

Your Sansui 7000 receiver is designed for trouble-free performance with a minimum of care. Should the receiver work unsatisfactorily, please refer to the section of this manual entitled 'General Troubleshooting Chart' on pages 3 and 4. If you will be confronted with a trouble not covered in the chart, please contact your nearest Sansui dealer or Authorized Service Station.

For the man who can repair or replace the defective part himself

This manual includes a schematic wiring diagram and pictures identifying all of the electric and electronic parts. The parts list (pp. 13~24) gives the reference numbers and letters which are used in the illustrations of printed-circuit boards to identify each part. To remove the front panel, bottom board and wood case from the unit, refer to 'Disassembly Procedure (p. 5)'.

For the man who can align the tuner himself

The necessary steps for FM and AM alignments are given in the charts under the heading 'Alignment (pp. 9~12)'. Note that the alignment should be used only when really necessary and that the proper alignment requires use of precision instruments listed on the top of the chart. Never attempt to align unless such instruments are available.

For the man who wants to make a custom cabinet himself

Before mounting the 7000 in a custom cabinet or making such a cabinet, be sure to refer to the section entitled 'Custom Mounting (pp. 7~8)'.

If you have any questions regarding operation and service, please consult your nearest Sansui dealer or Authorized Service Station.

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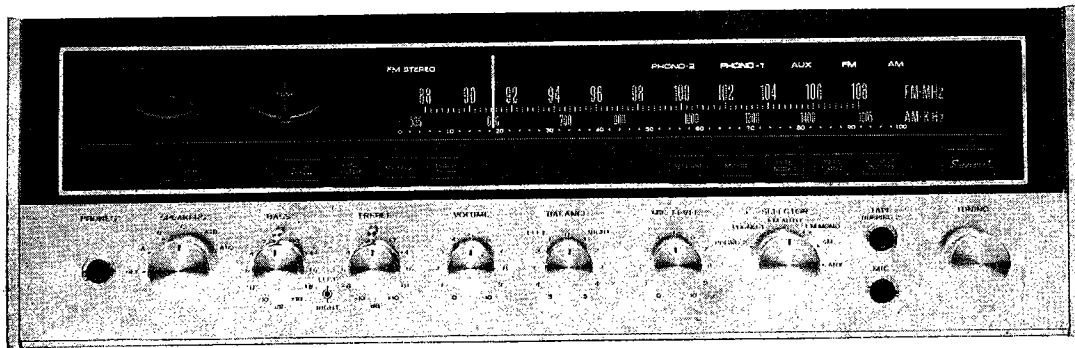
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SERVICE MANUAL

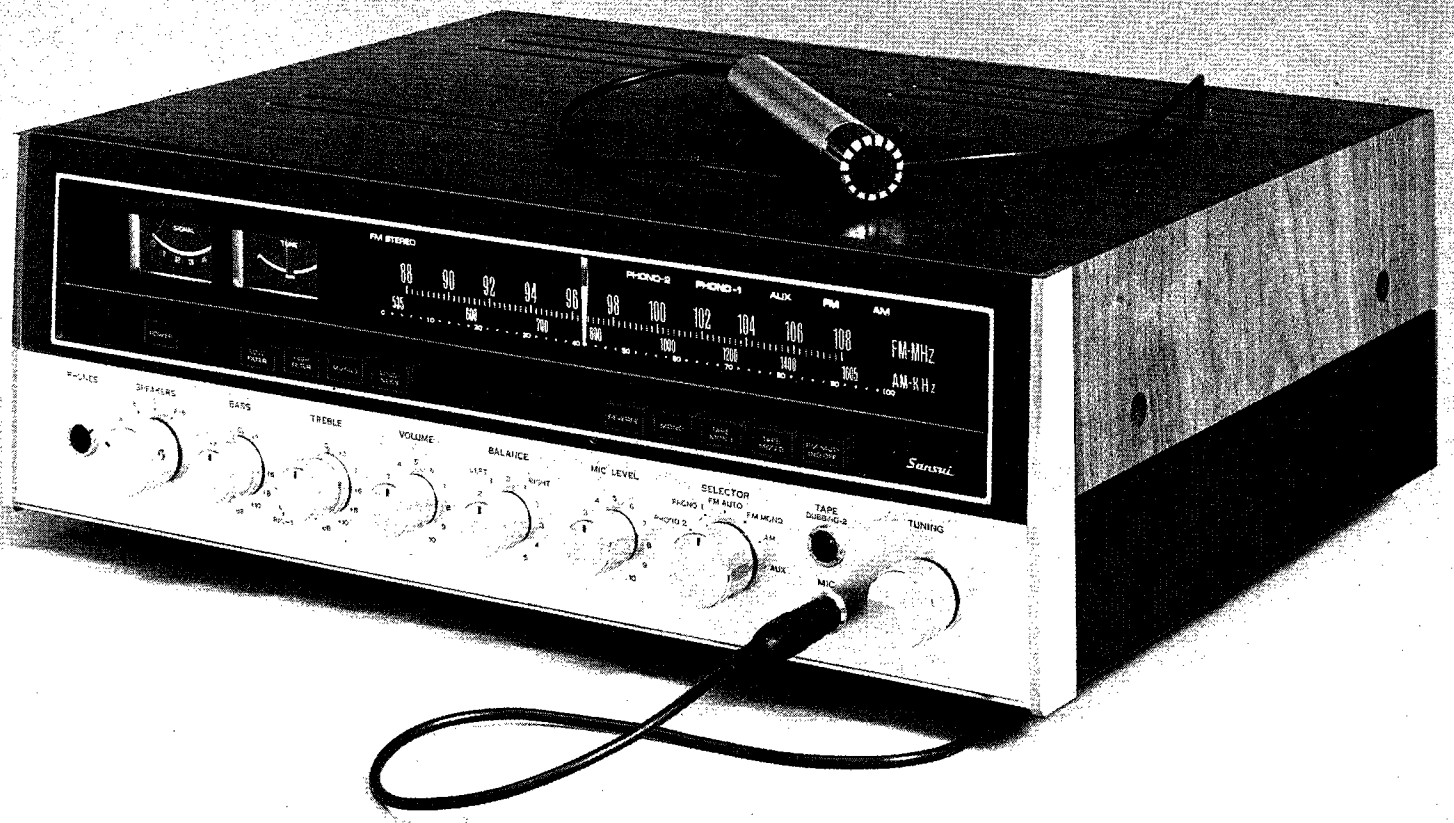
SOLID-STATE AM/FM STEREO TUNER AMPLIFIER

SANSUI 7000



Sansui

SANSUI ELECTRIC COMPANY LIMITED



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

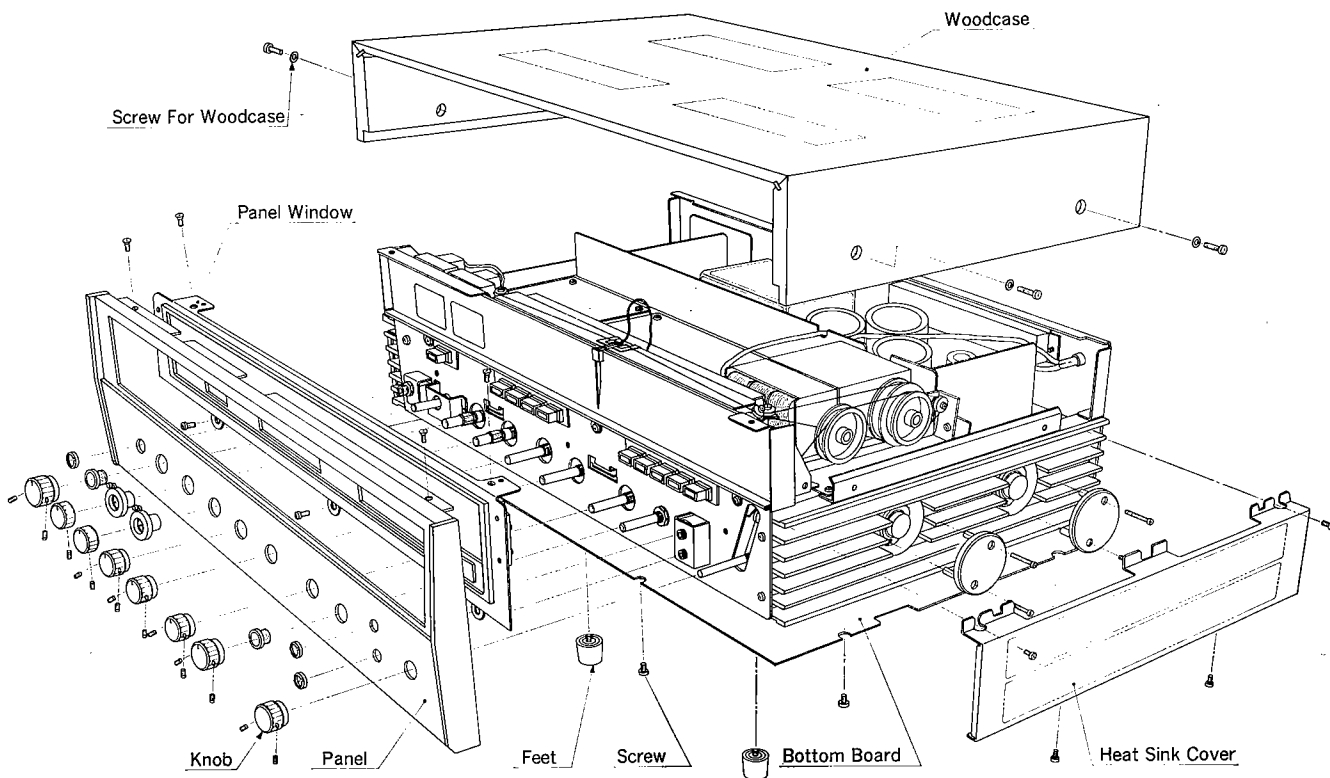
- ponent, be sure to read the manufacturer's instructions.
3. Improper location of audio components. The proper positioning of components, such as speakers and turntable, is vital to stereo.
 4. Defective audio components.
- The following are some other common causes of malfunction and what to do about them.

PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
AM, FM or 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 atmospheric, static or thunderbolts * 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 causing the noise, or attach it to the amplifiers 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"> * Install the antenna for maximum signal pickup
	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 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>	

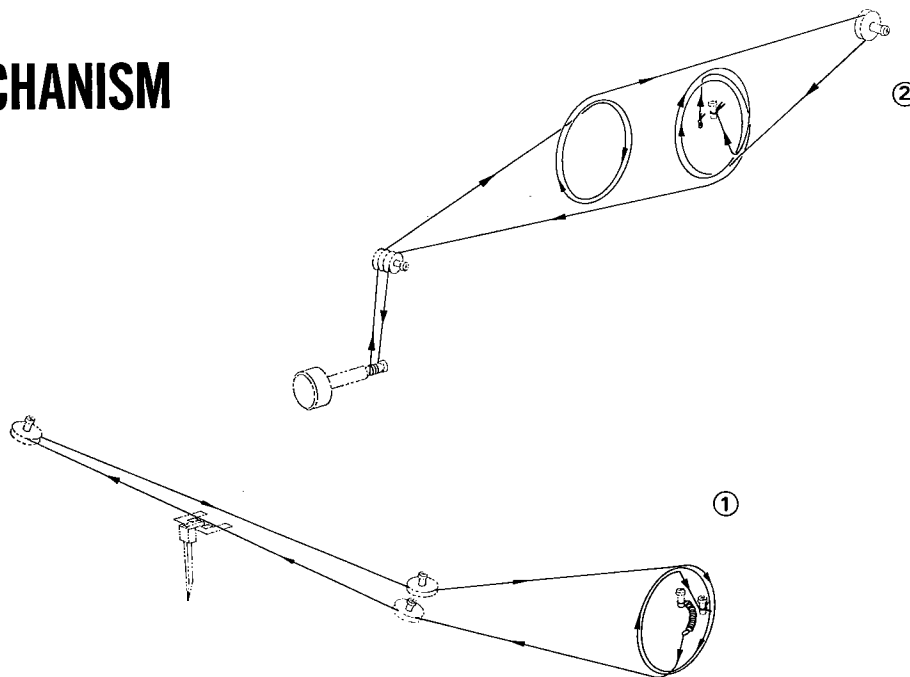
PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
FM reception (cont'd)	B. A series of pops	* Ignition noise caused by starting of an automobile engine	* Install the antenna and its lead-in wire in proper distance from the road or raise the antenna input as described above
	C. Tuning noise between stations	* This results from the nature of the FM reception. * The FM MUTING OFF switch depressed	* Set the FM MUTING OFF switch to its up or on position
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 ₄₀₃
	D. The stereo indicator blinks on and off even though stereo station is not received	* Interference	* The indicator is not at fault, adjust VR ₄₀₃
Record playing or tape playback	A. Hum or howling	* Record player placed directly on speaker * 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 * Switch the HIGH FILTER on
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	* Depress the MONO switch and then set the BALANCE control to a position where equal sound comes from both channels * Check if the efficiency of one speaker is balanced with that of the other

DISASSEMBLY PROCEDURE

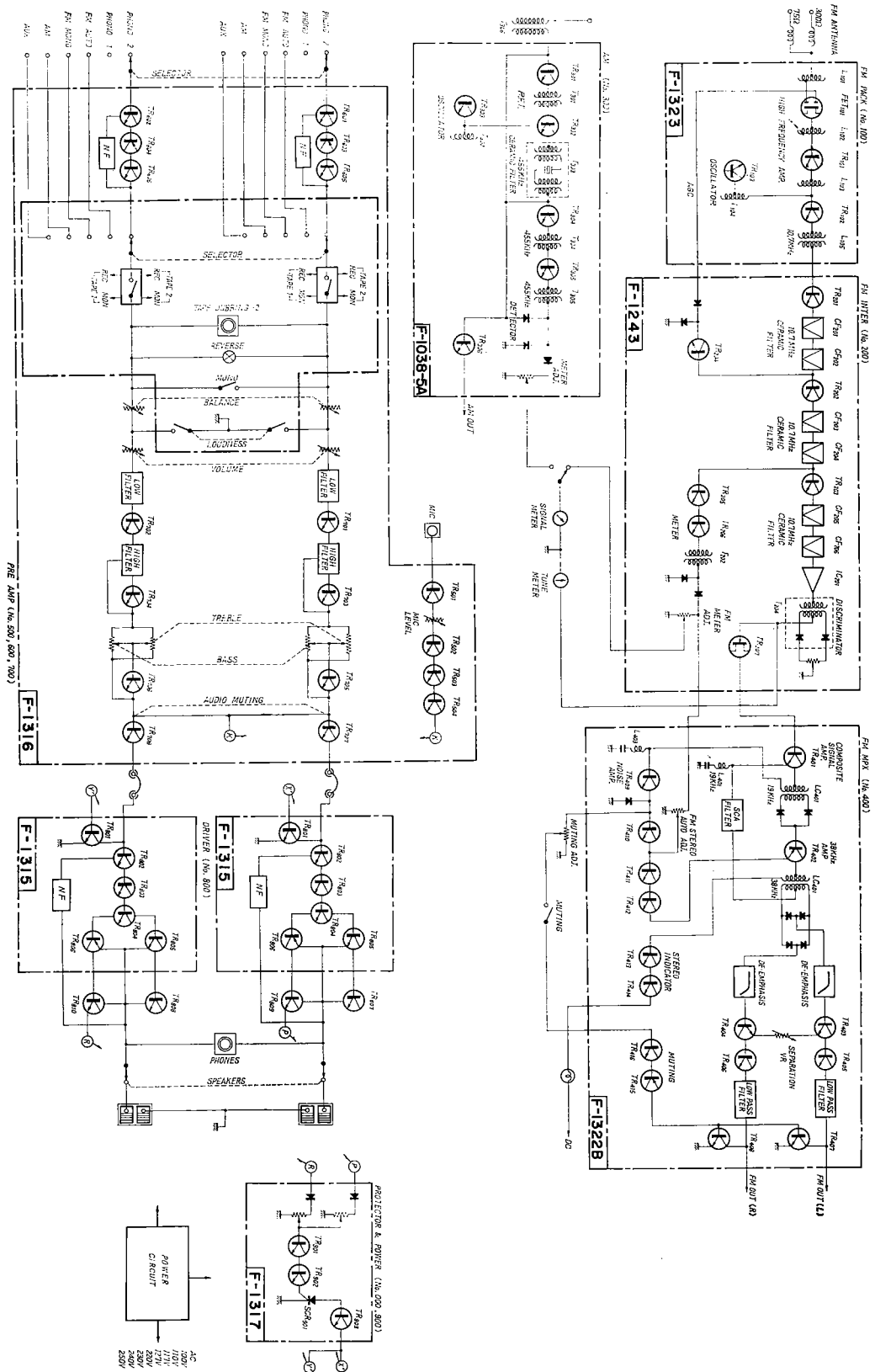
REMOVING THE FRONT PANEL, WOOD CASE AND BOTTOM BOARD



