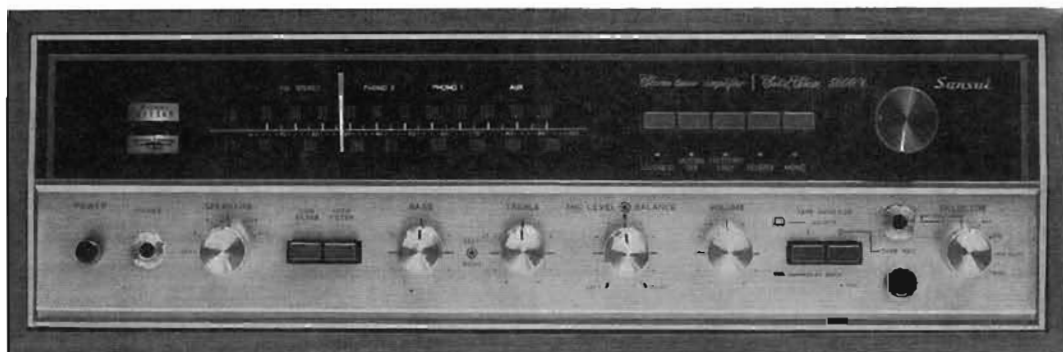


SERVICE MANUAL

SOLID-STATE AM/FM STEREO TUNER AMPLIFIER

SANSUI 5000X



Sansui

SANSUI ELECTRIC CO., LTD.

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Stereo amplifier | Total Output 500W

LOUDNESS OFF MING FM/STEREO ONLY REVERSE MONO

POWER INDICATOR SPEAKERS LOW FILTER HIGH FILTER BASS TREBLE MC LEVEL BALANCE VOLUME TAPES MONITOR PULL BACK SELECTOR

GENERAL TROUBLESHOOTING CHART

If the amplifier is otherwise operating satisfactorily, the more common causes of trouble may generally be attributed to the following:

1. Incorrect connections or loose terminal contacts. Check the speakers, record player, tape deck, antenna and line cord.
2. Improper operation. Before operating any audio com-

ponent, be sure to read the manufacturer's instructions.

3. Improper location of audio components. The proper positioning of components, such as speakers and turntable, is vital to stereo.

4. Defective audio components.

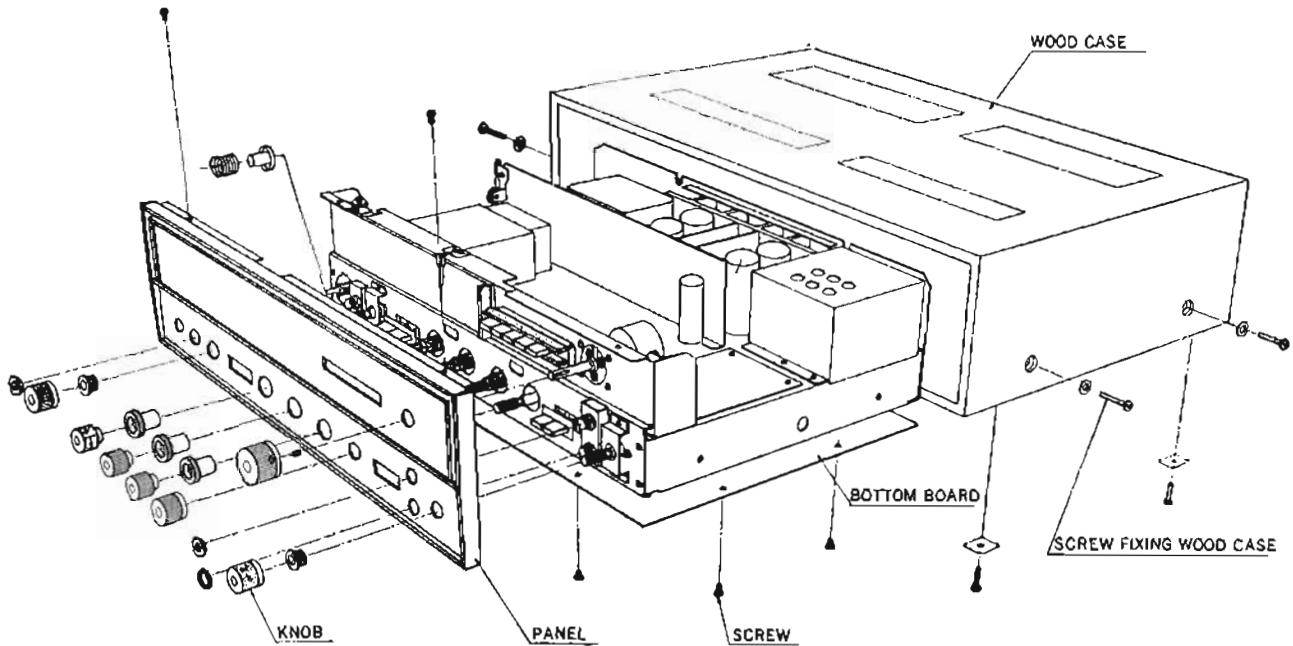
The following are some other common causes of malfunction and what to do about them.

PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
AM, FM or FM-MPX reception	A. Constant or intermittent noise heard at times or in a certain area.	<ul style="list-style-type: none"> * Discharge or oscillation caused by electrical appliances, such as fluorescent lamp, TV set, D.C. motor rectifier or oscillator * Natural phenomena, such as atmospherics, static or thunders bolts * Insufficient antenna input due to ferroconcrete wall or long distance from the station * Wave interference from other electrical appliances 	<ul style="list-style-type: none"> * Attach a noise limiter to the electrical appliance, or attach it to the amplifier's power source * Install an outdoor antenna and ground the amplifier to raise the signal-to-noise ratio. * Reverse the power cord plug-receptacle connections. * If the noise occurs at a certain frequency, attach a wave trap to the ANT. input. * Keep the set at a proper distance from other electrical appliances.
	B. The needle of the signal and tune meter does not move sharply	<ul style="list-style-type: none"> * Receiver is located in a weak signal area 	<ul style="list-style-type: none"> * The needle swing varies depending on the stations
	C. The zero point of the meter diverges much	<ul style="list-style-type: none"> * Regional difference in field intensity. 	<ul style="list-style-type: none"> * The unit is not at fault.
AM reception	A. Noise heard at a particular time of a day, in a certain area or over part of dial	<ul style="list-style-type: none"> * Due to the nature of AM broadcasts 	<ul style="list-style-type: none"> * Install the antenna for maximum antenna efficiency. See "ANTENNA" in the operating instructions. * In some cases, the noise can be eliminated by grounding the amplifier or reversing the power cord plug-receptacle connections.
	B. High-frequency noise	<ul style="list-style-type: none"> * Adjacent-channel interference or beat interference * TV set is too close to audio system 	<ul style="list-style-type: none"> * Although such noise cannot be eliminated by the amplifier, it is advisable to adjust the TREBLE control from midpoint to left and switch on the HIGH FILTER * Keep the TV set at a proper distance from the audio system.
FM reception	A. Noisy	<ul style="list-style-type: none"> * Poor noise limiter effect or too low SN ratio due to insufficient antenna input. 	<ul style="list-style-type: none"> * Install the antenna (supplied) for maximum signal strength. * If this does not prove effective, use an outdoor antenna designed exclusively for FM. When you use a TV antenna for both TV and FM with a splitter, make sure TV reception is not affected * An excessively long antenna may cause noise
		<p>Note: FM reception is affected considerably by transmission conditions of stations: power and antenna efficiency. As a result, you may receive one station quite well while receiving another station poorly</p>	

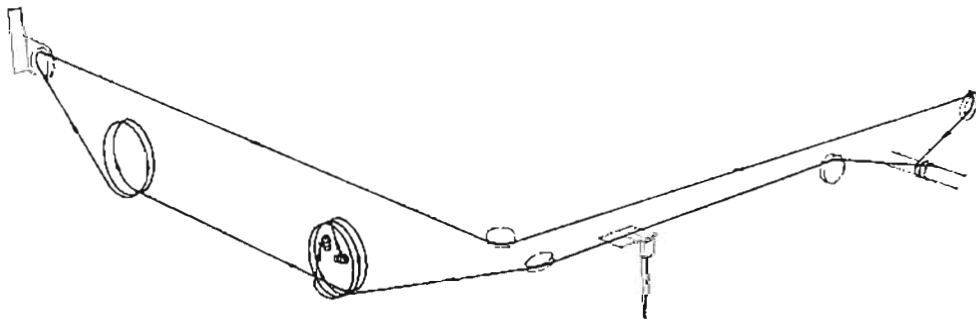
PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
FM reception (cont'd)	B. A series of pops	* Ignition noise caused by starting of an automobile engine	* Install the antenna and its lead-in wire in proper distance from the road or raise the antenna input as described above
	C. Tuning noise between stations	* This results from the nature of the FM reception. As the station signal becomes weak, the noise limiter effect is decreased, and the amplification of the limiter, in turn, is enlarged, generating a noise	* Release the MUTING OFF button
FM-MPX reception	A. Noise heard during FM-MPX reception while not heard during FM mono reception	* Weaker signal because the service area of the FM-MPX broadcast is only half that of the FM mono broadcast	* Install the antenna for maximum antenna input * Switch on the high filter and/or turn the TREBLE control from midpoint, left
	B. Clearness of channel separation is decreased during reception	* Excess heat	* Circulation of air is important to the amplifier. Be sure that air is flowing under the amplifier.
	C. The stereo indicator blinks on and off	* Interference	* The indicator is not at fault, adjust VR ₄₀₁
	D. The stereo indicator blinks on and off even though stereo station is not received	* Interference	* The indicator is not at fault, adjust VR ₄₀₁
Record playing or tape playback	A. Hum or howling	* Record player placed directly on speaker box * Wire other than shielded wire used * Loose terminal contact * Shielded wire too close to line cord, fluorescent lamp or other electrical appliances * Nearby amateur radio station or TV transmission antenna	* Place a cushion between the player and the speaker box or place them away from each other * The connecting shielded wire should be as short as possible * Switch on the LOW FILTER and adjust the BASS control from midpoint, left * Consult the nearest Radio Regulatory Bureau
	B. Surface noise	* Worn or old record * Worn needle * Needle dusty * Improper needle pressure	* Recondition the playback head of the tape deck or the needle of the record player * Adjust the TREBLE control from midpoint, left * Push on the HIGH FILTER
All stereo programs	BALANCE control is not at midpoint when equal sound comes from left and right channels	* It is important to adjust for equal sound from both channels. It should not always be set to the midpoint	* Push on the MONO switch and then set the BALANCE control to a position where equal sound comes from both channels

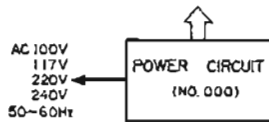
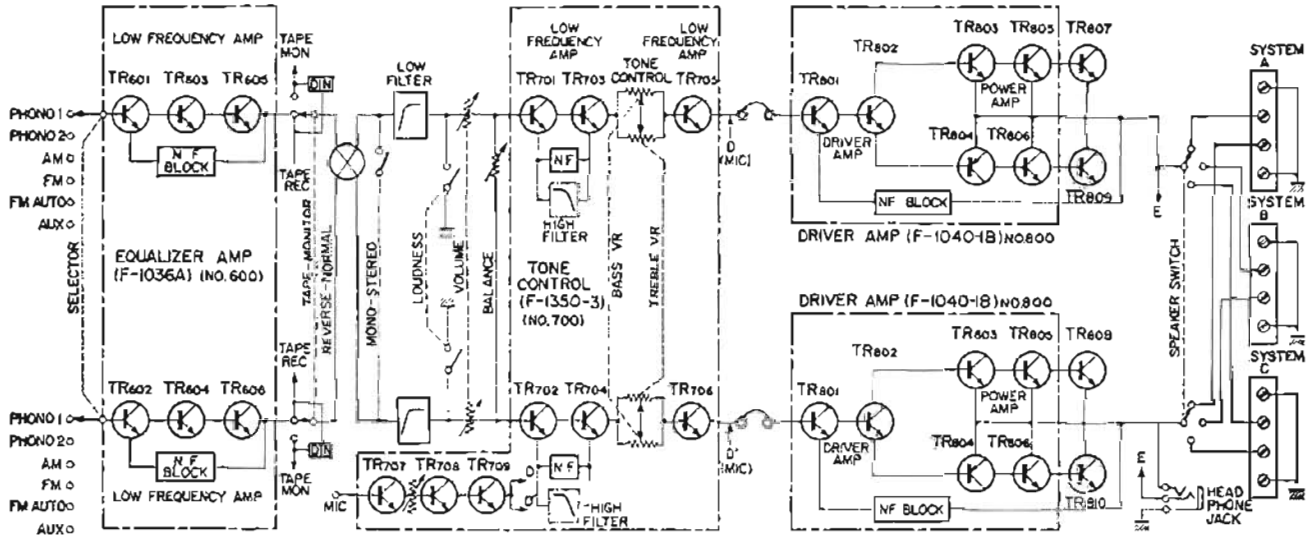
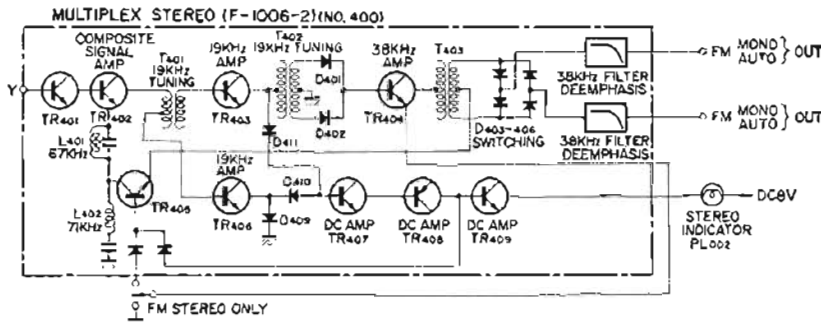
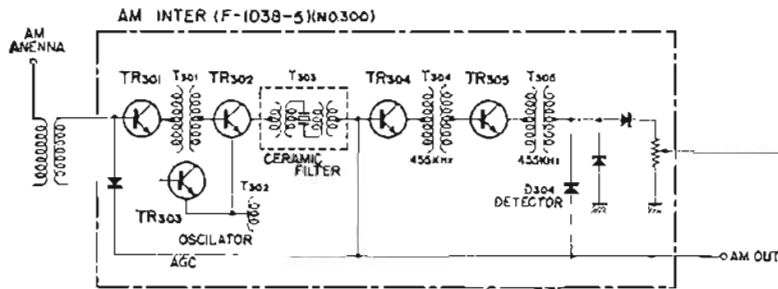
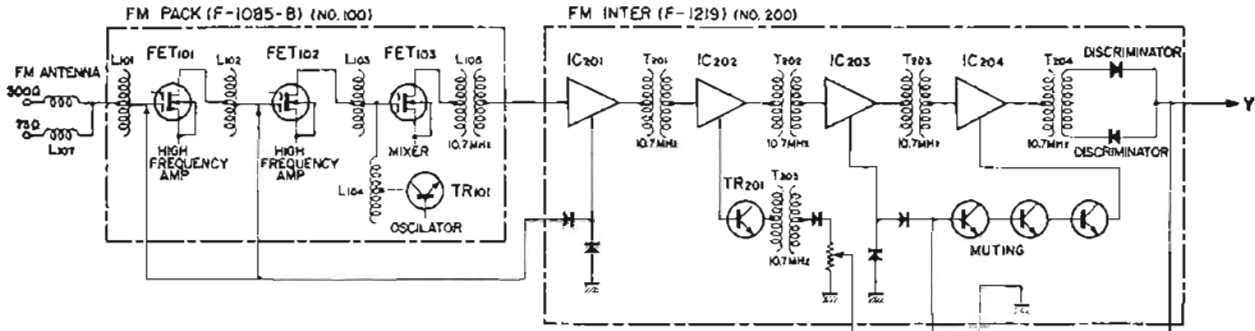
DISASSEMBLY PROCEDURE

