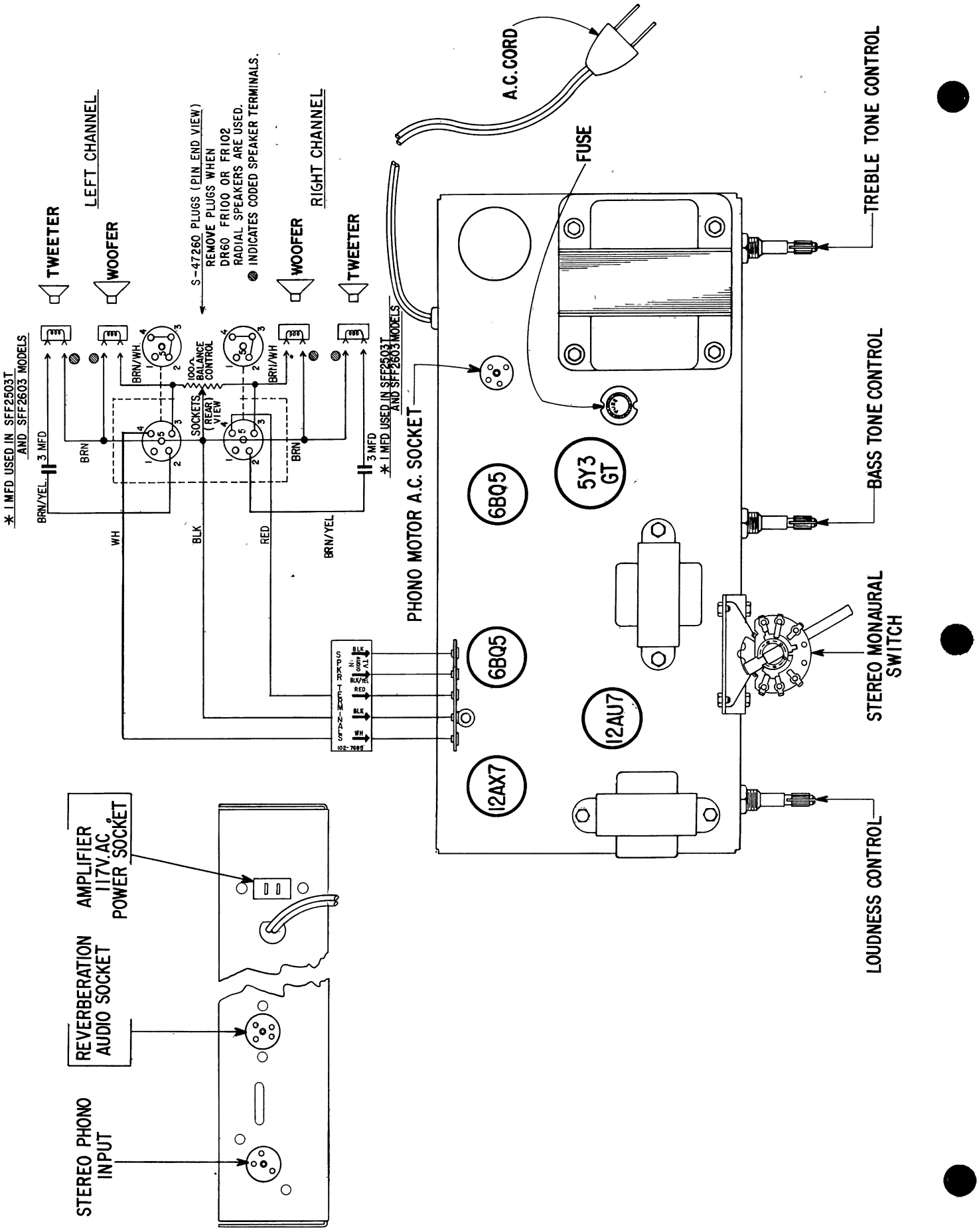
5D20 Tube Layout For Model SFD660



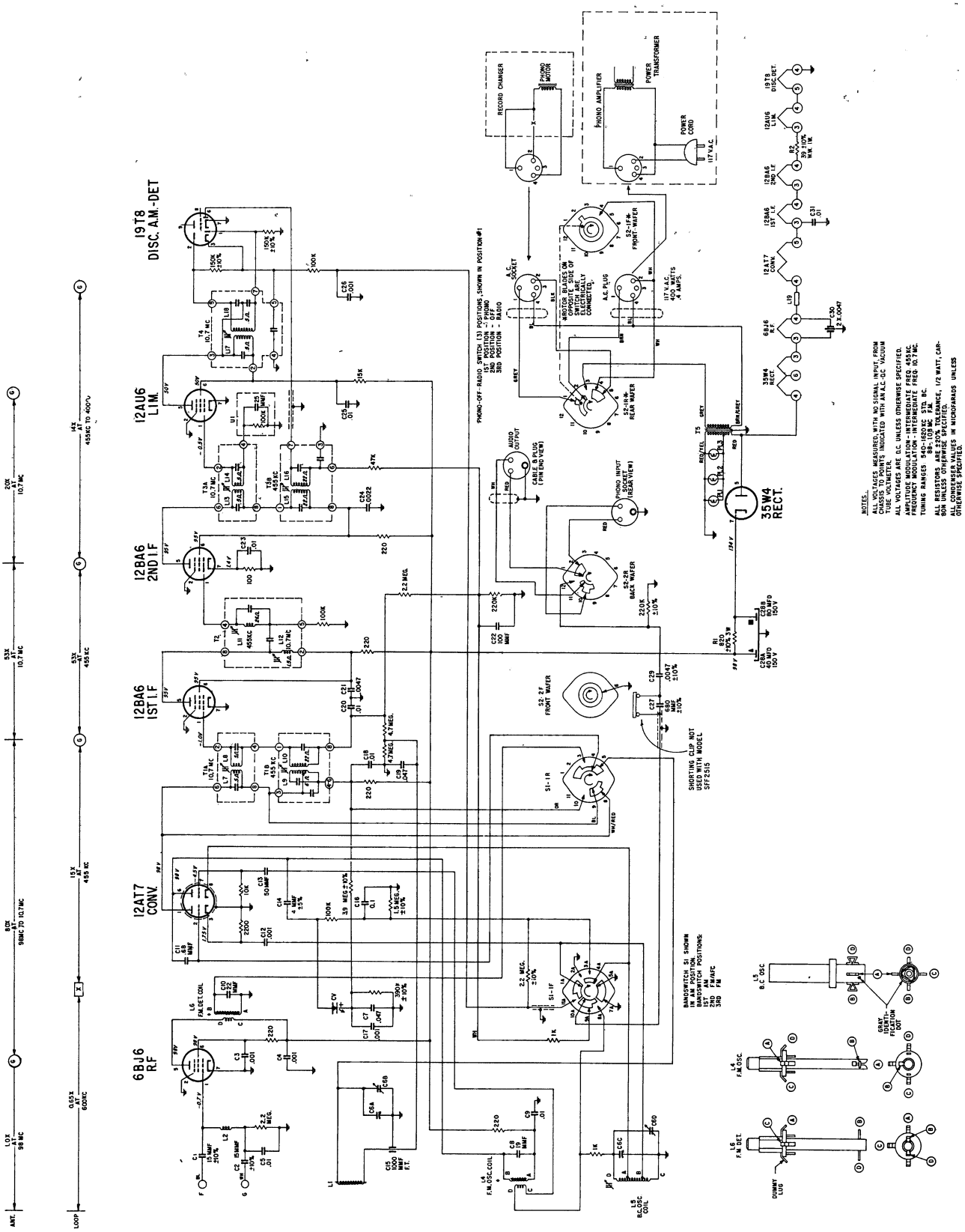
NOTES:
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION.
ALL RESISTORS ARE 20% TOLERANCE, 1/2 WATT, CARBON UNLESS OTHERWISE SPECIFIED.
ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
ALL VOLTAGES ARE MEASURED WITH POINTS INDICATED TO CHASSIS WITH AN A.C.-D.C. VACUUM TUBE VOLTMETER.

DENOTES CHASSIS ⏚

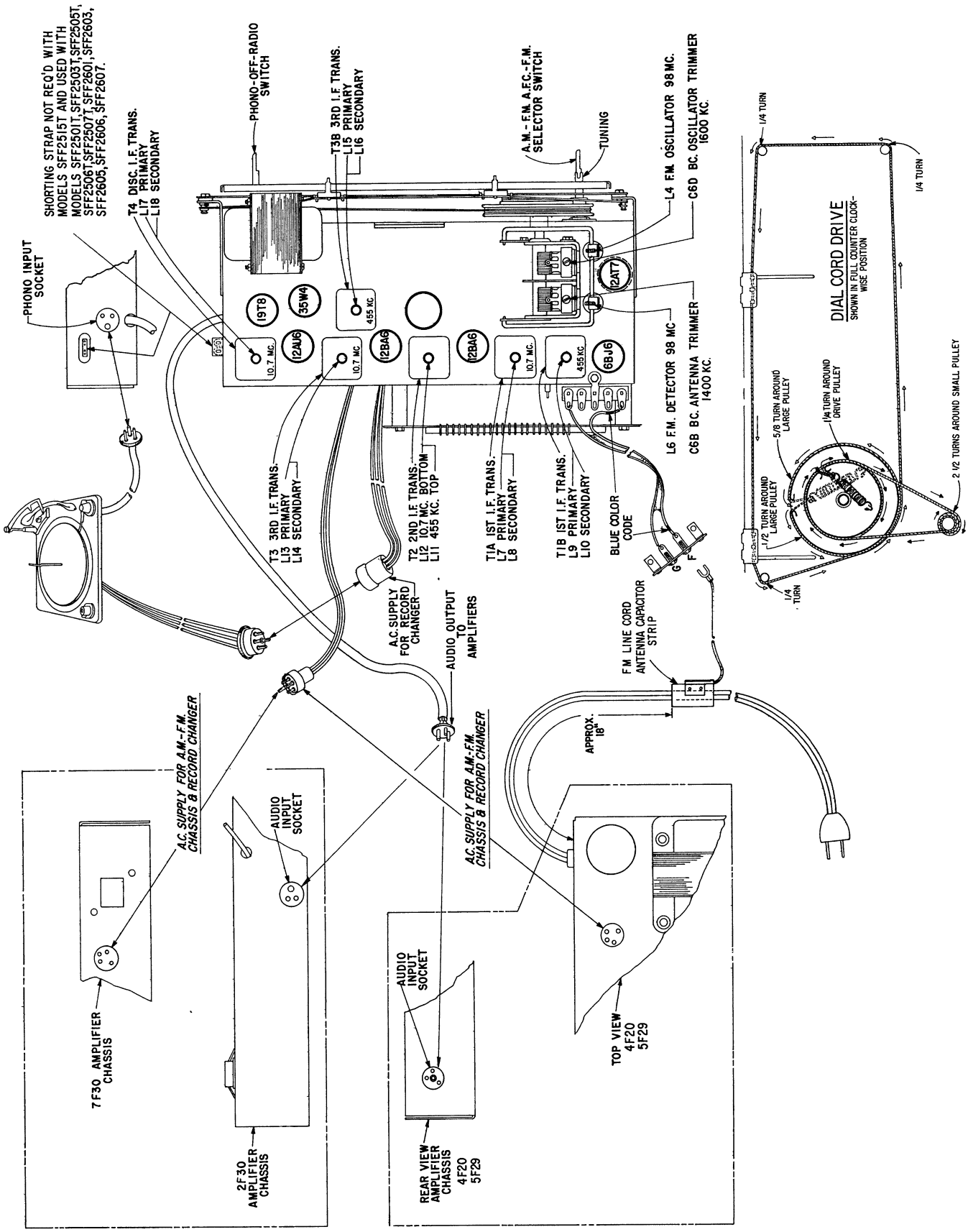
* NOTE ON MODELS SFF2503 & SFF2603
C36 & C37 ARE 1 MFD ELECTROLYTIC CAP. (22-3374)



5F29 Tube Layout For Models SFF2503T, SFF2603, SFF2505T, SFF2605, SFF2606 & SFF2607



7F20 Schematic For FT11 Tuner



7F20 Tube Layout & Cable Connections For Model FT11

TO THE SERVICEMAN:

Zenith Engineers have created a supplementary AM-FM tuner Model FT11 that can be used in conjunction with Models SFF2501T, SFF2503T and SFF2515T. This tuner has been designed to mount in the record storage compartment of the cabinet.

The following installation instructions are for the specific models listed above, however, they will also apply to any other models to which the FT11 tuner can be added.

INSTALLATION INSTRUCTIONS

1. Remove the cabinet back.
2. Remove the two screws that fasten the record storage compartment into the cabinet and then remove the record storage compartment.
3. Lower the FT11 tuner into the record storage compartment area.
4. Insert the two chassis mounting bolts through the brackets at each end of the FT11 chassis.
5. Securely tighten the chassis mounting bolts. Should the tuner become microphonic at high level operation these two chassis mounting bolts should be removed.
6. Remove the record changer audio cable from the amplifier chassis and insert it into the socket provided at the end of the FT11 tuner chassis.
7. Take the audio cable from the FT11 tuner and insert it into the socket on the amplifier chassis from which the record changer audio cable has been removed.
8. Remove the record changer power cable from the amplifier chassis and insert it into the 4 hole socket and cable hanging from the bottom of the FT11 chassis.
9. Take the power cable from the FT11 and insert it into the socket on the amplifier chassis from which the record changer power cable has been removed.
10. Fasten "F & G" FM antenna terminal strip to the right side of the vertical center panel so it will line up with the hole provided in the cabinet back.
11. Wrap the fibre strip (foil side out) around the 110 volt AC cord at a point approximately 18 inches from the amplifier chassis. Then close the fibre strip with the clamp and blue wire assembly.
12. Connect the blue wire lug to "F" screw on the FM terminal strip.
13. Be certain to keep the AC cord and all cables as far away from the broadcast Wavemagnet as possible.
14. When the FT11 is used with Models SFF2515T and SFF2615, remove the shorting strap from the end of the FT11 chassis.
15. When the FT11 tuner is used with Models SFF220T and SFF2515T, be certain the Bass Control is pushed down in Phono Position.

The 7F20 chassis incorporates a superheterodyne circuit with two stages of IF, on the FM Band, and two stages on the AM Band. There is one stage of RF amplification on the FM Band.

The IF transformers and the discriminator transformer are the new permeability tuned type. The advantage of an IF transformer of this type is its extreme stability under various humidity and temperature conditions. The upper coil is the secondary and the lower the primary. When adjusting these IF and discriminator transformers, tuning wrench 68-19 can be inserted into the top slug, rotated until maximum output is obtained and then dropped down to the lower slug and the same operation repeated. The tuning wrench is so designed that tuning one slug does not effect the adjustment of the other.

Alignment of this chassis will, in most cases, be unnecessary unless an IF or RF transformer is replaced or the adjustments have been tampered with.

FM Discriminator Alignment: When the secondary of the discriminator is aligned (operation 5) use sufficient signal input to get a good positive and negative indication before setting the slug for zero reading. A center zero indicating meter is recommended for this adjustment, but is not absolutely necessary. Reversing the leads of a non-zero center meter, or observing closely when the meter starts to go to the left (negative) of zero will give the same results.

FM IF Alignment: Because of the wide band pass, it is desirable to use a FM signal generator and a cathode ray oscilloscope when aligning the FM IF channel. The instruction book for the Zenith model 800 Signal Generator (Form Z8001) covers complete FM alignment procedure. If visual alignment equipment is unavailable, reasonably accurate alignment can be made by following the procedure outlined in this service note.

Correct alignment can only be made if the following procedure is followed:

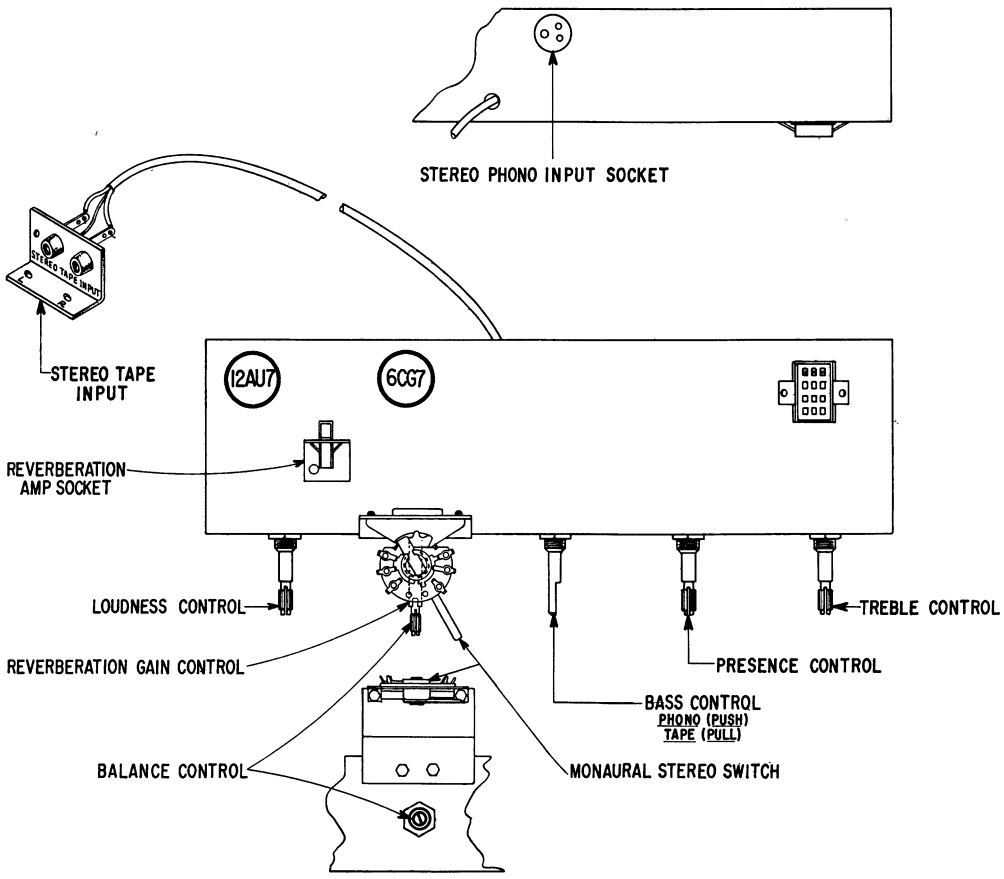
A vacuum tube voltmeter with an isolation resistor of 2,000,000 ohms in series with the hot lead will serve for FM adjustments. This lead should be shielded.

The signal generator output should be kept just high enough to get an indication on the meter.

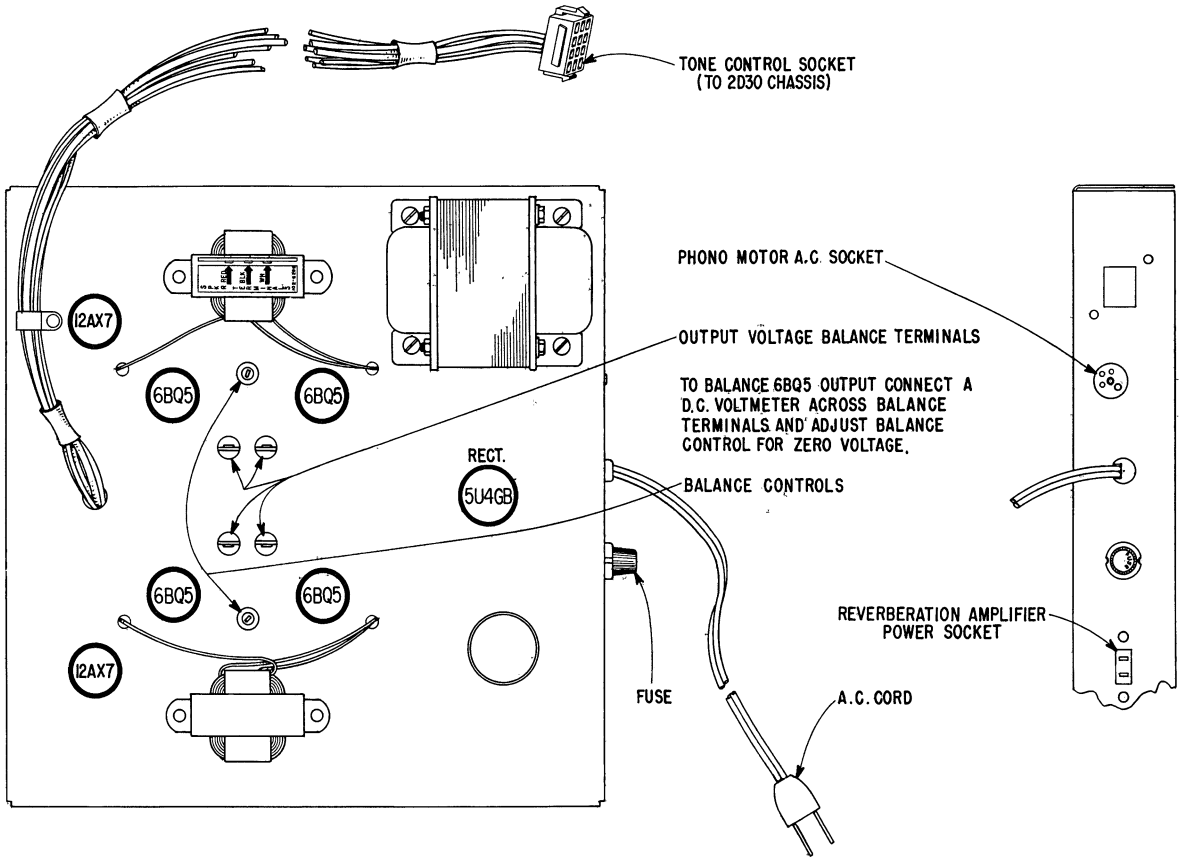
(a) Vacuum Tube Voltmeter Lug 7 on discriminator transformer to chassis (half discriminator load).
(b) Vacuum Tube Voltmeter Lug 5 on discriminator transformer to chassis (full discriminator load).
(c) Vacuum Tube Voltmeter from Limiter Grid to Chassis.
(d) Loosen Slugs by applying a hot iron to the cement.
(e) Vacuum Tube Voltmeter Lug 6 of T3B to Chassis.

ALIGNMENT PROCEDURE

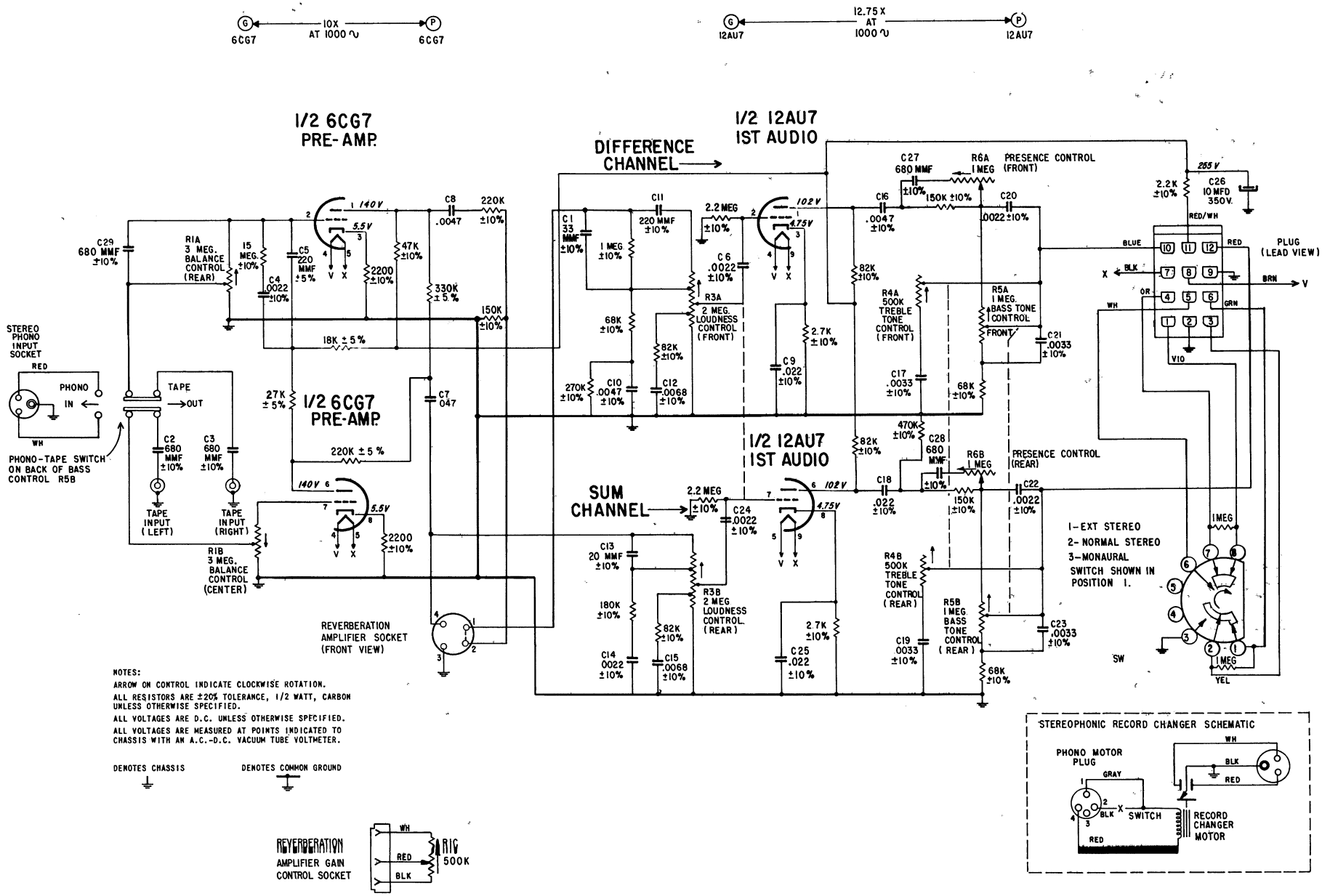
OPERATION	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIGNAL FREQUENCY	BAND	SET DIAL TO	ADJUST	PURPOSE
1(e)	Pin 2 12AT7 Converter	.05 Mfd.	455 Kc. 400 Cycle Modulated	BC	600 Kc.	L9,10,11,15,16	Align IF channel for max. output
2(e)	2 turns loosely coupled to wavemagnet		1600 Kc. 400 Cycle Modulated	BC	1600 Kc.	C6D	Set oscillator to dial scale
3(e)	2 turns loosely coupled to wavemagnet		1400 Kc. 400 Cycle Modulated	BC	1400 Kc.	C6B	Align antenna stage
4(a)	Pin 1 (grid) on 12AU6 limiter	.05 Mfd.	10.7 Mc. Unmodulated	FM		L17 coil slug pri. discr.	Align primary of discriminator for maximum reading
5(b)	Pin 1 (grid) on 12AU6 limiter	.05 Mfd.	10.7 Mc. Unmodulated	FM		L18 coil slug sec. of discr.	Adjust secondary of discriminator for zero reading
6(c)	Pin 1 (grid) on 12BA6 2nd IF	.05 Mfd.	10.7 Mc. Unmodulated	FM		L13 & L14 pri. & sec. of 3rd IF transf.	Align 3rd IF transf. for max. reading
7(c)	Pin 1 (grid) on 12BA6 1st IF	.05 Mfd.	10.7 Mc. Unmodulated	FM		L12 pri. of 2nd IF transf.	Align 2nd IF transf. for max. reading
8(c)	Pin 2 (grid) on 12AT7 converter tube socket	.05 Mfd.	10.7 Mc. Unmodulated	FM		L7 & L8 pri. & sec. of 1st IF transf.	Align 1st IF transf. for max. reading
9(c) (d)	Antenna Post FM	270 Ohms	98 Mc. Unmodulated	FM	98 Mc.	L4 osc. coil slug	Set osc. to dial scale
10(c) (d)	(Remove line ant.)	270 Ohms	98 Mc. Unmodulated	FM	98 Mc.	L6 det. coil slug	Align det. stage to max. reading