DIAL MECHANISM



BLOCK DIAGRAM

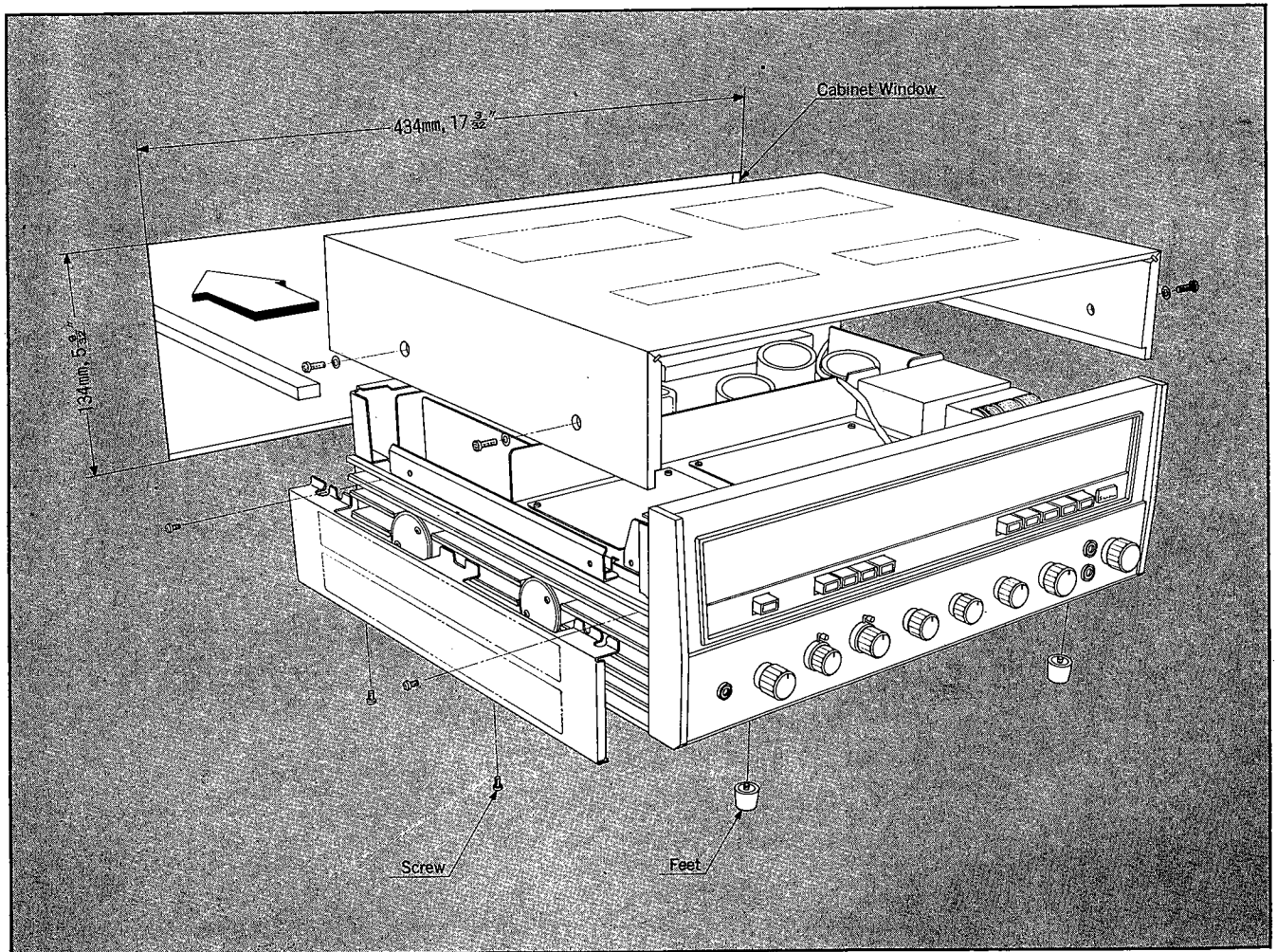


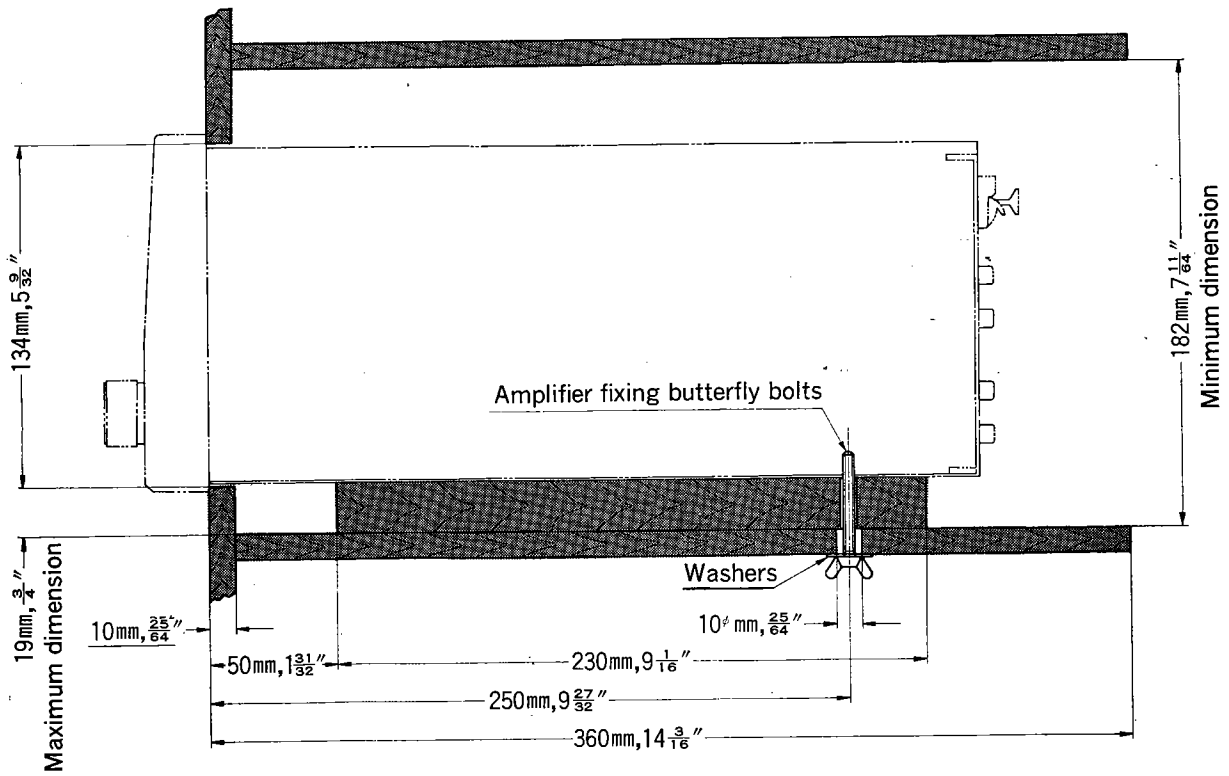
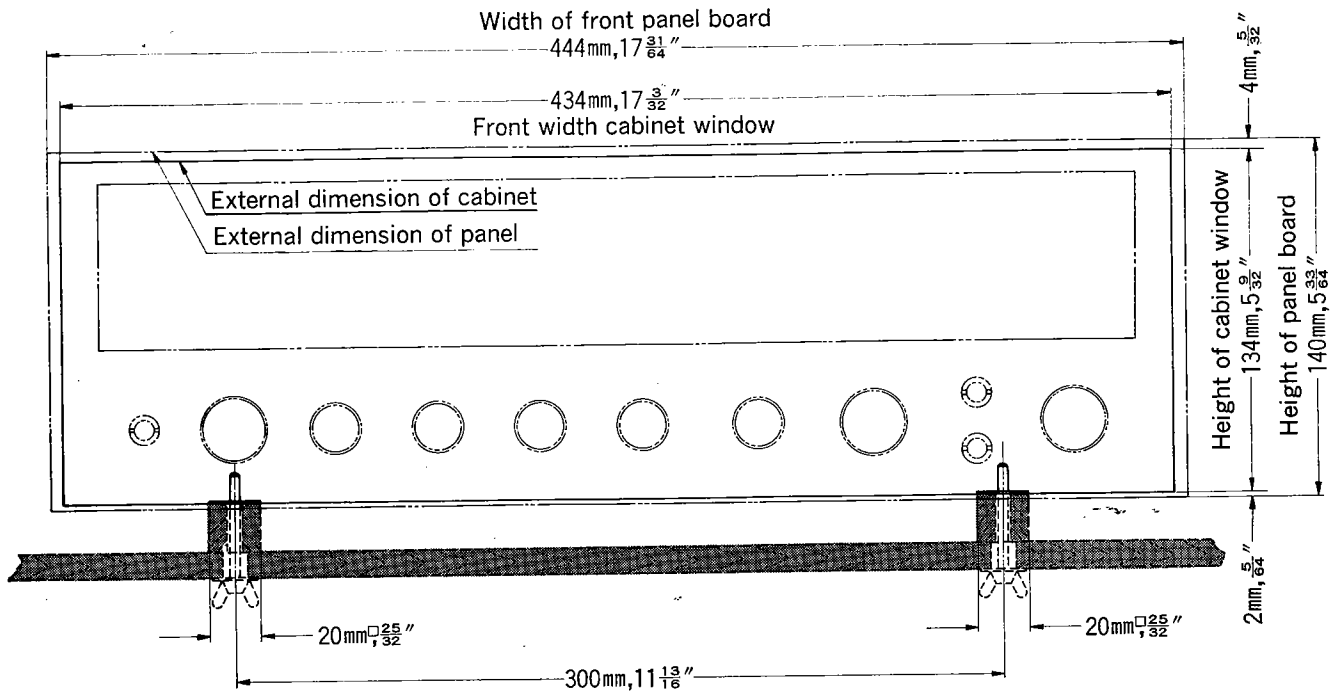
CUSTOM MOUNTING

Custom Mounting

1. Make a panel cutout 434mm ($17\frac{3}{32}$ ") wide and 134mm ($5\frac{9}{32}$ ") high.
2. Obtain two pieces of wood 20mm ($\frac{25}{32}$ ") square and 230mm ($9\frac{1}{16}$ ") long, and place them on the bottom board of the custom cabinet.
3. Drill two holes through the two pieces of wood and the bottom board of the cabinet as illustrated.
4. Remove the wood case, feet and two screws (on the control panel side of the bottom board of the amplifier).
5. Remove the heat sink covers from both sides of the unit.
6. Slide the amplifier into the cabinet through the panel cutout until the back of the control panel is tight against the panel of the cabinet.
7. Insert the two butterfly bolts (supplied) with washers through the holes in the bottom board of the cabinet and fasten the chassis into place.