REMOVING THE WOOD CASE, FRONT PANEL AND BOTTOM PLATE



DIAL MECHANISM





CUSTOM MOUNTING

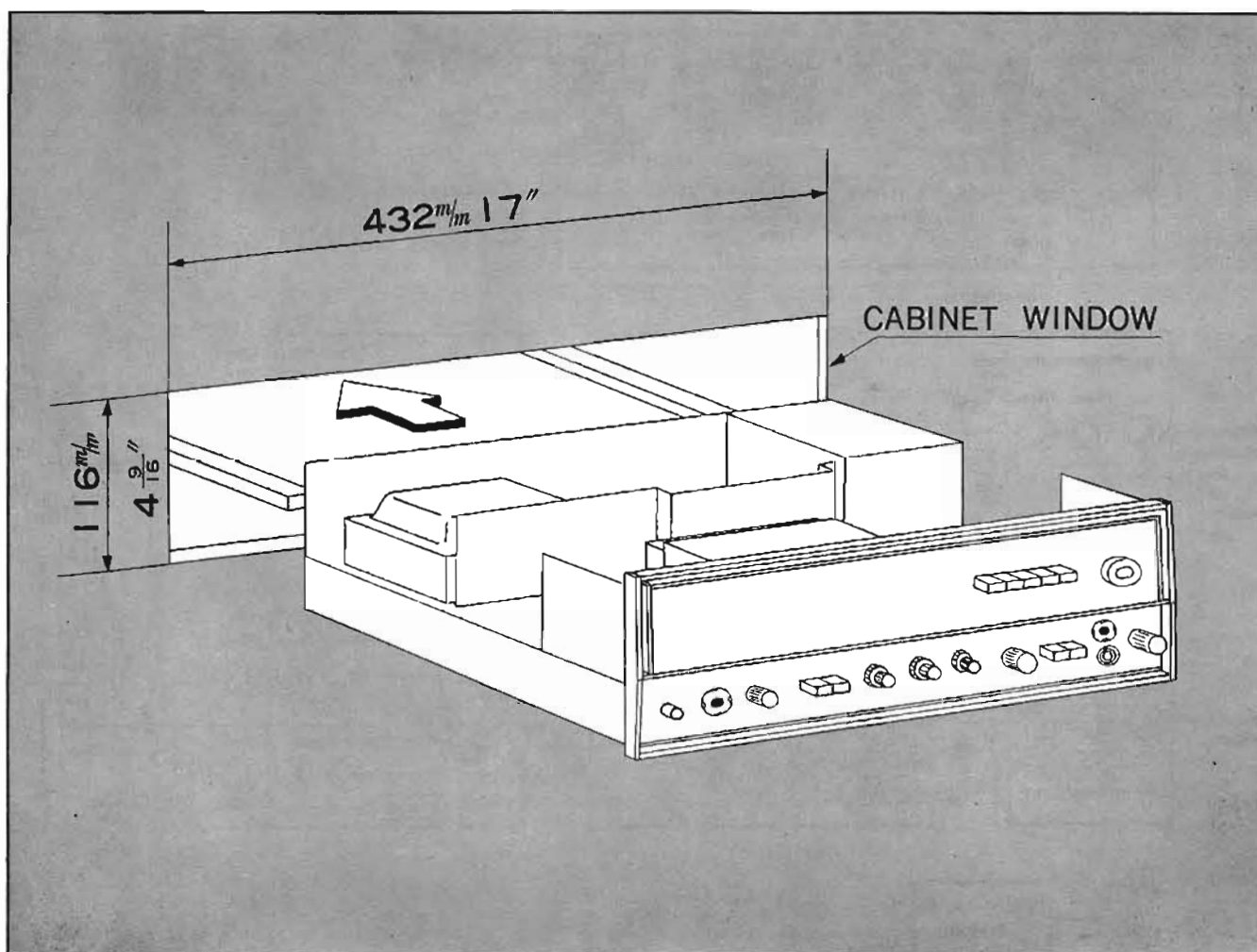
This diagram shows the size and dimensions required for mounting the 5000X into a custom-made cabinet. Note that ample space is provided for complete air circulation above and below the unit.

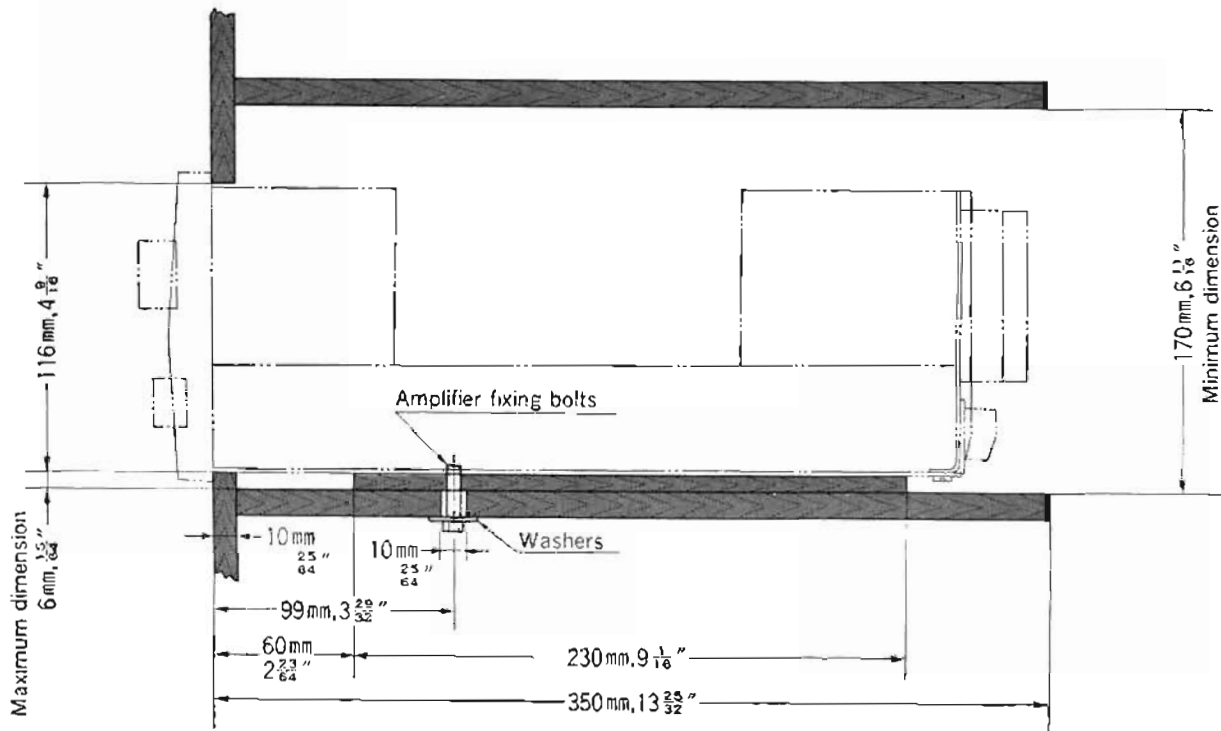
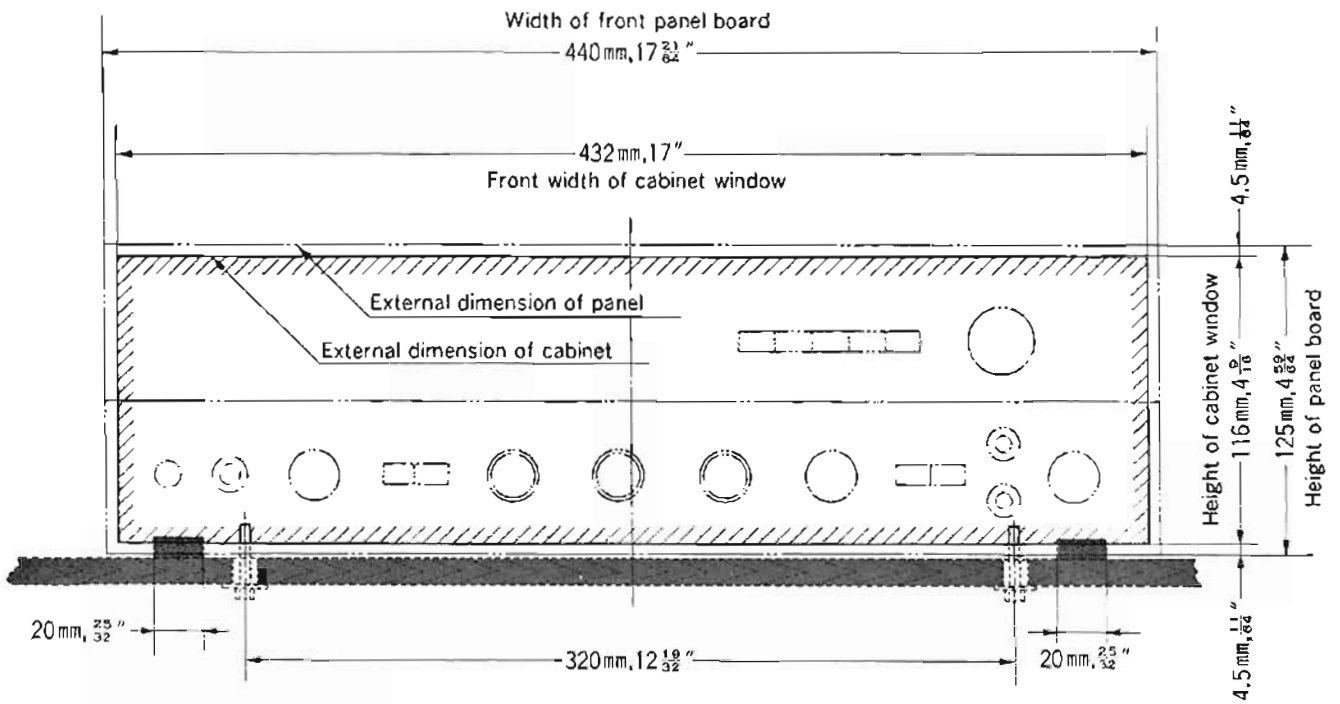
1. Be sure the cabinet cutout measures $17'' \times 4\frac{9}{16}''$ as indicated in the diagram.
2. Place two boards on the floor of the cabinet as illustrated. Boards should measure $\frac{25}{32}'' \times 1\frac{5}{8}'' \times 9\frac{1}{16}''$.