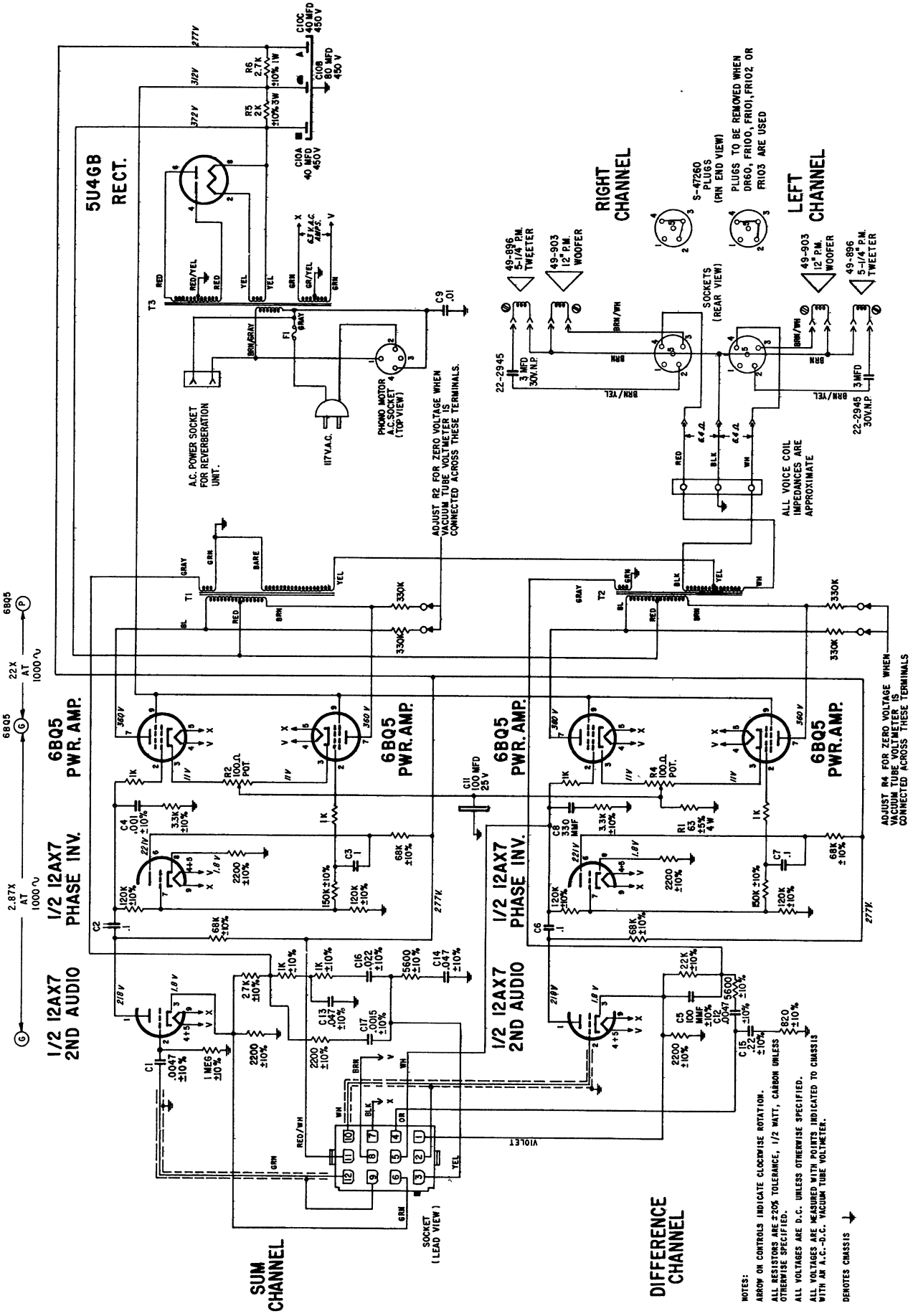


2F30 Tube Layout For Models SFF2515T & SFF2615

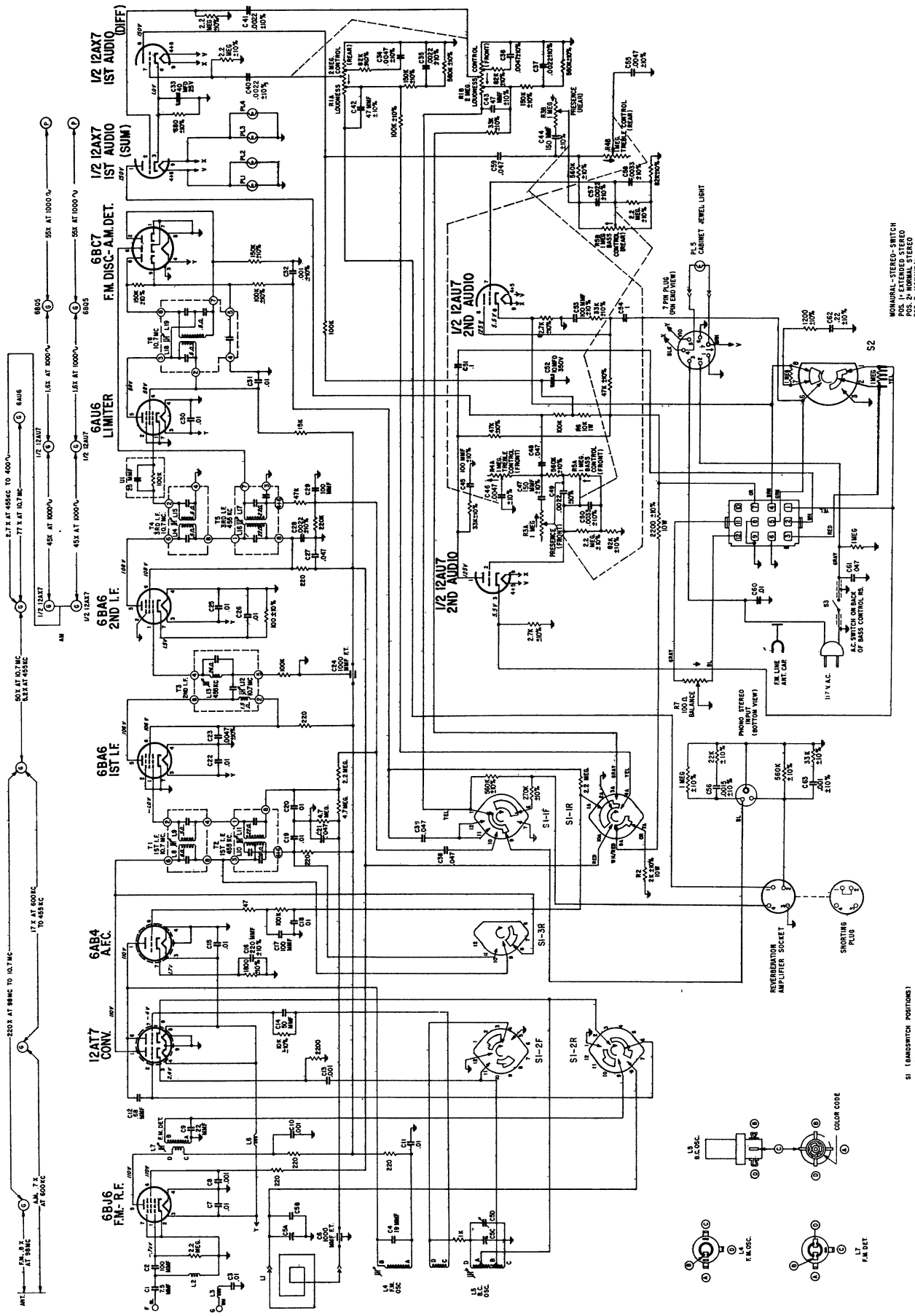


7F30 Tube Layout For Models SFF2515T & SFF2615

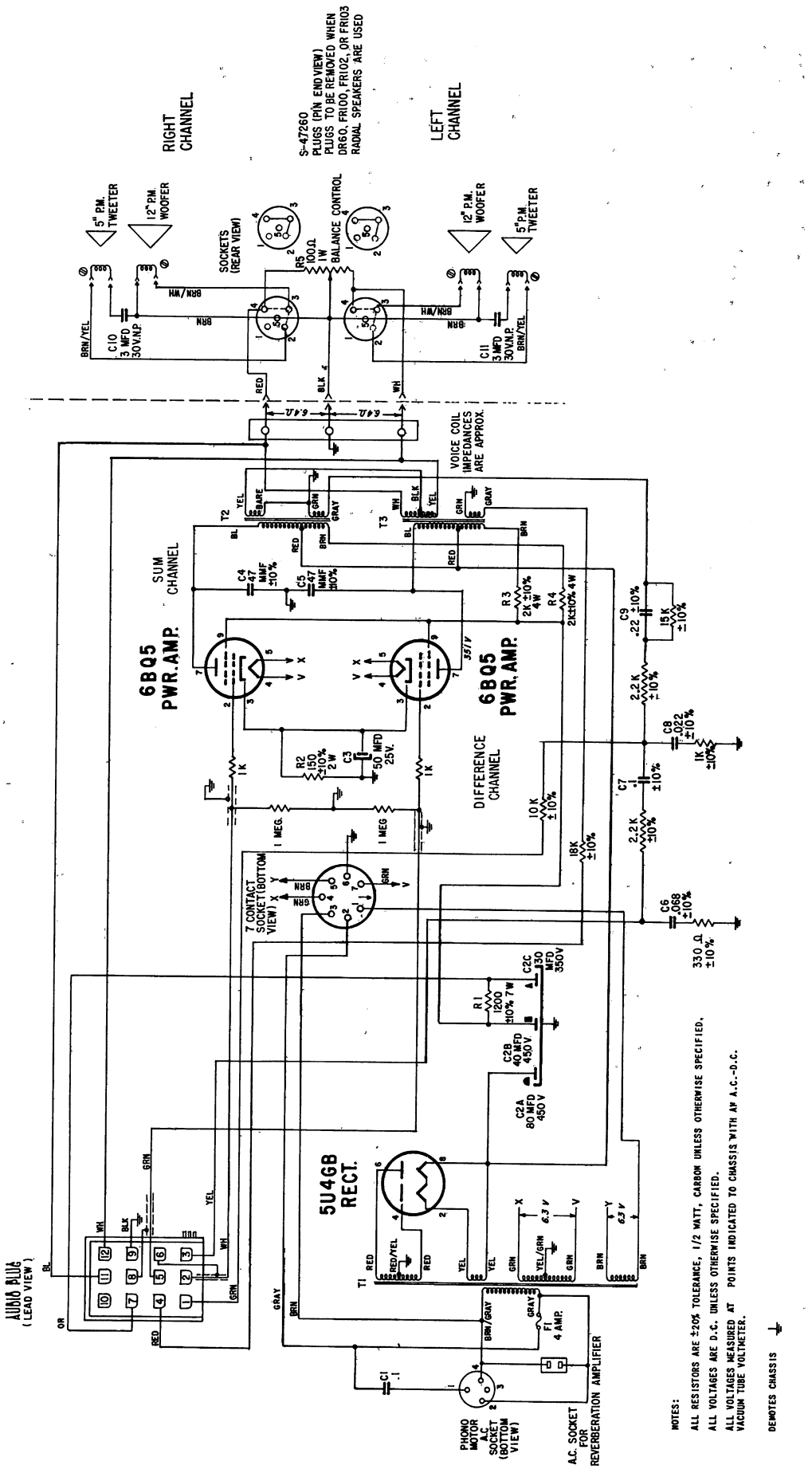

6CG7 10X AT 1000 ∿ 6CG7
12AU7 12.75 X AT 1000 ∿ 12AU7
1/2 6CG7 PRE-AMP.
1/2 12AU7 1ST AUDIO
DIFFERENCE CHANNEL
SUM CHANNEL
1/2 6CG7 PRE-AMP.
1/2 12AU7 1ST AUDIO
STEREO PHONO INPUT SOCKET
PHONO IN
TAPE OUT
PHONO-TAPE SWITCH ON BACK OF BASS CONTROL R5B
TAPE INPUT (LEFT)
TAPE INPUT (RIGHT)
R1A 3 MEG. BALANCE CONTROL (REAR)
R1B 3 MEG. BALANCE CONTROL (CENTER)
R3A 2 MEG. LOUDNESS CONTROL (FRONT)
R3B 2 MEG LOUDNESS CONTROL (REAR)
R4A 500K TREBLE TONE CONTROL (FRONT)
R4B 500K TREBLE TONE CONTROL (REAR)
R5A 1 MEG. BASS TONE CONTROL FRONT
R5B 1 MEG. BASS TONE CONTROL (REAR)
R6A 1 MEG PRESENCE CONTROL (FRONT)
R6B 1 MEG PRESENCE CONTROL (REAR)
REVERBERATION AMPLIFIER SOCKET (FRONT VIEW)
PLUG (LEAD VIEW)
1-EXT STEREO
2-NORMAL STEREO
3-MONAURAL
SWITCH SHOWN IN POSITION 1.
SW
NOTES:
ARROW ON CONTROL INDICATE CLOCKWISE ROTATION.
ALL RESISTORS ARE ±20% TOLERANCE, 1/2 WATT, CARBON UNLESS OTHERWISE SPECIFIED.
ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
ALL VOLTAGES ARE MEASURED AT POINTS INDICATED TO CHASSIS WITH AN A.C.-D.C. VACUUM TUBE VOLTMETER.
DENOTES CHASSIS
DENOTES COMMON GROUND
REVERBERATION AMPLIFIER GAIN CONTROL SOCKET
R1G 500K
STEREOPHONIC RECORD CHANGER SCHEMATIC
PHONO MOTOR PLUG
SWITCH
RECORD CHANGER MOTOR



7F30 Schematic For Models SFF2515T & SFF2615

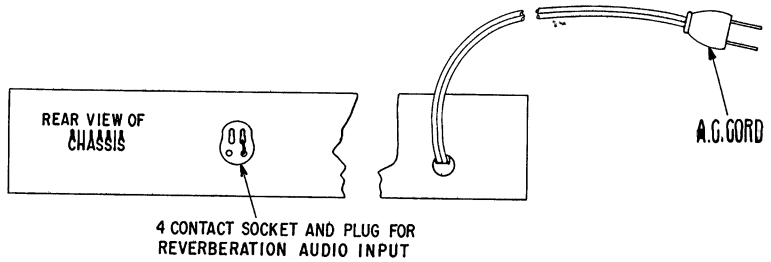


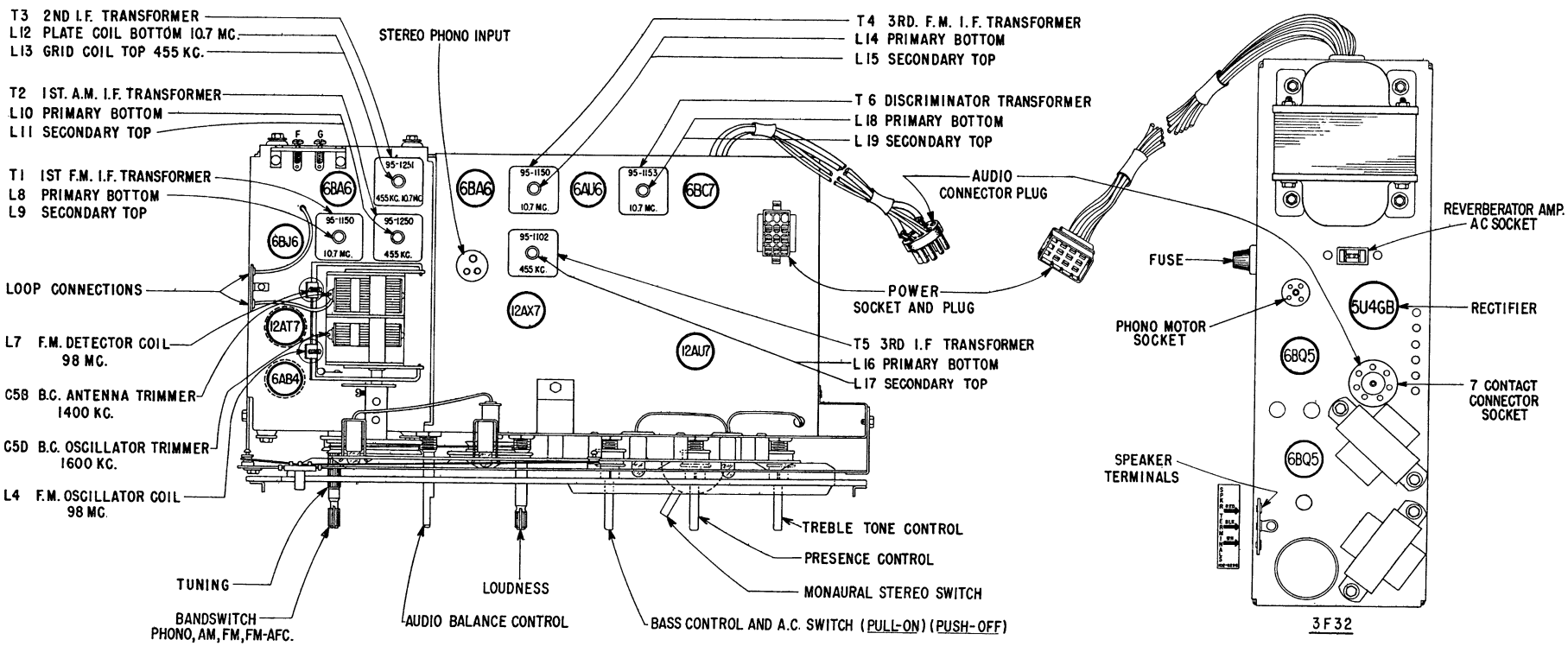
9F26 Schematic For Model SFF2535

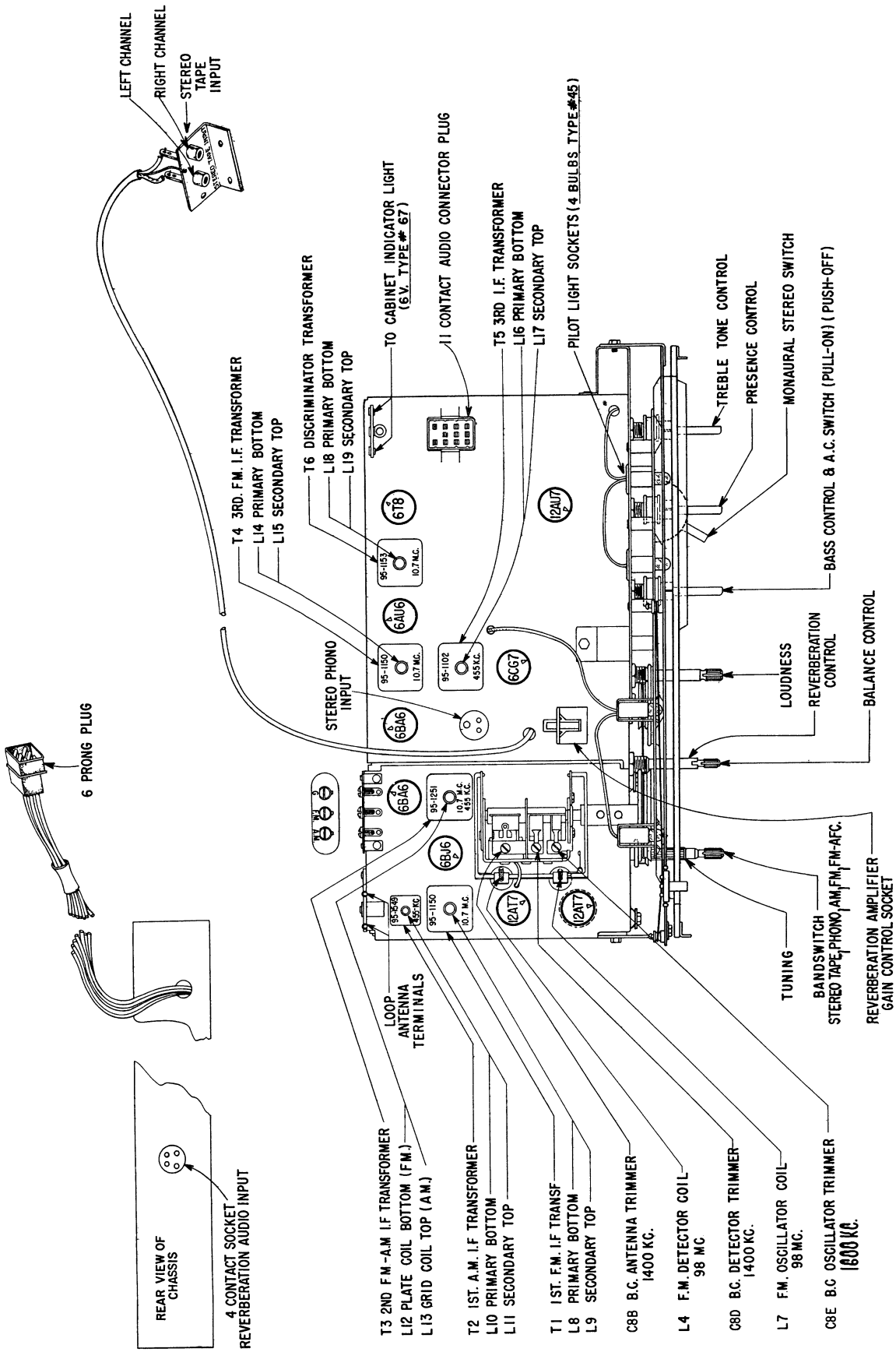


3F32 Schematic For Model SFF2535

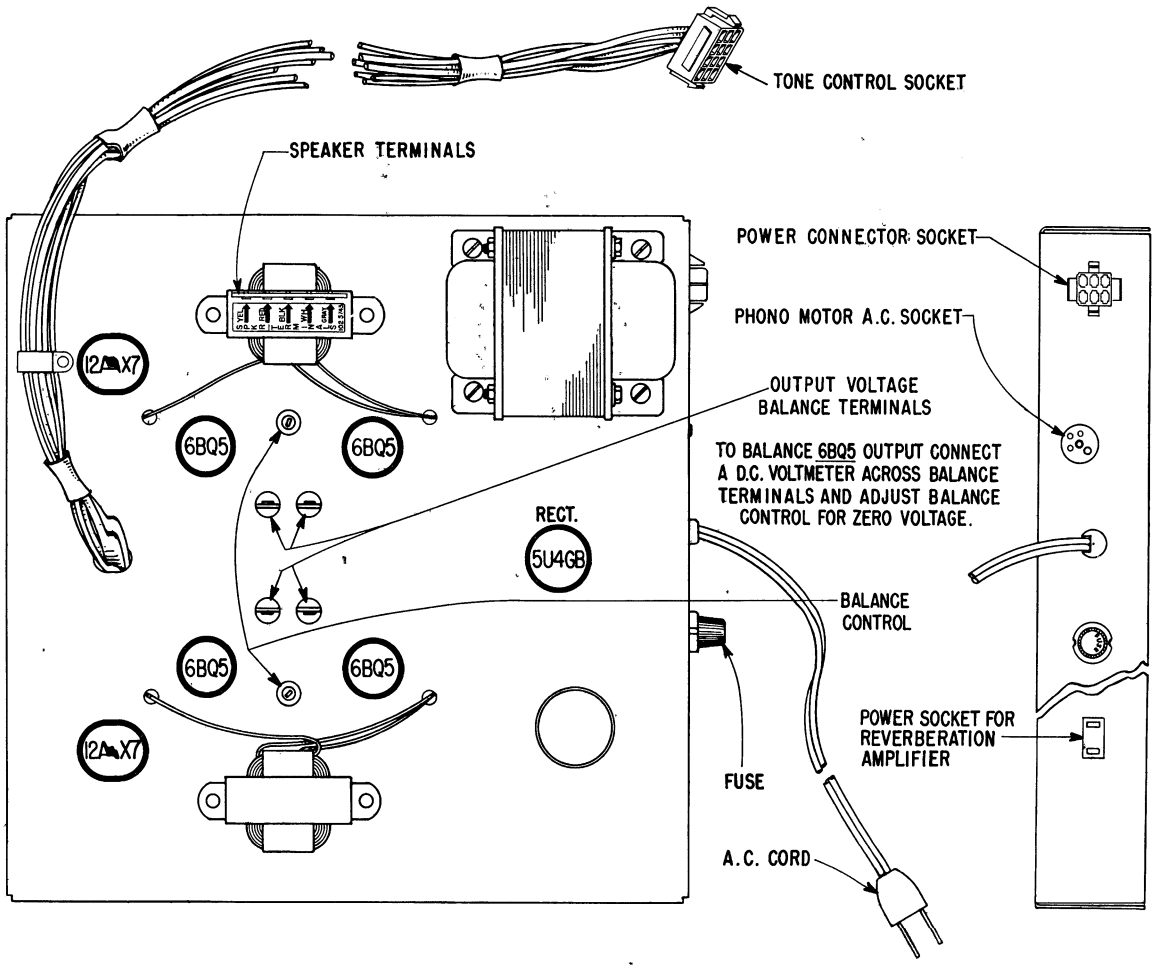
STEP	CONNECT OSCILLATOR TO	DUMMY ANTENNA	INPUT SIGNAL FREQUENCY	BAND	SET DIAL TO	ADJUST	PURPOSE
1	Pin 7 on 12AT7 mixer (Pin 2 on 9F26 chassis)	.05 mfd.	455 Kc., 400 cycle modulated	AM	600 Kc.	L10, 11, 13, 16, 17	Align IF channel for maximum output
2	Two turns loosely coupled to wavemagnet	.05 mfd.	1600 Kc., 400 cycle modulated	AM	1600 Kc.	C8E (C5D on 9F26 chassis)	Set oscillator to dial scale
3	Two turns loosely coupled to wavemagnet	.05 mfd.	1400 Kc., 400 cycle modulated	AM	1400 Kc.	C8B - C8D (C5B on 9F26 chassis)	Align detector and antenna stage
4	**IMPORTANT:** Before attempting to align the FM portion of this receiver the bandswitch should be turned to "FM"						
5(a)	Pin 1 (grid) on 6AU6 limiter	.05 mfd.	10.7 Mc. Unmodulated	FM		L18	Align primary of discriminator for maximum reading
6(b)	Pin 1 (grid) on 6AU6 limiter	.05 mfd.	10.7 Mc. Unmodulated	FM		L19	Adjust secondary of discriminator for zero reading
7(c)	Pin 1 (grid) on 6BA6 2nd IF	.05 mfd.	10.7 Mc. Unmodulated	FM		L14, 15	Align 3rd IF transformer for maximum reading
8(c)	Pin 1 (grid) on 6BA6 1st IF	.05 mfd.	10.7 Mc. Unmodulated	FM		L12	Align 2nd IF transformer for maximum reading
9(c)	Pin 7 on 12AT7 mixer (Pin 2 on 9F26 chassis)	.05 mfd.	10.7 Mc. Unmodulated	FM		L8, 9	Align 1st IF transformer for maximum reading
10(c)	**REPEAT STEPS 7, 8 & 9**						
11(c)	Antenna post FM (remove line antenna)	270 ohms	98 Mc. Unmodulated	FM	98 Mc.	L7 osc. coil slug (L4 on 9F26 chassis)	Set oscillator to dial scale
12(c) (d)	Antenna post FM (remove line antenna)	270 ohms	98 Mc. Unmodulated	FM	98 Mc.	L4 det. coil slug (L7 on 9F26 chassis)	Align det. stage to maximum reading


REAR VIEW OF CHASSIS
A.C. CORD
4 CONTACT SOCKET AND PLUG FOR REVERBERATION AUDIO INPUT

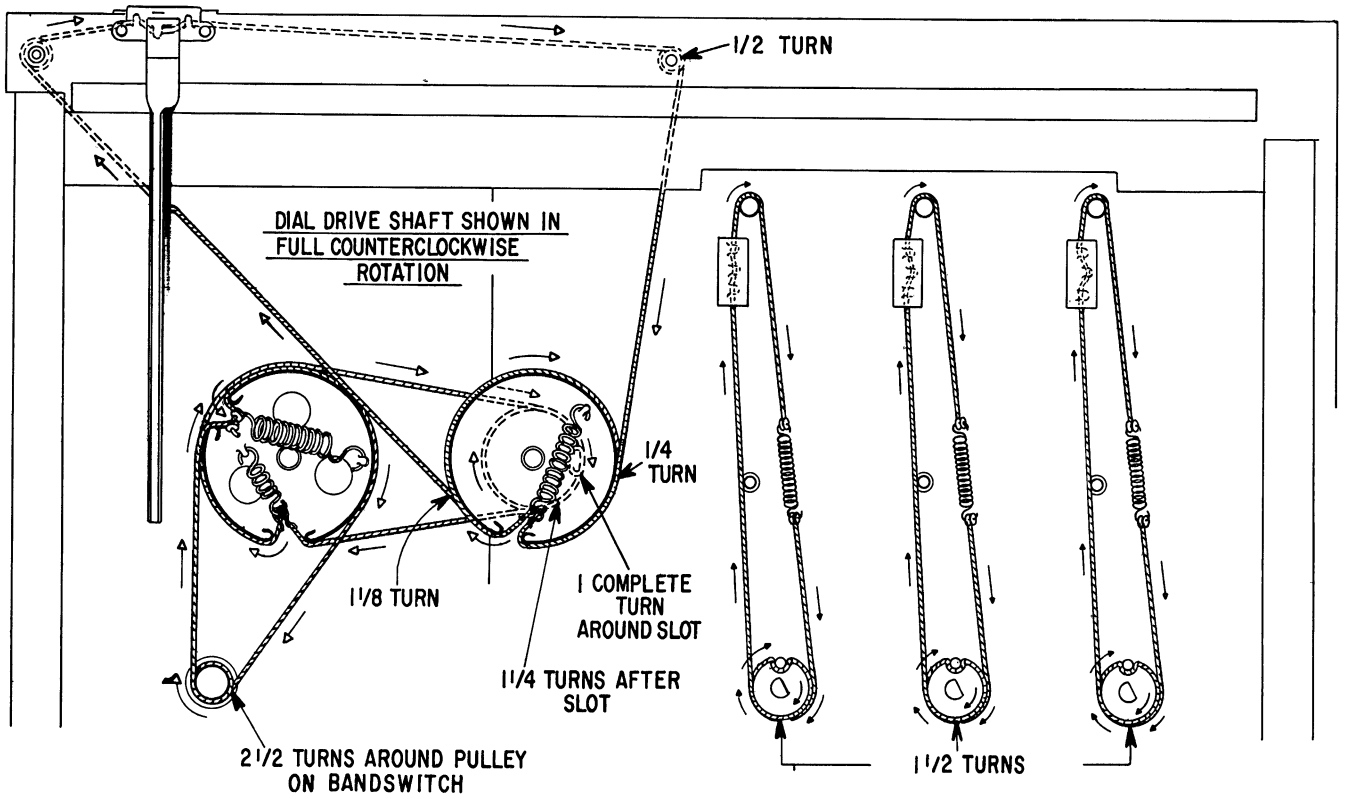

T3 2ND I.F. TRANSFORMER
L12 PLATE COIL BOTTOM 10.7 MC.
L13 GRID COIL TOP 455 KC.
T2 IST. A.M. I.F. TRANSFORMER
L10 PRIMARY BOTTOM
L11 SECONDARY TOP
T1 IST F.M. I.F. TRANSFORMER
L8 PRIMARY BOTTOM
L9 SECONDARY TOP
LOOP CONNECTIONS
L7 F.M. DETECTOR COIL 98 MC.
C58 B.C. ANTENNA TRIMMER 1400 KC.
C5D B.C. OSCILLATOR TRIMMER 1600 KC.
L4 F.M. OSCILLATOR COIL 98 MC.
STEREO PHONO INPUT
T4 3RD. F.M. I.F. TRANSFORMER
L14 PRIMARY BOTTOM
L15 SECONDARY TOP
T6 DISCRIMINATOR TRANSFORMER
L18 PRIMARY BOTTOM
L19 SECONDARY TOP
AUDIO CONNECTOR PLUG
POWER SOCKET AND PLUG
T5 3RD I.F TRANSFORMER
L16 PRIMARY BOTTOM
L17 SECONDARY TOP
TUNING
BANDSWITCH PHONO, AM, FM, FM-AFC.
LOUDNESS
AUDIO BALANCE CONTROL
TREBLE TONE CONTROL
PRESENCE CONTROL
MONAURAL STEREO SWITCH
BASS CONTROL AND A.C. SWITCH (PULL-ON) (PUSH-OFF)
FUSE
PHONO MOTOR SOCKET
SPEAKER TERMINALS
REVERBERATOR AMP. A.C SOCKET
RECTIFIER
7 CONTACT CONNECTOR SOCKET
3F32