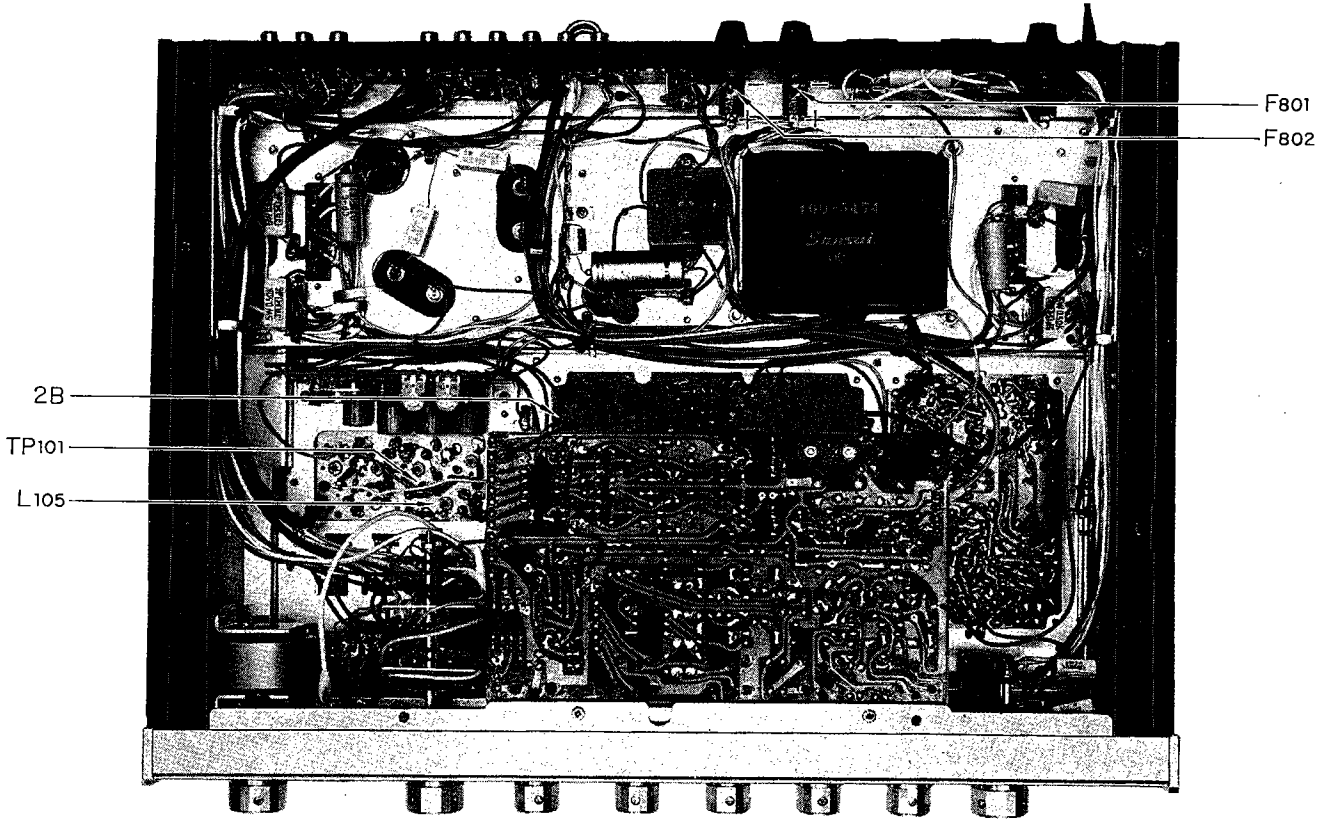
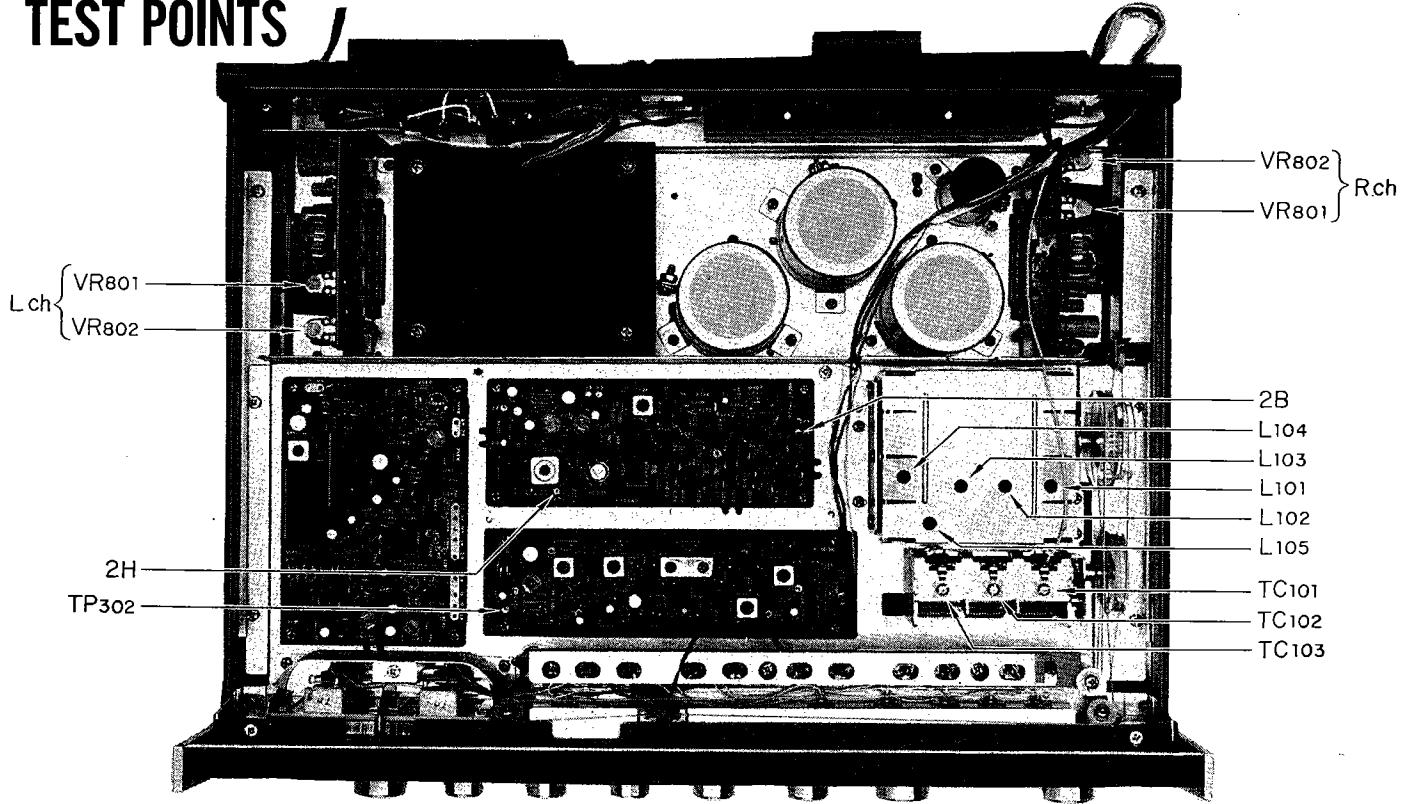
Note: When the receiver is mounted in the cabinet, the wood case, feet and two screws are not used. Retain them for future use.





ALIGNMENT

TEST POINTS



FM ALIGNMENT PROCEDURE

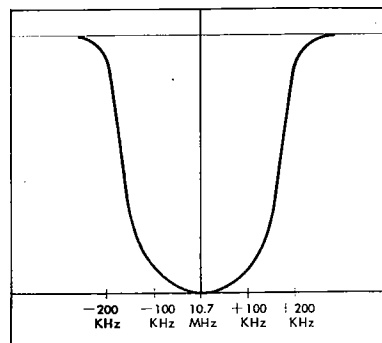
NOTE: To align, set the FM signal generator level to minimum.

Any internal parts replacement or changes you make in the 7000 requires proper adjustment again. Appropriate test points and adjustments are given on pages 9~12.

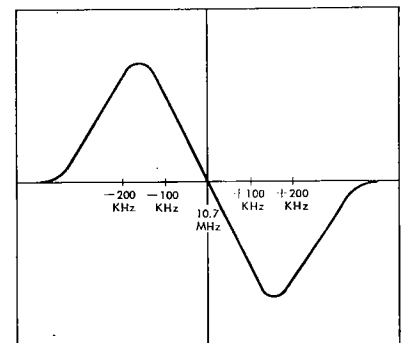
Equipment required: 1. Sweep Generator 2. Oscilloscope 3. FM Signal Generator 4. Multiplex Stereo Generator 5. AC V.T.V.M. 6. Audio Oscillator 7. AM Signal Generator 8. Distortion Meter

STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	IF Trans- former	10.7MHz ±200 kHz Sweep generator	To TP ₁₀₁ via the 10pF ceramic capacitor	Oscilloscope is connected to 2B via the 10pF ceramic by using a detector probe		L ₁₀₅	Best I.F. wave form
2.	Discrimin- ator	10.7MHz ±200 kHz Sweep generator	To TP ₁₀₁ via the 10pF ceramic capacitor	Oscilloscope is connected to 2H (TP ₂₀₁).		FM Discriminating transformer T ₂₀₁ primary and secondary	S curve
3.	O.S.C.	FM signal generator 88MHz 400Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	88 MHz	O.S.C. coil L ₁₀₄	Maximum
4.	O.S.C.	FM signal generator 108MHz 400Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	108 MHz	O.S.C. trimmer TC ₁₀₄	Maximum
5.	Repeat 3 and 4						
6.	RF Amp. Circuit	FM signal generator 90MHz 400Hz 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.	RF Amp. Circuit	FM signal generator 106MHz 400Hz 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.	Repeat 6 and 7						