3. Drill two holes in the bottom of the cabinet at points corresponding to holes in the bottom of the receiver.

4. Remove the receiver from the wood case (Refer to the section entitled "DISASSEMBLY PROCEDURE").

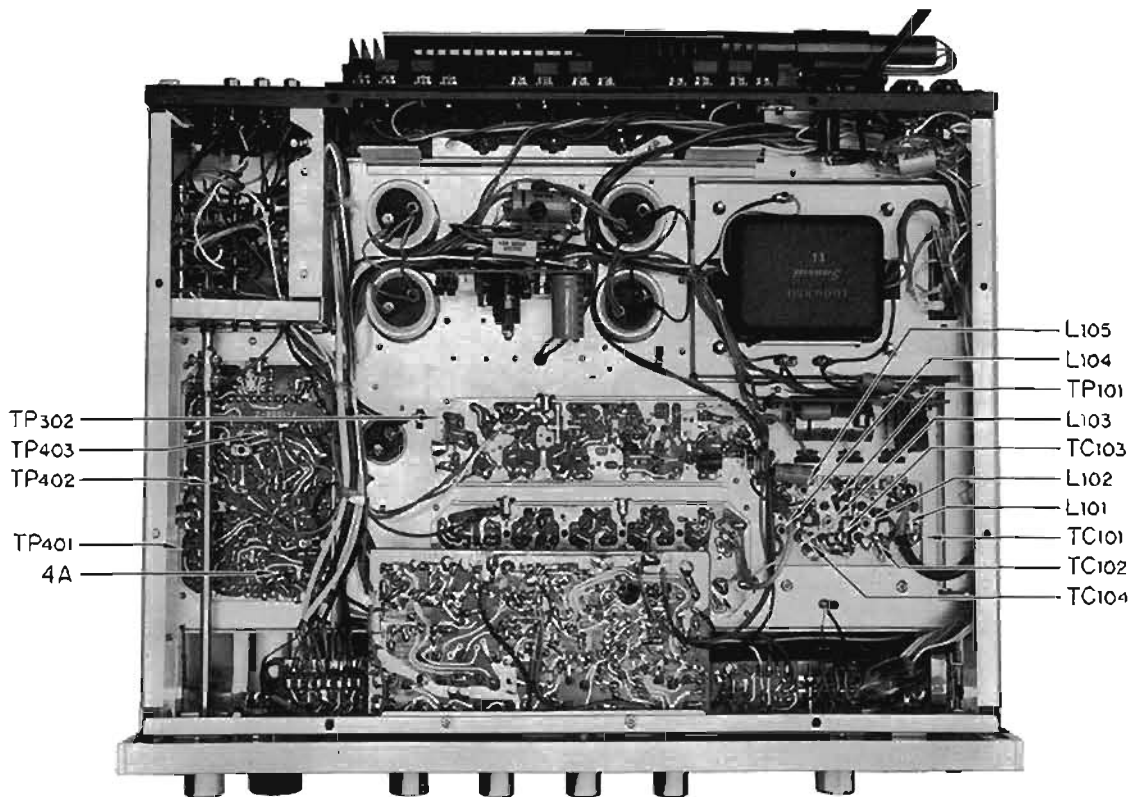
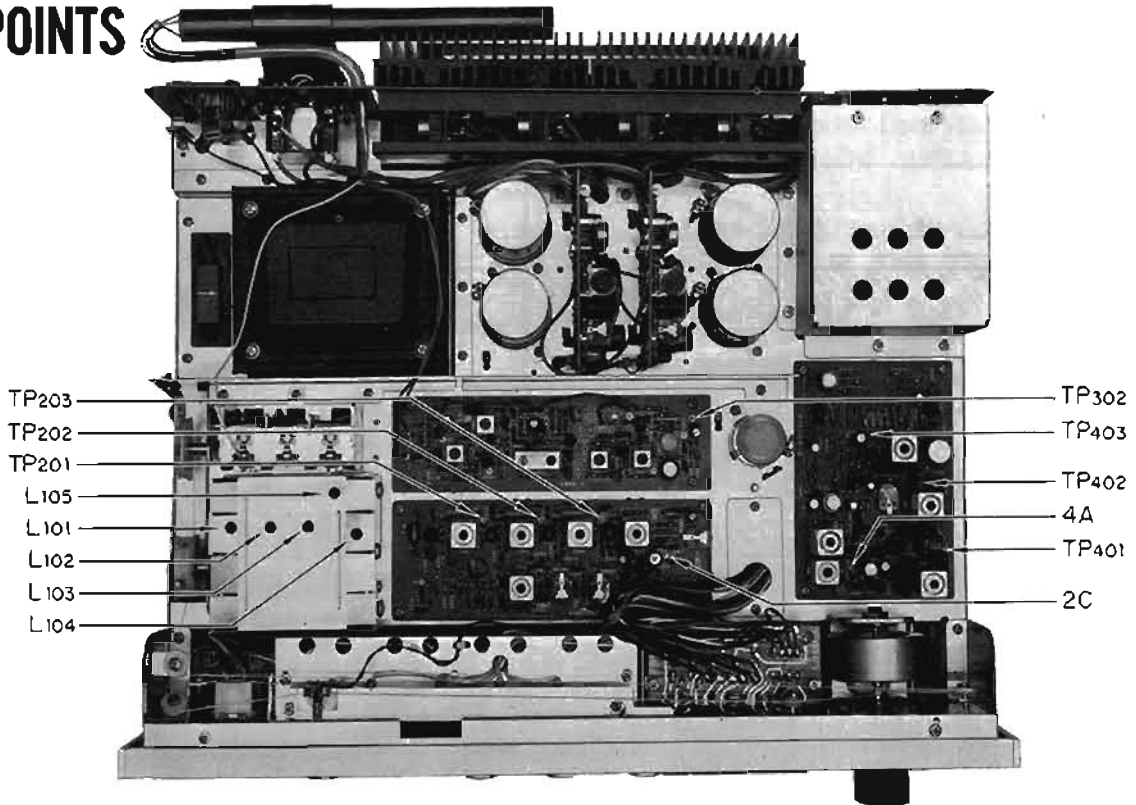
5. Insert the 5000X into the cabinet through the cutout until the edges of its front panel are flush with the cabinet, and secure both receiver and cabinet with hexagonheaded bolts and washers which were formerly used for securing the wood case.





ALIGNMENT

TEST POINTS

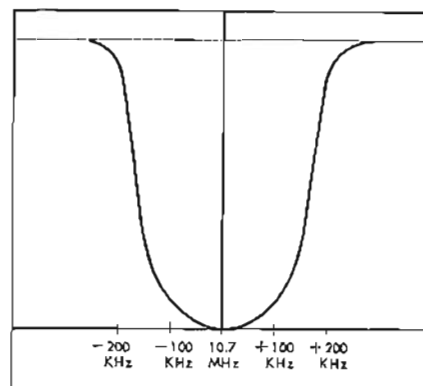


FM ALIGNMENT PROCEDURE

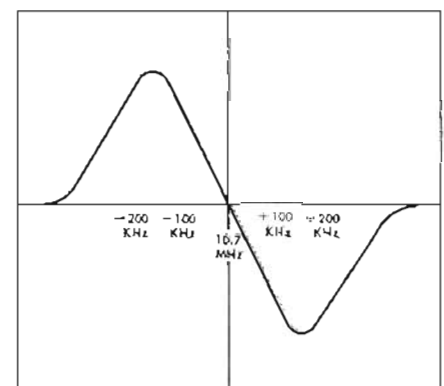
NOTE: To align, set the signal generator level to minimum.
 Turn tuning gang fully.
 Center carrier wave
 Set pointer at reference mark.

STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	IF Transformer	10.7 MHz ± 200 kHz	Sweep signal is sent to TP ₁₀₁ via the 10 pF ceramic capacitor	Oscilloscope is connected to TP _{201,202} and ₂₀₃ via the 10 pF ceramic capacitor with probe		Top and bottom sides of T _{201,202} and T ₂₀₃	Best I.F.T. wave form
2.	Discriminator	10.7 MHz ± 200 kHz	Sweep signal is sent to TP ₁₀₁ via the 10 pF ceramic capacitor	Oscilloscope is connected to 2C		FM Discriminator transformer T ₂₀₄ top and bottom sides	S curve
3.	O.S.C.	90 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	90 MHz	O.S.C. coil L ₁₀₄	Maximum
4.	O.S.C.	106 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	106 MHz	O.S.C. trimmer TC ₁₀₄	Maximum
5.	Reiterate 3 and 4.						
6.	High-frequency Amp. Circuit	90 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	90 MHz	Antenna coil L ₁₀₁ , L ₁₀₂ and L ₁₀₃	Maximum
7.	High-frequency Amp. Circuit	106 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	106 MHz	Trimmer TC ₁₀₁ , TC ₁₀₂ and TC ₁₀₃	Maximum
8.	Reiterate 6 and 7.						

FM IF WAVE FORM



FM DISCRIMINATOR WAVE FORM



ALIGNMENT

FM MULTIPLEX ALIGNMENT PROCEDURE

Do not attempt to align the Multiplex Circuit unless the following equipment is available:

a. Multiplex Stereo Generator b. Oscilloscope c. AC. V.T.V.M. d. Audio Oscillator e. FM Signal Generator

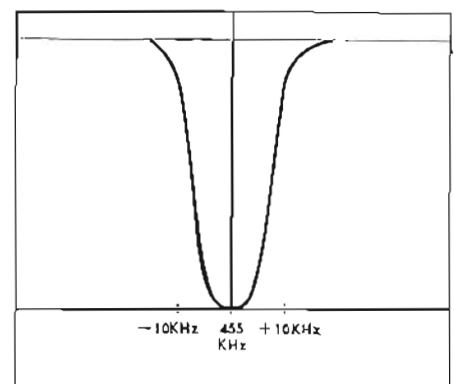
STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	ADJUST	ADJUST FOR
1.	67 kHz Trap	67 kHz Audio Signal	To 4A	V.T.V.M. at TP ₄₀₃	L ₄₀₁	Minimum
2.	71 kHz Trap	71 kHz Audio Signal	To 4A	V.T.V.M. at TP ₄₀₈	L ₄₀₂	Minimum
3.	19 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at TP ₄₀₁	T ₄₀₁	Maximum
4.	19 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at TP ₄₀₂	T ₄₀₂	Maximum
5.	38 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at TP ₄₀₃	T ₄₀₃	Maximum
6.	38 kHz Transformer and Separation VR	FM Signal Gen. Modulated 30% by STEREO Signal Gen. channel-L	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at output load channel-R	T ₄₀₃ within ¼ turn and Separation VR (VR ₀₀₁)	Channel-R Minimum

AM ALIGNMENT PROCEDURE

NOTE: To align, set the signal generator level to minimum

STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	I.F. Transformer	455 kHz ±30 kHz Sweep-generator	Antenna terminals	Oscilloscope and V.T.V.M. at TP ₃₀₂		Top side from the 1st I.F.T. (T ₃₀₂) to the 3rd I.F.T. (T ₃₀₅)	Best I.F.T. wave form
2.	O.S.C.	AM-generator 535 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	535 kHz	O.S.C. Coil T ₃₀₂	Maximum
3.	O.S.C.	AM-generator 1600 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	1600 kHz	O.S.C. Trimmer TC ₃₀₃	Maximum
4.	Reiterate 2 and 3						
5.	RF amp.	AM-generator 600 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	600 kHz	RF transformer T ₃₀₁	Maximum
6.	Antenna circuit	AM-generator 600 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	600 kHz	Ferrite bar Antenna L ₀₀₁	Maximum
7.	RF amp.	AM-generator 1400 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	1400 kHz	RF Trimmer TC ₃₀₂	Maximum
8.	Antenna circuit	AM-generator 1400 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	1400 kHz	Antenna circuit Trimmer TC ₃₀₁	Maximum
9.	Reiterate 5, 6, 7, 8.						

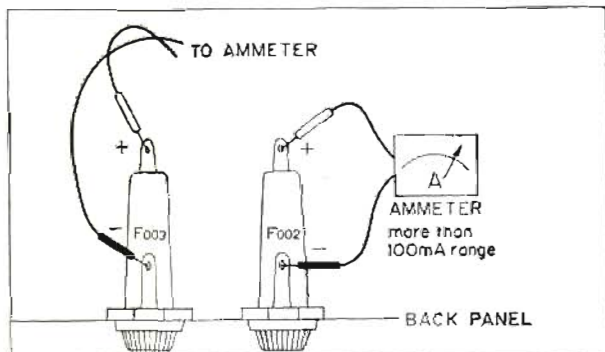
AM IF WAVE FORM



ALIGNMENT

1. CURRENT ADJUSTMENT

STEP	SETTING OF AMMETER (TESTER)	WHAT TO DO	NOTE
1.		Remove F_{002} and F_{003}	Use an ammeter having 100mA range.
2.		Set VR_{802} (left and right channel) to minimum.	
3.		Set VR_{703} and VR_{704} (VOLUME) to minimum.	
4.		Push the POWER switch ON.	Be sure to switch on 1st and then connect the ammeter.
5.	100mA range.	Connect the ammeter to F_{002} as illustrated in Fig. 1.	
6.		Turn VR_{802} (left channel) clockwise and adjust current to 20 to 26 mA.	
7.	100mA range.	Push the POWER switch OFF and attach F_{002} in place.	
8.		Push the POWER switch ON and connect the ammeter to F_{003} as illustrated in Fig. 1.	
9.		Turn VR_{802} (right channel) clockwise and adjust current to 20 to 26mA.	
10.		Attach F_{003} in place.	



(Fig. 1) QUICK-ACTING FUSE HOLDER

2. OUTPUT ADJUSTMENT

STEP	WHAT TO DO	NOTE
1.	Adjust the volume control to minimum.	
2.	Set an oscillator to 1,000 Hz and connect it to the LEFT AUX input.	The oscillator used should have the oscillation frequency of 20 to 20,000 Hz and the output voltage of more than 200mV.
3.	Set the SELECTOR switch to AUX.	
		BALANCE to CENTER
		TAPE MON to OFF MODE to STEREO TONE to CENTER Other to OFF
4.	Connect a 8- or 16-ohm load resistor having capacitor of more than 60 watts to the LEFT SPEAKER output.	
5.	Connect an oscilloscope to the SPEAKER terminal.	
6.	Push the POWER switch on and advance the volume little by little. Check the output at the terminal by means of the oscilloscope.	
7.	Adjust VR_{801} (left channel) so that the fronts of sine wave are clipped simultaneously.	
8.	Adjust the right channel as above.	