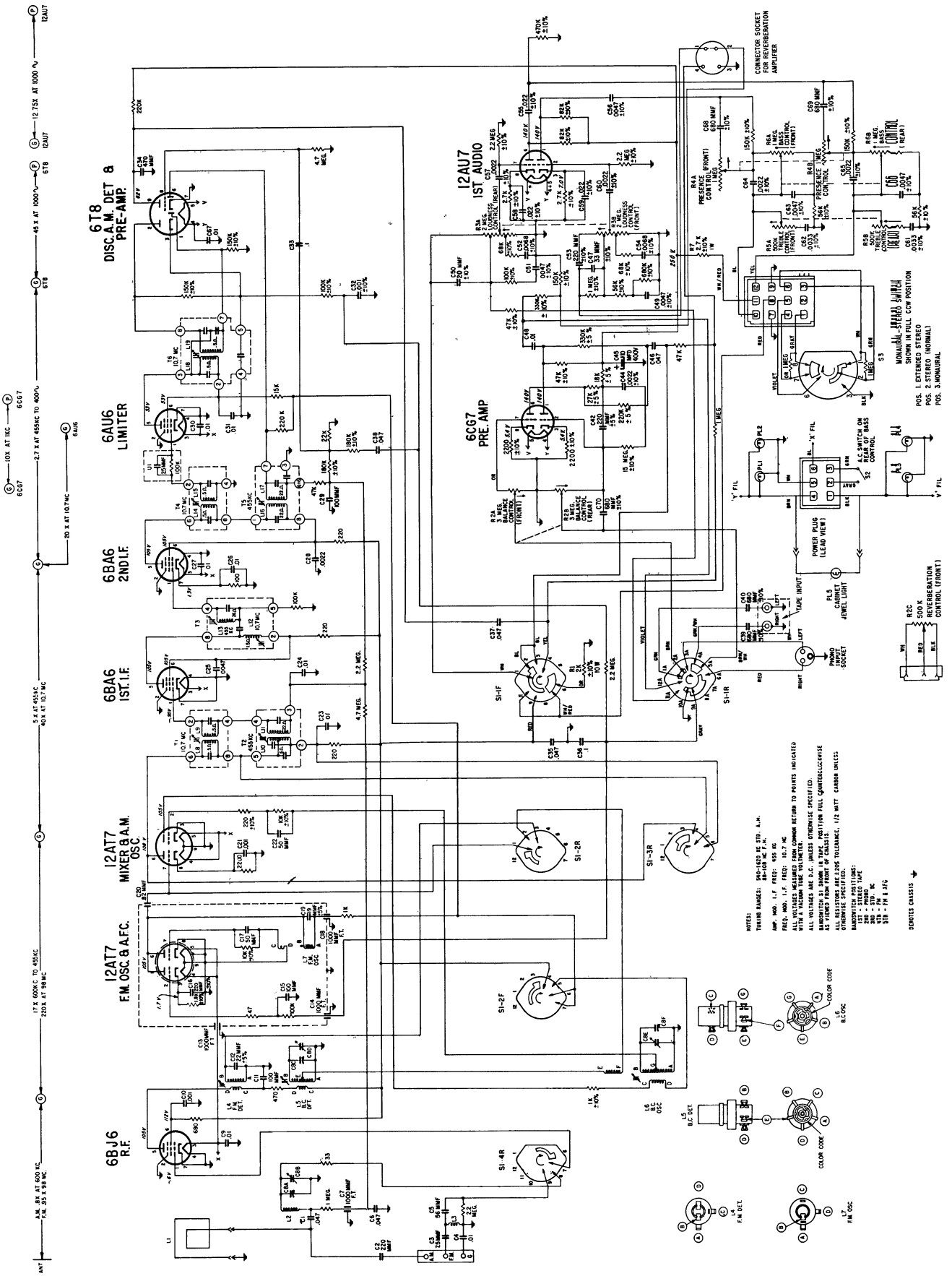
9F24 & 9F25 Tube Layout For Models SFF2560, SFF2570, SFF2575, SFF2580, SFF2582 & SFF2585



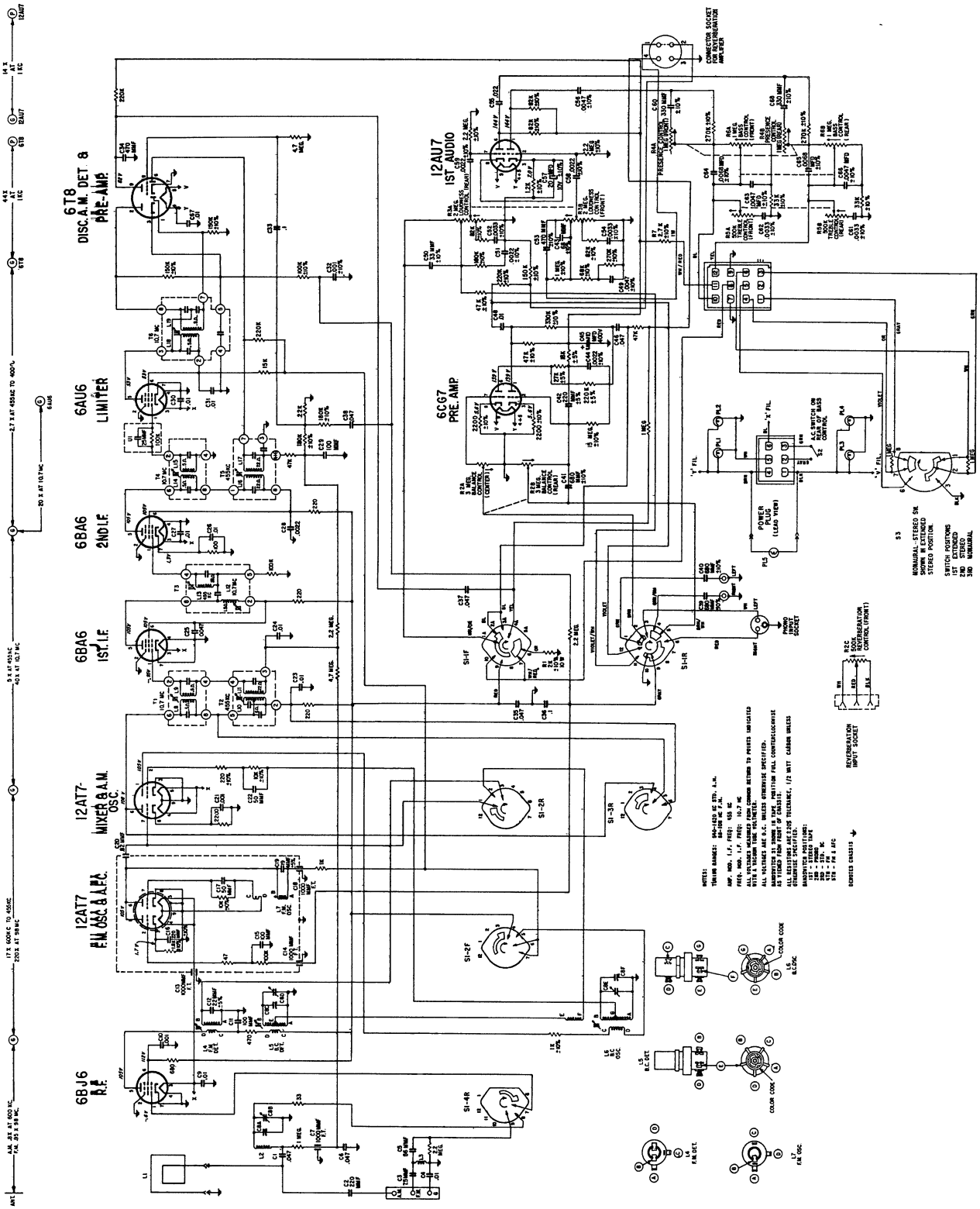
7F31 & 7F33 Tube Layout For Models SFF2560, SFF2570, SFF2575, SFF2580, SFF2582 & SFF2585



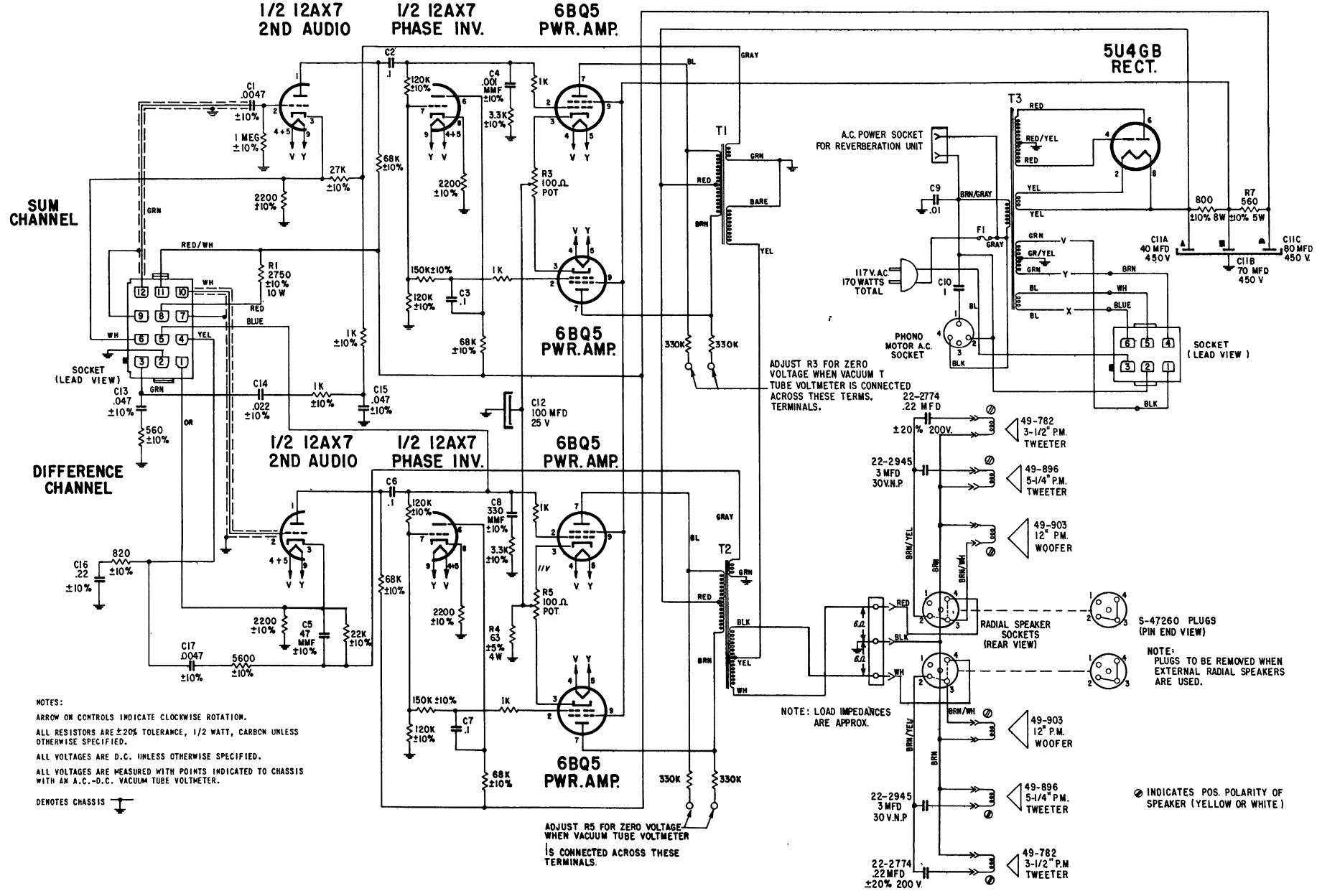
9F24, 9F25 & 9F26 Dial Cord Drive

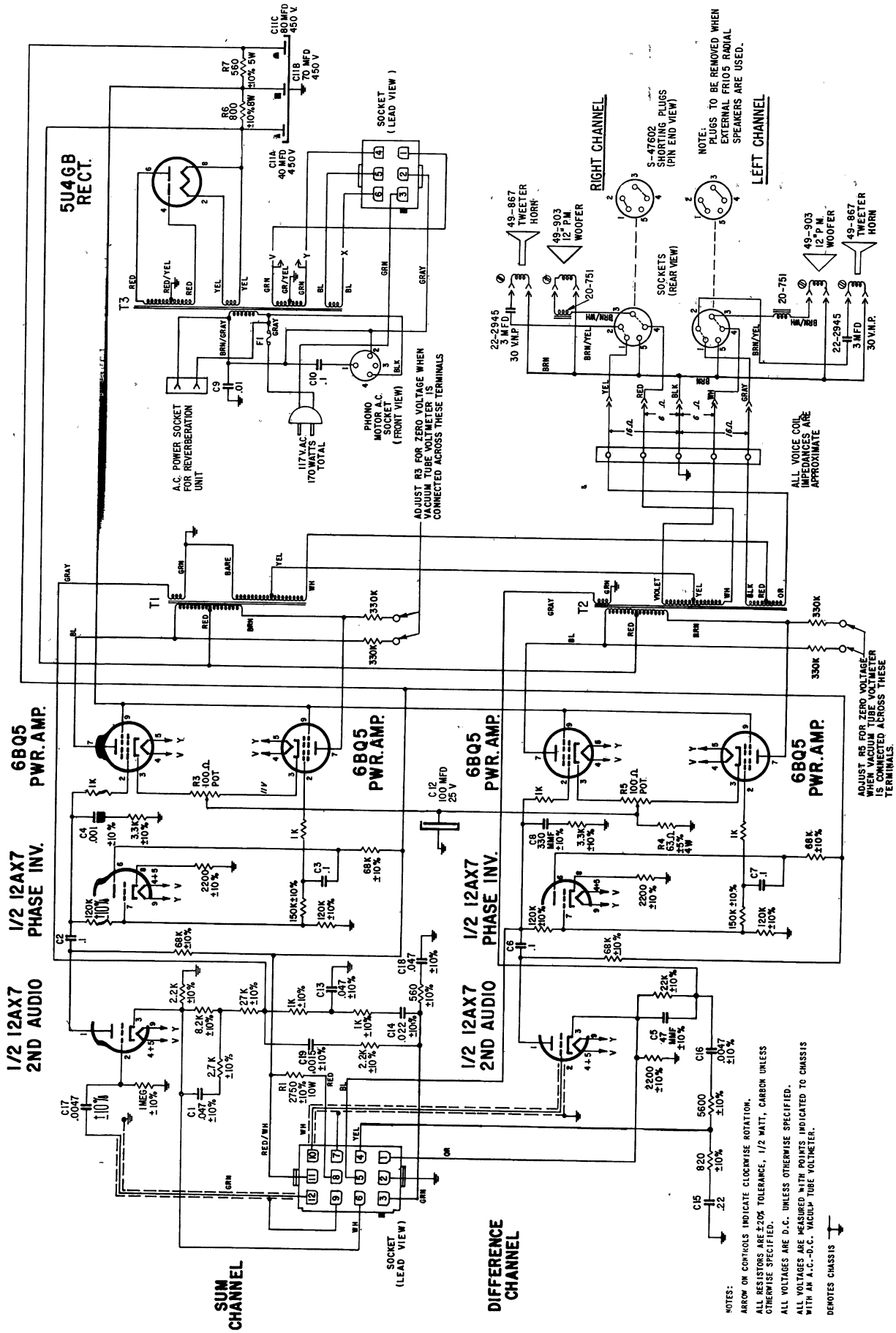


9F24 Schematic For Model SFF2560

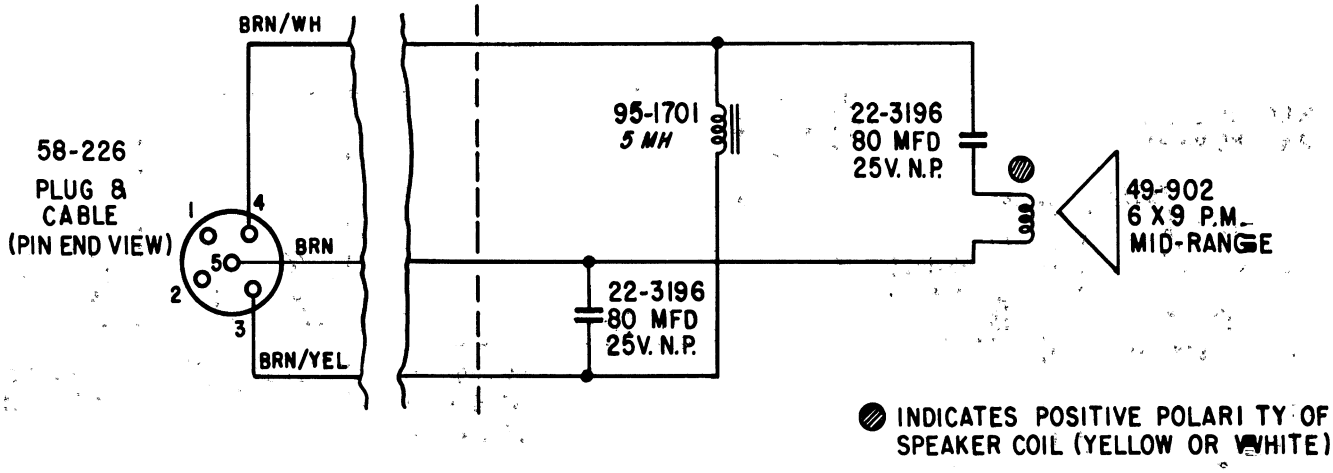


9F25 Schematic For Models SFF2570, SFF2575, SFF2580, SFF2582 & SFF2585

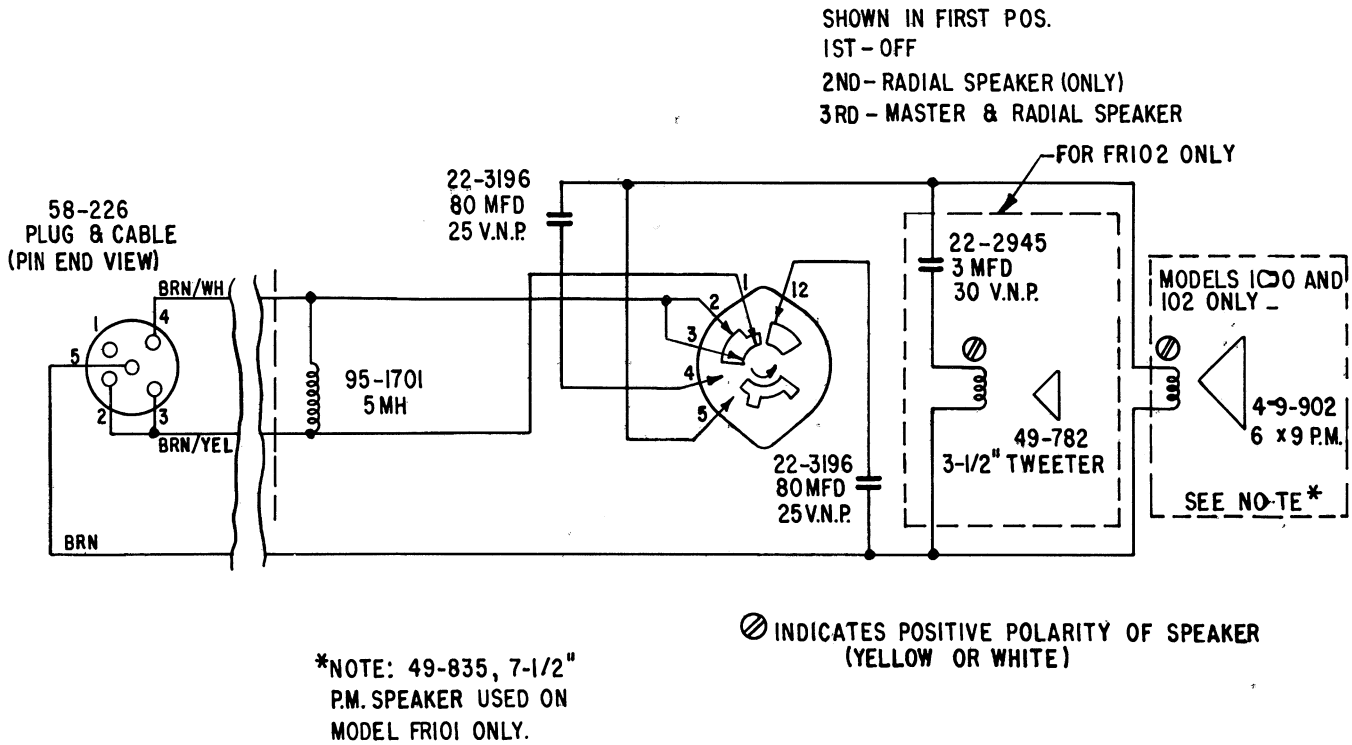

1/2 12AX7
2ND AUDIO
1/2 12AX7
PHASE INV.
6BQ5
PWR. AMP.
5U4GB
RECT.
SUM
CHANNEL
DIFFERENCE
CHANNEL
6BQ5
PWR. AMP.
A.C. POWER SOCKET
FOR REVERBERATION UNIT
117 V. A.C.
170 WATTS
TOTAL
PHONO
MOTOR A.C.
SOCKET
SOCKET
(LEAD VIEW)
ADJUST R3 FOR ZERO
VOLTAGE WHEN VACUUM T
TUBE VOLTMETER IS CONNECTED
ACROSS THESE TERMS,
TERMINALS.
22-2774
.22 MFD
±20% 200V.
49-782
3-1/2" P.M.
TWEETER
22-2945
3 MFD
30 V.N.P
49-896
5-1/4" P.M.
TWEETER
49-903
12" P.M.
WOOFER
RADIAL SPEAKER
SOCKETS
(REAR VIEW)
S-47260 PLUGS
(PIN END VIEW)
NOTE:
PLUGS TO BE REMOVED WHEN
EXTERNAL RADIAL SPEAKERS
ARE USED.
NOTE: LOAD IMPEDANCES
ARE APPROX.
INDICATES POS. POLARITY OF
SPEAKER (YELLOW OR WHITE)
ADJUST R5 FOR ZERO VOLTAGE
WHEN VACUUM TUBE VOLTMETER
IS CONNECTED ACROSS THESE
TERMINALS.
NOTES:
ARROW ON CONTROLS INDICATE CLOCKWISE ROTATION.
ALL RESISTORS ARE ±20% TOLERANCE, 1/2 WATT, CARBON UNLESS
OTHERWISE SPECIFIED.
ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
ALL VOLTAGES ARE MEASURED WITH POINTS INDICATED TO CHASSIS
WITH AN A.C.-D.C. VACUUM TUBE VOLTMETER.
DENOTES CHASSIS



7F31 Schematic For Models SFF2570, SFF2575, SFF2580, SFF2582 & SFF2585

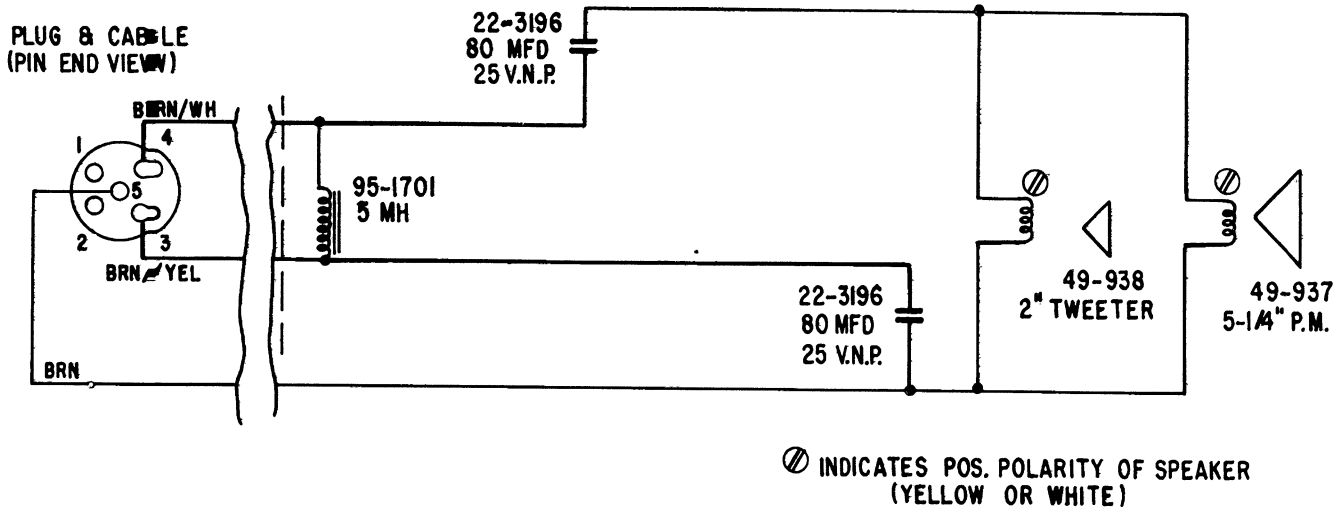


Schematic For Model DR60



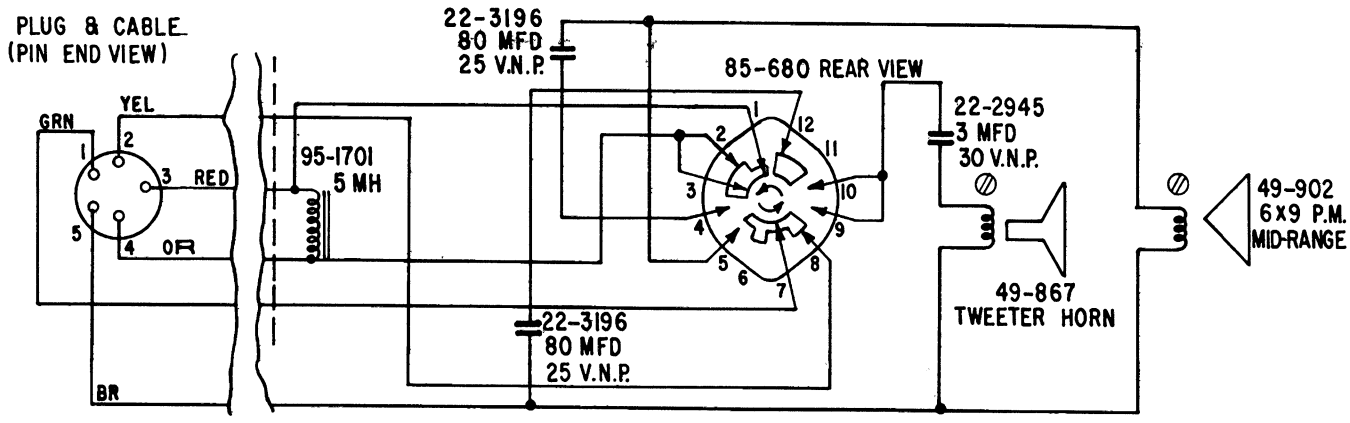
*NOTE: 49-835, 7-1/2" P.M. SPEAKER USED ON MODEL FR101 ONLY.