FM IF WAVE FORM



FM DISCRIMINATOR WAVE FORM



ALIGNMENT

FM MULTIPLEX CIRCUIT

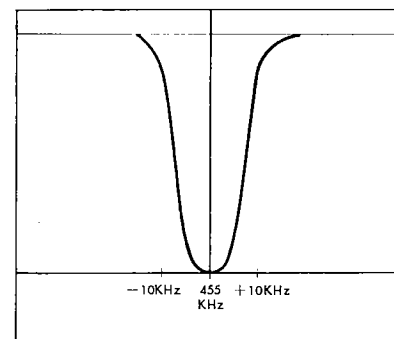
STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	19kHz phase	FM signal generator— 98MHz Stereo signal generator —composite signal with pilot signal, left chan, 30% modulation.	To antenna terminal	Connect distortion meter to right chan. load terminal	98MHz	L ₄₀₁	Min. distortion in right chan.
2.	Stereo separation	Same as above	Same as above	Connect oscilloscope and V.T.V.M. to load terminal	Same as above	VR ₄₀₁	Max. separation

AM ALIGNMENT PROCEDURE

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

STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	IF. Transfor- mer	455 kHz \pm 30 kHz Sweep-generator	Antenna terminals	Oscilloscope and V.T.V.M. at TP ₃₀₂		I.F.T. T ₃₀₃ ~T ₃₀₅	Best IF 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 cap. TC ₃₀₃	Maximum
4.	Repeat 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 coil T ₃₀₆	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.	Repeat 5, 6, 7, 8						

AM IF CHARACTERISTIC

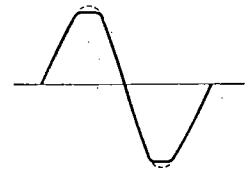


1. CURRENT ADJUSTMENT

STEP	SETTING OF AMMETER (TESTER)	WHAT TO DO	NOTE
1.		Remove F ₈₀₁ and F ₈₀₂ .	Use an ammeter having 100mA range. Be sure to switch on 1st and then connect the ammeter.
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.	
5.	100 mA range.	Connect the ammeter to F ₈₀₁ (See TEST POINTS).	
6.		Turn VR ₈₀₂ (left channel) clockwise and adjust current to 27 to 33mA.	
7.	100 mA range.	Push the POWER switch OFF and attach F ₈₀₁ in place.	
8.		Push the POWER switch ON and connect the ammeter to F ₈₀₂ (See TEST POINTS).	
9.		Turn VR ₈₀₂ (right channel) clockwise and adjust current to 27 to 33mA.	
10.		Attach F ₈₀₂ in place.	

2. OUTPUT ADJUSTMENT

STEP	WHAT TO DO	NOTE
1.	Adjust the volume control to minimum.	The oscillator used should have the oscillation frequency of, 20 to 20,000Hz and the output voltage of more than 200mV. Set other controls and switches as follows: BALANCE to CENTER TAPE MON to OFF MODE to STEREO TONE to CENTER Others to OFF
2.	Set an oscillator to 1,000Hz and connect it to the LEFT AUX input.	
3.	Set the SELECTOR switch to AUX	
4.	Connect an 8- or 16-ohm load resistor having capacity of more than 80 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

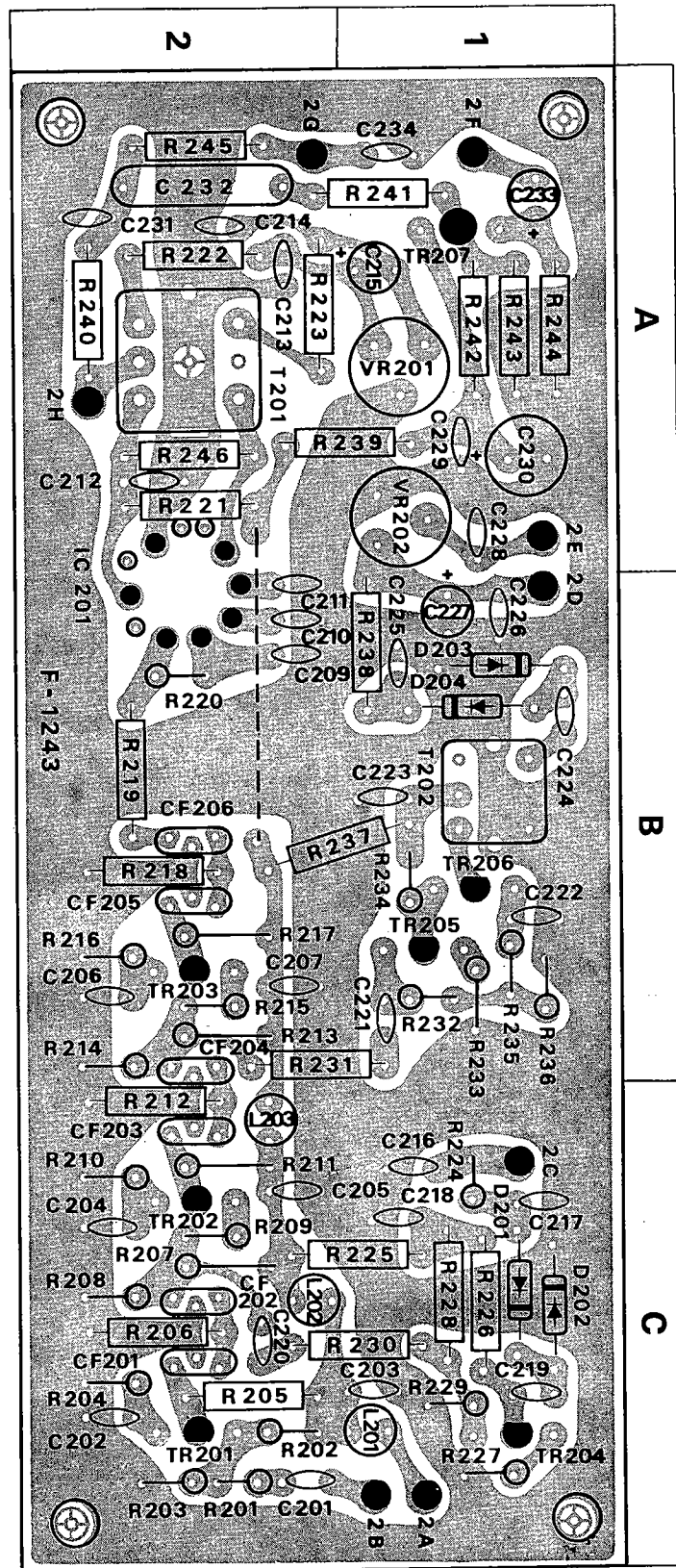
W: Parts No. X: Parts Name Y: Stock No. Z: Position of Parts