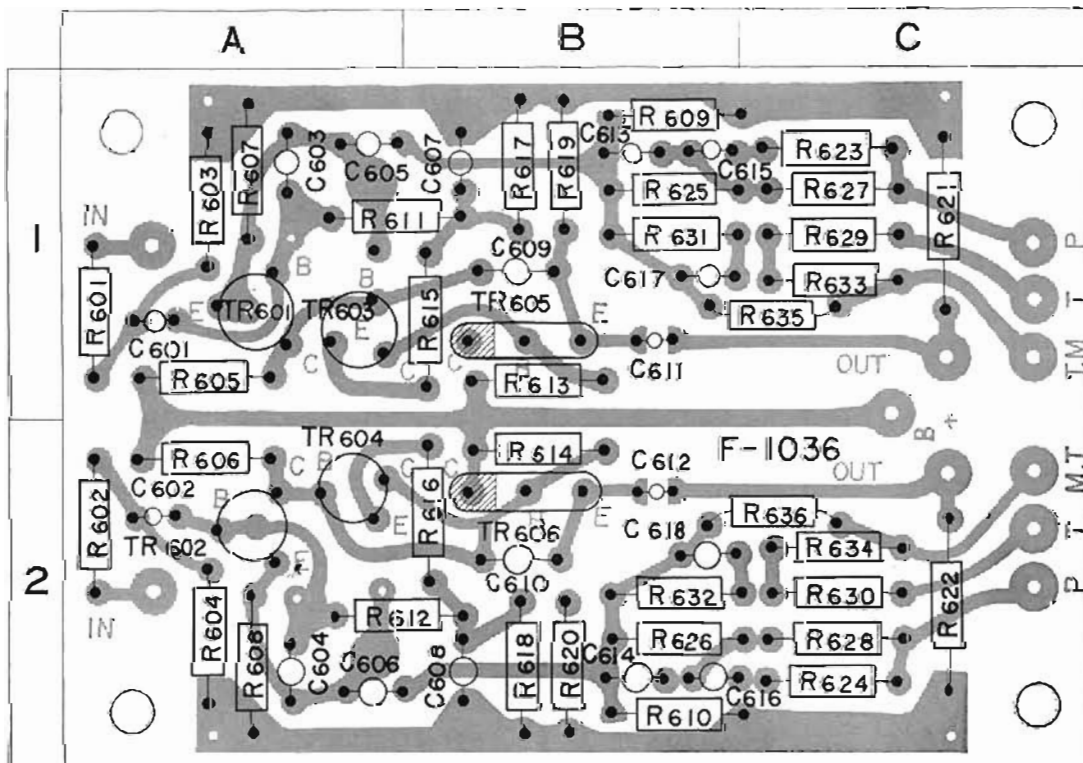
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

EQUALIZER AMP. (F-1036A)

W	X	Y	Z
R601	1kΩ	0101102	1A
R602	1kΩ	0101102	2A
R603	680kΩ	0101684	1A
R604	680kΩ	0101684	2A
R605	220kΩ	0101224	1A
R606	220kΩ	0101224	2A
R607	1kΩ	0101102	1A
R608	1kΩ	0101102	2A
R609	470Ω	0101471	1B
R610	470Ω	0101471	2B
R611	270kΩ	0101274	1A, B
R612	270kΩ	0101274	2A, B
R613	33kΩ	0101333	1B
R614	33kΩ	0101333	2B
R615	680Ω	0101681	1B
R616	680Ω	0101681	2B
R617	2.2kΩ	0101222	1B
R618	2.2kΩ	0101222	2B
R619	3.9kΩ	0101392	1B
R620	3.9kΩ	0101392	2B
R621	39kΩ	0101393	1C
R622	39kΩ	0101393	2C
R623	820Ω	0101821	1C
R624	820Ω	0101821	2C
R625	220kΩ	0101224	1B
R626	220kΩ	0101224	2B
R627	18kΩ	0101183	1C
R628	18kΩ	0101183	2C

W	X	Y	Z	
R633	4.7kΩ	±10% 1/4W CR.	0101472	1C
R634	4.7kΩ		0101472	2C
C601	1.5μF	16 V TC.	0572159	1A
C602	1.5μF		0572159	2A
C603	150pF	±10% 50 V CC.	0660151	1A
C604	150pF		0660151	2A
C605	220μF	6.3 V EC.	0510221	1A
C606	220μF		0510221	2A
C607	10μF	10 V EC.	0511100	1B
C608	10μF		0511100	2B
C609	30pF	±10% 50 V MIC.	0641300	1B
C610	30pF		0641300	2B
C611	10μF	25 V EC.	0513100	1B
C612	10μF		0513100	2B
C613	0.015μF	±10% 50 V MC.	0601157	1B
C614	0.015μF		0601157	2B
C615	0.004μF	±10% 50 V MC.	0601406	1B
C616	0.004μF		0601406	2B
C617	0.0047μF		0601476	1B
C618	0.0047μF		0601476	2B
TR601	2SC632A-71, 81 (White)		0305766	1A
TR602			0305766	2A
TR603	2SC632A-71		0305761	1A
TR604			0305761	2A
TR605	2SC632A-81		0305762	1B
TR606			0305762	2B



PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

TONE, MIC <F-1350-3>

W	X	Y	Z
R700	56Ω	0101560	2C
R701	1kΩ	0101102	1A
R702	1kΩ	0101102	1A
R703	47kΩ	0101473	2B
R704	47kΩ	0101473	1B
R705	68kΩ	0101683	2B
R706	68kΩ	0101683	1B
R707	100kΩ	0101104	2B
R708	100kΩ	0101104	2B
R709	1kΩ	0101102	2B
R710	1kΩ	0101102	1B
R711	12kΩ	0101123	2B
R712	12kΩ	0101123	1B
R713	120kΩ	0101124	2B
R714	120kΩ	0101124	1B
R715	12kΩ	0101123	2B
R716	12kΩ	0101123	1B
R717	2.7kΩ	0101272	2B
R718	2.7kΩ	0101272	1B
R719	10kΩ	0101103	1C
R720	10kΩ	0101103	1B
R721	6.8kΩ	0101682	1B
R722	6.8kΩ	0101682	1B
R723	150kΩ	0101154	1C
R724	150kΩ	0101154	1C
R725	22kΩ	0101223	2C
R726	22kΩ	0101223	1C
R727	10kΩ	0101103	1C
R728	10kΩ	0101103	1C
R729	6.8kΩ	0101682	1C
R730	6.8kΩ	0101682	1C
R731	470kΩ	0101474	2B
R732	470kΩ	0101474	1C
R733	150kΩ	0101154	1B
R734	150kΩ	0101154	1C
R737	560Ω	0101561	2C
R738	560Ω	0101561	1, 2C
R739	5.6kΩ	0101562	1B
R740	5.6kΩ	0101562	1B
R741	39kΩ	0101393	2B
R742	39kΩ	0101393	2C
R743	120kΩ	0101124	2C
R744	120kΩ	0101124	2C
R745	2.2kΩ	0101222	2A
R746	330kΩ	0101334	2A
R747	10kΩ	0101103	2A
R748	68kΩ	0101683	2A
R749	1kΩ	0101102	2A
R750	1kΩ	0101102	1A
R751	2.2kΩ	0101222	2A
R752	150kΩ	0101154	2A
R753	390Ω	0101391	2A
R754	220kΩ	0101224	2A
R755	220kΩ	0101224	2A
R756	5.6kΩ	0101562	2A
R757	680Ω	0101681	2A
R758	1kΩ	0101102	2B
R759	68kΩ	0101683	2A

±10% 1/4W CR.

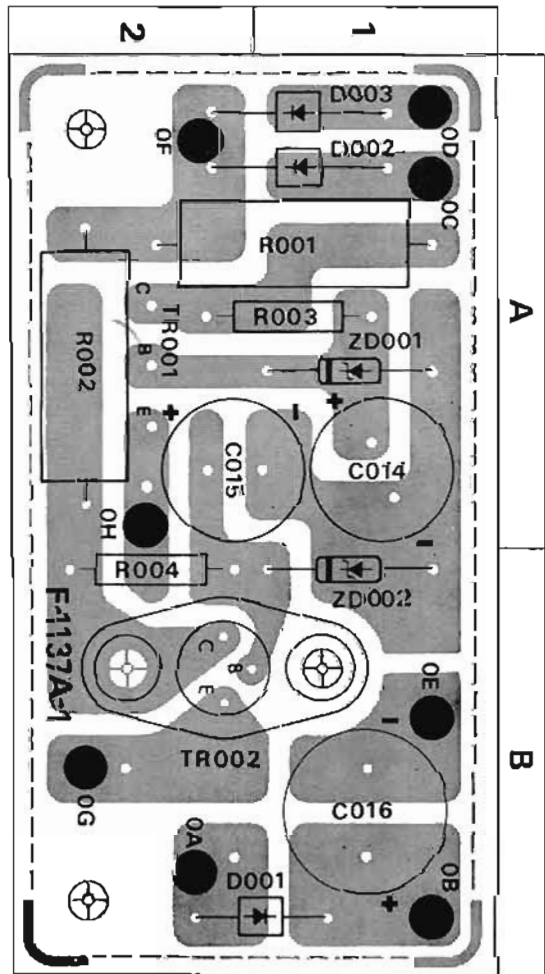
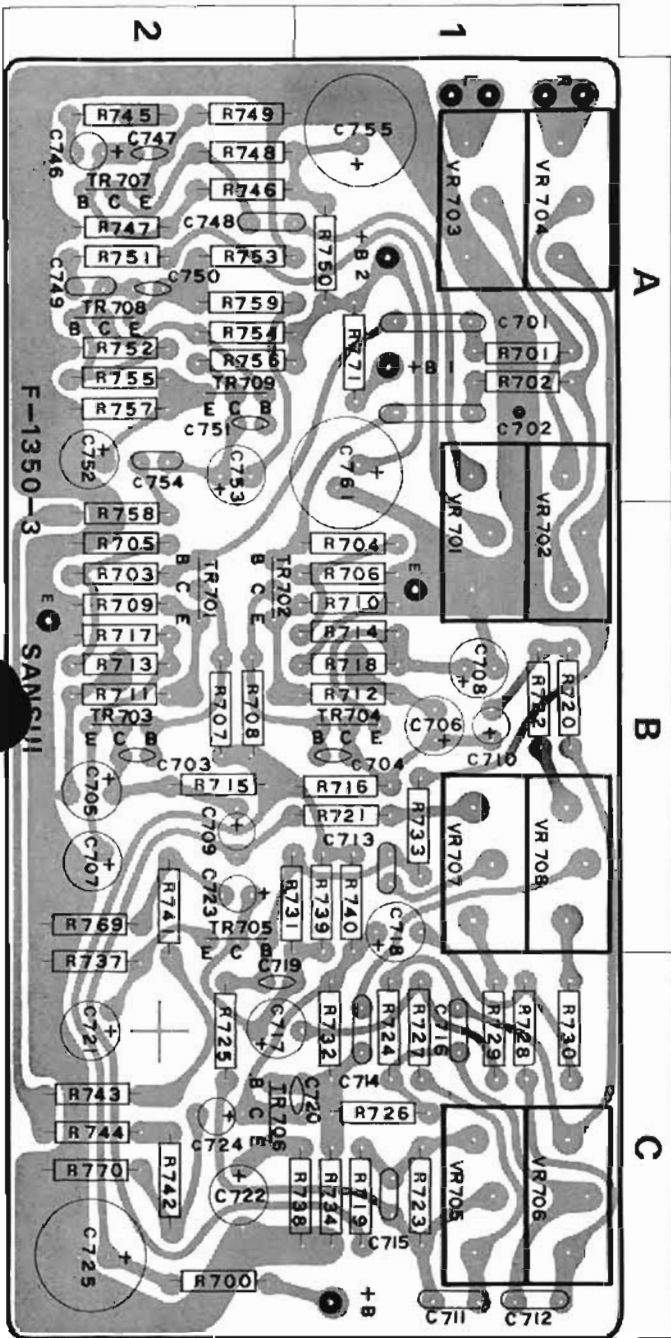
W	X	Y	Z
R769	47kΩ	0101473	2B
R770	47kΩ	0101473	2C
C701	0.22μF	0601228	1A
C702	0.22μF	0601228	1A
C703	22pF	0661220	2B
C704	22pF	0661220	1B
C705	33μF	0512330	2B
C706	33μF	0512330	1B
C707	33μF	0512330	2B
C708	33μF	0512330	1B
C709	1μF	0515109	2B
C710	1μF	0515109	1B
C711	0.04μF	0601407	1C
C712	0.04μF	0601407	1C
C713	0.0015μF	0601156	1B
C714	0.0015μF	0601156	1C
C715	0.04μF	0601407	1C
C716	0.04μF	0601407	1C
C717	3.3μF	0514339	2C
C718	3.3μF	0514339	1B
C719	100pF	0650101	2C
C720	100pF	0650101	1, 2C
C721	33μF	0512330	2C
C722	33μF	0512330	2C
C723	1μF	0515109	2B
C724	1μF	0515109	2B
C725	220μF	0513221	2C
C746	1.5μF	0572159	2A
C747	100pF	0660101	2A
C748	0.06μF	0601607	2A
C749	0.03μF	0601307	2A
C750	100pF	0660101	2A
C751	100pF	0660101	2A
C752	47μF	0511470	2A
C753	10μF	0515100	2A
C754	0.022μF	0601227	2A
C755	100μF	0515101	1A
VR701	30k(A) Mic. Control	1010210	1B
VR702	250k(W) Balance Control		
VR703	250k(B)	1010200	1A
VR704	250k(B)		
VR705	100k(B)	1020040	1C
VR706	100k(B)		
VR707	100k(B)	1020040	1B
VR708	100k(B)		
TR701	2SC871 (F)	0305472	2B
TR702		0305472	2B
TR703		0305472	2B
TR704		0305472	1B
TR705		0305472	2B
TR706		0305472	2C
TR707	2SC871R (F)	0305472	2A
TR708		0305472	2A
TR709		0305472	2A