Schematic For Models FR100, FR101 & FR102



Schematic For Model FR103

SHOWN IN FIRST POSITION
1ST – OFF
2ND – RADIAL SPEAKER (ONLY)
3RD – MASTER AND RADIAL SPEAKER



Schematic For Model FR105

NUMERICAL PARTS LIST

2F30 CHASSIS PARTS

PART	DESCRIPTION	PRICE
12-2807	Mounting Bracket	.10
12-2999	Stereo Switch Mounting Bracket	
22-13	.0033 Mfd.Disc - 500V. (2 required)	
22-14	.0047 Mfd.Disc Ceramic - 500V.	.25
22-18	.0022 Mfd.Disc Ceramic - 500V. (6 required)	.25
22-2703	220 Mmf. Disc Ceramic - 500V.	.25
22-2797	.047 Mfd. Capacitor - 600V.	.35
22-2807	.022 Mfd. Capacitor - 200V. (2 required)	.25
22-2809	.022 Mfd. Capacitor - 600V.	.30
22-2819	.0068 Mfd.Capacitor - 200V.(2 required)	.30
22-2824	.0047 Mfd.Capacitor - 600V.	.25
22-2827	.0047 Mfd.Capacitor - 600V.	
22-2831	.0033 Mfd.Capacitor - 200V.(2 required)	
22-2863	33 Mmf. Disc Ceramic - 500V.	.25
22-2939	680 Mmf.Disc Ceramic-800V.(5 required)	.25
22-2943	10 Mfd.Electrolytic - 350V.	1.85
22-2976	220 Mmf.Disc Ceramic - 500V.	.30
22-3139	20 Mmf. Disc Ceramic - 500V.	.25
43-332	Socket Housing	.15
43-419	Socket Terminal Housing (Male)	.35
44-33	Connector Jack (2 pt. of S-44775)	.15
52-928	2 Conductor Shielded Lead	
54-139	3/8 - 32 x 9/16 Palnut (1 Mts.ea.63-4418, 4638, 4640, 4649 & 4731)	.03

PART	DESCRIPTION	PRICE
63-1799	2.2K Ohm 1/2 W.Ins. 10% (3 required)	.17
63-1803	2.7K Ohm 1/2 W.Ins. 10% (2 required)	.17
63-1925	2.2 Megohm 1/2 W.Ins.10%(2 required)	.17
63-1960	15 Megohm 1/2 W.Ins. 10%	.17
63-4418	Dual Treble Tone Control	2.75
63-4638	Dual Volume Control	2.75
63-4649	Dual Bass Tone Control and Switch	4.00
63-4731	Dual Presence Control	
63-4739	Triple Section Balance Control	
78-846	Noval Wafer Socket (2 required)	.35
78-1099	3 Contact Socket	.20
78-1122	4 Contact Socket	.15
83-2145	5 Lug Terminal Strip	.10
83-2216	7 Lug Terminal Strip (2 required)	.15
83-2642	5 Lug Terminal Strip	.10
83-2673	6 Lug Terminal Strip	.10
85-678	Monaural - Stereo Switch	
86-303	Terminal (3 used on 43-332)	.04
86-334	Socket Terminal (2 used on 43-419)	.10
112-1327	8-18 x 5/16 Phils.Rd.Hd.Self-tap.Screw	.03
114-26	8-18 x 1/4 x 1/4 Hex.Hd.Self-tap.Screw (2 Int. 12-1999)	.03
S-44775	Stereo Jack & Bracket Assem.	.75

3F21 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-85	Line Cord	
22-3	.01 Mfd. Disc Capacitor - 500V (3 used)	.30
22-16	470 Mmfd. Disc Capacitor - 500V	.25
22-17	.001 Mfd. 400V	
22-2751	1 Mfd. Capacitor 400V	
22-2781	.1 Mfd. Capacitor 400V	
22-2792	.047 Mfd. Capacitor 200V	
22-3046	Electrolytic Capacitor	4.50
22-3109	2 Mfd. Electrolytic 100V	
43-333	Housing	.20
52-937	Shielded Lead	
58-214	Phone Plug (2 used)	.10
58-242	4-Prong Plug	.15
63-1014	15 K Ohm Resistor 2W. 20%	.34
63-1782	820 Ohm Resistor 1/2 W. 10%	.17
63-1785	1 K Ohm Resistor 1/2W. 10%	.17
63-1792	1500 Ohm Resistor 1/2W. 10%	.17
63-1827	10 K Ohm Resistor 1/2W. 10%	.17

PART	DESCRIPTION	PRICE
63-1856	47 K Ohm Resistor 1/2W. 20%	.17
63-1870	100 K Ohm Resistor 1/2W. 20% (4 used)	.17
63-1912	1 Megohm Resistor 1/2W. 20% (2 used)	.17
63-2356	3900 Ohm Resistor 1 W. 10%	.25
63-4738	2200 Ohm Resistor 1 W. 20%	.25
78-846	Noval Wafer Socket (2 used)	
78-1159	Molded Socket	.20
83-2638	3-Lug Terminal Strip	.05
83-2639	3-Lug Terminal Strip (2 used)	.05
83-2642	5-Lug Terminal Strip	.10
86-303	Terminal (3 used)	.04
95-1791	Power Transformer	
112-1327	8-18 x 5/16 Phillips Rd. Hd. Self-Tapping Screw - Type B (4 used on 95-1791)	
125-96	Strain Relief Grommet	.10
S-51128	Shielded Lead & Plug Assembly	
S-51130	Shielded Lead & Plug Assembly	

3F22 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-109	Line Cord	.50
22-3	.01 Mfd. Disc - 500V.	.30
22-2633	20 Mfd. Capacitor - 25V.	1.00
22-2751	1.0 Mfd. Capacitor - 400V.	
22-2781	.1 Mfd. Capacitor - 400V. (2 required)	.35
22-3046	Electrolytic - 20/350V.40/450V.40/450V.	4.50
22-3109	2 Mfd. Electrolytic - 100V.	1.25
46-2622	Control Knob	
52-942	Shielded Lead	
57-3102	Control Plate	
58-214	Phone Plug (2 required)	.10

PART	DESCRIPTION	PRICE
58-242	4 Prong Plug (Pt. of S-51128)	.15
63-1188	39K Ohm 1W. Ins. 10%	.25
63-1743	100 Ohm 1/2W. Ins. 10%	.17
63-1799	2.2K Ohm 1/2W. Ins. 10%	.17
63-1852	39K Ohm 1/2W. Ins. 10%	.17
63-1908	820K Ohm 1/2W. Ins. 10%	.17
63-1919	1.5 Megohm 1/2W. Ins. 20%	.17
63-1943	5.6 Megohm 1/2W. Ins. 10%	.17
63-2321	1.5K Ohm 2W. Ins. 10% (2 required)	.34
63-2802	2.2K Ohm 1/2W. Ins. 10% (2 required)	.17
63-2872	47K Ohm 1/2W. Ins. 10%	.17

PART	DESCRIPTION	PRICE
63-4055	7.5K Ohm 4W. Ins. 10%	.65
63-4083	220K Ohm 1/2W. Ins. 10%	.17
63-4751	Reverberation Control	
78-846	Noval Wafer Socket (2 required)	.35
78-1159	Molded Socket	.20
83-2639	3 Lug Terminal Strip	.05
83-2649	2 Lug Terminal Strip	.05
83-2715	3 Lug Terminal Strip	.05
86-255	Spade Terminal	.03
93-409	Internal-External Lockwasher Shakeproof 4020-26 Cad.	

PART	DESCRIPTION	PRICE
93-1021	.029x.578x7/8 Steel Washer Cad.	
94-1120	Control Mtg. Bushing	
95-1791	Power Transformer	
112-1327	8-18x5/16 Phils Rd.Hd. Self-Tapping Screw (4 Mt. 15-1791)	.03
114-766	10-16x7/8 Slotted Hex Head Self-Tapping Screw	
125-96	Strain Relief Grommet (used on 11-1091)	.10
S-51128	Shielded Lead & Plug Assem.	
S-51130	Shielded Lead & Plug Assem.	

3F23 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-109	Line Cord	.50
22-3	.01 Mfd. Disc - 500V. (3 required)	.30
22-2751	1 Mfd. Capacitor - 400V.	
22-2771	.33 Mfd. Capacitor - 200V.	
22-2781	.1 Mfd. Capacitor - 400V. (2 required)	.35
22-3046	Electrolytic - 20/350 40/450 40/450	4.50
43-333	Housing	.20
52-037	Shielded Lead	
58-214	Phone Plug (2 required)	
58-242	4 Prong Plug (Pt. of S-51128)	
63-1743	100 Ohm 1/2 W. Ins. 10%	.17
63-1785	1K Ohm 1/2 W. Ins. 10% (2 req'd.)	.17
63-1827	10K Ohm 1/2 W. Ins. 10%	.17
63-1852	39K Ohm 1/2 W.Ins. 10% (2 required)	.17
63-1856	47K Ohm 1/2 W.Ins. 20% (2 required)	.17
63-1863	68K Ohm 1/2 W.Ins. 20%	.17
63-1870	100K Ohm 1/2 W.Ins.20% (3 required).	.17

PART	DESCRIPTION	PRICE
63-1912	1 Megohm 1/2 W.Ins.20% (2 required)	.17
63-2321	1.5K Ohm 2 W.Ins. 10% (2 required)	.34
63-4055	7.5K Ohm 4 W.Ins. 10%	.65
78-846	Noval Wafer Socket (2 required)	.35
78-1159	Molded Socket	.20
83-2639	3 Lug Terminal Strip (2 required)	.05
83-2715	3 Lug Terminal Strip	.05
83-3562	7 Lug Terminal Strip	
86-303	Terminal (3 required)	.04
95-1791	Power Transformer	
112-1327	8-18 x 5/16 Phils.Rd.Hd.Self-tap.Screw (4 Mt. 95-1791)	.03
125-96	Strain Relief Grommet(used on 11-109)	.10
S-51128	Shielded Lead & Plug Assembly	
S-51130	Shielded Lead & Plug Assembly	

3F32 CHASSIS PARTS

PART	DESCRIPTION	PRICE
12-2187	Chassis Mounting Bracket (3 required)	.10
15-201	Fuseholder Cap	.30
22-1561	50 Mfd. Electrolytic - 25V.	
22-2376	47 Mmf. Ceramic - (2 required)	.25
22-2777	.22 Mfd. Capacitor - 200V.	.35
22-2781	.1 Mfd. Capacitor - 400V.	.35
22-2783	.1 Mfd. Capacitor - 200V.	.30
22-2789	.068 Mfd. Capacitor - 200V.	.35
22-2807	.022 Mfd. Capacitor - 200V.	.25
22-3159	Electrolytic - 30/350 40/450 80/450	5.50
43-419	Socket Terminal Housing (male)	.35
52-871	Shielded Lead	.50
52-872	Shielded Lead	.50
54-473	Hex Nut (Mts. 62-23)	.05
62-23	Fuse Receptacle	.50
63-1764	330 Ohm 1/2 W.Ins. 10%	.17
63-1785	1 K Ohm 1/2 W.Ins. 10%	.17
63-1786	1 K Ohm 1/2 W.Ins. 20% (2 required)	.17
63-1799	2.2K Ohm 1/2 W.Ins. 10% (2 required)	.17
63-1827	10K Ohm 1/2 W.Ins. 10%	.17
63-1834	15K Ohm 1/2 W.Ins. 10%	.17
63-1838	18K Ohm 1/2 W.Ins. 10%	.17
63-1912	1 Megohm 1/2 W.Ins. 20% (2 required)	.17
63-2019	150 Ohm 2 W.Ins. 10%	.34
63-4033	2K Ohm 4 W. Ins. 10% (2 required)	.65

PART	DESCRIPTION	PRICE
63-4475	1.2K Ohm 7W. Ins. 10%	.90
78-402	4 Contact Socket	.15
78-755	Octal Tube Socket (5U4GB)	.20
78-939	Noval Molded Tube Socket (6BQ5) (2 req.)	.40
78-1043	7 Contact Socket	.25
78-1058	AC Receptacle	.30
83-1475	Insulating Strip	.03
83-2307	4 Lug Terminal Strip	.10
83-2639	3 Lug Terminal Strip	.05
83-2673	6 Lug Terminal Strip	.10
83-2715	3 Lug Terminal Strip	.05
83-3477	8 Lug Terminal Strip	
86-334	Socket Terminal (11 used in 43-419)	.10
93-1036	Lockwasher (Mts. 62-23)	
93-1179	Rubber Washer (Mts. 62-23)	.03
95-1786	Power Transformer	
95-1787	Output Transformer	
95-1788	Output Transformer	
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-tap.Screw (2 used on ea. 95-1787 & 1788)	.03
114-699	10-16 x 3/8 Hex.Washer Hd.Self-tap Screw (4 used on 95-1786)	.03
125-85	Rubber Grommet	.05
136-31	Fuse - 4 Amp. - Type 3AG	.25
237-1	Cable Retaining Clip	.03

4D20 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-150	AC Cord & Plug	.80
15-201	Fuseholder Cap	.30
22-3	.01 Mfd.Ceramic Disc - 500V (2 used)	.30
22-17	.001 Mfd.Ceramic Disc - 1KV (2 used)	.25
22-2321	220 Mmf.Ceramic (2 used)	.25
22-2376	47 Mmf Ceramic Disc - 500V (2 used)	.25
22-2670	.0033 Mfd Ceramic Disc - 500V (2 used)	.25
22-2785	.1 Mfd Paper - 600V (2used)	.45
22-2805	.022 Mfd Paper - 400V (2 used)	.25
22-2812	.01 Mfd Paper - 600V	.30
22-2843	.001 Mfd Paper (2 used)	.25
22-3245	Electrolytic - 20/350 40/450 80/450	4.75
22-3238	.0015 Mfd Paper - 600V (2 used)	.25
22-3292	2 x 50 Mfd Electrolytic - 25V	
54-139	3/8-32 x 9/16 Hex Palnut (1 mts.ea. 63-4669 & 63-4670)	.03
54-140	3/8-32 x 9/16 Hex Nut	.03
54-348	8-32 "KEPS" Nut (4 mt. 95-1716)	.05
54-473	Fuse Receptacle Nut	.05
62-23	Fuse Receptacle	.50
63-1754	180 Ohm1/2 W Ins 10% (2 used)	.17
63-1778	680 Ohm 1/2 W Ins 10%	.17
63-1814	4700 Ohm 1/2 W Ins 20% (2 used)	.17
63-1817	5600 Ohm 1/2 W Ins 10%	.17
63-1869	100 K Ohm 1/2 W Ins 10% (2 used)	.17
63-1884	220 K Ohm 1/2 W Ins 20% (2 used)	.17
63-1890	330 K Ohm 1/2 W Ins 10% (2 used)	.17
63-1891	330 K Ohm 1/2 W Ins 20% (2 used)	.17
63-1897	470 K Ohm 1/2 W Ins 10% (2 used)	.17
63-1912	1 Megohm 1/2 W Ins 20% (2 used)	.17
63-3975	180 Ohm 2 W Ins 10%	.34
63-4055	7500 Ohm 4 W Ins 10%	.65
63-4668	Dual Loudness Control	3.50
63-4669	Dual Treble Tone Control	2.75
63-4670	Dual Bass Tone Control & Switch	3.50
69-320	2/64 x 5/16 Rd Hd Mach Screw (2 mt. 83-3075)	.03
78-402	4 Contact Socket	.15
78-846	9 Contact Wafer Tube Socket	.25
78-1089	9 Contact Molded Tube Socket (2 used)	.25
78-1099	3 Contact Socket	.20
78-1165	Octal Tube Socket	.25
80-1249	Shaft Friction Spring	.15
80-1250	Sleeve Friction Spring	.15
83-2135	3 Lug Terminal Strip	.10
83-2145	5 Lug Terminal Strip (3 used)	.10
83-2538	3 Lug Terminal Strip	.10
83-2673	6 Lug Terminal Strip	.10
83-3075	Bearing Strip (2 used)	.03
93-1179	Rubber Washer (used on 62-23)	.03
93-1036	Lock Washer (used on 62-23)	.03
95-1714	Audio Output Transformer	6.00
95-1715	Audio Output Transformer (2 used)	2.75
95-1716	Power Transformer	15.00
112-1145	8-18 x 1/4 Phillips Rd Hd Self-Tap Screw (2 mt. ea. 95-1714 & 1715)	.03
125-96	Strain Relief Grommet	.10
126-928	Shield	.10
136-36	Fuse - 2 Amp	.15

4F20 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-148	A.C. Cord & Plug	.90
12-2997	Switch Mounting Bracket	
15-201	Fuseholder Cap	.30
22-3	.01 Mfd. Disc - 500V. (2 required	.30
22-9	100 Mmf. Disc - 500V.	.15
22-12	1500 Mmf. Disc - 500V.	.25
22-14	.0047 Mfd. Disc - 500V. (2 required)	.25
22-18	.0022 Mfd. Disc - 500V. (2 required)	.25
22-1156	40 Mfd. Electrolytic - 25 V.	
22-2376	47 Mmf. Disc - 500V. (2 required)	.25
22-2771	.33 Mfd. Capacitor - 200V.	
22-2783	.1 Mfd. Capacitor - 200V. (3 required)	.30
22-2801	.033 Mfd. Capacitor - 200V.	.30
22-2806	.022 Mfd. Capacitor - 600V. (2 required)	.30
22-2807	.022 Mfd. Capacitor - 200V. (2 required)	.25
22-2812	.01 Mfd. Capacitor - 600V.	.30
22-2825	.0047 Mfd. Capacitor - 200V.(2 required)	.25
22-2939	680 Mmf. Disc - 500V.	.25
22-3046	Electrolytic - 20/350 40/450 40/450	4.50
22-3327	30 Mmf. Disc - 500V. (2 required)	
54-139	3/8 - 32 x 9/16 Hex.Palnut (1 Mts. ea. 63-4669, 4729 & 4734)	.03
54-473	Hex Nut (Mts. 62-23)	.05
58-242	4 Prong Plug	.15
63-1576	8.2 K Ohm 1 W.Ins. 10%	
63-1750	150 Ohm 1/2 W.Ins. 10% (2 required)	.17
63-1754	180 Ohm 1/2 W.Ins. 10%	.17
63-1768	390 Ohm 1/2 W.Ins. 10%	.17
63-1786	1K Ohm 1/2 W.Ins. 20% (2 required)	.17
63-1789	1.2K Ohm 1/2 W.Ins.10% (2 required)	.17
63-1820	6.8K Ohm 1/2 W.Ins.10%	.17
63-1803	2.7K Ohm 1/2 W.Ins.10%	.17
63-1817	5.6K Ohm 1/2 W.Ins.10%	.17
63-1831	12K Ohm 1/2 W.Ins.10%	.17
63-1834	15K Ohm 1/2 W.Ins.10%	.17
63-1838	18K Ohm 1/2 W.Ins.10%	.17
63-1880	180K Ohm 1/2 W.Ins.10%	.17
63-1883	220K Ohm 1/2 W.Ins.10% (2 required)	.17
63-1911	1 Megohm 1/2 W.Ins.10%	.17
63-1912	1 Megohm 1/2 W.Ins.20% (2 required)	.17
63-1926	2.2 Megohm 1/2 W.Ins.20% (2 required)	.17
63-2019	150 Ohm 2 W.Ins.10%	.34
63-4669	Dual Treble Tone Control	2.75
63-4729	Dual Loudness Control	
63-4734	Dual Bass Tone Control	
78-402	4 Contact Socket	
78-755	Octal Socket (5Y3GT)	.20
78-846	Noval Wafer Socket (12A x 7)	.35
78-939	Noval Molded Socket (6BQ5)(2 required)	.40
78-1058	AC Receptacle	.30
78-1099	3 Contact Socket	.20
78-1122	4 Contact Socket	
83-2135	4 Lug Terminal Strip	
83-2216	7 Lug Terminal Strip (2 required)	
83-2538	3 Lug Terminal Strip	
83-2639	3 Lug Terminal Strip	
83-2641	5 Lug Terminal Strip	
83-2649	2 Lug Terminal Strip	
83-2965	7 Lug Terminal Strip	.10
83-3516	5 Lug Terminal Strip	
85-678	Monaural - Stereo Switch	
93-1036	Lockwasher (Mts. 62-23)	
93-1179	Rubber Washer (Mts.62-23)	.03
95-1743	Power Transformer	
95-1780	Audio Output Transformer	
95-1790	Audio Output Transformer	
114-26	8-18 x 1/4 x 1/4 Hex.Hd.Self-tap.Screw (2 used on 12-2997)	.03
114-699	10-16 x 3/8 x 3/16 Hex Washer Hd. Self-tap. Screw (4 used on 95-1743)	.03
125-96	Strain Relief Grommet (used on 11-148)	.10
136-36	Fuse - 2 Amp.	.10

5D20 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-103	Line Cord & Plug	1.00
12-2329	Variable Capacitor Mtg.Brkt.	.15
12-2865	Pilot Light Mtg.Bracket	.05
19-306	Coil Mounting Clip	.10
22-3	.01 Mfd. Ceramic Disc 500V (3 used)	.30
22-5	100 Mmf.Ceramic Disc 500V(2 used)	.25
22-7	.001 Mfd. " " 500V.	.25
22-12	.001 5 " " " 500V.	.25
22-16	470 Mmf. " " 500V.(2 used)	.25
22-18	.002 2 Mfd. " " 500V.	.25
22-2321	220 Mmf. " " 500V.	.25
22-2376	47 Mmf. " " 500V.	.25
22-2792	.047 Mfd. Paper 200V.	.35
22-2794	.047 Mfd. Paper 600V.(2 used)	.35
22-2801	.033 Mfd. Paper 200V.	.30
22-2806	.022 Mfd. Paper 600V.	.30
22-2812	.01 Mfd. Paper 600V.	.30
22-1720	Electrolytic - 40/25 40/450 40/450	4.00
22-3073	2 Section Variable	3.50
44-39	Connector Jack (used on 52-651)	.25
52-651	Shielded Lead	.70
54-139	3/8 - 32 x 9/16 Palnut (1 mts.ea. 63-4662 & 4663)	.03
63-1737	68 Ohm 1/2 W Ins. 20%	.17
63-1799	220 Ohm 1/2 W Ins. 10%	.17
63-1827	10 K Ohm 1/2 W Ins. 10%	.17
63-1842	22 K Ohm 1/2 W Ins. 20% (2 used)	.17
63-1855	47K Ohm 1/2 W Ins. 10% (2 used)	.17
63-1856	47K Ohm 1/2 W Ins. 20%	.17
63-1877	150 K " 1/2 W Ins. 20%	.17
63-1883	220 K " 1/2 W Ins. 10%	.17
63-1884	220 K " 1/2 W Ins. 20% (2 used)	.17
63-1891	330 K " 1/2 W Ins. 20%	.17
63-1898	470 K " 1/2 W Ins. 10%	.17
63-1922	1.8 Megohm 1/2 W Ins. 10%	.17
63-1926	2.2 Megohm 1/2 W Ins. 20%	.17
63-1961	15 Megohm 1/2 W Ins. 20%	.17
63-3162	330 Ohm 1 W Ins. 10%	.25
63-4662	Dual Tone Control	2.75
63-4663	Radio-Phono Sw.,Vol.Control & A.C.Sw.	6.50
63-4664	175 Ohm 2 W Ins. 10%	.34
63-4665	4000 Ohm 5 W 10%	.80
78-402	4 Contact Socket	.15
78-755	Octal Tube Socket	.20
78-806	7 Contact Wafer Tube Socket (2 used)	.15
78-807	7 Contact wafer Tube Socket	.15
78-1060	Pilot Light Socket & Wire	.50
78-1099	3 Contact Socket	.20
78-1159	7 Contact Molded Tube Socket	.20
83-2135	4 Lug Terminal Strip (2 used)	.10
83-2639	3 Lug Terminal Strip	.05
83-2715	3 Lug Terminal Strip	.05
83-2963	4 Lug Terminal Strip	.10
86-199	Terminal (used on 22-3073)	.03
86-329	Connector Terminal (1 pt.of ea.S-21998 & 21999)	.03
93-127	Lockwasher	.03
94-295	Capacitor Mtg.Bushing (3 used)	.05
94-1052	Wood Spacer Bushing (2 used on S-24659)	.10
114-201	8-32 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 used on 12-2329)	.03
114-293	6-32 x 3/8 x 1/4 Hex.Hd.Mach. Screw (used on 22-3073)	.03
114-383	8-32 x 1 5/8 x 1/4 Hex.Hd.Self-Tap. Screw (2 mt. S-24659)	.05
114-594	8-18 x 3/8 Hex.Hd.Self-Tap.Screw - Flat Washer att. (4 mt. 95-1713)	.03
125-17	Rubber Grommet (3 used on 22-3073)	.03
125-96	Strain Relief Grommet	.10
149-211	Iron Core (pt. of S-24654)	.10
S-21998	Wire & Terminal Assem. - Black	.15
S-21999	Wire & Terminal Assem. - Yellow	.15
S-24654	Oscillator Coil	.85
S-24659	Antenna	1.75
95-1556	2nd I.F. Transformer	2.50
95-1712	Audio Output Transformer	5.00
95-1713	Power Transformer	12.50
95-1718	1st I.F. Transformer	2.50
100-67	Pilot Light Bulb	.15
113-34	6-32 x 3/8 x 1/4 Hex.Hd.Mach.Screw - Lockwasher att. (2 used on 22-3073)	.03

5F29 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-148	A.C. Cord & Plug	.90
12-2997	Switch Mounting Bracket	
15-201	Fuseholder Cap	.30
22-9	100 Mmf. Disc - (2 required)	.25
22-13	.003 3 Mfd. Ceramic Disc - 500V.	
22-14	.004 7 Mfd. Disc - 500V. (2 required)	.25
22-18	.002 2 Mfd. Disc - 500V. (6 required)	.25
22-1156	40 Mfd. Electrolytic - 25V.	
22-2302	470 Mmf. Ceramic - 500V.(2 required)	.25
22-2334	560 Mmf. Ceramic - 500V.	
22-2376	47 Mmf. Disc - 500V. (2 required)	.25
22-2670	.003 3 Mfd. Disc - 500V. (2 required)	.25
22-2777	.22 Mfd. - Capacitor - 200V.(2 required)	.35
22-2783	.1 Mfd. Capacitor - 200V.	.30
22-2789	.068 Mfd. Capacitor - 200V.	.35
22-2794	.047 Mfd. Capacitor - 600V. (2 required)	.35
22-2800	.033 Mfd. Capacitor - 600V. (2 required)	
22-2807	.022 Mfd. Capacitor - 200V. (3 required)	.25
22-2812	.01 Mfd. Capacitor - 600V.	.30
22-2825	.004 7 Mfd. Capacitor - 200V.(2 required)	.25
22-3046	Electrolytic - 20/350 40/450 40/450	4.50
22-3327	30 Mmf. Ceramic -(2 required)	
54-139	3/8 - 32 x 9/16 Hex Palnut (1 Mts.ea. 63-4448, 4729 & 4730)	.03
54-473	Hex Nut (Mts. 62-23	.05
58-242	4 Prong Plug	.15
63-1764	330 Ohm 1/2 W Ins. 10%	.17
63-1785	1K Ohm 1/2 W Ins. 10%	.17
63-1786	1K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1789	1.8K Ohm 1/2 W Ins. 10% (3 required)	.17
63-1799	2.2K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1803	2.7K Ohm 1/2 W Ins. 10%	.17
63-1813	4.7K Ohm 1/2 W Ins. 10%	.17
63-1817	5.6K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1827	10K Ohm 1/2 W Ins. 10%	.17
63-1834	15K Ohm 1/2 W Ins. 10%	.17
63-1848	33K Ohm 1/2 W Ins. 10%	.17
63-1856	47K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1862	68K Ohm 1/2 W Ins. 10%	.17
63-1866	82K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1869	100K Ohm 1/2 W Ins. 10%	.17
63-1876	150K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1887	270K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1891	330K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1897	470K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1911	1 Megohm 1/2 W Ins. 10% (2 required)	
63-1925	2.2 Megohm 1/2 W Ins.10%(2 required)	
63-2019	150 Ohm 2 W Ins. 10%	.34

PART	DESCRIPTION	PRICE
63-4448	Dual Trebletone Control	2.75
63-4687	5K Ohm 3 W Ins. 10%	.45
63-4729	Dual Loudness Control	
63-4730	Dual Bass Tone Control	
78-402	4 Contact Socket	
78-755	Octal Tube Socket (5Y3GT)	
78-846	Noval Wafer Tube Socket (12 AU7)(12AX7) (2 required)	
78-939	Noval Molded Tube Socket (6BQ5) (2 required)	.40
78-1058	A C Receptacle	.30
78-1099	3 Contact Socket	.20
78-1122	4 Contact Socket	
83-2135	4 Lug Terminal Strip	
83-2216	7 Lug Terminal Strip (2 required)	
83-2538	3 Lug Terminal Strip	
83-2639	3 Lug Terminal Strip	

PART	DESCRIPTION	PRICE
83-2641	5 Lug Terminal Strip	.10
83-2649	2 Lug Terminal Strip	.05
83-2965	7 Lug Terminal Strip	.10
83-2516	5 Lug Terminal Strip	
85-678	Monaural - Stereo Switch	
93-1036	Lockwasher (Mts. 62-23)	
93-1179	Rubber Washer (Mts. 62-23)	.03
95-1743	Power Transformer	16.00
95-1780	Audio Output Transformer	
95-1790	Audio Output Transformer	
114-26	8-18 x 1/4 x 1/4 Hex.Hd.Self-tap. Screw (2 used on 12-2997)	.03
114-699	10-16 x 3/8 x 5/16 Hex Washer Hd. Self-tap. Screw (4 used on 95-1743)	.03
125-96	Strain Relief Grommet (used on 11-148)	.10
136-36	Fuse - 2 Amp	.10

7F20 CHASSIS PARTS

PART	DESCRIPTION	PRICE
12-2411	Gang Mtg. Bracket (2 used)	.20
19-249	Coil Mtg. Clip	.05
19-284	Shorting Clip	.10
20-682	FM Antenna Coil	.25
22-3	.01 MFD. Ceramic Disc 500V (7 used)	.30
22-5	100 Mfd. Ceramic Disc - 500V	.25
22-14	.0047 Mfd. Ceramic Disc - 500V(2 used)	.25
22-17	.001 Mfd. Ceramic Disc - 100V	.25
22-18	.0022 Mfd.Ceramic Disc- 500V	.25
22-24	2 x .0047 Mfd. Ceramic Disc - 1000V	.40
22-1766	.68 Mmf. Ceramic - 500V	.20
22-1888	.001 Mmf. Ceramic - 500V (4 used)	.25
22-2370	50 Mmf. Ceramic Disc - 500V	.25
22-2372	22 Mmf. Ceramic Disc - 500V	.25
22-2549	4 Mmf. Ceramic Disc - 500V	.25
22-2732	1000 Mmf. Feed Thru - 500V	.30
22-2780	.1 Mfd. Paper - 200V	.30
22-2792	.047 Mfd. Paper - 200V (3 used)	.30
22-2939	680 Mmf. Ceramic Disc - 800V	.25
22-3039	2 Section Variable	3.50
22-3056	Electrolytic 40/150V 80/150V	2.25
22-3231	19 Mmf. Ceramic Disc - 500V	.25
22-3246	15 Mmf. Ceramic Disc - 500 V (2 used)	.25
26-685	Dial Scale	2.00
52-697	3 Conductor Cable & Socket	.75
52-890	2 Conductor Shielded Lead	1.00
52-891	3 Conductor Cable & Plug	1.00
52-892	Antenna Cable	.25
54-139	3/8 - 32 x 9/16 Palnut (2 used)	.03
54-268	Tinnerman Speed Nut (6 Mt. 192-296)	.03
54-271	6-32 x 1/4 Palnut (6 used)	.03
54-504	Tinnerman Speed Nut (7 Mt. 26-682)	.03
58-238	2 Prong Plug	.10
59-380	Dial Pointer	1.25
59-381	Dial Pointer	1.25
63-1744	100 Ohm 1/2W Ins. 20%	.17
63-1758	220 Ohm 1/2 W Ins. 20% (5 used)	.17
63-1786	1 K Ohm 1/2W Ins. 20% (2 used)	.17
63-1800	2200 Ohm 1/2W Ins. 20%	.17
63-1828	10 K Ohm 1/2W Ins. 20%	.17
63-1835	15 K Ohm 1/2W Ins. 20%	.17
63-1856	47 K Ohm 1/2W Ins. 20%	.17
63-1870	100K Ohm 1/2W Ins. 20% (3 used)	.17
63-1883	220K Ohm 1/2W Ins. 10%	.17
63-1884	220K Ohm 1/2W Ins. 20%	.17
63-1894	390K Ohm 1/2W Ins. 10%	.17
63-1918	1.5 Megohm 1/2W Ins. 10%	.17
63-1925	2.2 Megohm 1/2W Ins. 10%	.17
63-1926	2.2 Megohm 1/2W Ins. 20% (2 used)	.17
63-1936	3.9 Megohm 1/2W Ins. 10%	.17
63-1940	4.7 Megohm 1/2W Ins. 20% (2 used)	.17
63-2424	39 Ohm 1W WW 10%	.25
63-4694	820 Ohm 3W Ins. 10%	.45