FM IF BLOCK <F-1243>

W	X	Y	Z	W	X	Y	Z		
R201	220Ω	0100221	2 C	C209	0.022 μF	25 V CC.	0656223	2 B	
R202	15kΩ	0100153	2 C	C210	0.022 μF		±10% 50 V CC.	0656223	2 B
R203	4.7kΩ	0100472	2 C	C211	0.022 μF			0656223	2 B
R204	1kΩ	0100102	2 C	C212	0.039 μF	±10% 50 V CC.	0656393	2 A	
R205	390Ω	0101391	2 C	C213	220pF		0660221	2 A	
R206	680Ω	0101681	2 C	C214	220pF	0660221	2 A		
R207	3.3kΩ	0100332	2 C	C215	10 μF	25 V EC.	0513100	1 A	
R208	1.5kΩ	0100152	2 C	C216	0.022 μF	+80% -20%	25 V CC.	0656223	1 C
R209	220Ω	0100221	2 C	C217	47pF	±10%	50 V CC.	0660470	1 C
R210	1kΩ	0100102	2 C	C218	0.022 μF	+80% -20%	25 V CC.	0656223	1 C
R211	390Ω	0100391	2 C	C219	47pF	±10% 50 V CC.	0660470	1 C	
R212	680Ω	0101681	2 C	C220	22pF		0660220	2 C	
R213	3.3kΩ	0100332	2 B	C221	22pF	0660220	1 B		
R214	1.5kΩ	0100152	2 B	C222	0.022 μF	+80% -20%	25 V CC.	0656223	1 B
R215	220Ω	0100221	2 B	C223	0.022 μF	+80% -20%	25 V CC.	0656223	1 B
R216	1kΩ	0100102	2 B	C224	22pF	±10% 50 V CC.	0660220	1 B	
R217	390Ω	0100391	2 B	C225	22pF		0660220	1 B	
R218	680Ω	0101681	2 B	C226	0.022 μF	+80% -20%	25 V CC.	0656223	1 B
R219	270Ω	0101271	2 B	C227	3.3 μF	50 V EC.	0515339	1 B	
R220	56Ω	0100560	2 B	C228	0.022 μF	+80% -20%	25 V CC.	0656223	1 A
R221	390Ω	0101391	2 A	C229	0.022 μF	+80% -20%	25 V CC.	0656223	1 A
R222	1kΩ	0101102	2 A	C230	47 μF	16 V EC.	0512470	1 A	
R223	1kΩ	0101102	2 A	C231	220pF	±10%	50 V CC.	0660221	2 A
R224	270kΩ	0100274	1 C	C232	0.33 μF	±10%	50 V MC.	0601338	2 A
R225	100Ω	0101101	1, 2 C	C233	10 μF	25 V EC.	0513100	1 A	
R226	1.8kΩ	0101182	1 C	C234	0.022 μF	+80% -20%	25 V CC.	0656233	1 A
R227	330Ω	0100331	1 C	TR201			0305791	2 C	
R228	10kΩ	0101103	1 C	TR202			0305791	2 C	
R229	1.5kΩ	0100152	1 C	TR203			0305791	2 B	
R230	680Ω	0101681	1, 2 C	TR204	25C930 (D)		0305791	1 C	
R231	680Ω	0101681	1, 2 B	TR205				0305791	1 B
R232	22kΩ	0100223	1 B	TR206				0305791	1 B
R233	68Ω	0100680	1 B	TR207	25K24 (E, F)		0370060, 1	1 A	
R234	2.2kΩ	0100222	1 B	D201			0310331	1 C	
R235	1.2kΩ	0100122	1 B	D202	1N60		0310331	1 C	
R236	560Ω	0100561	1 B	D203				0310331	1 B
R237	100Ω	0101101	1, 2 B	D204				0310331	1 B
R238	4.7kΩ	0101472	1 B	IC201	LA1111		0360050	2 A, B	
R239	1kΩ	0101102	1, 2 A	T201	Discriminating Transformer Meter Coil		4235650	2 A	
R240	100Ω	0101101	2 A	T202				4235660	1 B
R241	1kΩ	0101102	1, 2 A	L201	3.3 μH Micro Inductor		4900100	1 C	
R242	1MΩ	0101105	1 A	L202				4900100	2 C
R243	1MΩ	0101105	1 A	L203				4900100	2 C
R244	4.7kΩ	0101472	1 A	CF201	Ceramic Filter 10.7MHz		0910100, 1	2 C	
R245	10kΩ	0101103	2 A	CF202				0910100, 1	2 C
R246	18kΩ	0101183	2 A	CF203				0910100, 1	2 C
VR201	22kΩ (B)	1035150	1 A	CF204				0910100, 1	2 B
VR202	47kΩ (B)	1035170	1 A	CF205				0910100, 1	2 B
C201	0.022 μF	0656223	2 C	CF206				0910100, 1	2 B
C202	0.022 μF	0656223	2 C						
C203	0.022 μF	0656223	1 C						
C204	0.022 μF	0656223	2 C						
C205	0.022 μF	0656223	2 C						
C206	0.022 μF	0656223	2 B						
C207	0.022 μF	0656223	2 B						

Abbreviations

CR : Carbon Resistor	AEC : Aluminum Solid Electrolytic Capacitor
SR : Solid Resistor	SC : Styrol Capacitor
CeR : Cement Resistor	CC : Ceramic Capacitor
MC : Mylar Capacitor	MIC : Mica Capacitor
EC : Electrolytic Capacitor	MPC : Metallized Paper Capacitor

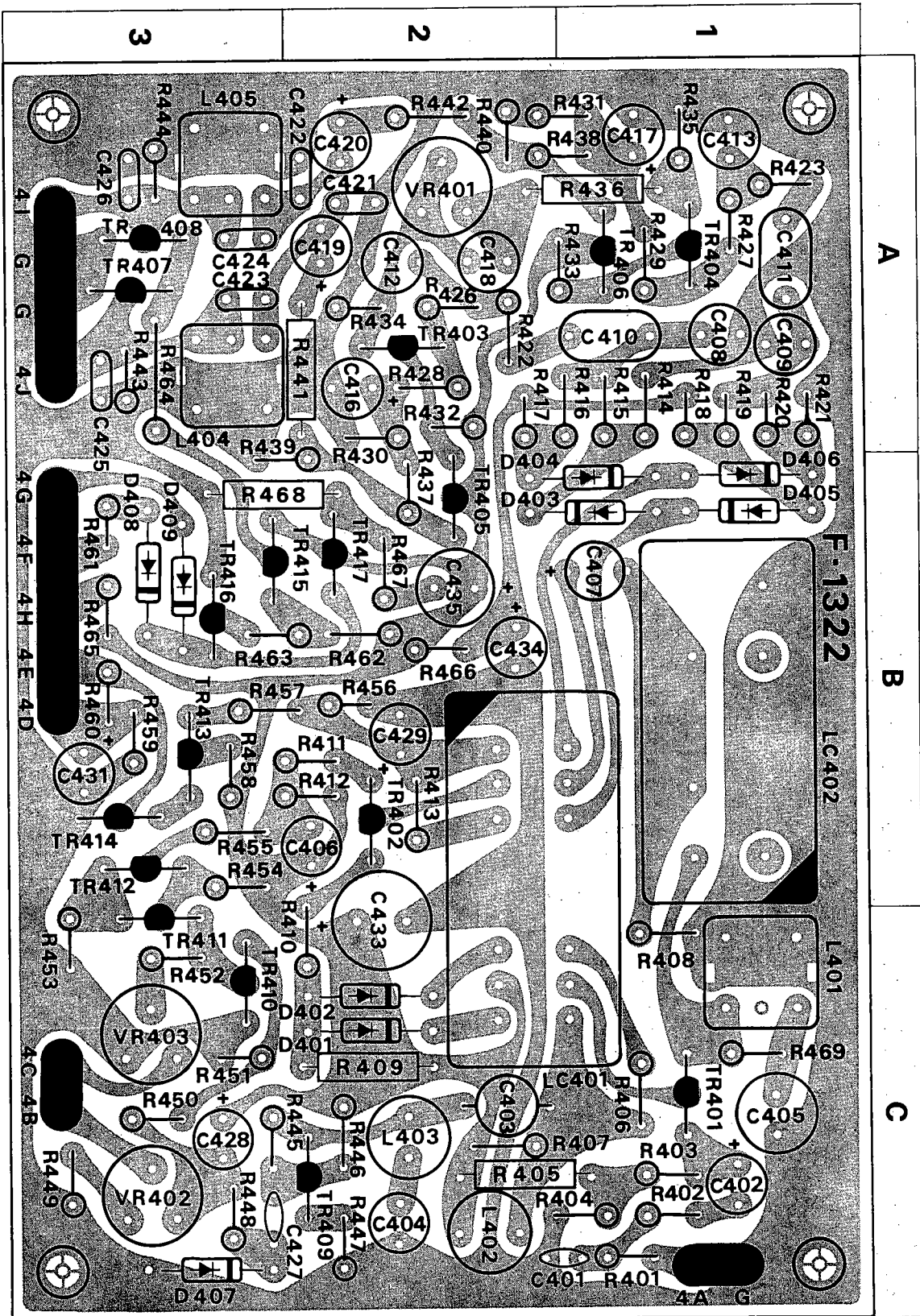


PRINTED CIRCUIT BOARDS AND PARTS LIST

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

FM MPX BLOCK (F-1322B)