Abbreviations

CR : Carbon Resistor	MIC: Mica Capacitor
SR : Solid Resistor	OC : Oil Capacitor
CeR: Cement Resistor	CC : Ceramic Capacitor
MC : Mylar Capacitor	TC : Tantalum Capacitor
EC : Electrolytic Capacitor	

RIPPLE FILTER (F-1137A-1)

W	X	Y	Z
R001	10Ω ±10% 1W CR.	0104100	1 A
R002	180Ω ±10% 3W CeR.	0153181	2 A
R003	3.9kΩ ±10% ½W SR.	0111392	1 A
R004	1.5kΩ ±10% ½W SR.	0111152	2 B
C014	100μf 50 V EC.	0515101	1 A
C015	330μf 16 V EC.	0512331	2 A
C016	1000μf 10 V EC.	0511102	1 B
TR001	2SC696 (D, E, F)	0305193, 4, 5	2 A
TR002	2SD223 (O, Y, G)	0308230, 1, 2	1, 2 B
D001		0310780	1, 2 B
D002	5-05-02	0310780	1 A
D003		0310780	1 A
ZD001	Z81-27	0310750	1 A
ZD002	Z81-13	0310750	1 B



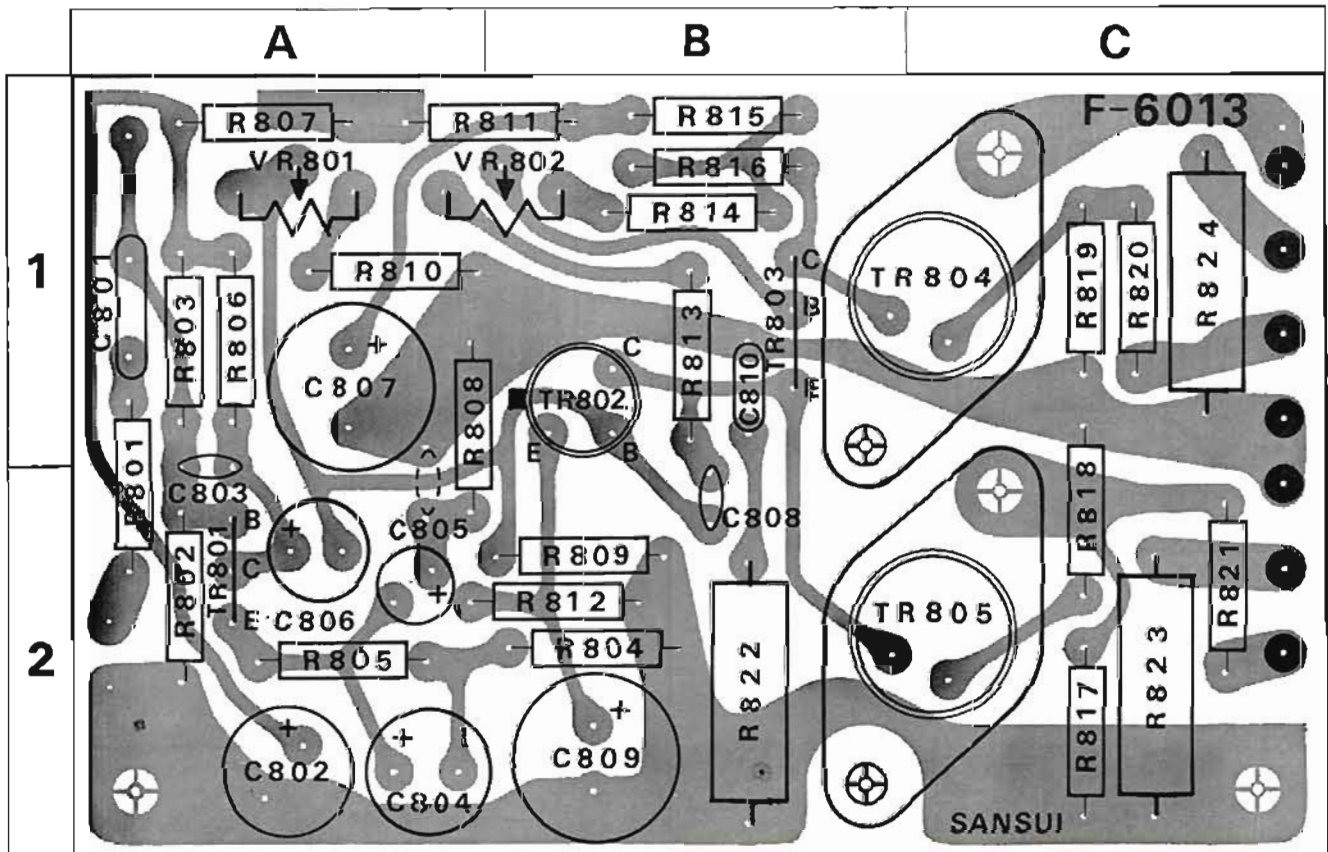
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

DRIVER AMP. BLOCK <F-6013>

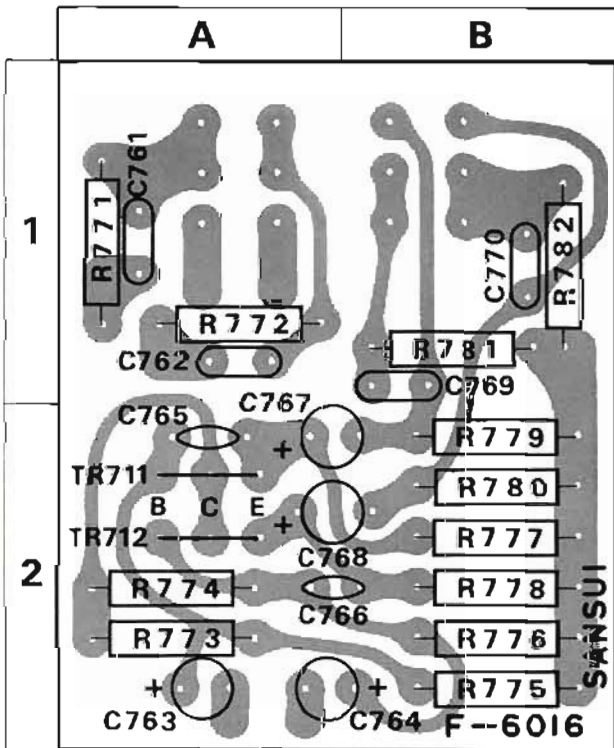
W	X	Y	Z
R801	10kΩ	0101103	1, 2 A
R802	270kΩ	0101274	2 A
R803	560kΩ	0101564	1 A
R804	100Ω	0101101	2 B
R805	2.2kΩ	0101222	2 A
R806	3.9kΩ	0101392	1 A
R807	33kΩ	0101333	1 A
R808	2.7kΩ	0101272	1 A
R809	10kΩ	0101103	2 B
R810	100kΩ	0101104	1 A
R811	680Ω	0111681	1 A, B
R812	220Ω	0101221	2 B
R813	1.5kΩ	0101152	1 B
R814	3.3kΩ	0101332	1 B
R815	6.8kΩ	0111682	1 B
R816	39Ω	0101390	1 B
R817	220Ω	0111221	2 C
R818	10Ω	0111100	2 C
R819	220Ω	0111221	1 C
R820	6.8Ω	0111689	1 C
R821	6.8Ω	0111689	2 C
R822	4.7Ω	0152479	2 B

W	X	Y	Z
R823	0.3Ω } ±10% 2W CeR.	0152308	2 C
R824		0152308	1 C
VR801	100kΩ (B) AC. Balance Adj.	1031140	1 A
VR802	1kΩ (B) Bias Adj.	1031050	1 A, B
C801	0.33μF ±10% 50 V MC.	0601338	1 A
C802	100μF 25 V EC.	0513101	2 A
C803	100pF ±10% 50 V CC.	0660101	1, 2 A
C804	220μF 6.3 V EC.	0510221	2 A
C805	4.7μF 50 V EC.	0515479	2 A
C806	3.3μF 25 V AEC.	0563339	2 A
C807	100μF 50 V EC.	0515101	1 A
C808	100pF ±10% 50 V CC.	0660101	2 B
C809	470μF 6.3 V EC.	0510471	2 B
C810	0.1μF ±10% 50 V MC.	0601108	1 B
TR801	2SC 984 (B, C)	0305871, 2	2 A
TR802	2SC 627 (3)	0305582	1 B
TR803	2SC 984 (B, C)	0305871, 2	1 B
TR804	2SC 680 (B, C)	0305621, 2	2 B, C
TR805	2SA 566 (B, C)	0300151, 2	2 B, C



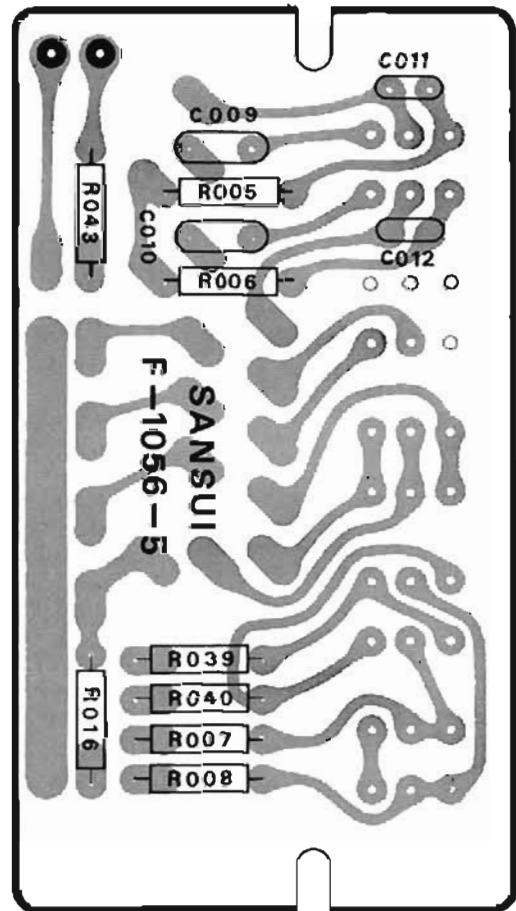
FILTER BLOCK <F-6016>

W	X	Y	Z
R771	470k Ω	0101474	1 A
R772	470k Ω	0101474	1 A
R773	220k Ω	0101224	2 A
R774	220k Ω	0101224	2 A
R775	270k Ω	0101274	2 B
R776	270k Ω	0101274	2 B
R777	3.9k Ω	0101392	2 B
R778	3.9k Ω	0101392	2 B
R779	68k Ω	0101683	2 B
R780	68k Ω	0101683	2 B
R781	100k Ω	0101104	1 B
R782	100k Ω	0101104	1 B
C761	0.0033 μ F	0601336	1 A
C762	0.0033 μ F	0601336	1 A
C763	1 μ F	0515109	2 A
C764	1 μ F	0515109	2 A, B
C765	470pF	0660471	2 A
C766	470pF	0660471	2 A, B
C767	1 μ F	0515109	2 A, B
C768	1 μ F	0515109	2 A, B
C769	0.008 μ F	0601806	1 B
C770	0.008 μ F	0601806	1 B
TR711	2SC871R (E. F.)	0305474, 5	2 A
TR712		0305474, 5	2 A
S8	High Filter Switch	1130210	
S9	Low Filter Switch		



ACCESSORY CIRCUIT <F-1056-5>

W	X	Y	Z
R005	27k Ω	0101273	
R006	27k Ω	0101273	
R007	8.2k Ω	0101822	
R008	8.2k Ω	0101822	
R016	18 Ω	$\pm 10\%$ 1/4W CR.	0101180
R039	4.7k Ω		0101472
R040	4.7k Ω		0101472
R043	12 Ω		0101120
C009	200pF	$\pm 10\%$ 50 V MIC.	0641201
C010	200pF		0641201
C011	0.01 μ F	$\pm 10\%$ 50 V MC.	0601107
C012	0.01 μ F		0601107
S1	Muting Switch	1130200	
S2	FM Stereo Only Switch		
S4	Reverse Switch		
S6	Mono Switch		
S7	Loudness Switch		