PART	DESCRIPTION	PRICE
73-131	6-32 x 3/8 Slab Hd. Set Screw-Cuppoint (2 Pt. of S-50393)	.04
78-806	7 Contact Wafer Tube Socket (35W4)	.15
78-850	9 Contact Molded Tube Socket (12AT7)	.40
78-869	9 Contact Wafer Tube Socket (19T8)	.25
78-870	7 Contact Wafer Tube Socket (6BJ6) (12AU6) (12BA6-1st I.F.)	.15
78-871	7 Contact Wafer Tube Socket(12BA6-2nd I.F.)	.15
78-1099	Connector Socket	.20
78-1189	Indicator Light Socket & Wire	
80-780	Tuning Core Tension Spring (2 used)	.05
80-1091	Drive Cord Tension Spring	.08
80-1333	Tuner Arm Stop Spring	.10
80-1408	Tuner Arm Tension Spring	.10
80-1427	Drive Cord Tension Spring	
83-1640	I.F. Transformer Support Strip (6 used)	.05
83-1874	5 Lug Terminal Strip	.15
83-2123	Antenna Terminal Strip	.25
83-2143	Felt Strip (Drive Cord Spring)	.10
83-2307	4 Lug Terminal Strip	.10
83-2536	Antenna Mtg. Strip	.03
83-2639	3 Lug Terminal Strip	.05
83-2673	6 Lug Terminal Strip	.10
83-3344	Cable Retaining Strip	.05
83-3351	2 Lug Terminal Strip	.10
83-2472	Pointer Slide Track	
85-672	Phono-Off-Radio Switch	
85-673	Bandswitch	3.75
86-312	Terminal	.03
93-149	Fibre Washer (2 used on S-49113)	.03
94-1035	Wood Spacer (2 used on S-49113	.10
95-1102	3rd I.F. Transformer (B.C.)	3.00
95-1150	1st & 3rd I.F. Transformer (FM)(2 used)	3.50
95-1153	Discriminator Transformer (FM)	3.50
95-1250	1st I.F. Transformer (BC)	3.00
95-1251	2nd I.F. Transformer (BC & FM)	3.00
95-1772	Power Transformer	
100-67	Pilot Light Bulb (3 used)	.15
103-29	Varicap Silicon Diode	
105-42	R/C Network	.50
113-10	6-32 x 3/16 Hex.Hd.Mach.Screw (4 used on 22-3039)	.03
114-77	6-20 x 5/16 x 1/4 AF Hex.Hd. Self-Tap Screw (1 used on 83-1874 & 5 used on 57-3038)	.03
114-78	8-18 x 5/16 x 1/4 AF Hex.Hd.Self-Tap Screw (2 used on ea. S-50547, 50548 & 83-3472)	.03
114-200	6-32 x 5/16 x 1/4 Hex.Hd.Self-Tap Screw (2 used)	.03
114-351	6-20 x 1/2 x 1/4 AF Hex Hd. Self Tap Screw (4 used)	.03

PART	DESCRIPTION	PRICE
114-562	6-1 8 x 1 1/2 x 1/4 AF Hex.Hd.Self-Tap Screw (2 used on S-49113)	
114-600	6-3 2 x 1/4 Special Hex.Hd.Self-Tap Screw (6 used)	.03
114-688	8-1 8 x 5/16 Hex.Special Washer Hd.Self-Tap Screw (3 Mt. 95-1772)	.03
125-73	Rubber Grommet (2 used)	.10
126-797	Tube Shield (used on 12AT7)	.10
148-149	Tuner Arm	.50
149-64	Iron Core & Spring (2 used)	.75
149-171	Iron Core	.10
149-211	Iron Core	.10
188-54	Knob Clamping Ring (Pt.of S-44166)	.03
188-155	Knob Clamping Ring (Pt.of S-47939)	.05
188-221	"C" Retaining Ring (Pt. of S-50601)	.04
192-296	Dia 1 Crystal	
199-176	Shielded Paper Sleeve	.03
199-198	Shielded Paper Sleeve	.05
S-13871	FM Detector Coil Assem.	1.00
S-15691	FM Oscillator Coil Assem.	.50
S-16447	Drive Cord & Eyelet Assem. (Gang)	.10
S-44166	Knob & Ring Assem. (Tuning)	.75
S-47939	Knob & Ring Assem. (Radio-Off-Phono & Bandswitch)	.75
S-49113	Antenna Assem.	2.00
S-50393	Capacitor Pulley & Cam Assem.	
S-50547	Pulley & Bracket Assem.	
S-50548	Pulley & Bracket Assem.	
S-50775	Drive Cord & Eyelet Assem.(Pointer)	
202-697	FM Instruction Book	.10
202-1648	Instruction Book	.40
S-50495	Accessories Kit Assem.	

7F30 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-148	Line Cord & Plug	.90
15-201	Fuseholder Cap	.30
17-149	Cable Clamp	.05
22-14	.0047 Mfd.Disc-500V. (2 required)	.25
22-17	.001 Mfd.Disc-1KV.	.25
22-2309	330 Mmf. Ceramic -500V.	.25
22-2397	100 Mmf. Disc -500V.	.30
22-2777	.22 Mfd. Capacitor - 200V.	.35
22-2782	.1 Mfd. Capacitor - 600V. (4 required)	.45
22-2795	.047 Mfd. Capacitor - 200V.(2 required)	.25
22-2807	.022 Mfd. Capacitor - 200V.	.25
22-2812	.01 Mfd. Capacitor - 600V.	.30
22-3106	40- 40-80 Mfd. Electrolytic - 450V.	
22-3236	.0015 Mfd. Capacitor - 200V.	
22-3320	100 Mfd. Electrolytic - 25V.	
43-422	Socket Terminal Housing	
52-871	Shielded Lead	
52-872	Shielded Lead	
54-473	Hex. Nut (Mts.62-23)	
62-23	Fuse Receptacle	
63-1573	2.7K Ohm 1 W Ins. 10%	
63-1775	560 Ohm 1/2 W Ins. 10%	
63-1782	820 Ohm 1/2 W Ins. 10%	
63-1785	1K Ohm 1/2 W Ins. 10% (2 required)	
63-1786	1K Ohm 1/2 W Ins. 20% (4 required)	
63-1799	2.2K Ohm 1/2 W Ins. 10% (5 required)	.17
63-1806	3.3K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1817	5.6K Ohm 1/2 W Ins. 10%	.17
63-1841	22K Ohm 1/2 W Ins. 10%	.17
63-1845	27K Ohm 1/2 W Ins. 10%	.17
63-1862	68K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1873	120K Ohm 1/2 W Ins. 10%(4 required)	.17
63-1876	150K Ohm 1/2 W Ins. 10% (2 used)	.17
63-1891	330K Ohm 1/2 W Ins. 20%(4 required)	.17
63-1911	1 Megohm 1/2 W Ins. 10%	
63-4417	2K Ohm 3 W Ins. 10%	
63-4468	Current Balance Control (2 required)	1.40
63-4722	63 Ohm 4WWW 5%	.65
78-402	4 Contact Socket	
78-755	Octal Tube Socket (5U4GB)	
78-846	Noval Wafer Tube Socket (12AX7) (2 required)	
78-1058	A C Receptacle	
78-1089	Noval Molded Tube Socket (6BQ5) (4 required)	
83-1475	Insulating Strip (used on 43-422)	
83-2145	5 Lug Terminal Strip	
83-2216	7 Lug Terminal Strip (2 required)	.15
83-2522	6 Lug Terminal Strip	.10
83-2639	3 Lug Terminal Strip (3 required)	.05
83-2673	6 Lug Terminal Strip	.10
83-2898	3 Lug Terminal Strip (2 required)	.10
86-334	Socket Terminal (12 used in 43-422)	.10
93-1036	Lockwasher (Mts. 62-23)	
93-1179	Rubber Washer (Mts. 62-23)	.03
95-1698	Output Transformer - L.Ch.	
95-1699	Output Transformer - R.Ch.	
95-1785	Power Transformer	
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap.Screw (2 used on ea. 95-1698 & 1699)	.03
114-699	10-16 x 3/8 Hex.Washer Hd.Self-Tap Screw (4 used on 95-1785)	.03
125-96	Strain Relief Grommet	.10
136-31	Fuse - 4 Amp - Type 3 AG	.25

7F31 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-149	Line Cord & Plug	1.00
15-201	Fuseholder Cap	.30
17-149	Cable Clamp	.05
22-12	.0015 Mfd.Disc - 500V.	.25
22-14	.0047 Mfd.Disc - 500V. (2 required)	.25
22-17	.001 Mfd.Disc - 1KV	.25
22-2309	330 Mmf. Ceramic - 500V.	.25
22-2376	47 Mmf. Disc - 500V.	.25
22-2774	.22 Mfd. Capacitor - 200V.	.35
22-2781	.1 Mfd. Capacitor - 400V.	.35
22-2782	.1 Mfd. Capacitor - 600V. (4 required)	.45
22-2795	.047 Mfd. Capacitor - 200V.(3 required)	.25
22-2807	.022 Mfd. Capacitor - 200V.	.25
22-2812	.01 Mfd. Capacitor - 600V.	.30
22-3099	40-70-80 Mfd. Electrolytic - 450V.	6.50
22-3320	100 Mfd. Electrolytic - 25V.	
43-420	Socket Terminal Housing	.35
43-422	Socket Terminal Housing	.35
52-871	Shielded Lead	.50
52-872	Shielded Lead	.50
54-473	Hex Nut (Mts. 62-23)	.05
57-3048	Socket Mounting Plate	
62-23	Fuse Receptacle	.50
63-1775	560 Ohm 1/2 W Ins. 10%	.17
63-1782	820 Ohm 1/2 W Ins. 10%	.17
63-1785	1K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1786	1K Ohm 1/2 W Ins. 20% (4 required)	.17
63-1799	2.2K Ohm 1/2 W Ins. 10% (5 required)	.17

PART	DESCRIPTION	PRICE
63-1803	1.7K Ohm 1/2 W Ins. 10%	.17
63-1806	3.3K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1817	5.6K Ohm 1/2 W Ins. 10%	.17
63-1824	8.2K Ohm 1/2 W Ins. 10%	.17
63-1841	22K Ohm 1/2 W Ins. 10%	.17
63-1845	27K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1862	68K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1873	120K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1876	150K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1891	330K Ohm 1/2 W Ins. 20% (4 required)	.17
63-1911	1 Megohm 1/2 W Ins. 10%	.17
63-4405	560 Ohm 5 W WW 10%	.75
63-4406	800 Ohm 8W WW 10%	.80
63-4630	2750 Ohm 10W 10%	.90
63-4722	63 Ohm 4W WW 5%	.65
63-4468	Current Balance Control (2 required)	1.40
78-402	4 Contact Socket	.15
78-755	Octal Tube Socket	.20
78-846	Noval Wafer Tube Socket (2 required)	.35
78-1058	A.C. Receptacle	
78-1089	Noval Molded Tube Socket (4 required)	.25
83-1475	Insulating Strip	.03
83-2145	5Lug Terminal Strip	.10
83-2216	7Lug Terminal (7 required)	.15
83-2898	3Lug Terminal Strip (2 required)	.10
86-334	Socket Terminal (6 used in 43-420 & 12 in 43-422)	.10
93-1179	Rubber Washer (Mts. 62-23)	.03
93-1036	Lockwasher	
95-1691	Output Transformer	6.00
95-1692	Output Transformer	6.00
95-1776	Power Transformer	
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 Mt.ea. 95-1691 & 1692)	.03
114-699	10-16 x 3/8 Hex.Washer Hd.Self-Tap. Screw (4 used on 95-1638)	.03
125-96	Strain Relief Grommet (used on 11-149)	
136-31	Fuse - 4 Amp. - Type 3AG	
199-213	Shielded Paper Sleeve	

7F33 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-149	Line Cord & Plug	1.00
15-201	Fuseholder Cap	.30
17-149	Cable Clamp	.05
22-12	.0015 Mfd. Disc - 500V.	.25
22-14	.0047 Mfd. Disc - 500V.	.25
22-17	.001 Mfd. Disc - 1KV	.25
22-2309	330 Mmf. Ceramic - 500V.	.25
22-2376	47 Mmf. Disc - 500V.	.25
22-2777	.22 Mfd. Capacitor - 200V.	.35
22-2781	.1 Mfd. Capacitor - 400V.	.35
22-2782	.1 Mfd. Capacitor - 600V. (4 required)	.45
22-2795	.047 Mfd. Capacitor - 200V. (2 required)	.25
22-2807	.022 Mfd. Capacitor - 200V.	.25
22-2812	.01 Mfd. Capacitor - 600V.	.30
22-2825	.0047 Mfd. Capacitor - 200V.	.25
22-3099	40-70-80 Mfd. Electrolytic - 450V.	6.50
22-3320	100 Mfd. Electrolytic - 25V.	
43-420	Socket Terminal Housing	.35
43-422	Socket Terminal Housing	.35
52-871	Shielded Lead	.50
52-872	Shielded Lead	.50
54-473	Hex Nut (Mts. 62-23)	.05
57-3048	Socket Mounting Plate	
62-23	Fuse Receptacle	.50
63-1775	560 Ohm 1/2 W Ins. 10%	.17
63-1799	2.2 K Ohm 1/2 W Ins. 10%	.17
63-1782	820 Ohm 1/2 W Ins. 10%	.17
63-1785	1K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1786	1K Ohm 1/2 W Ins. 20% (4 required)	.17
63-1799	2.2K Ohm 1/2 W Ins. 10%(4 required)	.17
63-1806	3.3K Ohm 1/2 W Ins. 10%(2 required)	.17
63-1817	5.6K Ohm 1/2 W.Ins. 10%	.17
63-1841	22K Ohm 1/2 W Ins. 10%	.17
63-1845	27K Ohm 1/2 W Ins. 10%	.17
63-1862	68K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1873	120K Ohm 1/2 W Ins. 10%(4 required)	.17
63-1876	150K Ohm 1/2 W Ins. 10%(2 required)	.17
63-1891	330K Ohm 1/2 W Ins. 20%(4 required)	.17
63-1911	1 Megohm 1/2 W Ins. 10%	.17
63-4405	560 Ohm 5W WW 10%	.75
63-4406	800 Ohm 8W WW 10%	.80
63-4630	2750 Ohm 10W Ins. 10%	.90
63-4722	63 Ohm 4W WW 5%	.65
63-4468	Current Balance Control (2 required)	1.40
78-402	4 Contact Socket	.15
78-755	Octal Tube Socket (5U4GB)	.20
78-846	Noval Wafer Tube Socket (2 required) (12AX7)	.35
78-1058	A C Receptacle	.30
78-1089	Noval Molded Tube Socket (4 required) (6BQ5)	.15
83-1475	Insulating Strip	.03
83-2639	3 Lug Terminal Strip (2 required)	.05
83-2216	7 Lug Terminal (6 required)	.15
83-2898	3 Lug Terminal Strip (2 required)	.10
86-334	Socket Terminal (6 used in 43-420 & 12 in 43-422)	.10
93-1036	Lockwasher (Mts. 62-23)	
93-1179	Rubber Washer (Mts. 62-23)	.03
95-1698	Output Transformer	6.00
95-1699	Output Transformer	6.00
95-1776	Power Transformer	
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 Mt.ea. 95-1691 &1692)	.03
114-699	10-16 x 3/8 Hex Washer Hd.Self-Tap. Screw (4 used on 95-1638)	.03
125-96	Strain Relief Grommet(used on 11-149)	.10
136-31	Fuse - 4 Amp. - type 3AG	.25

9F24 CHASSIS PARTS

PART	DESCRIPTION	PRICE
12-2386	Bandswitch Support Bracket (Pt. of 85-640)	.20
12-2411	Capacitor Mounting Bracket	.20
12-2443	Bandswitch Support Bracket	.20
12-2637	Dial Scale Extension Bracket	.10
12-2661	Plate Support Bracket	.10
12-2676	Background Support Bracket	.05
12-2807	Mtg. Bracket (43-332)	.10
12-3002	Pointer Mtg.Bracket (3 required)	
12-3009	Dial Scale Support Bracket (2 required)	
12-3019	Cover Bracket (Left)	
12-3030	Cover Bracket (Right)	
17-149	Cable Clamp	.05
19-249	Coil Mounting Clip	.05
20-355	FM Antenna Coil	.20

PART	DESCRIPTION	PRICE
22-3	.01 Mfd. Disc - 500V. (9 required)	.30
22-5	100 Mmf. Disc - 500V. (2 required)	.25
22-14	.0047 Mfd. Disc - 500V.(5 required)	.25
22-16	470 Mmf. Disc - 500V.	.25
22-17	.001 Mfd. Disc - 1KV	.25
22-18	.0022 Mfd. Disc - 500V.(6 required)	.25
22-1669	100 Mmf. Ceramic - 500V.	.25
22-1852	7.5 Mmf. Ceramic - 500V.	.25
22-1888	.001 Mfd. Ceramic - 500V. (2 required)	.25
22-2370	50 Mmf. Disc - 500V. (2 required)	.25
22-2372	22 Mmf. Disc - 500V.	.25
22-2703	220 Mmf. Ceramic - 500V.(3 required)	.25
22-2732	1000 Mmf. Feed-Thru - 500V.(4 required)	.30
22-2780	.1 Mfd. Capacitor - 200V. (2 required)	.30
22-2792	.047 Mfd.Capacitor - 200V. (4 required)	.30
22-2793	.047 Mfd. Capacitor - 400V.	.35
22-2794	.047 Mfd. Capacitor - 600V.	.35
22-2807	.022 Mfd. Capacitor - 200V.(2 required)	.25
22-2809	.022 Mfd.Capacitor - 600V.	.30
22-2811	.01 Mfd.Capacitor - 400V.	.25
22-2819	.0068 Mfd.Capacitor - 200V.(2 required)	.30
22-2827	.0047 Mfd.Capacitor - 600V.	
22-2831	.0033 Mfd.Capacitor - 200V.(2 required)	
22-2863	33 Mmf. Disc - 500V.	.25
22-2927	56 Mmf. Disc - 500V.	.25
22-2939	680 Mmf. Disc - 500V. (5 required)	.25
22-2944	3 Section Variable	4.25
22-2976	220 Mmf. Disc - 500V.	.30
22-3031	.82 Mmf. Gimmick - 500V.	
22-3139	20 Mmf. Disc - 500V.	
22-3231	19 Mmf. Disc - 500V.	.25
22-3302	10 Mfd. Electrolytic - 400V.	1.75
26-684	Dial Scale	
43-417	Socket Terminal Housing (Male)	.25
43-419	Socket Terminal Housing (Male)	.35
43-332	Socket Housing	.15
44-33	Connection Jack (2 Pt. of S-44775)	.15
52-928	2 Conductor Shielded Lead	
54-139	3/8 - 32 x 9/16 Palnut (1 Mts.ea.63-4410, 4460, 4631, 4632 & 4725)	.03
54-271	6-32 x 1/4 Palnut (2 used on 95-1150 & 1 ea. on S-44785, 95-1102, 95-1153 & 95-1251)	.03
57-3035	Tone, Presence Control Escutcheon	
57-3036	Control Escutcheon Mtg.Plate	
59-379	Dial Pointer	
59-382	Treble Indicator Pointer	
59-383	Presence Indicator Pointer	
59-384	Bass Indicator Pointer	
63-1573	2.7K Ohm 1W Ins. 10%	.25
63-1723	33 Ohm 1/2 W Ins. 20%	.17
63-1730	47 Ohm 1/2 W Ins. 20%	.17
63-1744	100 Ohm 1/2 W Ins. 20%	.17
63-1757	220 Ohm 1/2 W Ins. 10%	.17
63-1758	220 Ohm 1/2 W Ins. 20% (3 required)	.17
63-1772	470 Ohm 1/2 W.Ins. 20%	.17
63-1779	680 Ohm 1/2 W Ins. 20%	.17
63-1785	1K Ohm 1/2 W Ins. 10%	.17
63-1786	1K Ohm 1/3 W Ins. 20%	.17
63-1796	1.8K Ohm 1/2 W Ins. 10%	.17
63-1799	2.2K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1800	2.2K Ohm 1/2 W Ins. 20%	.17
63-1803	2.7K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1827	10K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1835	15K Ohm 1/2 W Ins. 20%	.17
63-1837	18K Ohm 1/2 W Ins. 5%	.34
63-1842	22K Ohm 1/2 W Ins. 20%	.17
63-1844	27K Ohm 1/2 W Ins. 5%	.34
63-1855	47K Ohm 1/2 W Ins. 10%	.17
63-1856	47K Ohm 1/2 W Ins. 20%	.17
63-1859	56K Ohm 1/2 W Ins. 10%	.17
63-1862	68K Ohm 1/2 W Ins. 10% (3 required)	.17
63-1866	82K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1869	100K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1870	100K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1876	150K Ohm 1/2 W Ins. 10% (5 required)	.17

PART	DESCRIPTION	PRICE
63-1880	180K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1882	220K Ohm 1/2 W Ins. 5%	.34
63-1883	220K Ohm 1/2 W Ins. 10%	.17
63-1884	220K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1889	330K Ohm 1/2 W Ins. 5%	.34
63-1897	470K Ohm 1/2 W Ins. 10%	.17
63-1904	680K Ohm 1/2 W Ins. 10%	.17
63-1911	1 Megohm 1/2 W Ins. 10%	.17
63-1912	1 Megohm 1/2 W Ins. 10%	.17
63-1925	2.2 Megohm 1/2 W Ins. 10% (2 required)	.17
63-1926	2.2 Megohm 1/2 W Ins. 20% (3 required)	.17
63-1940	4.7 Megohm 1/2 W Ins. 20% (2 required)	.17
63-1960	15 Megohm 1/2 W Ins. 10%	.17
63-4410	Dual Tone Control - Treble	2.75
63-4414	2K Ohm 10W 10%	.90
63-4460	Dual Bass Tone Control & Switch	4.50
63-4631	Dual Loudness Control	
63-4632	3 Section Balance Control	
63-4725	Dual Presence Control	
73-115	8-32 x 3/8 Slab Hd.Set Screw-Cuppoint (2 Pt. of S-40695)	.04
78-788	Noval Wafer Socket (2 required) (6CG7) 12AU7)	.40
78-850	Noval Molded Socket (2 required) (12AT7)	
78-953	Noval Wafer Socket (6T8)	.15
78-1073	Wafer Socket (3 required)(6BAG-1st I.F.) (6BJ6) (6AU6)	
78-1099	3 Contact Socket	.20
78-1119	Dual Pilot Light Socket & Wire	.60
78-1122	4 Contact Socket	.15
78-1143	Wafer Socket (6BA6 - 2nd I.F.)	.20
78-1207	Dual Pilot Light Socket & Wire	
80-69	Drive Cord Tension Spring(Pt.of S-45586)	.15
80-209	Drive Cord Tension Spring(Pt.of S-40013)	.03
80-444	Tuner Arm Tension Spring	.05
80-780	Iron Core Tension Spring (2 required)	.05
80-1091	Dial Cord Tension Spring(Pt.of S-44151)	.08
80-1142	Ground Spring	.20
80-1140	Drive Cord Tension Spring(1 Pt. of ea. S-50776)	.10
80-1333	Tuner Arm Stop Spring	.10
83-1475	Armite Strip	.03
83-1884	Antenna Terminal Strip	.30
83-2132	Single Lug Terminal Strip	.05
83-2135	4 Lug Terminal Strip (2 required)	.10
83-2307	4 Lug Terminal Strip (2 required)	.10
83-2522	6 Lug Terminal Strip	.10
83-2612	2 Lug Terminal Strip (2 required)	.05
83-2617	6 Lug Terminal Strip	.10
83-2618	8 Lug Terminal Strip	.10
83-2627	2 Lug Terminal Strip	
83-2628	Single Lug Terminal Strip	
83-2639	3 Lug Terminal Strip	.05
83-2712	Terminal Strip	.20
83-2963	4 Lug Terminal Strip	.10
83-2964	6 Lug Terminal Strip	.10
83-3007	Insulating Strip (Pt. of S-44785)	.05
83-3353	2 Lug Terminal Strip (Pt.of S-41812)	.10
83-3477	8 Lug Terminal Strip	
83-3523	4 Lug Terminal Strip	
85-640	Bandswitch	9.00
85-676	Monaural-Stereo Switch	
86-303	Terminal (3 required)	.04
86-334	Socket Terminal (6 used in 43-417 & 11 used in 43-419)	.10
93-1310	Steel Washer	
93-1359	Felt Washer (2 required)	.03
94-946	R.F. Plate Mounting Bushing (4 required)	.03
95-1102	3rd I.F.Transformer (BC)	3.00
95-1150	1st & 3rd I.F.Transformer-FM (2 required)	3.50
95-1153	Discriminator Transformer (FM)	3.50
95-1251	2nd I.F.Transformer (FM & BC)	3.00
95-1549	1st I.F.Transformer (BC)	1.50
100-221	Pilot Light Bulb - type #45	.15
105-42	R/C Network	.50

PART	DESCRIPTION	PRICE
112-793	6-20 x 1/4 Phils.Rd.Hd.Self-Tap. Screw (2 used on 85-676)	
112-1327	8-18 x 5/16 Phils.Rd.Hd.Self-Tap. Screw (joins 12-2807 & 83-3523)	.03
112-1328	6-20 x 1/2 Phils.Rd.Hd.Self-Tap. Screw (5 required)	.03
113-8	6-32 x 1/4 x 1/4 Hex.Hd.Mach.Screw-lockwasher Att. (6 required)	.03
113-10	6-32 x 3/16 x 1/4 Hex.Hd.Mach.Screw lockwasher Att. (4 used on 22-2944)	.03
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-tap. Screw (1 used on 12-2676, 2 used on ea. 12-2661 & 12-3009 & 3 on S-50455)	.03
114-180	6-20 x 1/4 x 1/4 Hex.Hd.Self-tap. Screw (used on S 44785)	.03
114-200	6-32 x 5/16 x 1/4 Jex.Hd.Self-Tap. Screw (2 required)	.03
114-643	6-20 x 5/8 x 1/4 Hex.Hd.Self-tap. Screw(4 required)	.03
114-652	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 used on S-50452)	.03
114-717	4-24 x 7/32 x 3/16 Hex.Hd.Self-Tap. Screw	
125-17	Rubber Grommet (4 required)	.03
125-73	Rubber Grommet (2 required)	.10
126-797	Tube Shield	.10
126-959	Pilot Light Shield (2 required)	
126-956	Pilot Light Shield (2 required)	
148-149	Tuner Arm	.50
149-64	Iron Core & Spring (2 required)	.75
149-211	Iron Core (1 Pt. of ea. S-41087 & 41088)	.10
159-115	Plug Button	
188-148	Retaining Ring (2 used on S-44153)	
188-177	Clamping Ring (1 Pt. of ea. S-50453)	.03
188-221	Retaining Ring (Pt. of S-44244)	.04
S-15691	F M Oscillator Coil	.50
S-15743	F M Detector Coil	.80
S-18812	Loop Loading Coil	.80
S-40013	Drive Cord & Eyelet Assem.- Idler	.15
S-40695	Bushing, Cam & Bushing Assem.	1.25
S-41087	Broadcast Oscillator Coil	1.00
S-41088	Broadcast Detector Coil	1.00
S-41812	Oscillator Shield & Terminal Assembly	.25
S-44151	Drive Cord & Eyelet Assem. = Dial Pointer	.15
S-44153	Pulley & Shaft Assem.	.60
S-44244	Tuning Shaft & Pulley Assem.	.75
S-44775	Stereo Jack & Bracket Assem.	.75
S-44785	Shield Cover, Braid, Lug & Strip Assem.	.50
S-45586	Drive Cord & Eyelet Assem.-Tuning	.20
S-50452	Idler Pulley & Strip Assem.	
S-50453	Pulley & Ring Assem.(3 required) (Presence & Tone Control)	
S-50455	Plate, Strip, Bushing & Stud Assem.	