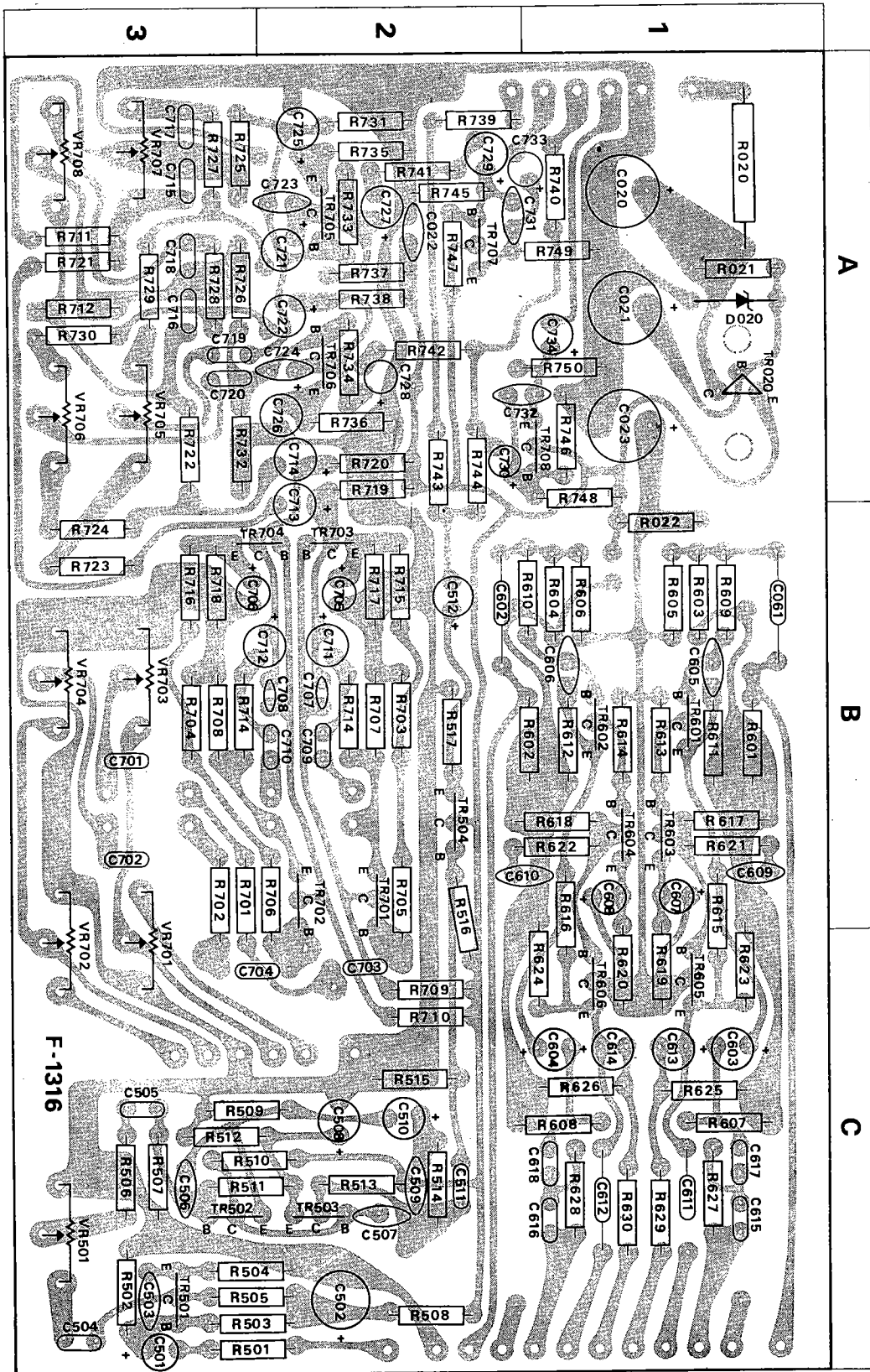
W	X	Y	Z	W	X	Y	Z
R401	1k Ω	0100102	1 C	R469	150k Ω $\pm 10\%$ $\frac{1}{4}$ W CR.	0101154	1 C
R402	1k Ω	0100102	1 C	VR401	47k Ω (B) MPX Separation Adj.	1035170	2 A
R403	100k Ω	0100104	1 C	VR403	220k Ω (B) FM Stereo Indicator Adj.	1035210	3 C
R404	22k Ω	0100223	1 C	C401	68pF $\pm 10\%$ 50 V CC.	0660680	1, 2 C
R405	100k Ω	0101104	2 A	C402	10 μ F 25 V EC.	0513100	1 C
R406	82k Ω	0100823	1 C	C403	100pF	0620101	2 C
R407	6.8k Ω	0100682	2 C	C404	4700pF $\pm 5\%$ 50 V SC.	0620472	2 C
R408	1.2k Ω	0100122	1 C	C405	6800pF	0620682	1 C
R409	47k Ω	0101473	2 C	C406	1 μ F 50 V EC.	0515109	2, 3 B
R410	22k Ω	0100223	2 C	C407	10 μ F 25 V EC.	0513100	1 B
R411	100 Ω	0100101	2, 3 B	C408	560pF $\pm 5\%$ 50 V SC.	0620561	1 A
R412	1.5k Ω	0100152	2, 3 B	C409	560pF	0620561	1 A
R413	33k Ω	0100333	2 B	C410	0.15 μ F $\pm 10\%$ 50 V MC.	0601158	1 A
R414	220k Ω	0100224	1 A	C411	0.15 μ F	0601158	1 A
R415	10k Ω	0100103	1 A	C412	1500pF $\pm 5\%$ 50 V SC.	0620152	2 A
R416	10k Ω	0100103	1 A	C413	1500pF	0620152	1 A
R417	220k Ω	0100224	2 A	C416	10 μ F 25 V EC.	0513100	2 A
R418	220k Ω	0100224	1 A	C417	10 μ F	0513100	1 A
R419	10k Ω	0100103	1 A	C418	560pF $\pm 5\%$ 50 V SC.	0620561	2 A
R420	10k Ω	0100103	1 A	C419	10 μ F 25 V EC.	0513100	2 A
R421	220k Ω	0100224	1 A	C420	10 μ F	0513100	2 A
R422	56k Ω	0100563	2 A	C421	0.0022 μ F	0601226	2 A
R423	56k Ω	0100563	1 A	C422	0.0022 μ F	0601226	2 A
R426	10k Ω	0100103	2 A	C423	0.0022 μ F $\pm 5\%$ 50 V MC.	0601226	3 A
R427	10k Ω	0100103	1 A	C424	0.0022 μ F	0601226	3 A
R428	100k Ω	0100104	2 A	C425	0.0022 μ F	0601226	3 A
R429	100k Ω	0100104	1 A	C426	0.0022 μ F	0601226	3 A
R430	33k Ω	0100333	2 A	C427	0.022 μ F $\begin{matrix} +80\% \\ -20\% \end{matrix}$ 50 V CC.	0650223	3 C
R431	33k Ω	0100333	2 A	C428	0.68 μ F 25 V AEC.	0563688	3 C
R432	68k Ω	0100683	2 A	C429	10 μ F 25 V EC.	0513100	2 B
R433	68k Ω	0100683	1, 2 A	C433	47 μ F 25 V EC.	0513470	2 B, C
R434	4.7k Ω	0100472	2 A	C434	1 μ F 50 V EC.	0515100	2 B
R435	4.7k Ω $\pm 10\%$ $\frac{1}{4}$ W CR.	0100472	1 A	C435	1 μ F 25 V AEC.	0563109	2 B
R436	100 Ω	0101101	1, 2 A	TR401	2SC871(F)	0305472	1 C
R437	100k Ω	0100104	2 B	TR402	2SA562(Y)	0300221	2 B
R438	100k Ω	0100104	2 A	TR403		0305472	2 A
R439	3.3k Ω	0100332	2 A, B	TR404		0305472	1 A
R440	3.3k Ω	0100332	2 A	TR405	2SC871(F)	0305472	1 A, B
R441	4.7k Ω	0101472	2 A	TR406		0305472	1 A
R442	4.7k Ω	0100472	2 A	TR407	2SC733 (O, Y)	0305370, 1	3 A
R443	22k Ω	0100223	3 A	TR408		0305370, 1	3 A
R444	22k Ω	0100223	3 A	TR409	2SC711 (E, F)	0305731, 2	2 C
R445	1M Ω	0100105	3 C	TR410	2SC733 (O, Y)	0305370, 1	3 C
R446	3.3k Ω	0100332	2 C	TR411	2SC711 (G)	0305370, 1	3 B, C
R447	68 Ω	0100680	2 C	TR412	2SC711 (G)	0305733	3 B
R448	3.3k Ω	0100332	3 C	TR413	2SC711 (E, F)	0305731, 2	3 B
R449	22k Ω	0100223	3 C	TR414	2SC735 (O, Y)	0305640, 1	3 B
R450	220k Ω	0100224	3 C	TR415	2SA562 (O, Y)	0300220, 1	3 B
R451	100k Ω	0100104	3 C	TR416	2SC711 (E, F)	0305731, 2	3 B
R452	47k Ω	0100473	3 C	TR417	2SC711 (E, F)	0305731, 2	2 B
R453	47 Ω	0100470	3 C	D401	IN34A	0310400	2 C
R454	47k Ω	0100473	3 B	D402		0310400	2 C
R455	1k Ω	0100102	3 B	D403		0310401	1, 2 B
R456	10k Ω	0100103	2 B	D404	IN34A (Y)	0310401	1, 2 B
R457	1k Ω	0100102	3 B	D405		0310401	1 B
R458	3.9k Ω	0100392	3 B	D406		0310401	1 B
R461	47k Ω	0100473	3 B	D407	IN34A	0310400	3 C
R462	47k Ω	0100473	2 B	L401	MPX Coil	4240510	1 C
R463	10k Ω	0100103	2, 3 B	L402	2.2mH Micro Inductor	4900090	2 C
R464	4.7k Ω	0100472	3 A	L403	1mH Micro Inductor	4900120	2 C
R465	47 Ω	0100470	3 B	L404		4240400	3 A
R466	220k Ω	0100224	2 B	L405	MPX Coil	4240400	3 A
R467	4.7k Ω	0100472	2 B	LC401		4240490	1, 2 B C
R468	47k Ω	0101473	2, 3 B	LC402	MPX Coil	4240050	1 B