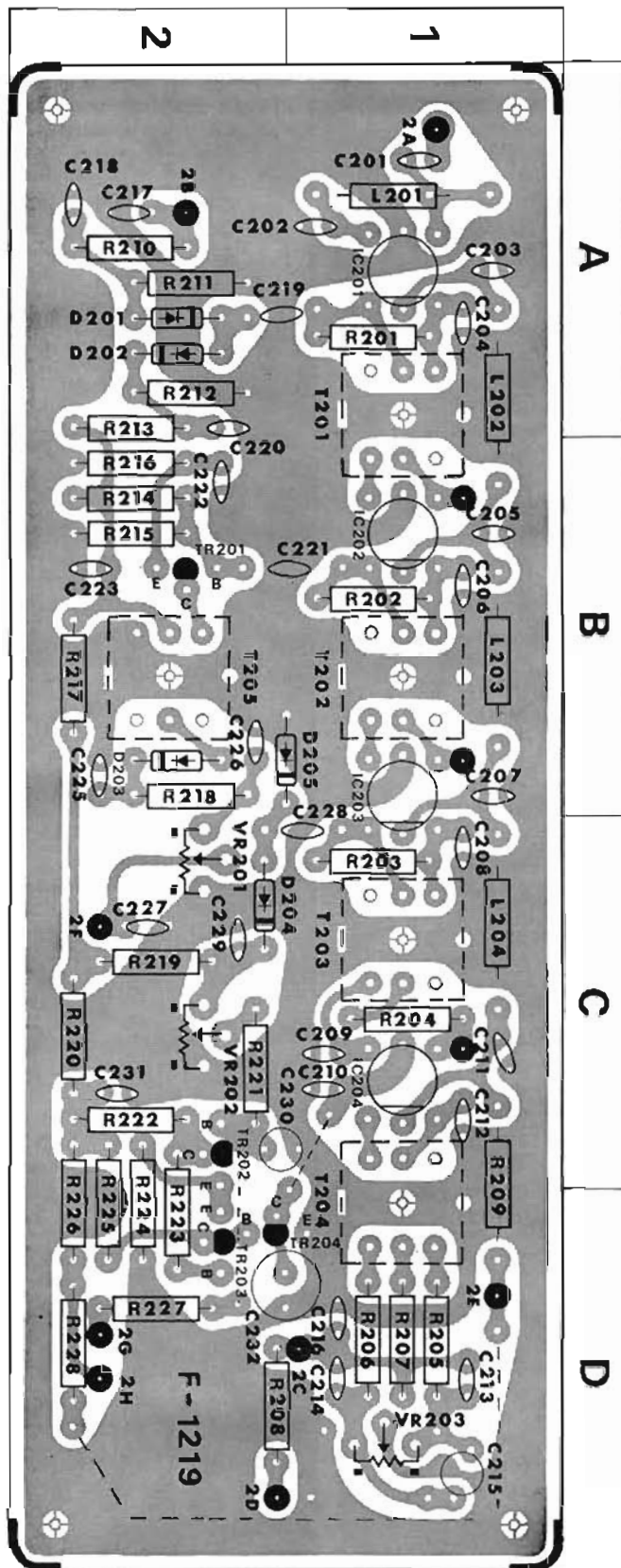
PRINTED CIRCUIT BOARDS AND PARTS LIST

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FM IF <F-1219>

W	X	Y	Z
R201	15k Ω	0101153	1 A
R202	15k Ω	0101153	1 B
R203	15k Ω	0101153	1 C
R204	68 Ω	0101680	1 C
R205	1k Ω	0101102	1 D
R206	1k Ω	0101102	1 D
R207	56 Ω	0101560	1 D
R208	22k Ω	0101223	2 D
R210	100k Ω	0101104	2 A
R211	220k Ω	0101224	2 A
R212	3.9k Ω	0101392	2 A
R213	68k Ω	0101683	2 A
R214	22k Ω	0101223	2 B
R215	10k Ω	0101103	2 B
R216	1k Ω	0101102	2 B
R217	22 Ω	0101220	2 B
R218	2.2k Ω	0101222	2 B
R219	1M Ω	0101105	2 C
R220	4.7 Ω	0101479	2 C
R221	47k Ω	0101473	2 C
R222	6.8k Ω	0101682	2 C
R223	2.7k Ω	0101272	2 C, D
R224	150 Ω	0101151	2 C, D
R225	6.8k Ω	0101682	2 C, D
R226	22 Ω	0101220	2 C, D
R227	100k Ω	0101104	2 D
R228	22 Ω	0101220	2 D
C201	0.001 μ F	0656102	1 A
C202	0.022 μ F	0656223	1 A
C203	0.022 μ F	0656223	1 A
C204	0.022 μ F	0656223	1 A
C205	0.022 μ F	0656223	1 B
C206	0.022 μ F	0656223	1 B
C207	0.022 μ F	0656223	1 B
C208	0.022 μ F	0656223	1 C
C209	0.022 μ F	0656223	1 C
C210	0.022 μ F	0656223	1 C
C211	0.022 μ F	0656223	1 C
C212	0.022 μ F	0656223	1 C
C213	220pF	0660221	1 D
C214	220pF	0660221	1 D
C215	10 μ F	0511100	1 D
C216	47pF	0660470	1 D
C217	0.047 μ F	0656473	2 A
C218	0.022 μ F	0656223	2 A
C219	4.7pF	0660479	1, 2 A
C220	0.022 μ F	0656223	2 A
C221	2.2pF	0660229	1, 2 B
C222	0.022 μ F	0656223	2 B
C223	0.022 μ F	0656223	2 B
C225	0.022 μ F	0656223	2 B
C226	0.022 μ F	0656223	2 B
C227	0.047 μ F	0656473	2 C
C228	2.2pF	0660229	1, 2 C
C229	0.022 μ F	0656223	2 C

W	X	Y	Z
C230	1 μ F 50 V EC.	0515109	1, 2 C
C231	0.022 μ F $\begin{matrix} +80\% \\ -20\% \end{matrix}$ 25 V CC.	0656223	2 C
C232	33 μ F	0512330	1, 2 D
C242	100 μ F	0512101	2 D
TR201	25C380(O) or 25C460(B, C)	0305330 0305350, 1	2 B
TR202	25C828(T)	0305270	2 C
TR203		0305270	2 D
TR204		0305270	1, 2 D
IC201	μ PC555A	0360070	1 A
IC202		0360070	1 B
IC203		0360070	1 B
IC204		0360070	1 C
D201	1N60	0310331	2 A
D202		0310331	2 A
D203		0310331	2 B
D204		0310331	2 C
D205		0310331	1, 2 B
T201	FM IF 10.7MHz	4235470	1 A, B
T202	FM IF 10.7MHz	4235480	1 B
T203	FM IF 10.7MHz	4235490	1 C
T204	FM Detector Transformer	4235180	1 C, D
T205	FM Meter Transformer	4235290	2 B
L201	18 μ H	4290090	1 A
L202	3.5 μ H	4290011	1 A
L203		4290011	1 B
L204		4290011	1 C
L205		4290011	1 C
VR201		50k Ω (B) Signal Meter Adj.	1030200
VR202	100k Ω (B) Muting Adj.	1030340	2 C
VR203	20k Ω (B) Tune Meter Adj.	1030460	1 D



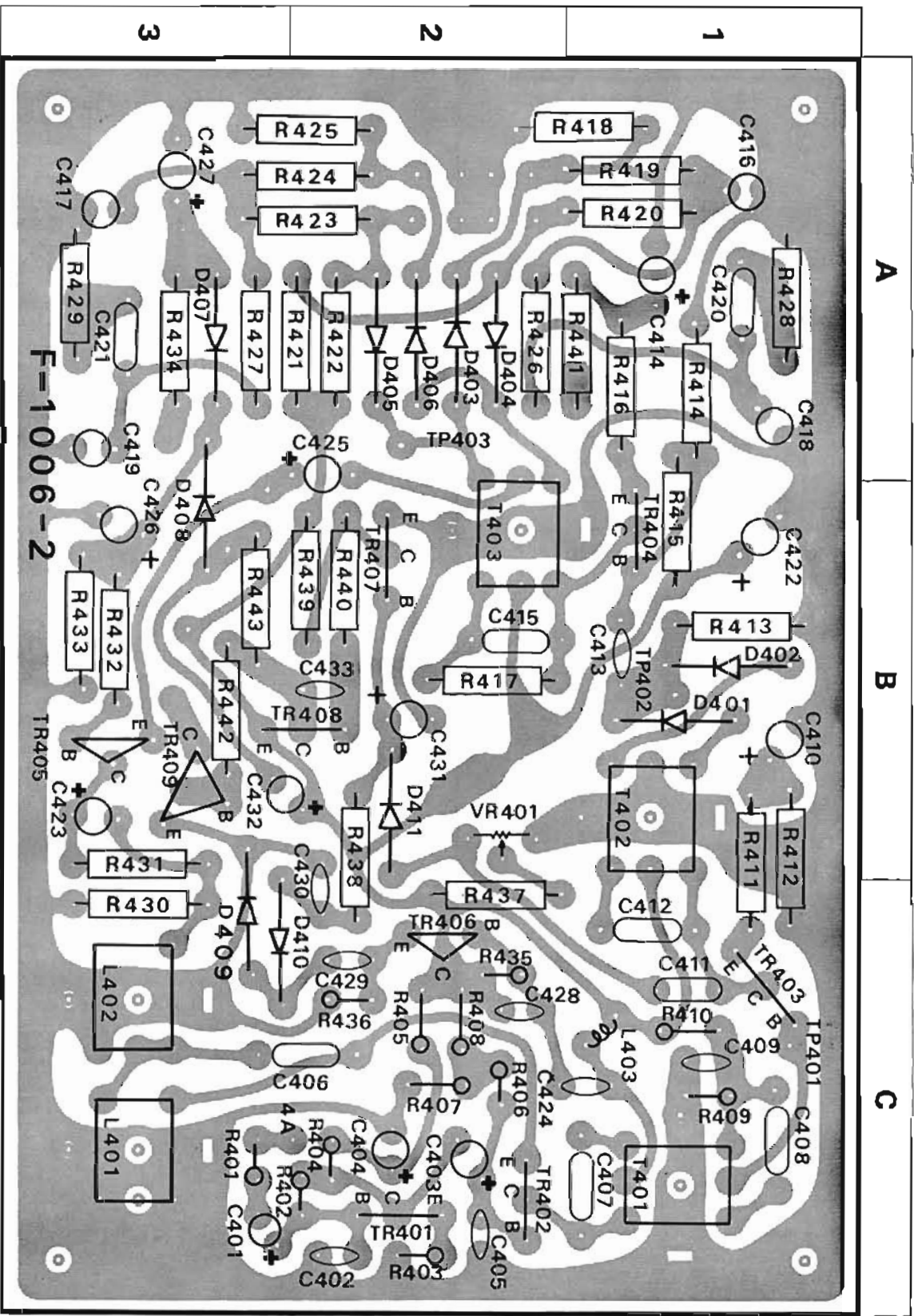
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

FM MPX. <F-1006-2>

W	X	Y	Z
R401	1kΩ	0100102	3C
R402	330kΩ	0100334	2C
R403	1kΩ	0100102	2C
R404	2.2kΩ	0100222	2C
R405	4.7kΩ	0100472	2C
R406	47kΩ	0100473	2C
R407	100kΩ	0100104	1, 2C
R408	120kΩ	0100124	1C
R409	27kΩ	0100273	1C
R410	330kΩ	0100334	1C
R411	330Ω	0101331	1B, C
R412	1.2kΩ	0101122	1B, C
R413	10kΩ	0101103	1B
R414	27kΩ	0101273	1A
R415	270kΩ	0101274	1A, B
R416	680Ω	0101681	1A
R417	150kΩ	0101154	2B
R418	330kΩ	0101334	1, 2A
R419	8.2kΩ	0101822	1A
R420	8.2kΩ	0101822	1A
R421	330kΩ	0101334	2A
R422	330kΩ	0101334	2A
R423	8.2kΩ	0101822	2, 3A
R424	8.2kΩ	0101822	2, 3A
R425	330kΩ	0101334	2, 3A
R426	56kΩ	0101563	2A
R427	56kΩ	0101563	3A
R428	15kΩ	0101153	1A
R429	15kΩ	0101153	3A
R430	1.5kΩ	0101152	3C
R431	39kΩ	0101393	3B
R432	22kΩ	0101223	3B
R433	100kΩ	0101104	3B
R434	15kΩ	0101153	3A
R435	820kΩ	0100824	2C
R436	10kΩ	0100103	2C
R437	180kΩ	0101184	2C
R438	56kΩ	0101563	2B, C
R439	10kΩ	0101103	2B
R440	22kΩ	0101223	2B
R441	1.2kΩ	0101122	1A
R442	5.6kΩ	0101562	3B
R443	10kΩ	0101103	3B
R444	150kΩ	0101154	
VR401	200kΩ(B) Stereo Indicator Adj.	1030350	2B
C401	3.3μF 25 V EC.	0513339	3C
C402	100pF ±10% 50 V CC.	0660101	2C
C403	10μF } 25 V EC.	0513100	2C
C404	33μF }	0513330	2C
C405	47pF ±10% 50 V CC.	0660470	2C
C406	2800pF } ±10% 50 V MiC.	0640282	2, 3C
C407	6800pF }	0640682	1C
C408	6800pF }	0640682	1C
C409	0.05μF ±10% 50 V MC.	0601507	1C
C410	1μF 50 V EC.	0515109	1B
C411	0.002μF ±10% 50 V MC.	0601206	1C