9F25 CHASSIS PARTS

PART	DESCRIPTION	PRICE
12-2386	Bandswitch Support Bracket (Pt. of 85-640)	.20
12-2411	Capacitor Mounting Bracket	.20
12-2443	Bandswitch Support Bracket (Pt. of 85-640)	.20
12-2637	Dial Scale Extension Bracket	.10
12-2661	Plate Support Bracket	.10
12-2676	Background Support Bracket	.05
12-2807	Mounting Bracket (Mts. 43-332)	.10
12-3002	Pointer Mounting Bracket (3 required)	
12-3009	Dial Scale Support Bracket	
12-3019	Cover Bracket (Left)	
12-3030	Cover Bracket (Right)	
17-149	Cable Clamp	.05
19-249	Coil Mounting Clip (2 required)	.05
20-355	F M Antenna Coil	.20
22-3	.01 Mfd.Disc - 500V. (9 required)	.30
22-5	100 Mmf. Disc - 500V. (2 required)	.25
22-13	.0033 Mfd. Disc - 500V.(2 required)	
22-14	.0047 Mfd. Disc - 500V.(4 required)	.25
22-16	470 Mmf.Disc -500V.	.25
22-17	.001 Mfd. Disc - 1 KV	.25
22-18	.0022 Mfd.Disc - 500V. (5 required)	.25
22-1483	20 Mfd. Electrolytic - 10V.	1.00
22-1669	100 Mmf. Ceramic - 500V.	.25
22-1852	7.5 Mmf Ceramic - 500V.	.25
22-1888	.0001 Mfd. Ceramic - 500V.(2 required)	.25
22-2302	470 Mmf. Ceramic - 500V.	.25
22-2370	50 Mmf. Disc - 500V. (2 required)	.25
22-2372	22 Mmf. Disc - 500V.	.25
22-2665	68 Mmf. Mica - 500V.	.20
22-2703	220 Mmf.Disc - 500V. (2 required)	.25
22-2704	.0068 Mfd. Disc - 500V. (2 required)	.30
22-2732	1000 Mmf. Feed-Thru - 500V.(4 required)	.30
22-2780	.1 Mfd. Capacitor - 200V. (2 required)	.30
22-2792	.047 Mfd. Capacitor - 200V.(4 required)	.30
22-2793	.047 Mfd. Capacitor - 400V.	.35
22-2794	.047 Mfd. Capacitor - 600V.	.35
22-2806	.022 Mfd. Capacitor - 600V.	.30
22-2811	.01 Mfd. Capacitor - 400V.	.25
22-2827	.0047 Mfd. Capacitor - 600V-	
22-2831	.0033 Mfd. Capacitor - 200V.(2 required)	
22-2863	33 Mmf. Disc - 500V.	.25
22-2927	56 Mmf. Disc - 500V.	.25
22-2939	680 Mmf. Disc - 500V. (3 required)	.25
22-2944	3 Section Variable	4.25
22-2976	220 Mmf. Disc - 500V.	.30
22-3031	.82 Mmf. Gimmick - 500V.	.25
22-3231	19 Mmf. Disc - 500V.	.25
22-3255	330 Mmf. Disc - 500V. (2 required)	.25
22-3302	10 :fd. Electrolytic - 400V.	1.75
26-684	Dial Scale	
43-332	Socket Housing	.15
43-417	Socket Terminal Housing (Male)	.25
43-419	Socket Terminal Housing (Male)	.35
44-33	Connector Jack (2 Pt. of S-44775)	.15
52-870	2 Conductor Shielded Lead	.65
54-139	3/8 x 32 x 9/16 Palnut (1 Mts.ea. 63-4410, 4460, 4631, 4632 & 4725)	.03
54-271	6-32 x 1/4 Palnut (1 used on ea. S-44785, 95-1102, 95-1153 & 1251 & 2 on 95-1150)	.03
57-3035	Tone-Presence Control Escutcheon	
57-3036	Control Escutcheon Mtg.Plate	
59-382	Treble Indicator Pointer	
59-383	Presence Indicator Point er	
59-384	Bass Indicator Pointer	
63-1573	2.7K Ohm 1W Ins. 10%	.25
63-1723	33 Ohm 1/2 W Ins. 20%	.17
63-1730	47 Ohm 1/2 W Ins. 20%	.17
63-1744	100 Ohm 1/2 W Ins. 20%	.17
63-1757	220 Ohm 1/2 W Ins. 10%	.17
63-1758	220 Ohm 1/2 W Ins. 20%(3 required)	.17
63-1772	470 Ohm 1/2 W Ins. 20%	.17
63-1779	680 Ohm 1/2 W Ins. 20%	.17
63-1785	1K Ohm 1/2 W Ins. 10%	.17
63-1786	1K Ohm 1/2 W Ins. 20%	.17
63-1789	1.2K Ohm 1/2 W Ins. 10%	.17
63-1796	1.8K Ohm 1/2 W Ins. 10%	.17
63-1799	2.2K Ohm 1/2 W Ins. 10% (2 requires)	.17
63-1800	2.2K Ohm 1/2 W Ins. 20%	.17
63-1827	10K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1835	15K Ohm 1/2 W Ins. 20%	.17
63-1837	18K Ohm 1/2 W Ins. 5%	.34
63-1842	22K Ohm 1/2 W Ins. 20%	.17
63-1844	27K Ohm 1/2 W Ins. 5%	.34

PART	DESCRIPTION	PRICE
63-1856	47K Ohm 1/2 W Ins. 20%	.17
63-1862	68K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1866	82K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1869	100K Ohm 1/2 W Ins. 10%	.17
63-1870	100K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1876	150K Ohm 1/2 W Ins. 10% (3 required)	.17
63-1880	180K Ohm 1/2 W Ins. 10% (3 required)	.17
63-1882	220K Ohm 1/2 W Ins. 5%	.34
63-1883	220K Ohm 1/2 W Ins. 10%	.17
63-1884	220K Ohm 1/2 W Ins. 20% (2 required)	.17
63-1887	270K Ohm 1/2 W Ins. 10% (3 required)	.17
63-1889	330K Ohm 1/2 W Ins. 5%	.34
63-1911	1 Megohm 1/2 W Ins. 10%	.17
63 1912	1 Megohm 1/3 W Ins. 29%	.17
63-1925	2.2 Megohm 1/2 W Ins. 10% (2 required)	.17
63-1926	2.2 Megohm 1/2 W Ins. 20% (3 required)	.17
63-1940	4.7 Megohm 1/2 W Ins. 20% (2 required)	.17
63-1960	15 Megohm 1/2 W Ins. 10%	.17
63-4410	Dual Tone Control - Treble	2.75
63-4414	2K Ohm 10W 10%	.90
63-4460	Dual Bass Tone Control & Switch	4.50
63-4631	Dual Loudness Control	2.75
63-4632	3 Section Balance Control	4.50
63-4725	Dual Presence Control	
73-115	8-32 x 3/10 Slab Hd.Set Screw - cup point (2 Pt. of S-40695)	.04
78-788	Noval Wafer Tube Socket (2 required)	.40
78-850	Noval Molded Tube Socket (2 required)	.40
78-953	Noval Wafer Tube Socket	.25
78-1073	7 Contact Wafer Tube Socket (3 required)	.25
78-1099	3 Contact Socket	.20
78-1119	Dual Pilot Light Socket & Wire	.60
78-1122	4 Contact Socket	.15
78-1143	Contact Wafer Tube Socket	.20
78-1207	Dual Pilot Light Socket & Wire	
80-69	Drive Cord Tension Spring (Pt.of S-45586)	.15
80-209	Drive Cord Tension Spring (Pt.of 5-40013)	.03
80-444	Tuner Arm Tension Spring	.05
80-780	Iron Core Tension Spring	.05
80-1091	Dial Cord Tension Spring	.08
80-1142	Ground Spring	.20
80-1140	Drive Cord Tension Spring(3 required)	.10
80-1333	Tuner Arm Stop Spring	.10
83-1475	Armrite Strip	.03
83-1884	Antenna Terminal Strip	.30
83-2132	Single Lug Terminal Strip	.05
83-2135	4 Lug Terminal Strip (2 required)	.10
83-2307	4 Lug Terminal Strip (2 required)	.10
83-2522	6 Lug Terminal Strip	.10
83-2612	2 Lug Terminal Strip (2 required)	.05
83-2617	6 Lug Terminal Strip	.10
83-2618	8 Lug Terminal Strip	.10
83-2627	2 Lug Terminal Strip	.05
83-2628	Single Lug Terminal Strip	.05
83-2639	3 Lug Terminal Strip	.05
83-2712	Ter minal Strip (Loop Antenna)	.20
83-2963	4 Lug Terminal Strip	.10
83-2964	6 Lug Terminal Strip	.10
83-3353	2 Lug Terminal Strip (Pt.of S-41812)	.10
83-3477	8 Lug Terminal Strip	
83-3523	4 Lug Terminal Strip	
85-640	Bandswitch	9.00
85-676	Monaural-Stereo Switch	
86-303	Terminal (3 required)	.04
86-334	Socket Terminal (6 used in 43-417 & 11 in 43-419)	.10
93-1310	Steel Washer	
93-1359	Felt Washer (2 required)	.03
94-946	R.F. Plate Mounting Bushing (4 required)	.03
95-1102	3rd I.F. Transformer (BC)	3.00
95-1150	3rd I.F. Transformer - 1st I.F. Transformer (FM) (2 required)	3.50
95-1153	Discriminator Transformer (FM)	3.50
95-1251	2nd I.F. Transformer (FM & BC)	3.00
95-1549	1st I.F. Transformer (BC)	1.50
100-221	Pilot Light Bulb - type #45	.15
105-42	R/C Network	.50
112-793	6-20 x 1/4 Phils.Rd.Hd.Self-Tap. Screw (2 used on 85-676)	
112-1327	8-18 x 5/16 Phils.Rd.Hd.Self-Tap Screw (used on 83-3523)	.03
112-1328	6-20 x 1/2 Phils.Rd.Hd.Self-Tap. Screw (5 required)	.03
113-8	6-32 x 1/4 x 1/4 Hex.Hd.Mach.Screw-lockwasher Att. (6 required)	.03
113-10	6-32 x 3/16 x 1/4 Hex.Hd.Mach.Screw-lockwasher Att. (4 used on 22-2944)	.03
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (1 used on 12-2676, 2 on ea. 12-2660 & 2661, & 3 on S-50455)	.03
114-180	6-20 x 1/4 x 1/4 Hex.Hd.Self-Tap. Screw (used on S-44785)	.03
114-200	6-32 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 required)	.03
114-643	6-20 x 5/8 x 1/4 Hex.Hd.Self-Tap. Screw (4 required)	.03
114-652	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 used on S-50452)	.03
114-717	4-24 x 7/32 x 3/16 Hex.Hd.Self-Tap. Screw	
125-17	Rubber Grommet (4 required)	.03
125-73	Rubber Grommet (2 required)	.10
126-797	Tube Shield	.10
126-959	Pilot Light Shield (2 required)	
126-956	Pilot Light Shield (2 required)	
148-149	Tuner Arm	.50
149-64	Iron Core & Spring (2 required)	.75
149-211	Iron Core (1 Pt. of ea. S-41087 & 41088)	.10
159-115	Plug Button	
188-148	Retaining Ring (2 used on S-44153)	.03
188-177	Clamping Ring (1 Pt. of ea. S-50453)	.03
188-221	Retaining Ring (used on S-44244)	.04
S-15691	F M Oscillator Coil	.50
S-15743	F M Detection Coil	.80
S-18812	Loop Loading Coil	.80
S-40013	Drive Cord & Eyelet - Adler	.15
S-40695	Bushing, Cam & Pulley Assem.	1.25
S-41087	Broadcast Oscillator Coil	1.00
S-41088	Broadcast Detector Coil	1.00
S-41812	Oscillator Shield & Terminal Strip Assem.	.25
S-44153	Pulley & Shaft Assem.	.60
S-44244	Tuning Shaft & Pulley Assem.	.75
S-44775	Stereo Jack & Bracket Assem.	.75
S-44785	Shield Cover, Braid, Lug & Strip Assem.	.50
S-45586	Drive Cord & Eyelet Assem.-Tuning	
S-50452	Idler Pulley & Strip Assem.	
S-50453	Pulley & Ring Assem.(Presence & Tone Control)	

9F26 CHASSIS PARTS

PART	DESCRIPTION	PRICE
11-148	Line Cord & Plug	.90
12-1406	Tuner Arm Pivot Bracket (2 required)	.05
12-2386	Bandswitch Support Bracket(2 Pt.of 85-681)	.20
12-2637	Dial Scale Extension Bracket	.10
12-2661	Plate Support Bracket	.10
12-2676	Background Support Bracket	.05
12-3002	Pointer Mounting Bracket (3 required)	
12-3009	Dial Scale Support Bracket (2 required)	
12-3019	Cover Bracket (Left)	
12-3030	Cover Bracket (Right)	
19-249	Coil Mounting Clip	.05
20 337	R F Choke Coil (2 required)	.25

PART	DESCRIPTION	PRICE
20-682	F M Antenna Coil	.25
22-3	.01 Mfd. Disc - 500V. (12 required)	.30
22-5	100 Mmf. Disc - 500V. (3 required)	.25
22-9	100 Mmf. Disc - 500V. (2 required)	.25
22-12	.0015 Mfd. Disc - 500V.	.25
22-14	.0047 Mfd.Disc - 500V.	.25
22-17	.001 Mfd. Disc - 1KV (2 required)	.25
22-18	.0022 Mfd. Disc - 500V. (2 required)	.25
22-1156	40 Mfd. Electrolytic - 25V.	
22-1766	.68 Mmf. Gimmick - 500V.	.20
22-1852	2.5 Mmf. Ceramic - 500V.	.25
22-1888	.001 Mfd. Ceramic - 500V. (3 required)	.25
22-2370	50 Mmf. Disc - 500V.	.25
22-2372	22 Mmf. Disc - 500V.	.25
22-2376	47 Mmf. Disc - 500V. (2 required)	.25
22-2655	.01 Mfd. Disc - 1400V.	.50
22-2782	.1 Mfd. Capacitor - 600V. (2 required)	.45
22-2792	.047 Mfd. Capacitor - 200V. (3 required)	.30
22-2794	.047 Mfd. Capacitor - 600V. (4 required)	.35
22-2777	.22 Mfd. Capacitor - 200V.	.35
22-2825	.0047 Mfd. Capacitor - 200V. (4 required)	.25
22-2831	.0033 Mfd. Capacitor - 200V. (2 required)	
22-2875	150 Mmf. Disc - 500V. (2 required)	.25
22-2943	10 Mfd. Electrolytic - 350V.	1.85
22-3019	3 Section Variable	3.50
22-3231	19 Mmf. Disc - 500V.	.25
26-684	Dial Scale	
43-422	Socket Terminal Housing	.35
52-807	Shielded Lead (A.C. Switch)	.40
54-139	3/8 - 32 x 9/16 Palnut (1 Mts.ea. 63-4460, 4725, 4732 & 4735)	.03
54-140	3/8 x 9/16 Hex.Nut (Mts. 63-4631)	.06
54-271	6-32 x 1/4 Palnut (1 used on ea.95-1102, 1153, 1250 & 1251, & 2 on 95-1150)	.03
57-3035	Tone-Presence Control Escutcheon	
57-3036	Control Escutcheon Mtg. Plate	
58-169	7 Prong Plug (Pt. of S-51082)	.20
58-242	4 Prong Plug (Pt. of S-50460)	.15
59-379	Dial Pointer	
59-382	Treble Indicator Pointer	
59-383	Presence Indicator Pointer	
59-384	Bass Indicator Pointer	
63-1216	10K Ohm 1W Ins. 20%	.25
63-1730	47 Ohm 1/2 W Ins. 20%	.17
63-1743	100 Ohm 1/2 W Ins. 10%	.17
63-1758	220 Ohm 1/2 W Ins. 20% (6 required)	.17
63-1778	680 Ohm 1/2 W Ins. 10%	.17
63-1786	1K Ohm 1/2 W Ins. 20%	.17
63-1789	1.2K Ohm 1/2 W Ins. 10%	.17
63-1796	1.8K Ohm 1/2 W Ins. 10%	.17
63-1800	2.2K Ohm 1/2 W Ins. 20%	.17
63-1803	2.7K Ohm 1/2 W Ins.10% (2 required)	.17
63-1827	10K Ohm 1/2 W. Ins. 10%	.17
63-1835	15K Ohm 1/2 W Ins. 20%	.17
63-1841	22K Ohm 1/2 W Ins. 10%	.17
63-1848	33K Ohm 1/2 W Ins. 10% (5 required)	.17
63-1855	47K Ohm 1/2 W Ins. 10% (2 required)	.17
63-1856	47K Ohm 1/2 W Ins. 20%	.17
63-1866	82K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1869	100K Ohm 1/2 W Ins. 10%	.17
63-1870	100K Ohm 1/2 W Ins. 20% (4 required)	.17
63-1876	150K Ohm 1/2 W Ins. 10% (4 required)	.17
63-1884	220K Ohm 1/2 W Ins. 20%	.17
63-1901	560K Ohm 1/2 W Ins. 10% (5 required)	.17
63-1911	1 Megohm 1/2 W Ins. 10%	.17
63-1912	1 Megohm 1/2 W Ins. 20%	.17
63-1925	2.2 Megohm 1/2 W Ins. 10% (4 required)	.17
63-1926	2.2 Megohm 1/2 W Ins. 20% (3 required)	.17
63-1940	4.7 Megohm 1/2 W Ins. 20% (2 required)	.17
63-4395	2.2K Ohm 10W 10%	.90
63-4414	2K Ohm 10W 10%	.90
63-4460	Dual Bass Tone Control & Switch	4.50
63-4631	Dual Loudness Control	2.75
63-4725	Dual Presence Control	
63-4732	Balance Control	
63-4735	Dual Tone Control - Treble	

PART	DESCRIPTION	PRICE
78-788	Noval Wafer Socket (12AX7)	.40
78-846	Noval Wafer Socket (12AU7)	.35
78-850	Noval Molded Socket (12AT7)	.40
78-916	Wafer Socket (6BJ6)	.15
78-1074	Noval Molded Socket (6AB4)	.25
78-1073	Wafer Socket (6AU6) (6BA6-1st I.F.) (2 required)	.25
78-1099	3 Contact Socket	.20
78-1119	Dual Pilot Light Socket & Wire	.60
78-1122	4 Contact Socket	.15
78-1142	Noval Wafer Socket (6BC7)	.25
78-1143	Wafer Socket (6BA6 - 2nd I.F.)	.20
78-1207	Dual Pilot Light Socket & Wire	
80-69	Drive Cord Tension Spring (used on S-45586)	.15
80-209	Drive Cord Tension Spring(used on S-40013)	.03
80-444	Tuner Arm Tension Spring	.05
80-780	Iron Core Tension Spring (2 required)	.05
80-1257	Limiter Spring	.10
80-1091	Dial Cord Tension Spring (used on S-44151)	.08
80-1142	Ground Spring	.20
80-1140	Drive Cord Tension Spring (1 used on ea. S-50776)	.10
83-2123	Antenna Terminal Strip	.25
83-2132	Single Lug Terminal Strip	.05
83-2135	4 Lug Terminal Strip	.10
83-2216	7 Lug Terminal Strip	.15
83-2307	4 Lug Terminal Strip	.10
83-2627	2 Lug Terminal Strip	.05
83-2639	3 Lug Terminal Strip (5 required)	.05
83-2715	Terminal Strip (Loop Antenna)	.05
83-2963	4 Lug Terminal Strip	.10
83-2965	7 Lug Terminal Strip	.10
83-3477	8 Lug Terminal Strip	
85-681	Bandswitch	
85-676	Monaural-Stereo Switch	
86-334	Socket Terminal (11 used on 43-422)	.10
93-1310	Steel Washer	
93-1359	Felt Washer (2 required)	.03
94-946	R.F. Plate Mounting Bushing	.03
95-1102	3rd I.F. Transformer (BC)	3.00
95-1150	1st I.F. Transformer & 3rd I.F. Transformer (FM) (2 required)	3.50
95-1153	Discriminator Transformer (FM)	3.50
95-1250	1st I.F. Transformer (BC)	3.00
95-1251	2nd I.F. Transformer (FM & BC)	3.00
100-221	Pilot Light Bulb	.15
105-42	R/C Network	.50
112-793	6-20 x 1/4 Phils.Rd.Hd.Self-Tap. Screw (2 used on 85-676)	
112-1328	6-20 x 1/2 Phils.Rd.Hd.Self-Tap. Screw (5 required)	.03
113-8	6-32 x 1/4 x 1/4 Hex.Hd.Mach.Screw-lockwasher Att. (6 required)	.03
113-10	6-32 x 3/16 x 1/4 (6 used on 22-3019)	.03
114-26	8-18 x 1/4 x 1/4 Hex.Hd.Self-Tap. Screw (6 Mt. S-50648)	.03
114-78	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (1 used on 12-2676, 2 on ea. 12-2661 & 3009, & 3 on S-50455)	.03
114-643	6-20 x 5/8 x 1/4 Hex.Hd.Self-Tap. Screw	.03
114-652	8-18 x 5/16 x 1/4 Hex.Hd.Self-Tap. Screw (2 required)	.03
114-717	4-24 x 7/32 x 3/16 Hex.Hd.Self-Tap-Screw	
125-17	Rubber Grommet (4 required)	.03
125-73	Rubber Grommet (1 used on ea. S-15691 & 15743)	.10
125-96	Strain Relief Grommet	.10
126-622	Tube Shield	.20
126-797	Tube Shield (2 required)	.10
126-956	Pilot Light Shield (2 required)	
126-959	Pilot Light Shield (2 required)	
148-149	Tuner Arm	.50
149-64	Iron Core & Spring (2 required)	.75
149-211	Iron Core (Pt. of S-46288)	.10
188-148	Retaining Ring (2 used on S-44153)	.03

PART	DESCRIPTION	PRICE
188-177	Clamping Ring (1 Pt.of ea.S-50453)	.03
188-221	Retaining Ring (used on S-44244)	.04
S-15691	FM Oscillator Coil	.50
S-15743	FM Detector Coil	.80
S-40013	Drive Cord & Eyelet Assem.	.15
S-40695	Bushing, Cam & Pulley Assem.	1.25
S-44151	Drive Cord & Eyelet Assem.-Dial Pointer	.15
S-44153	Pulley & Shaft Assem.	.60
S-44244	Tuning Shaft & Pulley Assem.	.75
S-45360	Bandswitch Shield & Terminal Strip Assem.	.50

PART	DESCRIPTION	PRICE
S-45586	Drive Cord & Eyelet Assem.-Tuning	.20
S-46288	Broadcast Oscillator Coil	1.00
S-50452	Idler Pulley & Strip Assem.	
S-50453	Pulley & Ring Assem. (Presence & Tone Control) (3 required)	
S-50455	Plate, Strip, Bushing & Stud Assem.	
S-50460	Shorting Plug Assem.	
S-50648	Chassis Bottom Plate & Spring Assem.	
S-50776	Drive Cord & Eyelet Assem. (3 required)	
S-51082	Plug & Wire Assembly	

CABINET PARTS

SFD660 CABINET PARTS

PART	DESCRIPTION	PRICE
14-2890C	Table Cabinet	
16-1675	Packing Carton	
19-169	Record Changer Mtg.Clip (2 used)	.10
19-346	Mounting Clip (used on S-46112)	.30
24-1000	Chassis Cover	
36-244	Cabinet Handle (pt. of 14-2890C)	
40-157	Lid Support Hinge (pt. of 14-2890C)	1.30
46-1813	Loudness & Treble Tone Control Knob(2)	.15
49-849	7 1/2" PM Speaker	9.00
54-10	8-32 x 1/4 Hex.Nut (4 Pt. of 14-2890C)	.03
54-424	8-32 x 11/32 Hex. Palnut (4 mt. 49-849)	.03
70-215	6 x 3/8 Phils. Rd.Hd.Wood Screw (7 mt. 24-1000)	.04
80-1003	Knob Retaining Spring (pt. of S-45377)	.10
83-765	Arm ite Strip (2 used)	.03
83-1475	Arm ite Strip	.03
83-2535	Phono Shipping Strip (2 used)	.03
86-254	Terminal (4 used)	.05
112-788	8-32 x 1 1/8 Swedge Hd.Mach.Screw (4 pt. of 14-2890C)	.03

PART	DESCRIPTION	PRICE
112-1200	6-18 x 7/8 Phils. Truss Washer Hd. Self-Tap.Screw (4 used on 14-2890C)	.05
112-1202	10-32 x 13/16 Phils.Flat Hd.Mach.Screw - washer att.(4 mt. 5D20)	.10
112-1226	Record Chgr.Mtg.Screw (2 used)	.20
114-329	6-18 x 3/8 x 1/4 Hex.Hd.Self-Tap Screw (2 used on ea. S-23829 & 5D20)	.03
114-669	6-18 x 1/2 x 1/4 Hex.Hd.Self-Tap.Screw (2 used on 19-346)	.03
142-102	Dual Pickup Cartridge (pt. of 169-116)	
169-116	4 Speed Record Changer	
171-16	Pilot Light Lens (pt. of 14-2890C)	.25
188-54	Knob Clamping Ring (1 pt. of ea. S-43480 & 47867)	.03
202-1552	Instruction Book	
S-23829	Tweeter Speaker	1.10
S-45377	Tuning Knob & Spring Assem.	.75
S-46112	45 R.P.M. Record Adapter	5.00
S-43480	Knob & Ring Assem. (Bass)	.25
S-47867	Knob & Ring Assem. (Radio - Phono)	.50

SFF2500 CABINET PARTS

PART	DESCRIPTION	PRICE
14-3193	Console Cabinet - Model SFF2500W	
14-3194	Console Cabinet - Model SFF2500R	
14-3195	Console Cabinet - Model SFF2500E	
16-1779	Packing Carton	
19-169	Retaining Clip (2 used on 169-127)	
19-346	Mounting Clip (Mts. S-46112)	.30
22-3379	8 Mfd. Electrolytic 15VAC (2 required)	
40-202	Lid Support Hinge (Pt. of 14-3193 & 3194)	.60
40-203	Lid Support Hinge (Pt. of 14-3195)	.60
40-233	Lid Hinge (2 Pt. of 14-3193 & 3194)	.60
40-234	Lid Hinge (2 Pt. of 14-3195)	.60
46-1997	Volume Control Knob (Stereo)	.50
46-2263	Tone Control Knob (2 required)	.50
49-414	10" PM Speaker	11.00
49-915	5 1/4 " PM Speaker (2 required)	6.00
54-312	Speed Nut (2 Pt. of cabinet)	.03
54-385	6-32 x 5/16 Hex. Nut (6 required)	.03
54-424	8-32 x 11/32 Hex. Palnut - washer type (4 used on 49-914)	.03

PART	DESCRIPTION	PRICE
57-2498	Emblem Plate (Pt. of cabinet)	.30
57-2561	Name Plate - Stereophonic (Pt. of cabinet)	1.00
57-2864	Shield Plate	.20
57-3001	Control Panel	
72-136	4 x 3/8 Phils. Flat Head Wood Screw (2 used on 57-3001)	.04
83-2790	Phono Shipping Strip (2 required)	.03
83-3418	Control Panel Trim Strip	.30
83-3419	Locking Strip	
86-304	Connector Terminal (6 required)	.05
86-333	Connector Terminal (10 required)	.03
96-300	Cabinet Leg (4 Pt. of 14-3193)	
96-301	Cabinet Leg (4 Pt. of 14-3194)	
96-302	Cabinet Leg (4 Pt. of 14-3195)	
112-1226	Record Changer Mtg. Screw (2 required)	.20
112-1265	6-32 x 1/4 Speaker Mtg. Screw (4 Pt. of cabinet)	
112-1269	8-32 x 1/2 Speaker Mtg. Screw (4 Pt. of cabinet)	.10

PART	DESCRIPTION	PRICE
114-40	Chassis Mtg. Screw (4 required)	.03
114-669	6-18 x 1/2 x 1/4 Hex. Head Self-Tap Screw (2 used on 19-346	.03
114-739	10-32 x 1 1/4 Slot Hex. Head Machine Screw - Flat washer att. (4 Pt. of cabinet)	
142-103	Dual Pickup Cartridge Sapphire - Sapphire	7.95
169-127	4 Speed Record Changer (See record changer parts list for components)	
188-54	Knob Retaining Ring (Pt. of S-50994)	.03
202-1625	Instruction Book	
S-26657	Terminal Strip (2 required)	.20
S-46112	45 R.P.M. Record Adapter	
S-48148	Cartridge Holder (Pt. of 169-127)	5.00
S-50994	Knob & Ring Assembly (Volume)	
GRC 1063	Grille Cloth - SFF2500R	
GRC 1064	Grille Cloth - SFF2500E&W	

SFF2501T, SFF2503T, SFF2505T, SFF2601, SFF2603 SFF2605, SFF2606, SFF2607 CABINET PARTS

PART	DESCRIPTION	PRICE
12-3042	Stereo Balance Control Mounting Bracket	
19-169	Retaining Clip (2 used on 169-131)	.10
19-346	Mounting Clip (mts. S-46112)	.30
40-225	Lid Support Hinge (Pt. of 14-3272 & 3276)	2.50
40-226	Lid Support Hinge (Pt. of 14-3280)	2.50
40-233	Lid Hinge (2 Pt. of 14-3272 &3276)	.60
40-234	Lid Hinge (2 Pt. of 14-3280	.60
46-2263	Control Knob (Loudness -Bass-Treble) (3 required)	.50
46-2586	Knob (Monaural - Stereo)	
46-2306	Knob (Stereo Balance)	.25
52-874	Speaker Cable (2 required) (Made from 91-1757)	.70
52-919	Balance Control Cable (Made from 91-1757)	
54-139	3/8 - 32 x 9/16 Hex. Palnut (Mts.63-4721)	.03
54-312	Speed Nut (2 Pt. of Cabinet)	.03
54-424	8-32 x 11/32 Hex. Palnut (8 used on 49-852)	.03
54-502	6-32 x 1/4 Hex. Nut (4 used on 49-856)	.03
57-2498	Emblem Plate (Pt. of Cabinet)	.35
57-2815	Name Plate (Pt. of Cabinet)	1.25
57-3019	Control Panel	
58-226	5 Prong Plug (1 Pt. of ea. S-47260)	.15
63-4721	Stereo Balance Control	
72-136	4 x 3/8 Phils. Flat Hd. Wood Screw (3 used on 57-3019)	.04
78-1036	5 Contact Socket (2 Pt. of S-47257)	.25
83-3393	Felt Strip	.03
83-765	Armite Strip (8 required)	.03
83-2535	Phono Shipping Strip (2 Required)	.03
83-3505	Control Panel Trim Strip	
83-3226	Locking Strip	.15
86-304	Connector Terminal (3 required)	.05
86-333	Connector Terminal (4 required)	.03
112-1226	Record Changer Mounting Screw (2 required)	.20
112-1265	6 - 32 x 1 1/4 Speaker Mtg. Screw (4 Pt. of Cabinet)	
112-1269	8 - 32 x 1 1/2 Speaker Mtg. Screw (8 Pt. of Cabinet)	.10
126-960	Heat Shield (Phono)	
142-108	Dual Pickup Cartridge (Sapphire-Sapphire)	
S-47257	Bracket & Socket Assembly	
S-47260	Plug & Wire Assembly (2 used on S-47257)	
S-46112	45 R.P.M. Record Adapter	5.00

SFF2501T CABINET PARTS

PART	DESCRIPTION	PRICE
14-3327	Console Cabinet - Model SFF2501WT	
14-3328	Console Cabinet - Model SFF2501RT	
14-3329	Console Cabinet - Model SFF2501ET	
14-3330	Console Cabinet - Model SFF2501HT	
14-3387	Record Storage Well	
16-1820	Packing Carton	
49-923	4 x 6 PM Speaker (2 required)	6.50
49-924	10'' PM Speaker (2 required)	11.00
70-142	8 x 3/8 Phils Rd.Hd. Wood Screw (2 Mt. 14-3387)	
83-3520	Record Well Trim Strip	
91-1757	3-Conductor Wire	
114-386	Chassis Mounting Screw (4 required)	.10
159-90	Plug Button (Part of 14-3329)	.15
159-91	Plug Button (Part of 14-3327, 14-3328 14-3330)	.10
169-133	4-Speed Record Changer	
202-1659	Instruction Book	
GRC22	Grille Cloth - Model SFF2501HT	
GRC1048	Grille Cloth - Model SFF2501WT	
GRC1049	Grille Cloth - Model SFF2501RT	
GRC1050	Grille Cloth - Model SFF2501ET	

SFF2503T CABINET PARTS

PART	DESCRIPTION	PRICE
2-953	Cabinet Back	
14-3311	Console Cabinet - Model SFF2503WT	
14-3312	Console Cabinet - Model SFF2503RT	
14-3313	Console Cabinet - Model SFF2503ET	
14-3387	Record Storage Well	
16-1815	Packing Carton	
17-165	Trim Strip Retaining Clamp	

PART	DESCRIPTION	PRICE
22-3374	1.0 Mfd. Electrolytic Capacitor - 20VAC (2 required)	
49-896	5 1/4" PM Speaker (2 required)	6.00
49-916	10" PM Speaker (2 required)	15.00
70-142	8 x 3/8 Phils.Rd.Hd.Wood Screw (2 Mt. 14-3387)	
83-3520	Record Well Trim Strip	
91-1757	3-Conductor Wire	
96-292	Cabinet Leg (4 Pt. of 14-3311)	
96-293	Cabinet Leg (4 Pt. of 14-3312)	
96-294	Cabinet Leg (4 Pt. of 14-3313)	
112-1203	8-15 x 1 Phils Flat Hd. Self-Tap. Screw (6 Pt. of Cabinet)	.05
114-453	6-18 x 5/8 Slotted Hex.Hd.Self-Tap. Screw (9 Mt. 2-953)	.10
114-669	6-18 x 1/2 x 1/4 Hex.Hd. Self-Tap.Screw (6 required)	.03
114-748	Chassis Mounting Screw (4 required)	
159-90	Plug Button (Part of 14-3313)	.15
159-91	Plug Button (Part of 14-3311 & 14-3312)	.10
169-133	4-Speed Record Changer	
202-1682	Instruction Book	
S-26657	Terminal Strip (2 required)	.20
GRC 934	Grille Cloth - Model SFF2503RT	
GRC935	Grille Cloth - Models SFF2503ET & WT	
HDW10001	Metal Trim	

SFF2505T, CABINET PARTS

PART	DESCRIPTION	PRICE
2-962	Cabinet Back	
14-3270	Cabinet Base Frame - Model SFF2505WT	
14-3272	Cabinet Top Section - Model SFF2505WT	
14-3274	Cabinet Base Frame-Model SFF2505RT	
14-3276	Cabinet Top Section-Model SFF2505RT	
14-3278	Cabinet Base Frame-Model SFF2505ET	
14-3280	Cabinet Top Section-Model SFF2505ET	
14-3387	Record Storage Well	
16-1806	Packing Carton	
17-165	Trim Strip Retaining Clamp	
22-2945	3 Mfd. Electrolytic Capacitor - 30V (1 Pt. of ea. 49-856)	1.25
27-324	Turntable Insert (Pt. of 169-131)	
49-852	12" PM Speaker (2 required)	16.00
49-856	5" PM Speaker (2 required)	7.00
57-3005	Name Plate Background (Pt.of 169-131)	
57-3007	Name Plate Overlay (Pt. of 169-131)	
70-142	8 x 3/8 Phils.Rd.Hd.Wood Screw (2 Mt. 14-3387)	
83-3570	Record Well Trim Strip	
96-316	Cabinet Leg (4 Pt. of 14-3270)	
96-317	Cabinet Leg (4 Pt. of 14-3274)	
96-318	Cabinet Leg (4 Pt. of 14-3278)	
112-1203	8-15 x 1 Phils.Flat Hd.Self Tap.Screw (6 required)	.03
114-453	6-18 x 5/8 Slotted Hex.Hd.Self Tap. Screw (9 Mt. 2-962)	.10
114-669	6-18 x 1/2 x 1/4 Hex. Hd. Self Tap. Screw (6 required)	.03
114-748	Chassis Mounting Screw (4 required)	
159-90	Plug Button - Model SFF2505ET	.15
159-91	Plug Button - Models SFF2505RT & WT	.10
169-131	4-Speed Record Changer	
199-315	Brass Sleeve (4 required)	
202-1651	Instruction Book	
S-26657	Terminal Strip (1 Pt. of ea. 49-856)	.20
GRC1020	Grille Cloth - Model SFF2505ET	
GRC1021	Grille Cloth - Model SFF2505WT	
GRC1022	Grille Cloth - Model SFF2505RT	
HDW2004	Polished Brass Handle	

SFF2601 CABINET PARTS

PART	DES CRIPTION	PRICE
14-3327	Console Cabinet - Model SFF2601W	
14-3328	Console Cabinet - Model SFF2601R	
14-3329	Console Cabinet - Model SFF2601E	
14-3330	Console Cabinet - Model SFF2601H	
16-1835	Packing Carton	
19-278	Connector Clip (Pt. of S-50395)	
49-923	4 x 6 PM Speaker (2 required)	6.50
49-924	10" PM Speaker (2 required)	11.00
83-3474	Line Cord Capacitor Strip	
86-255	Spade Terminal (Pt. of S-50395)	
91-1757	3-Conductor Wire	
113-66	10-32 x 13/16 Hex.Hd.Mach.Screw Lockwasher Att. (2 required)	
114-386	Chassis Mounting Screw (4 required)	.10
114-669	6-18 x 1/2 x 1/4 Hex.Hd.Self-Tap.Screw (2 required)	.03
159-90	Plug Button (Part of 14-3329)	.15
169-133	4-Speed Record Changer	
202-697	FM Instruction Book	
202-1666	Instruction Book	
S-50395	FM Antenna	
GRC22	Grille Cloth SFF2601H	
GRC1048	Grille Cloth SFF2601W	
GRC1049	Grille Cloth SFF2601R	
GRC1050	Grille Cloth SFF2601E	

SFF2603 CABINET PARTS

PART	DESCRIPTION	PRICE
2-953	Cabinet Back	
14-3311	Console Cabinet - Model SFF2603W	
14-3312	Console Cabinet - Model SFF2603R	
14-3313	Console Cabinet - Model SFF2603E	
16-1826	Packing Carton	
19-278	Connector Clip (Pt. of S-50395)	
22-3374	1.0 Mfd Electrolytic Capacitor-20VAC (2 required)	
49-896	5 1/4" PM Speaker (2 required)	6.00
49-916	10" PM Speaker (2 required)	15.00
83-3474	Line Cord Capacitor Strip	
86-255	Spade Terminal (Pt. of S-50395)	
91-1757	3-Conductor Wire	
96-292	Cabinet Leg (4 Pt. of 14-3311)	
96-293	Cabinet Leg (4 Pt. of 14-3312)	
96-294	Cabinet Leg (4 Pt. of 14-3313)	

PART	DESCRIPTION	PRICE
112-1203	8-15 x 1 Phils.Flat Hd.Self-Tap.Screw (6 Pt. of Cabinet)	.05
113-66	10-32 x 13/16 Hex.Hd.Mach.Screw Lockwasher Att. (2 required)	
114-453	6-18 x 5/8 Slotted Hex.Hd.Self-Tap. Screw (9 Mt. 2-953)	.10
114-669	6-18 x 1/2 x 1/4 Hex.Hd.Self-Tap. Screw (8 required)	.03
114-748	Chassis Mtg. Screw (4 required)	
159-90	Plug Button (Pt. of 14-3313)	.15
159-91	Plug Button (Pt. of 14-3311 & 14-3312)	.10
169-133	4-Speed Record Changer	
202-697	FM Instruction Book	
202-1683	Instruction Book	
S-26657	Terminal Strip (2 required)	.20
S-50395	FM Antenna	
GRC934	Grille Cloth - Model SFF2603R	
GRC935	Grille Cloth - Model SFF2603E & W	
HDW10001	Metal Trim	

SFF2605 CABINET PARTS

PART	DESCRIPTION	PRICE
2-962	Cabinet Back	
14-3270	Cabinet Base Frame - Model SFF2605W	
14-3272	Cabinet Top Section - Model SFF2605W	
14-3274	Cabinet Base Frame - Model SFF2605R	
14-3276	Cabinet Top Section - Model SFF2605R	
14-3278	Cabinet Base Frame - Model SFF2605E	
14-3280	Cabinet Top Section - Model SFF2605E	
16-1829	Packing Carton	
22-2945	3 Mfd.Electrolytic Capacitor-30V (1 Pt. of ea. 49-856)	1.25
27-324	Turntable Insert (Pt. of 169-131)	
49-852	12" PM Speaker (2 required)	16.00
49-856	5" PM Speaker (2 required)	7.00
57-3005	Name Plate Background (Pt.of 169-131)	
57-3007	Name Plate Overlay (Pt.of 169-131)	
83-3474	Line Cord Capacitor Strip	
86-255	Spade Terminal (Pt.of S-50395)	
91-1757	3-Conductor Wire	
96-316	Cabinet Leg (4 Pt. of SFF2605W)	
96-317	Cabinet Leg (4 Pt. of SFF2605R)	
96-318	Cabinet Leg (4 Pt. of SFF2605E)	
112-1203	8-15 x 1 Phils.Flat Hd.Self-Tap.Screw (6 required)	.05
113-66	10-32 x 13/16 Hex.Hd.Mach.Screw Lockwasher Att. (2 required)	
114-453	6-18 x 5/8 Slotted Hex.Hd.Self-Tap. Screw (9 Mt. 2-962)	.10
114-669	6-18 x 1/2 x 1/4 Hex.Hd.Self-Tap.Screw (8 required)	.03
114-748	Chassis Mounting Screw	
159-90	Plug Button (Part of 14-3278)	.15
159-91	Plug Button (Pt. of 14-3270 &14-3274)	.10
169-131	4-Speed Record Changer	
199-315	Brass Sleeve (4 required)	
202-697	FM Instruction Book	
202-1662	Instruction Book	
S-26657	Terminal Strip (1 Pt. of ea. 49-856)	.20
S-50395	FM Antenna	
GRC1020	Grille Cloth - Model SFF2605E	
GRC1021	Grille Cloth - Model SFF2605W	
GRC1022	Grille Cloth - Model SFF2605R	
HDW2004	Polished Brass Handle	

SFF2606 CABINET PARTS

PART	DESCRIPTION	PRICE
2-965	Cabinet Back	
14-3318	Console Cabinet - Model SFF2606W	
14-3319	Console Cabinet - Model SFF2606R	
16-1833	Packing Carton	
22-2945	3 Mfd.Electrolytic Capacitor-30V (1 Pt. of ea. 49-856)	1.25
27-324	Turntable Insert (Pt. of 169-131)	
49-852	12" PM Speaker (2 required)	16.00
49-856	5" PM Speaker (2 required)	7.00
57-3007	Name Plate Background (Pt.of 169-131)	
83-3474	Line Cord Capacitor Strip	
86-255	Spade Terminal (Pt. of S-50395)	
91-1757	3-Conductor Wire	
112-1203	8-15 x 1 Phils.Flat Hd.Self-Tap. Screw (6 required)	.05
113-66	10-32 x 13/16 Hex.Hd.Mach.Screw Lockwasher Att. (2 required)	
114-453	6-18 x 5/8 Slotted Hex.Hd.Self-Tap. Screw (9 Mt. 2-965)	.10
114-669	6-18 x 1/2 x 1/4 Hex.Hd.Self-Tap.Screw (8 required)	.03
114-748	Chassis Mounting Screw (4 required)	
159-91	Plug Button (Pt. of Cabinet)	.10
169-131	4-Speed Record Changer	
188-54	Knob Clamping Ring	
202-697	FM Instruction Book	
202-1662	Instruction Book	
S-26657	Terminal Strip (1 Pt. of ea. 49-856)	.20
S-50395	FM Antenna	
GRC1059	Grille Cloth	

SFF2607M CABINET PARTS

PART	DESCRIPTION	PRICE
2-967	Cabinet Back	
14-3321	Console Cabinet	
16-1834	Packing Carton	
22-2945	3 Mfd.Electrolytic Capacitor-30V (1 Pt. of ea. 49-856)	1.25
27-324	Turntable Insert (Pt.of 169-131)	
49-852	12" PM Speaker (2 required)	16.00
49-856	5" PM Speaker (2 required)	7.00
57-3005	Name Plate Background (Pt.of 169-131)	
57-3007	Name Plate Overlay (Pt. of 169-131)	
83-3474	Line Cord Capacitor Strip	
96-323	Cabinet Leg (4 required)	
112-1203	8-15 x 1 Phils. Flat Hd.Self-Tap.Screw (6 required)	.03
113-66	10-32 x 13/16 Hex.Hd.Mach.Screw Lockwasher Att. (2 required)	

PART	DESCRIPTION	PRICE
114-453	6-18 x 5/8 Slotted Hex.Hd.Self-Tap. Screw (9 Mt. 2-967)	.10
114-669	6-18 x 1/2 x 1/4 Hex.Hd.Self-Tap.Screw (2 required)	.03
114-748	Chassis Mounting Screw (4 required)	
159-90	Plug Button	
169-131	4-Speed Record Changer	
202-697	FM Instruction Book	
202-1662	Instruction Book	
S-26657	Terminal Strip (1 Pt. of.ea. 49-856)	
S-50395	FM Antenna	
GRC1044	Grille Cloth	

SFF2515T & SFF2615 CABINET PARTS

PART	DESCRIPTION	PRICE
2-970	Cabinet Back	
14-3324	Console Cabinet - Model SFF2515WT	
14-3325	Console Cabinet - Model SFF2515RT	
14-3326	Console Cabinet - Model SFF2515ET	
14-3387	Record Storage Well (SFF2515)	
16-1841	Packing Carton (SFF2515)	
16-1845	Packing Carton (SFF2615)	
17-165	Trim Strip Retaining Clamp (SFF2515)	
19-169	Record Changer Retaining Clip (2 used)	.10
19-346	Mounting Clip (45 RPM Adapter)	.30
22-2945	Electrolytic 3 Mfd. 30V (2 used)	1.25
27-324	Turntable insert (Pt. of 169-135)	
40-225	Lid Support Hinge (Pt. of 14-3324 & 14-3325)	2.50
40-226	Lid Support Hinge (Pt. of 14-3326)	2.50
40-233	Lid Hinge (2 Pt. of 14-3324 & 14-3325)	.60
40-234	Lid Hinge (2 Pt. of 14-3326)	.60
46-2263	Control Knob (3 used)	.50
46-2284	Knob (Balance)	.50
46-2586	Knob (Monaural - Stereo)	
49-896	5 1/4 " PM Speaker (2 used)	6.00
49-903	12" PM Speaker (2 used)	22.50
52-874	Speaker Cable (2 used - is 43" of 91-1757)	.70
54-312	Speed Nut Tinnerman (2 Pt. of 14-3324, 3325 & 3326)	.03
54-385	6-32 x 5/16 Hex Nut (2 used on ea. 49-869 & 1 on ea. S-26657)	.03
54-424	8-32 x 11/32 Hex Palnut (4 used on ea. 49-903)	.03
57-2498	Emblem Plate (Pt. of 14-3324, 3325 & 3326)	.35
57-2694	Leg Mounting Plate (4 Pt. of ea. 14-3324, 3325 & 3326)	.40
57-2815	Name Plate - Extended Stereo (Pt. of 14-3324, 3325 & 3326)	1.25
57-3005	Name Plate Background (Pt. of 169-135)	
57-3007	Name Plate Overlay (Pt. of 169-135)	
57-3020	Control Panel	
58-226	5 Prong Plug (2 Pt. of S-47260)	.15
70-142	#8 x 3/8 Phils. Round Head Wood Screw (2 mt. 14-3387 on SFF2515)	
72-136	#4 x 3/8 Phils. Flat Head Wood Screw (3 mt. 57-3020)	.04
78-1036	5 Contact Socket (2 Pt. of S-47257)	.25
83-765	Armlite Strip (10 used)	.03
83-1475	Armlite Strip (4 used)	.03
83-2535	Phono Shipping Strip	.03
83-3226	Locking Strip	.15
83-3393	Felt Strip	.03
83-3505	Control Panel Trim Strip	
83-3520	Record Well Trim Strip (SFF2515)	
86-255	Spade Terminal (Pt. of S-50395)	
159-91	Plug Button	.10
169-135	Four Speed Record Changer	
188-155	Knob Clamping Ring (Pt. of S-51122)	.05
188-249	Knob Clamping Ring (Pt. of S-48043)	.03
202-697	FM Instruction Book (SFF2615)	
202-1668	Instruction Book (SFF2615)	.40
202-1667	Instruction Book (SFF2515)	
S-26657	Terminal Strip Assembly (2 used)	.20
S-46112	45 RPM Record Adapter	5.00
S-47257	Bracket & Socket Assembly	1.00
S-47260	Plug & Wire Assembly - Jumper (2 used)	.40
S-48043	Knob & Ring Assembly - Reverberation	.75
S-50395	(FM Antenna)	
S-51042	Reverberation Assembly (R.R)	
S-51122	Knob & Ring Assembly - Bass Tone	
S-51140	Final Chassis Assembly - 3F21	
GRC 1045	Grille Cloth (Narrow - Pt. of 14-3324)	
GRC 1046	Grille Cloth (Narrow - Pt. of 14-3325)	
GRC 1047	Grille Cloth (Narrow - Pt. of 14-3326)	
GRC 1060	Grille Cloth (Wide 2 Pt. of 14-3324)	
GRC 1061	Grille Cloth (Wide 2 Pt. of 14-3326)	
GRC 1074	Grille Cloth (Wide 2 Pt. of 14-3325)	
86-304	Connector Terminal (3 used)	.05
86-333	Connector Terminal (12 used)	.03
96-257	Cabinet Leg L.H. (2 Pt. of 14-3324)	
96-258	Cabinet Leg R.H. (2 Pt. of 14-3324)	
96-259	Cabinet Leg L.H. (2 Pt. of 14-3325)	
96-260	Cabinet Leg R.H. (2 Pt. of 14-3325)	
96-261	Cabinet Leg L.H. (2 Pt. of 14-3326)	
96-262	Cabinet Leg R.H. (2 Pt. of 14-3326)	
112-1226	Record Changer Mounting Screw (2 used)	.20
112-1265	6-32 x 1 1/4 Speaker Mounting Screw (4 Pt. of 14-3324, 3325 & 3326)	
113-66	10-32 x 3/16 Hex Head Machine Screw (2 required)	
112-1269	8-32 x 1 1/2 Speaker Mounting Screw (8 Pt. of 14-3324, 3325 & 3326)	.10
114-42	Chassis Mounting Screw (3 Mts. 2F30)	.05
114-386	Chassis Mounting Screw (4 Mts. 7F30)	.10
114-453	6-18 x 5/8 Slotted Hex Head Self-Tap Screw (7 Mts. 2-970)	.10
114-626	8-15 x 5/16 x 1/4 AF Hex Head Self-Tap Screw (8 used on S-51042)	.03
114-669	6-18 x 1/2 x 1/4 AF Hex Head Self-Tap Screw (2 Mts. each 19-346 & S-47257 & 2 used on 2F30 & 7F20)	.03
114-679	Chassis Mounting Screw (3 Mts. 3F21	.05
126-957	Shield Strip	
138-294	Metal Grille (Pt. of 14-3324)	
142-110	Dual Pickup Cartridge - Diamond - Sapphire	

SFF2535 CABINET PARTS

PART	DESCRIPTION	PRICE
2-954	Cabinet Back	4.00
12-2608	Indicator Light Mounting Bracket	.05
14-3322	Console Cabinet - SFF2535R	
14-3323	Console Cabinet - SFF2535M	
14-3387	Record Storage Well	
16-1819	Packing Carton	
17-165	Trim Strip Retaining Clamp (Pt. of 14-3387)	

PART	DESCRIPTION	PRICE
19-169	Record Changer Retaining Clip	.10
19-346	Mounting Clip (45 RPM Adapter)	.30
22-2945	3 Mfd. Electrolytic 30V (2 used)	1.25
27-324	Turntable insert (Pt. of 169-134)	
40-225	Lid Support Hinge (Pt. of 14-3322 & 3323)	2.50
40-233	Lid Hinge (2 Pt. of 14-3322 & 3323)	.60
46-2263	Bandswitch Knob	.50
46-2266	Loudness Control Knob	.75
46-2586	Stereo Switch Knob	
49-852	12" PM Speaker	16.00
49-856	5" PM Speaker	7.00
52-874	Speaker Cable (Made from 91-1757 2 used)	.70
52-892	Antenna Cable (Pt. of S-50916)	.25
54-312	Speed Nut-Tinnerman (2 Pt. of 14-3322 & 3323)	.03
54-424	8-32 x 11/32 Hex Palnut (4 Mts. ea. 49-852)	.03
54-502	6-32 x 1/4 Hex Nut (2 Mts. ea. 49-856)	.03
57-2498	Emblem Plate (Pt. of 14-3322 & 3323)	.35
57-2815	Name Plate - Extended Stereophonic (Pt. of 14-3322 & 3323)	1.25
57-3005	Name Plate Background (Pt. of 169-134)	
57-3007	Name Plate overlay (Pt. of 169-134)	
57-3051	Radio Dial Escutcheon	
58-226	Five Prong Plug (2 Pts. S-47260)	.15
70-142	#8 x 3/8 Phillips Rd. Head Wood Screw (2 used)	
78-1036	Five Contact Socket (2 Pt. of S-47257)	.25
78-1037	Indicator Light Socket & Wire	.50
80-1003	Knob Retaining Spring (1 Pt. of ea. S-50475, 50482 & S-50483)	.10
80-1233	Crystal Retaining Spring (4 used)	.10
83-765	Armite Strip (5 used)	.03
83-1475	Armite Strip (2 used)	.03
83-2123	Antenna Terminal Strip	.25
83-2535	Phono Shipping Strip (2 used)	.03
83-2932	Rubber Channel Strip (2 used)	.20
83-3474	Line Cord Capacitor Strip	
83-3520	Record Well Trim Strip (Pt. of 14-3387)	
86-255	Spade Terminal (3 used 2 Pt. of S-50916)	.03
86-304	Connector Terminal (5 used)	.05
86-333	Connector Terminal (8 used)	.03

PART	DESCRIPTION	PRICE
90-367	Indicator light tube	.05
93-1358	Felt Washer	.05
93-1359	Felt Washer (2 used)	.03
93-1360	Felt Washer	.05
112-1226	Record Changer Mounting Screw (2 used)	.20
112-1265	6-32 x 1 1/4 Speaker Mounting Screw (4 Pt. of 14-3322 & 3323)	
112-1269	8-32 x 1 1/2 Speaker Mounting Screw (8 Pt. of 14-3322 & 3323)	.10
114-80	Chassis Mounting Screw (3 mt. 3F32)	.05
114-386	Chassis Mounting Screw (4 mt. 9F26)	.10
114-423	8-18 x 5/16 Hex Head Self-Tap Screw (1 used on ea. 80-1233)	.03
114-453	6-18 x 5/8 Slotted Hex Washer Head Self-Tap Screw (2 mt. S-44649 & 9 mt. 2-954)	.10
114-636	8-18 x 3/8 Special Hex Head Self-Tap Screw - Flat Washer Attached (6 mt. 57-3051)	.05
114-669	6-18 x 1/2 x 1/4 AF Hex Head Self-Tap Screw (7 used)	.03
142-108	Dual Pickup Cartridge (Sapphire-Sapphire)	
165-39	Cabinet Caster (4 Pt. of 14-3322 & 3324)	
169-134	Four Speed Record Changer	
171-19	Indicator Light Lens (Pt. of 14-3322 & 3323)	
188-54	Knob Clamping Ring (Pt. of S-44166)	.03
188-155	Knob Clamping Ring (Pt. of S-47939)	.05
192-298	Dial Crystal	
202-697	FM Instruction Book	.10
202-1658	Instruction Book	.40
S-26657	Terminal Strip Assembly (1 Pt. of ea. 49-856)	.20
S-44649	Antenna Assembly	1.50
S-46112	45 RPM Record Adapter Assembly	5.00
S-47257	Bracket & Socket Assembly	1.00
S-47260	Plug & Wire Assembly - Jumper (2 used)	.40
S-47939	Knob & Ring Assembly (Balance)	.75
S-50395	Wire & Terminal Assembly (FM Antenna)	
S-50475	Knob & Spring Assembly (Bass)	
S-50482	Knob & Spring Assembly (Treble)	
S-50483	Knob & Ring Assembly (Presence)	
S-50916	Antenna Lead & Terminal Assembly	

SFF2560, SFF2570, SFF2575, SFF2580, SFF2582, AND SFF2585 CABINET PARTS

PART	DESCRIPTION	PRICE
2-956	Cabinet Back - Model SFF2570	
2-959	Cabinet Back - Model SFF2575	
2-960	Cabinet Back - Models SFF2580,SFF2582	
2-961	Cabinet Back - Model SFF2585	
12-2608	Indicator Light Mounting Bracket	.05
12-3004	Slide Mounting Bracket	
14-3226	Console Cabinet - Model SFF2575	
14-3294	Console Cabinet - Model SFF2570W	
14-3295	Console Cabinet - Model SFF2570E	
14-3296	Console Cabinet - Model SFF2570Y	
14-3297	Console Cabinet - Model SFF2582	
14-3298	Console Cabinet - Model SFF2580	
14-3299	Console Cabinet - Model SFF2585	
16-1807	Packing Carton - Model SFF2570	
16-1808	Packing Carton - Model SFF2575	
16-1809	Packing Carton - Model SFF2580	
16-1810	Packing Carton - Model SFF2585	
16-1842	Packing Carton - Model SFF2582	
19-9	Cable Clip (used on S-48823 except on Model SFF2560)	.05
19-210	Loop Connector Clip (2 Pt. of S-17917)	.05
19-346	Mounting Clip (45 RPM Adaptor)	.30
19-375	Record Changer Retaining Clip (2 used except on SFF2560)	.15

PART	DESCRIPTION	PRICE
20-751	Speaker Inductor Coil (2 required except on SFF2560)	1.25
22-2945	3 Mfd. Electrolytic - 30V (2 required)	
27-324	Turntable Insert (Pt. of 169-132)	
33-188	Record Changer Mtg. Frame (except on SFF2560)	
36-220	Record Changer Handle (except on SFF2560)	1.00
46-2263	Bandswitch Knob	.50
46-2266	Loudness Control Knob	
46-2284	Knob (Balance)	.50
46-2586	Stereo Switch Knob	
49-867	Horn Tweeter Speaker (2 required except on SFF2560)	30.00
49-903	12" PM Speaker (2 required)	22.50
52-825	Antenna Cable (except on SFF2560)	.25
52-873	Speaker Cable - Made from 91-1757 (2 required except on SFF2560)	
54-312	Speed Nut (2 Pt. of Cabinet)	.03
54-385	6-32 x 5/16" Hex. Nut (12 required)	.03
54-424	8-32 x 11/32" Hex. Palnut-Washer Type (4 used on ea. 49-903)	.03
57-2498	Emblem Plate (Pt. of Cabinet)	.35
57-2750	Shield Plate	.25