W	X	Y	Z
C412	6800pF ± 5% 50 V MiC.	0640682	1C
C413	0.05μF ±10% 50 V MC.	0601507	1B
C414	1μF 50 V EC.	0515109	1A
C415	1700pF ± 5% 50 V MiC.	0640172	2B
C416	1000pF }	0621102	1A
C417	1000pF }	0621102	3A
C418	6800pF } ± 5% 50 V SC.	0621682	1A
C419	6800pF }	0621682	3A
C420	0.15μF }	0601158	1A
C421	0.15μF }	0601158	3A
C422	220μF }	0513221	1B
C423	10μF }	0513100	3B
C424	0.005μF ±10% 50 V MC.	0601506	1, 2C
C425	10μF 25 V BPEC.	0533101	2A, B
C426	3.3μF }	0513339	3B
C427	33μF }	0513330	3A
C428	100pF ±10% 50 V CC.	0660101	2C
C429	0.05μF }	0601507	2C
C430	0.005μF }	0601506	2B, C
C431	1μF 50 V EC.	0515109	1, 2B
C432	3.3μF 25 V EC.	0513339	3B
C433	0.03μF ±10% 50 V MC.	0601307	2B
TR401	2SC458 (B)	0305111	2C
TR402		0305245	2C
TR403	2SC536V ₁ E ₂	0305245	1C
TR404		0305245	1B
TR405	2SC536V ₁ G ₁	0305248	3B
TR406	2SC536V ₁ F ₂	0305247	2C
TR407	2SC373	0305040	2B
TR408	2SA564A (P, Q)	0300080, 1	2, 3B
TR409	2SC696A (A, B, D, E) or 2SC971 (2)	0305680, 1 3 4 0305530	3B
D401		0310400	1B
D402		0310400	1B
D403	1N34A	0310401	2A
D404		0310401	2A
D405	1N34A (Y)	0310401	2A
D406		0310401	2A
D407		0310400	3A
D408		0310400	3A, B
D409	1N34A	0310400	3B, C
D410		0310400	3C
D411		0310400	2B
T401	19kHz Tuning Trap	4240210	1C
T402	19kHz Tuning Trap	4240220	1B
T403	38kHz Tuning Trap	4240220	2B
L401	67kHz Filter	4240380	3C
L402	71kHz Filter	4240250	3C
L403	19kHz Filter	4900030	1C



A

B

C

3

2

1

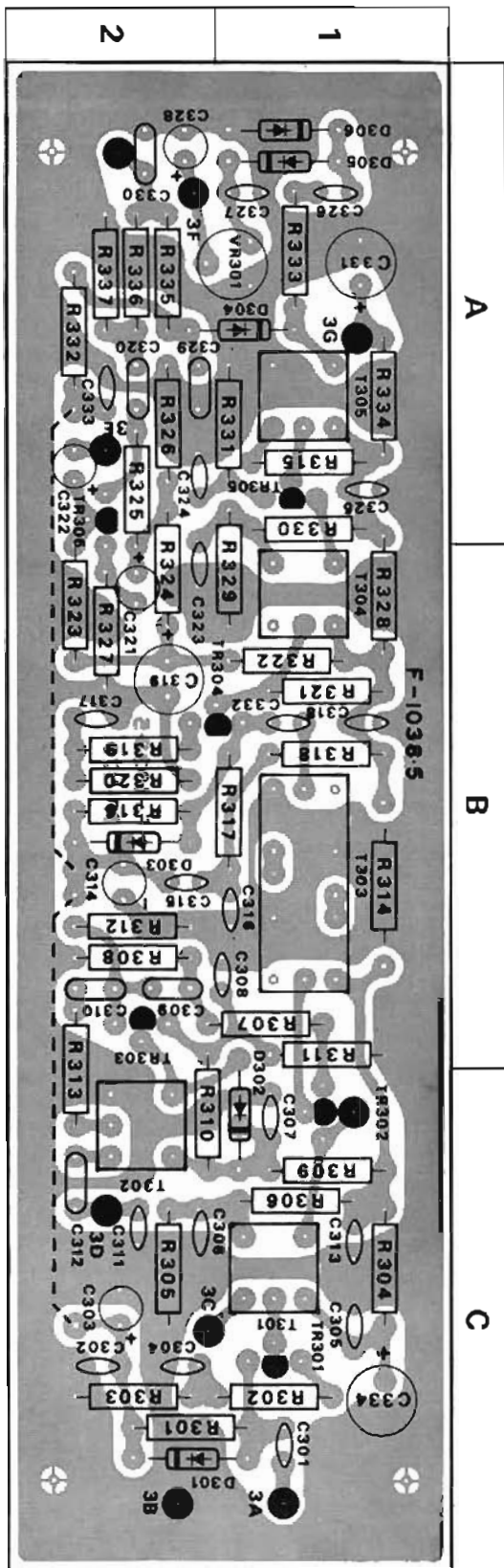
PRINTED CIRCUIT BOARDS AND PARTS LIST

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AM IF <F-1038-5>

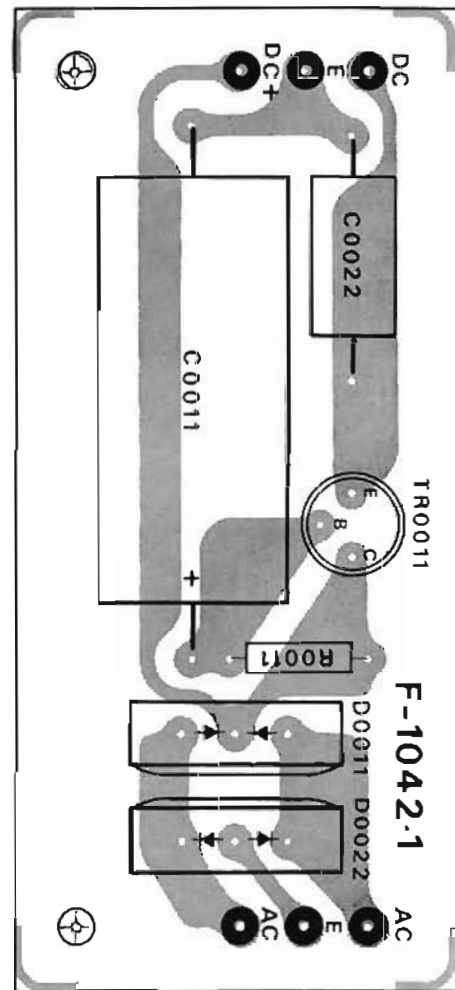
W	X	Y	Z
R301	10k Ω	0101103	1, 2 C
R302	39 Ω	0101390	1 C
R303	1k Ω	0101102	2 C
R304	100 Ω	0101101	1 C
R305	3.9k Ω	0101392	2 C
R306	33k Ω	0101333	1 C
R207	22 Ω	0101220	1, 2 B
R308	1k Ω	0101102	2 B
R309	100 Ω	0101101	1 C
R310	22k Ω	0101223	2 B, C
R311	3.9k Ω	0101392	1 B
R312	1k Ω	0101102	2 B
R313	10 Ω	0101100	2 B, C
R314	22 Ω	0101220	1 B
R315	100k Ω	0101104	1 A
R316	10k Ω	0101103	2 B
R317	47k Ω	0101473	1 B
R318	100 Ω	0101101	1 B
R319	22 Ω	0101220	2 B
R320	1k Ω	0101102	2 B
R325	100k Ω	0101104	2 A, B
R328	22 Ω	0101220	1 A, B
R329	4.7k Ω	0101472	1 A, B
R330	22k Ω	0101223	1 A
R331	470 Ω	0101471	1 A
R332	4.7k Ω	0101472	2 A
R333	470 Ω	0101471	1 A
R334	22 Ω	0101220	1 A
R335	1k Ω	0101102	2 A
R336	100 Ω	0101101	2 A
R337	4.7k Ω	0101472	2 A
R338	3.9k Ω	0101392	
VR301	10k Ω (B) Signal Meter Adj.	1035130	1, 2 A
C301	0.022 μ F	0656223	1 C
C302	0.039 μ F	0656393	2 C
C303	3.3 μ F	0513339	2 C
C304	0.022 μ F	0656223	2 C
C305	0.039 μ F	0656393	1 C
C306	0.039 μ F	0656393	2 C
C307	0.039 μ F	0656393	1 C
C308	0.022 μ F	0656223	1 B
C309	0.01 μ F	0600107	2 B
C310	0.01 μ F	0600107	2 B
C311	22pF	0660220	2 C
C312	430pF	0640431	2 C
C313	0.022 μ F	0656223	1 C
C314	4.7 μ F	0512479	2 B
C315	0.022 μ F	0656223	2 B
C316	0.022 μ F	0656223	1 B
C317	0.039 μ F	0656393	2 B
C318	0.022 μ F	0656223	1 B
C320	0.0068 μ F	0601686	2 A
C323	0.039 μ F	0656393	2 B
C324	0.039 μ F	0656393	2 A
C325	0.022 μ F	0656223	1 A

W	X	Y	Z
C326	0.022 μ F	0656223	1 A
C327	0.022 μ F	0656223	1 A
C328	47 μ F	0512100	2 A
C329	0.012 μ F	0601127	2 A
C330	0.015 μ F	0601157	2 A
C331	100 μ F	0512101	1 A
C332	0.022 μ F	0656223	1 B
C333	0.039 μ F	0656393	2 A
C334	33 μ F	0512330	1 C
D301	IN60	0310330	1, 2 C
D302	DS-410	0340030	1 B, C
D303		0340030	2 B
D304		0310330	1, 2 A
D305	IN60	0310330	1 A
D306		0310330	1 A
TR301	2SC380 (O)	0305331	1 C
TR302		0305331	1 C
TR303		0305331	2 B
TR304	2SC380 (R)	0305330	1, 2 B
TR305		0305330	1 A
T301	AM RF	4210100	1 C
T302	AM OSC	4220300	2 C
T303	Ceramic Filter	4230440	1 B
T304	AM IFT 455kHz	4230480	1 B
T305	AM IFT 455kHz	4230470	1 A



DIODES STACK <F-1042-1>

W	X	Y	Z
R0011	3.3kΩ ±10% ¼W CR.	0101332	
C0011	100μF 100V EC.	0507101	
C0022	0.01μF 400V OC.	0590107	
TR0011	25C627 (2, 3)	0305581, 2	
D0011	ESAC02-03C	0310900	
D0022	ESAC02-03N	0310910	



TAPE MONITOR SW <F-1052-2>

W	X	Y	Z
S3	Tape Monitor 1 Switch	1130210	
S4	Tape Monitor 2 Switch		

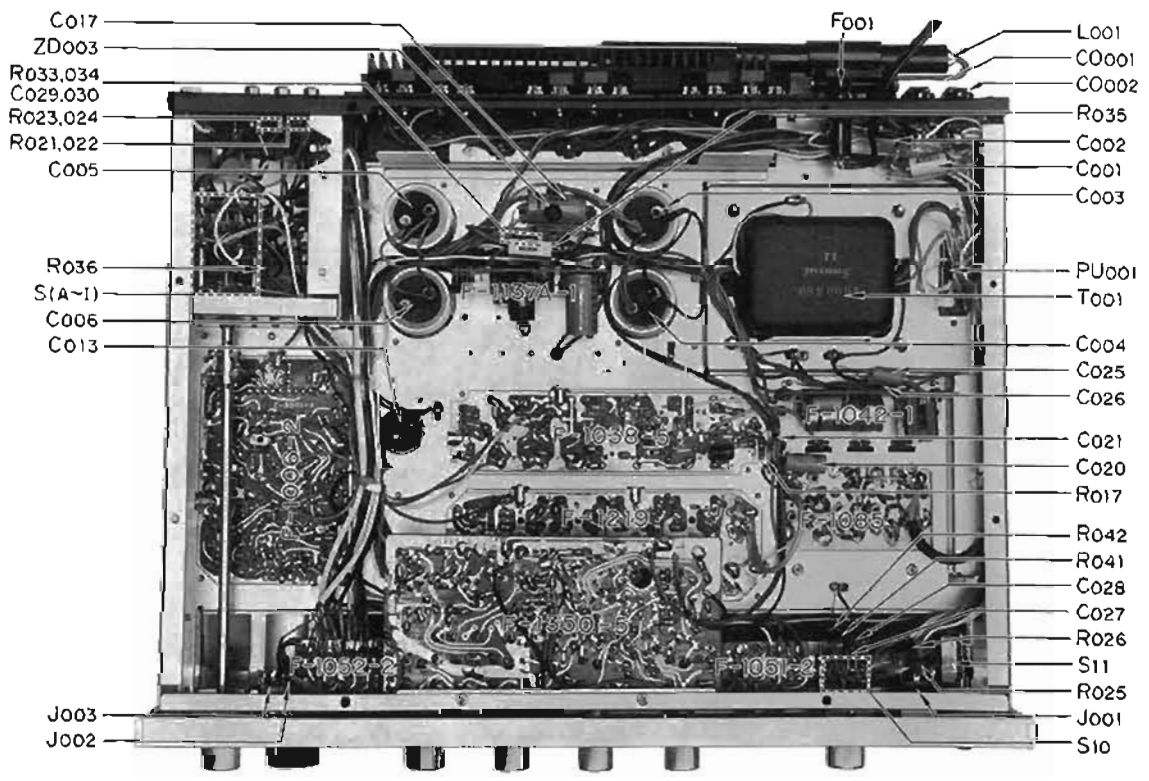
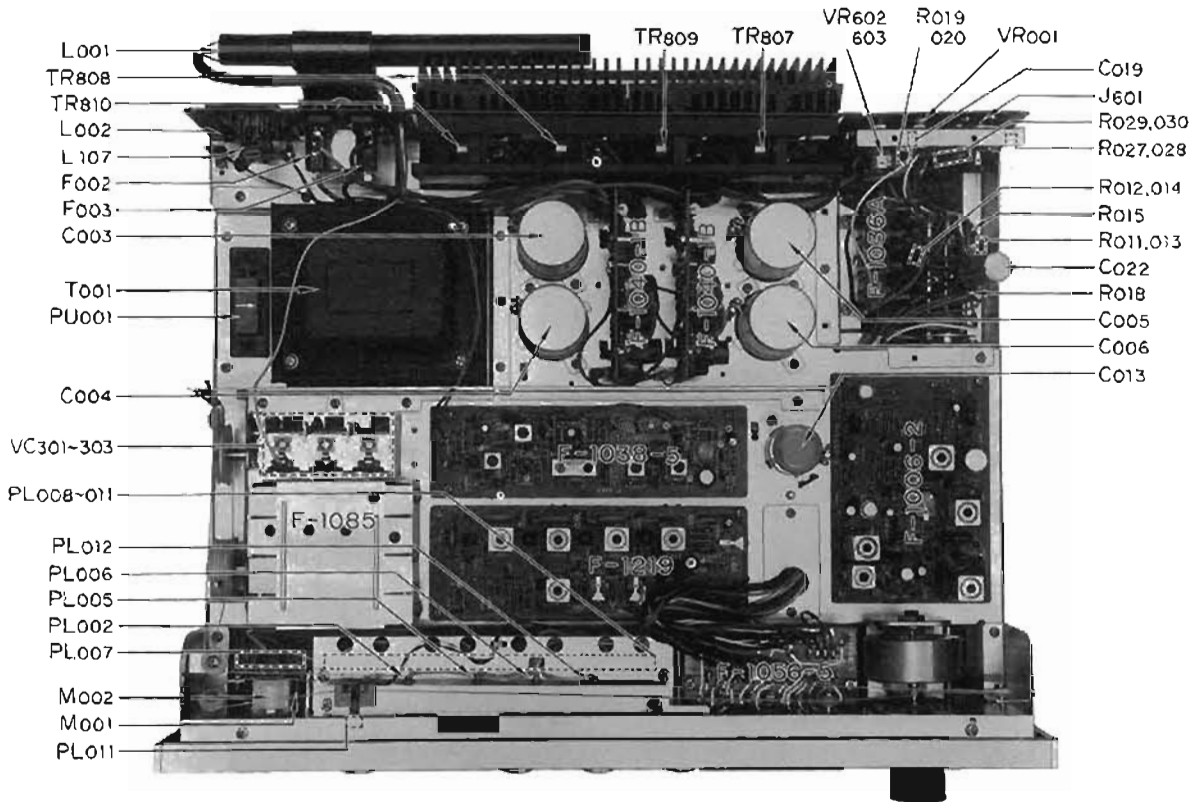
OTHER PARTS AND THEIR POSITION ON CHASSIS