PART	DESCRIPTION	PRICE
57-2815	Name Plate - Extended Stereophonic (Pt. of Cabinet)	1.25
57-3005	Name Plate Background (Pt. of 169-132)	
57-3007	Name Plate Overlay (Pt. of 169-132)	
57-3037	Radio Dial Escutcheon	
58-176	5- Prong Plug (2 required except on SFF2560)	.30
72-84	8 x 1 1/2 Phils. Flat Hd. Wood Screw (2 used on 156-268 except on SFF2560)	.03
78-346	5-Contact Socket (2 Pt. of S-47599 except on SFF2560)	.20
78-1124	Indicator Light Socket & Wire	.75
80-1003	Knob Retaining Spring (1 Pt. of ea. S- 50475, S-50482 & S-50483)	.10
80-1233	Crystal Retaining Spring (4 required)	.10
83-765	Armite Strip (7 required)	.03
83-1317	Loop Insulating Strip (Pt. of S-17917 except on SFF2560)	
83-1475	Armite Strip (14 required)	.03
83-1884	Antenna Terminal Strip	.30
83-2932	Rubber Channel Strip (2 required)	.20
86-30	Terminal (Pt. of S-44823 except on SFF2560)	.03
86-255	Spade Terminal (4 required)	.03
86-270	Terminal (2 Pt. of S-26657 except on SFF2560)	.03
86-304	Terminal (5 required)	.05
86-312	Terminal (not used on SFF 2560)	.03
86-333	Connector Terminal (20 required)	.03
90-367	Indicator Light Tube	.05
91-1757	3-Conductor Wire	
93-1358	Felt Washer	.05
93-1359	Felt Washer (2 required)	.03
93-1360	Felt Washer	.05
100-67	Indicator Light Bulb	.15
112-1131	6-8 x 5/8" Phils. Flat Hd. Self-Tap. Screw (3 used on ea. S-18560 except on SFF2560)	.03
112-1226	Record Change Mtg. Screw (2 required)	.20
112-1266	6-32 x 1 1/2" Spkr. Mtg. Screw (8 Pt. of Cabinet except on SFF2560)	.05
112-1270	8-32 x 1 3/4" Spkr. Mtg. Screw (8 Pt. of Cabinet except on SFF2560)	
112-1327	8-1 8 x 5/16" Phils. Rd. Hd. Self-Tap. Screw (2 Mtg. ea. S-18560 except on SFF2560)	.03
113-65	8-32 x 1/4 x 1/4 Hex. Hd. Mach.Screw-loc kwasher att. (2 join 33-188 & 36-220 except on SFF2560)	.03
114-78	8-18 x 5/16 x 1/4 Hex. Hd. Self-Tap. Screw (2 used on 33-188 except on SFF2560)	.03
114-386	Chassis Mtg. Screw (8 required)	.10
114-423	8-18 x 5/16 Hex.Hd. Self-Tap. Screw (1 used on ea. 80-1233)	.03
114-453	6-18 x 5/8 Slot.Hex.Washer Hd. Self-Tap. Screw (9 Mt.Cabinet Back)	.10
114-485	6-18 x 1/2 Hex.Hd.Self-Tap Screw (1 used on ea. 12-2608 & 19-9 except on SFF2560)	.03
114-626	8-15 x 5/16 x 1/4 Hex. Hd. Self-tap. Screw (8 required)	.03
114-636	8-18 x 3/8 Hex. Hd. Self-Tap. Screw Flat Washer Att. (6 used on 57-3037)	.05
114-669	6-18 x 1/2 x 1/4 Hex.Hd. Self-Tap. Screw (9 required)	.03
114-679	Chassis Mounting Screw (3 Mt. 3F23)	.05
114-747	Record Changer Mounting Frame Shipping Screw (except on SFF2560)	
138-344	Metal Grill (Pt. of 19-3226 on SFF2575 only)	
142-110	Dual Pickup Cartridge (Diamond - Sapphire)	
152-278	Packing Spacer (except on SFF2560)	
152-279	Wood Block - record changer stop (except on SFF2560)	
159-112	Snap Fastener (used on 86-312 except on SFF2560)	.03
165-39	Cabinet Caster (4 Pt. of Cabinet on SFF2580, SFF2582 & SFF2585)	
166-112	Rubber Bumper (2 used on 57-3037 except on SFF2560)	.03
166-122	Rubber Bumper (2 used on 57-3037 & SFF2582)	
169-132	4-Speed Record Changer	
171-19	Indicator Light Lens (Pt. of Cabinet)	.40
188-54	Knob Clamping Ring (Pt. of S-44166)	.03
188-249	Knob Clamping Ring (Pt. of S-48043)	.03
192-298	Dial Crystal	
202-697	FM Instruction Book	.10
202-1652	Instruction Book	
S-17325	Low Impedance Loop (Pt. of S=17917)	.40
S-17917	Low Impedance Loop, Clip & Strip Assy. (except on SFF2582)	.90
S-18560	Record Changer Slide (2 required except on SFF2560)	2.75
S-44166	Tuning Knob & Ring Assy.	.75
S-46112	45 RPM Record Adaptor	5.00
S-47599	Bracket & Socket Assy. (except on SFF2560)	1.00
S-47602	Plug & Wire Assy. (2 required except on SFF2560)	.40
S-48043	Knob & Ring Assy. (Reverberation)	.75
S-50475	Knob & Spring Assy. (Bass)	
S-50482	Knob & Spring Assy. (Treble)	.75
S-50483	Knob & Ring Assy. (Presence)	
S-51042	Mechanical Reverberation	
GRC35-1	Grille Cloth - Model SFF2570	
GRC1025	Grille Cloth - Model SFF2580	
GRC1026	Grille Cloth - Model SFF2582	
GRC1043	Grille Cloth - Model SFF2585	
GRC1071	Grille Cloth - Model SFF2575	
HDW2010	Door Pull - Model SFF2570	
HDW3001	Hinge - Models SFF2580, SFF2585	
HDW4001	Backplate - Models SFF2580, SFF2585	
HDW3010	Knife Hinge - Left Hand (2 Pt. of SFF2582 Cabinet)	
HDW3011	Knife Hinge - Right Hand (2 Pt. of SFF2582 Cabinet)	

CABINET PARTS FOR SFF 2560 ONLY

PART	DESCRIPTION	PRICE
2-973	Cabinet Back	
14-3359	Console Cabinet - Model SFF2560W	
14-3360	Console Cabinet - Model SFF2560Y	
14-3387	Record Storage Well	
16-1840	Packing Carton	
19-169	Record Changer Retaining Clip (2 required)	.10
19-278	Connector Clip	.10
22-2774	.22 Mfd. Capacitor - 200V (2 required)	.35
40-225	Lid Support (Pt. of 14-3359)	2.50
40-226	Lid Support (Pt. of 14-3360)	2.50
40-233	Lid Hinge (2 Pt. of 14-3359)	.60
40-234	Lid Hinge (2 Pt. of 14-3360)	.60
49-782	3 1/2" PM Tweeter Speaker (2 required)	4.50
49-896	5 1/4" PM Speaker (2 required)	6.00
49-903	12" PM Speaker (2 required)	22.50
52-874	Speaker Cable - 43" (2 required)	.70
52-892	Speaker Cable (Pt. of S-50916)	.25

PART	DESCRIPTION	PRICE
83-2145	5 Lug. Terminal Strip	.10
85-680	3 Position Switch	
86-333	Connector Terminal (6 required)	.03
95-1701	Audio Choke (Pt. of S-50862)	
112-943	6-32 x 1 Spkr. Mtg. Screw (6 Pt. of 14-2864)	.03
114-453	6-18 x 5/8 Hex. Washer Hd. Self-Tap. Screw (4 Mt. 2-975)	.10
114-701	8-15 x 3/8 Hex. Washer Hd. Self-Tap. Screw (3 used on S-50862)	.03
125-100	Strain Relief Grommet	.15
S-26657	Terminal Strip	.20
S-50862	Filter Mounting Plate	

FR 103 CABINET PARTS

PART	DESCRIPTION	PRICE
12-3028	Speaker Mounting Bracket	
14-3376	Table Cabinet	
16-1860	Packing Carton	
22-3196	80 Mfd. Electrolytic-25V. (2 required)	2.00
49-937	51/4" PM Speaker	
49-938	2" PM Speaker	
54-379	Tinnerman Speed Nut (used on Ea. 12-1336)	.03
54-385	6-32 x 5/16 Hex. Nut (4 Mt. 49-937)	.03
58-226	5 Prong Plug	.15
80-1323	Speaker Retaining Spring (3 used on 49-938)	.10
83-2145	5 Lug. Terminal Strip (Pt. of S-51185)	.10
86-328	Wire Terminal (Pt. of S-51185)	.03
86-333	Connector Terminal (2 required)	.03
95-1701	Audio Choke (Pt. of S-51185)	
112-1265	6-32 x 11/4 Spkr. Mtg. Screw (4 Pt. of 14-3376)	
112-1336	4-40 x 1/4 Phils. Pan Hd. Mach. Screw (used on Ea. 80-1323)	
112-1340	6-18 x 3/4 Phils. Oval Hd. Self-Tap. Screw (4 required)	
114-767	4-24 x 5/16 x 1/4 Hex. Hd. Self-Tap. Screw (3 required)	
166-97	Bumper (4 Pt. of 14-3376)	.05
S-51185	Filter & Mtg. Plate Assem.	

FR 105 CABINET PARTS

PART	DESCRIPTION	PRICE
2-978	Cabinet Back	
14-2865	Table Cabinet	
16-1856	Packing Carton	
22-2945	3 Mfd. Electrolytic-30V.	1.25
22-3196	80 Mfd. Electrolytic-25V. (2 required)	2.00
46-2614	Switch Knob	
49-867	Horn Tweeter Speaker	30.00
49-902	6 x 9 PM Speaker	9.00
52-929	Speaker Cable	
54-34	6-32 x 1/4 Hex. Nut (8 Pt. of 14-2865)	.03
54-139	3/8-32 x 9/16 Hex. Palnut (used on S-50862)	.03
54-385	6-32 x 5/16 Hex. Nut (1 Mts. S-26657 & 4 Mt. Ea. 49-867 & 902)	.03
54-469	Tinnerman Speed Mt. (Pt. of 14-2865)	.10
57-2816	Name Plate (Pt. of 14-2865)	.35
58-176	5 Prong Plug (Pt. of S-50859)	.30
83-2145	5 Lug. Terminal Strip (Pt. of S-50862)	.10
85-680	3 Position Switch	
86-333	Connector Terminal (6 required)	.03
95-1701	Audio Choke (Pt. of S-50862)	
112-943	6-32 x 1 Swedge Hd. Mach. Screw (8 Pt. of 14-2865)	.03
114-701	8-15 x 3/8 x 1/4 Hex. Washer Hd. Self-Tap. Screw (3 used on S-50862)	.03
114-453	6-18 x 5/8 Hex. Washer Hd. Self-Tap. Screw (4 Mt. 2-978)	.10
125-100	Strain Relief Grommet	.15
S-26657	Terminal Strip	.20
S-50859	Cable & Plug. Assembly	
S-50862	Filter Mounting Plate	

FPS 30 CHASSIS PARTS

22-2795	Condenser .047 Mfd. 200 V.	.25
WC12145	Electrolytic 80 x 20-150 V x 20-25 V	2.75
	Resistor 22 Ohm 1/2 W Ins. 20%	.17
	" 33 " 1/2 W " 20%	.17
	" 115 " 5 W " 10%	.80
	" 2200 " 1/2 W " 20%	.17
	" 39K " 1/2 W " 20%	.17
WC13069	Remote Vol. Con. & Sw.	2.05
WC13706	Output Trans. (Remote Spk.)	2.00
WC13786	Master Vol. Con. (2 Meg.)	1.40
WC13970	Stereo-Monaural Sw.	1.40
WC14027	Silicon Rectifier (5E4)	3.40
WC14132	47 Ohm Fusing Resistor (100MA) (10%)	.50
	TUBES 2-50EH5	

FPS 30 CABINET PARTS

WC8266 -B	Hinge	.10
WC8561 -B	Turntable Hold Down Spring	.05
WC11792	4" P.M. Spk. (less Trans.)(Remote)	5.00
WC11837B	Catch	.20
WC12126 -8E	Knob (3 used)	.20
WC13688 -6B	Handle Assem. (includes handle & two plates)	.50
WC13745 -8	Motor only (Ali)	13.50
WC13746 -8	" " (G.I.)	13.50
WC13747 -58	Turntable only (Ali)	2.00
WC13748		

PART	DESCRIPTION	PRICE
58-226	5-Prong Plug (1 Pt. of S-47260)	.15
70-142	8 x 3/8 Phils. Rd. Hd. Wood Screw (2 required)	
78-1036	5-Contact Socket (2 Pt. of S-47257)	.25
83-2535	Phono Shipping Strip	.03
83-3474	Live Cord Capacitor Strip	
96-335	Cabinet Leg - Right Hand (2 Pt. of Cabinet)	
96-336	Cabinet Leg - Left Hand (2 Pt. of Cabinet)	
112-1265	6-32 x 1 1/4" Spkr. Mtg. Screw (8 Pt. of Cabinet)	
112-1269	8-32 x 1 1/2" Spkr. Mtg. Screw (8 Pt. of Cabinet)	.10
166-122	Rubber Bumper (2 used on 57-3037)	
S-47257	Bracket & Socket Assy.	1.00
S-47260	Plug & Wire Assy. (2 used on S-47257)	.40
S-50916	Ant. Lead & Terminal Assy.	
GRC1070	Grille Cloth	

DR 60 CABINET PARTS

PART	DESCRIPTION	PRICE
12-2684	Baffle Mounting Bracket (2 Pt. of Ea. 139-121)	.10
14-2503	Plastic Table Cabinet (2 Used)	
16-1735	Packing Carton	
17-149	Cable Clamp (1 Pt. of Ea. S-49044)	.05
22-3196	80 Mfd. Electrolytic - 25 V. (2 used)	2.00
49-902	6 x 9 PM Speaker (1 used in Ea. 14-2503)	9.00
54-12	6-32 x 5/16 Hex. Nut (5 used on Ea. 14-2503)	.03
58-226	5 Prong Plug (2 used)	.15

FR 100 CABINET PARTS

PART	DESCRIPTION	PRICE
2-976	Cabinet Back	
14-2838	Table Cabinet-FR100H	
14-2863	Table Cabinet-FR100L	
16-1853	Packing Carton	
22-3196	Electrolytic (2 required)	
46-2614	Switch Knob	
49-902	6 x 9 PM Speaker	
54-34	6-32 x 5/16 Hex. Nut (4 Mt. 49-902) (4 Pt. of Cabinet)	
54-139	3/8-32 x 9/16 Hex. Palnut (Mts. 85-680)	
54-569	Tinnerman Speed Nut (Pt. of Cabinet)	
57-2816	Name Plate (Pt. of Cabinet)	
58-226	5 Prong Plug	
83-2145	5 Lug Terminal Strip	
86-333	Connector Terminal (2 required)	
95-1701	Audio Choke (Pt. of S-50862)	
112-943	6-32 x 1 Speaker Mtf. Screw (4 Pt. of Cabinet)	
114-453	6-18 x 5/8 Hex. Washer Hd. Self Tap. Screw (4 Mt. 2-976)	
114-701	8-15 x 3/8 Hex. Washer Hd. Self Tap. Screw (3 Mt. S-50862)	
125-100	Strain Relief Grommet	
S-50862	Filter Mounting Plate	

FR 101 CABINET PARTS

PART	DESCRIPTION	PRICE
2-977	Cabinet Back	
14-2945	Table Cabinet-FR101H	
14-2946	Table Cabinet-FR101L	
16-1854	Packing Carton	
22-3196	80 Mfd. Electrolytic-25V (2 Required)	2.00
46-2614	Switch Knob	
49-835	71/2" PM Tweeter Speaker	7.50
54-34	6-32 x 5/16 Hex. Nut (Mt. 49-835)	.03
54-139	3/8-32 x 9/16 Hex. Palnut (Mts. 85-680	.03
58-226	5 Prong Plug	.15
83-2145	5 Lug Terminal Strip	.10
85-680	3 Position Switch	
86-333	Connector Terminal (2 required)	.03
95-1701	Audio Choke (Pts. of S-50862)	
112-1265	6-32 x 11/4 Speaker Mounting Screw (4 Pt. of 19-2945 & 2946)	
114-701	8-15 x 3/8 Hex. Washer Hd. Self-Tap. Screw 3 Mt. S-50862	.03
114-453	6-18 x 5/8 Hex. Washer Hd. Self-Tap. Screw 4 Mt. 2-977	.10
125-100	Strain Relief Grommet (used on S-50862)	.15
S-50862	Filter Mounting Plate	

FR 102 CABINET PARTS

PART	DESCRIPTION	PRICE
2-975	Cabinet Back	
14-2864	Table Cabinet	
16-1844	Packing Carton	
22-2945	3 Mfd. Electrolytic-30V.	
22-3196	80 Mfd. Electrolytic-25V. (2 required)	2.00
46-2614	Switch Knob	
49-782	31/2" P.M. Tweeter Speaker	4.50
49-902	6 x 9 P.M. Speaker	9.00
54-34	6-32 x 5/16 Hex. Nut (1 Mts. S-26657, 2 Mt. 49-782 & 4 Mt. 49-902) (6 Pt. of 14-2864)	.03
54-139	3/8-32 x 9/16 Hex. Palnut (Mts. 85-680)	.03
54-469	Tinnerman Speed Nut (Pt. of 14-2864)	.10
57-2816	Name Plate (Pt. of 14-2864)	.35
58-226	5 Prong Plug	.15

PART	DESCRIPTION	PRICE
-58	" (G.I.)	2.00
WC13756		
-5	Tone Arm & Rest	11 .00
WC13960	Master & Remote Case (with hardware grille cloth, emblems & grille printing less motorboard, amplifier panel & remote cover)	
WC13969	4" P.M. Spk. & Trans.	7.00
WC14011		
-9	Back Screen	.60

PART	DESCRIPTION	PRICE
WC14092	Remote Back	.75
WC14094	External Spk. Cable & Plug (9 Ft.)	1.50
WC14095	Motorboard	5.00
WC14096		
-4	Amplifier Panel & Phono Jack	1.60
57-1721	Emblem Plate	.25
141-101	Stereo Cartridge & Needles	12.75
56-417	1 Mil. Mfg. Sapphire Tip Needle	1.50
56-418	3 " " " " "	1.50
202-1547	Instruction Book	.25

FPS 45 CHASSIS PARTS

PART	DESCRIPTION	PRICE
22-1843	Condenser .01 Mfd. 600V.	.30
22-2245	Condenser .068 Mfd. 600V.	.45
22-2795	Condenser .047 Mfd. 200V.	.25
	Resistor 4700 Ohm 1/2 W. 20%	.17
	Resistor 68 K. Ohm 1/2 W. 20%	.17
	Resistor 680 K. Ohm 1/2 W. 20%	.17
	Resistor 150 Ohm 1 W. 20%	.25
	Resistor 2200 Ohm 1 W. 20%	.25

PART	DESCRIPTION	PRICE
	Resistor 115 Ohm 5 W. 10%	.75
WC 12400	Volume Control	1.40
WC 13650	Tone Control	2.35
WC 13706	Output Transformer	2.00
WC 14027	Silicon Rectifier	3.40
WC 14132	Fusing Resistor 47 Ohm	.50
WC 14869	Electrolytic 150/150V. 20/150V. 20/25V.	

FPS 45 CABINET PARTS

WC10683-B	Hinge Cover	.25
WC11819	Recessed Nut	.30
WC12126-8E	Knob	.25
WC12861B-1	Hinge, Remote Right	.35
WC13448-8B	Handle Assem. (Handle & 2 Plates)	.60
WC13934B-1	Hinge Remote Left	.35
WC13999	Back Vent	.50
WC14103	Amplifier Panel	
WC14104	Vent Panet	
WC14124-6	Remote Cover	
WC14158-B	Catch	.20
WC14160	External Speaker Cable (With Phono Plug, Sleeve & Celon)	1.50
WC14692	4" x 6" Speaker	
WC14693	4" x 6" Speaker	
WC14748	Case Assembly with Hardware & Motorboard (Less Back Vent, Vent Panel, Amplifier Panel, & Remote Cover)	
WC14752	Instructions	
56-441	2.5 mil. Sapphire Tip Needle	
56-442	.75 mil. Sapphire Tip Needle	
57-1721	Emblem Plate	.25
142-113	Cartridge With Needles	
169-137	Record Changer (For Components, See Parts List)	
202-1701	Instruction Book	
S-46112	45R.PM Adaptor (Accessory)	5.00

FPS 50 CHASSIS PARTS

PART	DESCRIPTION	PRICE
22-1843	Condenser .01 Mfd. 600V.	
22-2078	Condenser .047 Mfd. 600V.	
22-2245	Condenser .068 Mfd. 600V.	
WC14690	Electrolytic 150/150V. 20/150V.	
	Resistor 33 Ohm 1W. Ins. 10%	
	Resistor 150 Ohm 1/2W. Ins. 10%	
	Resistor 220 Ohm 1/2W. Ins. 10%	
	Resistor 270 Ohm 1/2W. Ins. 10%	

PART	DESCRIPTION	PRICE
	Resistor 47K Ohm 1/2W. Ins. 10%	
WC14132	Fuse Resistor 47 Ohm 3W.	
WC13229	Volume Control (5 meg)	
WC13501	Balance Control (1 meg)	
WC13706	Transformer	
WC14027	Rectifier	
WC14642	Tone Control (50K)	

FPS 50 CABINET PARTS

WC10683-B	Hinge Cover
WC11502	Mounting Protector
WC11837-B	Catch
WC12126-3E	Knob Assembly (3 used)
WC12861B-1	Remote Hinge Right
WC13065	Tee Nut
WC13274	Speaker Cord
WC13289	Mounting Board Protector
WC13448-8B	Handle Assembly
WC13626	Adjustment Screw
WC13934B-1	Remote Hinge Left
WC14117	Recessed Nut
WC14327	Cable (Audio)
WC14694	6" Speaker (2 used)
WC14696	Case Assembly with Hardware & Motorboard (Less amplifier panel & remote cover)
WC14754	Metal Panel
WC14755	Instruction Sheet
WC14762	Remote Cover
57-1721	Emblem Plate
142-103	Cartridge
169-119	Record Changer (See parts list for components)
202-1702	Instruction Book

FPS 80 CHASSIS PARTS

PART	DESCRIPTION	PRICE
22-1842	Condenser .01 Mfd. 600V.	
22-2634	Condenser .04 Mfd. 400V.	
22-2673	Condenser 22 Mfd. 500V.	.25
22-2976	220 Mmf. Ceramic Disc.	.30
WC14244	Electrolytic 30/350 15/300 25/25V.	
	Resistor 330 Ohm. 1/2W. Ins. 20%	.17
	Resistor 82K Ohm. 1/2W. Ins. 20%	.17
	Resistor 100K Ohm. 1/2W. Ins. 20%	.17
	Resistor 270K Ohm. 1/2W. Ins. 20%	.17
	Resistor 2.2 Megohm 1/2W. Ins. 20%	.17
	Resistor 10K Ohm. 1W. Ins. 20%	.25
	Resistor 150Ohm. 2W. Ins. 20%	.34
WC13229	Bass & Loudness Control (5 Meg.)	2.50
WC13501	Balance Control	1.40
WC13800	Treble Control (1 Meg.)	
WC13485	Power Transformer	13.00
WC14163	Output Transformer	
WC14164	Output Transformer	
WC14245	Output Transformer	

FPS 80 CABINET PARTS

WC10683-B	Hinge	.25
WC12006B	Catch	.75
WC13132-9KA	Knob Assembly (Loudness, Bass & Treble)	
WC13132-9KB	Knob Assembly (Balance)	
WC13289	Motorboard Protector	.10
WC13557-B	Catch (Top)	1.00
WC13975	8" Speaker	
WC14181	Ext. Speaker Cable 12 (2 used)	
WC14238	Audio Cable	
WC14246	Pickup Holder	
WC14256	5 1/4" Speaker (2 used)	
WC14263-8B	Handle Assembly	
WC14318-9	Vent Plate Painted	
WC14700	Case with Hardware & Motorboard (Less Front Grille, Amplifier Panel, Trim Strip & Vent Plate)	
WC14757	Amplifier Panel	
WC14758	Instruction Sheet	
WC14760	Trim Strip	
WC14761	Grille Panel (With Baffle, Crest, Swedge Bolts and Mounting Track)	
WC14763-A1	Hinge R. H.	
WC14763-A2	Hinge R. H.	
WC14764A1	Hinge L. H.	
WC14764A2	Hinge L. H.	
19-346	Mounting Clip (For S-46112)	.30
56-436	Needle Assembly (.7 Mil Sapphire)	
56-438	Needle Assembly (3 Mil Sapphire)	
57-1721	Emblem Plate	.25
142-111	Stereo Cartridge & Needles	
169-141	Record Changer (See Parts List for Parts)	
202-1703	Instruction Book	
S-46112	45 R. P. M. Record Adaptor	5.00

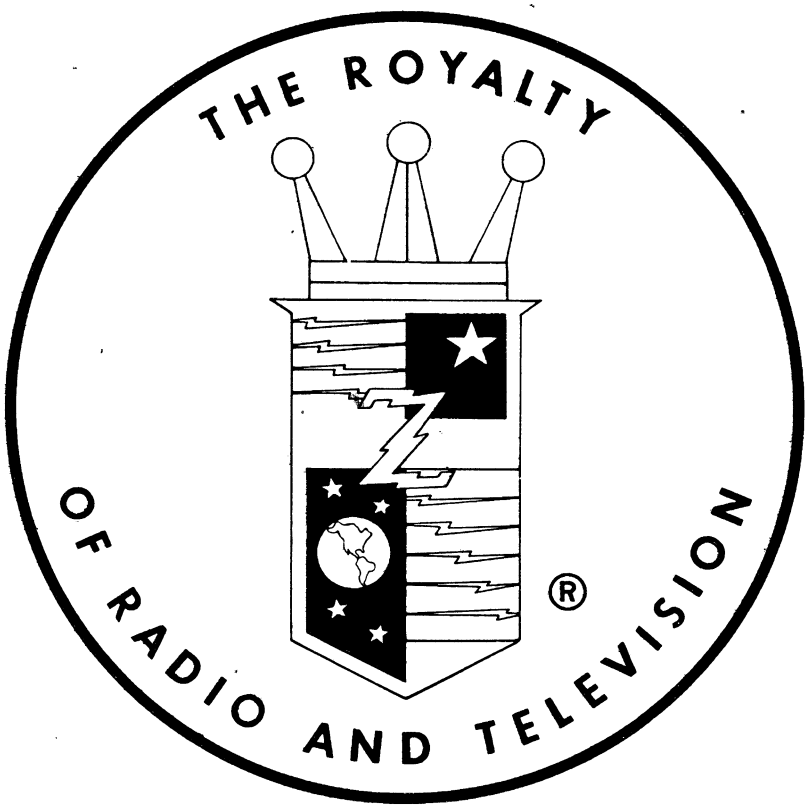
DRS 89 CHASSIS PARTS

PART	DESCRIPTION	PRICE
22-1814	Condenser .0022 Mfd. 600V.	
22-1843	Condenser .01 Mfd. 600V.	
22-1849	Condenser .0047 Mfd. 600V.	
22-2248	Condenser .033 Mfd. 600V.	
22-2851	Condenser 470 Mfd. 600V.	
WC12961	Electrolytic 4 Mfd. 10V.	1.70
WC13234	Electrolytic 30-350V. x 20-350V. x 20-25V.	3.00
	Resistor 200 Ohm 1/2 W. Ins. 20%	.17
	Resistor 330 Ohm 1 W. Ins. 10%	.25
	Resistor 560 Ohm 1/2 W. Ins. 20%	.17
	Resistor 4700 Ohm 1/2 W. Ins. 10%	.17
	Resistor 27 K Ohm 1/2 W. Ins. 20%	.17
	Resistor 39 K Ohm 1/2 W. Ins. 20%	.17
	Resistor 150 K Ohm 1/2 W. Ins. 20%	.17
	Resistor 270 K Ohm 1/2 W. Ins. 20%	.17
	Resistor 470 K Ohm 1/2 W. Ins. 20%	.17
	Resistor 10 Megohm 1/2 W. Ins. 20%	.17
WC13222	Output Trans.	2.75
WC13225	Treble Con. & Sw. (2 Meg.)	2.05
WC13226	Bass Con. & Loudness Con. (5 Meg.)	1.40
WC13227	Power Trans.	11.00
WC13239	Balance Pot (1500 Ohm)	.75
83-2639	3 Lug Terminal Strip (1 Pt. of Ea. S-49044)	.05
83-3405	Felt Strip (6 used)	
86-30	Terminal (1 Pt. of Ea. S-49044)	.03
86-304	Connector Terminal (6 used)	.05
86-329	Connector Terminal (8 used)	.03
112-1265	6-32 x 1/4 Spkr. Mtg. Screw (4 Pt. of Ea. 139-121)	
112-1284	8-32 x 3/8 Phils. Pan. Hd. Mach. Screw (4 used)	.03
112-1285	8-32 x 5 3/8 Phils. Pan. Hd. Steel - Black Oxide (4 used)	.20
114-593	8-18 x 1/2 Hex. Hd. Self-Tap Screw-flat Washer Att. (4 used)	
139-121	Baffle Board (2 used)	.03
S-26657	Terminal Strip (1 Mts. Ea. 22-3196)	.20
S-49044	Filter Plate (2 used)	3.00

DRS 89 CABINET PARTS

WC11792	4" PM Speaker (less Trans.) (Sub. 49—750)	
WC12963	6" PM Speaker (less Trans.)	8.00
WC12581-6	Back Vent Only	.30
WC13132 -8EN	Knob (with numbered inlay) (3 used)	.50
WC13275	Connector Cable	4.75
WC13423	Pilot Light Socket	.60
WC13424	Pilot Light Bracket	.25
WC13425	Pilot Light Jewel	.25
WC13448 -8B	Handle Assem. (Incldes. handle & 2 plates)	.60
WC13694	Case With Hardware, Rear Cover & Catch (less front grille & baffle assembly)	
WC13988	Front Grille & Baffle With Crest, Swedge Bolts & Mounted Track	2.50
WC13701	Trim Strip	1.25
57-1721	Emblem Plate	
100-67	Pilot Light	
202-1535	Instruction Book	.25

NOTES



ZENITH RADIO CORPORATION
6001 DICKENS AVENUE
CHICAGO 39, ILL.

FORM HFS - CPC
9/30/60

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