W: Parts No X: Parts Name Y: Stock No.

W	X	Y
R011	150k Ω	0101154
R012	150k Ω	0101154
R013	15k Ω	0101153
R014	15k Ω	0101153
R015	22k Ω	0101223
R017	47 Ω	0101470
R018	220 Ω	0101221
R019	22k Ω	0101223
R020	22k Ω	0101223
R021	68k Ω	0101683
R022	68k Ω	0101683
R023	68k Ω	0101683
R024	68k Ω	0101683
R025	680 Ω	0171681
R026	680 Ω	0171681
R027	100k Ω	0101104
R028	100k Ω	0101104
R029	470k Ω	0103474
R030	470k Ω	0103474
R033	18k Ω	0101183
R034	18k Ω	0101183
R035	680 Ω	0163681
R036	150 Ω	0101151
R037	100 Ω	0101101
R041	10 Ω	0101100
R042	10 Ω	0101100
VR001	2k Ω (B) Separation Adjust	1005060
VR002,603	50k Ω (B) \times 2 Level Adjust	1015010
C001	0.022 μ F	0591227
C002	0.0047 μ F	0591476
C003	1500 μ F	0559824
C004	1500 μ F	0559824
C005	2200 μ F	0559821
C006	2200 μ F	0559821
C013	1000 μ F	0559302
C017	330 μ F	0512331
C019	0.002 μ F	0601206
C020	220 μ F	0512221
C021	0.04 μ F	0650403
C022	1000 μ F	0513102
C025	0.01 μ F	0590107
C026	0.01 μ F	0550107
C027	0.047 μ F	0601477
C028	0.047 μ F	0601477
C029	68pF	0660680
C030	68pF	0660680
VC301~303	3 Gang AM. Variable Capacitor	1200020
TR007		0305781, 2
TR008		0305841, 2
TR009	25C1079 (Y.BL) or 25C1116 (O.Y)	0305781, 2
TR010		0305841, 2

W	X	Y
ZD003	Z81-14	0310691
PL001	5V 60mA Needle Lamp	0400100
PL002	6V 100mA Stereo Indicator Lamp	0400161
PL003	6.3V 250mA Power Indicator Lamp	0420020
PL004		0420020
PL005	6V 100mA Phono 2 Indicator Lamp	0400161
PL006	6V 100mA Phono 1 Indicator Lamp	0400161
PL007	6.3V 250mA Dial Indicator Lamp	0420020
PL008		0420020
PL009		0420020
PL010		0420020
PL011	6.3V 250mA Aux Indicator Lamp	0420020
PL012		0420020
CO001	AC Outlet	2450010
CO002		2450010
PU001	Voltage Selector	2410080
		2410090
M001	\pm 100 μ A Tune Meter	4300410
M002	200 μ A Signal Meter	4300400
L001	AM Ferrite Bar Antenna	4200380
L002	Indicator	4900110
L107	75 Ω /300 Ω balloon	4290021
T001	Power Transformer	4000250
F001	5A Power Fuse (100~117V)	0430062
	3A Power Fuse (220~240V)	0430042
F002	4A Quick Acting Fuse	0433270
F003		0433270
S _A ~1	Selector Switch	1105090
S10	Speaker Selector Switch	1102310
S11	Power Switch	1130320
J001	Headphones Jack	2430071
J002	Tape 2 Rec. Jack	2430071
J003	Mic Jack	2430110
J601	DIN Jack	2430050
F-1085	FM Front End	7510350, 1, 2

* Design and specifications subject to change without notice for improvements.



Sansui

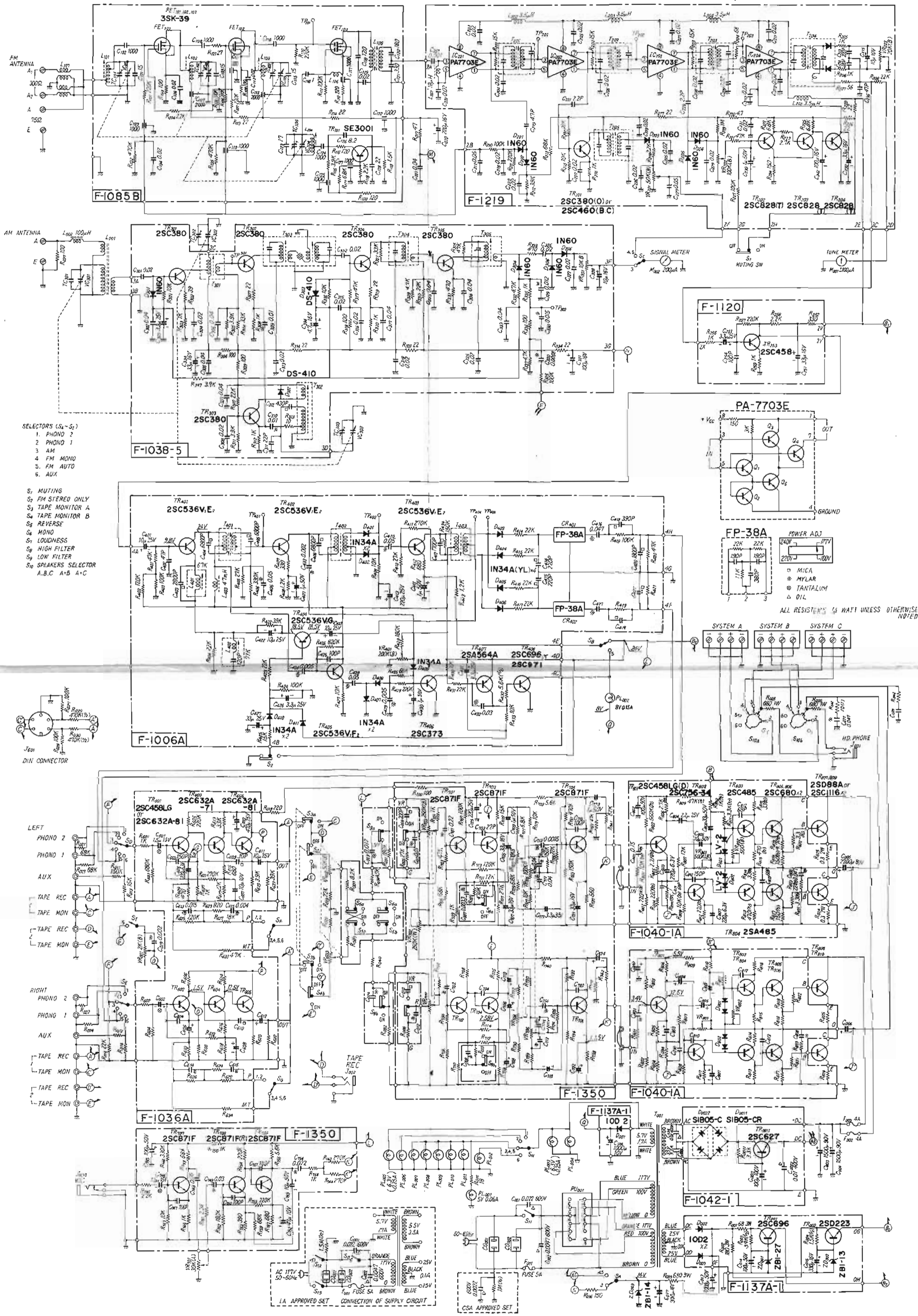
SANSUI ELECTRIC CO., LTD.

14-1, 2-chome, Izumi, Suginami-ku, Tokyo 168, Japan.
TELEPHONE: (03) 323-1111 / TELEX: 232-2076

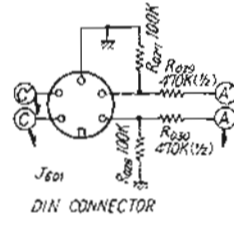
Stock No. 9216280

Printed in Japan (72020MT1)

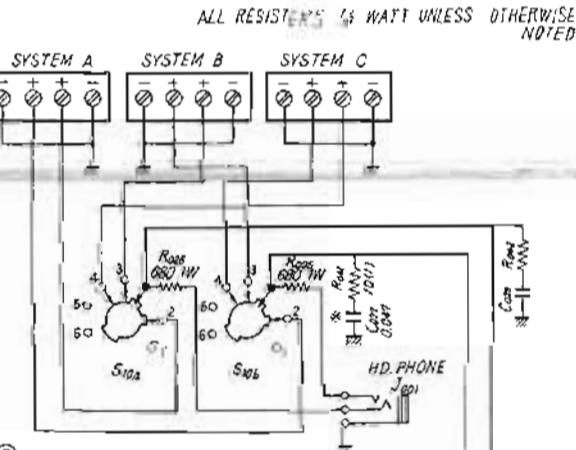
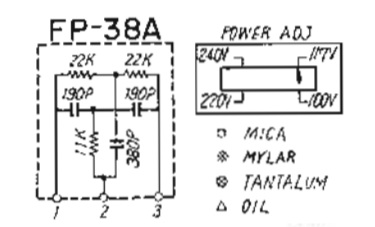
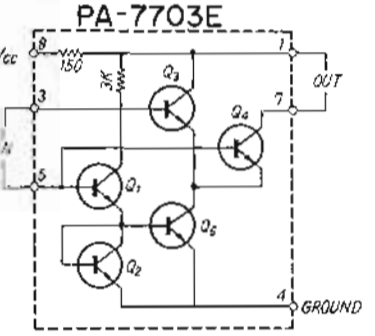
SANSUI 5000X SCHEMATIC DIAGRAM



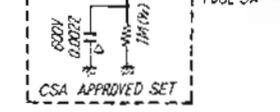
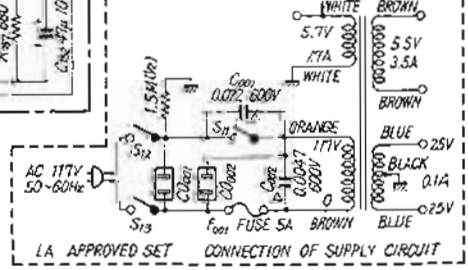
- SELECTORS (S₁-S₆)
1. PHONO 2
 2. PHONO 1
 3. AM
 4. FM MONO
 5. FM AUTO
 6. AUX
- S, MUTING
 S₂, FM STEREO ONLY
 S₃, TAPE MONITOR A
 S₄, TAPE MONITOR B
 S₅, REVERSE
 S₆, MONO
 S₇, LOUDNESS
 S₈, HIGH FILTER
 S₉, LOW FILTER
 S₁₀, SPEAKERS SELECTOR
 A, B, C A-B A-C



- LEFT
- PHONO 2
 - PHONO 1
 - AUX
 - TAPE REC
 - TAPE MON
 - TAPE REC
 - TAPE MON
- RIGHT
- PHONO 2
 - PHONO 1
 - AUX
 - TAPE REC
 - TAPE MON
 - TAPE REC
 - TAPE MON



ALL RESISTORS 1/4 WATT UNLESS OTHERWISE NOTED



* Manufacturer reserves right to change design and/or specifications without notice for purpose of improvement.