PRINTED CIRCUIT BOARDS AND PARTS LIST

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

W	X	Y	Z	W	X	Y	Z	
R715	270kΩ	0101274	2 B	C608	33μF	6.3 V EC.	0510330	1 B
R716	270kΩ	0101274	3 B	C609	470pF	±10% 50 V CC.	0660471	1 B
R717	2.7kΩ	0101272	2 B	C610	470pF		0660471	1, 2 B
R718	2.7kΩ	0101272	3 B	C611	0.33μF	±10% 50 V MC.	0601338	1 C
R719	8.2kΩ	0101822	2 A	C612	0.33μF		0601338	1 C
R720	8.2kΩ	0101822	2 A	C613	10μF	25 V EC.	0513100	1 C
R721	10kΩ	0101103	3 A	C614	10μF		0513100	1 C
R722	10kΩ	0101103	3 A	C615	0.0022μF	±10% 50 V MC.	0601226	1 C
R723	6.8kΩ	0101682	3 B	C616	0.0022μF		0601226	1 C
R724	6.8kΩ	0101682	3 B	C617	0.006μF	±10% 50 V MC.	0601606	1 C
R725	22kΩ	0101223	3 A	C618	0.006μF		0601606	1 C
R726	22kΩ	0101223	3 A	C701	0.008μF	±10% 50 V MC.	0601806	3 B
R727	10kΩ	0101103	3 A	C702	0.008μF		0601806	3 B
R728	10kΩ	0101103	3 A	C703	0.22μF	±10% 50 V CC.	0601228	2 C
R729	6.8kΩ	0101682	3 A	C704	0.22μF		0601228	2, 3 C
R730	6.8kΩ	0101682	3 A	C705	33μF	6.3 V EC.	0510330	2 B
R731	150kΩ	0101154	2 A	C706	33μF		0510330	2, 3 B
R732	150kΩ	0101154	3 A	C707	22pF	±10% 50 V CC.	0660220	2 B
R733	390kΩ	0101394	2 A	C708	22pF		0660220	2 B
R734	390kΩ	0101394	2 A	C709	0.008μF	50 V MC.	0601806	2 B
R735	560Ω	0101561	2 A	C710	0.008μF		0601806	2 B
R736	560Ω	0101561	2 A	C711	33μF	25 V EC.	0513330	2 B
R737	5.6kΩ	0101562	2 A	C712	33μF		0513330	2, 3 B
R738	5.6kΩ	0101562	2 A	C713	1μF	50 V EC.	0515109	2 A, B
R739	3.3kΩ	0101332	2 A	C714	1μF		0515109	2 A
R740	3.3kΩ	0101332	1 A	C715	0.04μF	±10% 50 V MC.	0601407	3 A
R741	47kΩ	0101473	2 A	C716	0.04μF		0601407	3 A
R742	47kΩ	0101473	2 A	C717	0.04μF	±10% 50 V MC.	0601407	3 A
R743	120kΩ	0101124	2 A, B	C718	0.04μF		0601407	3 A
R744	120kΩ	0101124	2 A, B	C719	0.0015μF	±10% 50 V CC.	0601156	3 A
R745	820kΩ	0101824	2 A	C720	0.0015μF		0601156	3 A
R746	820kΩ	0101824	1 A	C721	10μF	25 V EC.	0513100	2 A
R747	470kΩ	0101474	2 A	C722	10μF		0513100	2 A
R748	470kΩ	0101474	1 A, B	C723	68pF	±10% 50 V CC.	0660680	2, 3 A
R749	3.9kΩ	0101392	1, 2 A	C724	68pF		0660680	2, 3 A
R750	3.9kΩ	0101392	1 A	C725	47μF	6.3 V EC.	0515470	2 A
VR501	30kΩ(B) Mic Level Control	1000270	3 C	C726	47μF		0515470	2 A
VR701,702	250kΩ(MN) Balance Control	1010720, 1	3 B, C	C727	1μF	±10% 50 V EC.	0519101	2 A
VR703,704	250kΩ(B) × 2 Volume Control	1010730, 1	3 B	C728	1μF		0519101	2 A
VR705,706	100kΩ × 2 Treble Control	1020110	3 A	C729	1μF	RN 50 V EC.	0519101	2 A
VR707,708	88kΩ × 2 Bass Control	1020100	3 A	C730	1μF		0519101	2 A
C020	220μF	0515221	1 A	C731	470pF	±10% 50 V CC.	0660471	1, 2 A
C021	220μF	0515221	1 A	C732	470pF		0660471	1, 2 A
C022	0.022μF	0657223	2 A	C733	1μF	50 V EC.	0515109	1, 2 A
C023	220μF	0515221	1 A	C734	1μF		0515109	1 A
C501	1μF	0515109	3 C	TR020	2SD223 (R, O, Y)	0308230, 1, 2	1 A	
C502	100μF	0513101	2 C	TR501	2SC871R (E, F)	0305474, 5	3 C	
C503	100pF	0601607	3 C	TR502		0305474, 5	3 C	
C504	0.06μF	0706016	3 C	TR503		0305474, 5	2 C	
C505	0.03μF	0601307	3 C	TR504		0305474, 5	2 B	
C506	100pF	0660101	3 C	TR601		0305474, 5	1 B	
C507	100pF	0660101	2 C	TR602		0305474, 5	1 B	
C508	47μF	0511470	2 C	TR603		0300162, 3	1 B	
C509	68pF	0660680	2 C	TR604		0300162, 3	1 B	
C510	10μF	0515100	2 C	TR605		0305474, 5	1 C	
C511	0.022μF	0601227	2 C	TR606		0305474, 5	1 C	
C512	1μF	0519101	2 B	TR701	0305474, 5	2 B		
C601	0.33μF	0601338	2 B	TR702	0305474, 5	2 B		
C602	0.33μF	0601338	1 C	TR703	0305474, 5	2 B		
C603	47μF	0511470	1 C	TR704	0305474, 5	2 B		
C604	47μF	0511470	1 C	TR705	0305474, 5	2 B		
C605	33pF	0660330	1 B	TR706	0305474, 5	2 A		
C606	33pF	0660330	1 B	TR707	0305474, 5	2 A		
C607	33μF	0510330	1 B	TR708	0305474, 5	1 A		
				D020	ZBI-25	0310710	1 A	



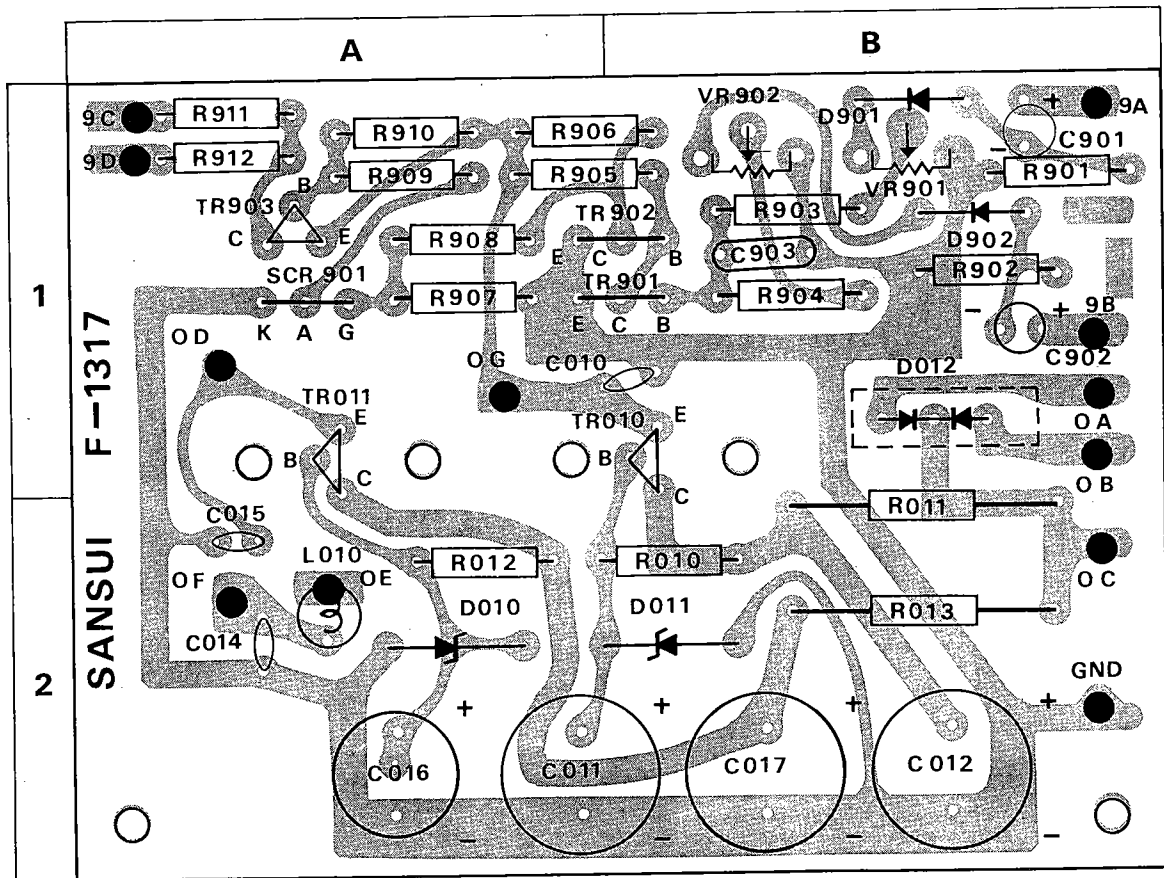
PRINTED CIRCUIT BOARDS AND PARTS LIST

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

POWER AND PROTECTOR BLOCK <F-1317>

W	X	Y	Z
R010	820Ω ±10% 1/2W SR.	0111821	2 A, B
R011	390Ω ±10% 3 W CeR.	0163391	2 B
R012	1kΩ ±10% 1/2W SR.	0111102	2 A
R013	270Ω ±10% 2 W CeR.	0162271	2 B
R901	4.7kΩ	0101471	1 B
R902	4.7kΩ	0101471	1 B
R903	4.7kΩ	0101471	1 B
R904	4.7kΩ	0101471	1 B
R905	47kΩ	0101473	1 A, B
R906	10kΩ	0101103	1 A, B
R907	1kΩ	0101102	1 A
R908	12kΩ	0101123	1 A
R909	3.9kΩ	0101392	1 A
R910	4.7kΩ	0101472	1 A
R911	4.7kΩ	0101472	1 A
R912	4.7kΩ	0101472	1 A
VR901	5kΩ(B)	1031090	1 B
VR902		1031090	1 B
C010	0.022μF ^{+80%} / _{-20%} 50 V CC.	0650223	1 A, B
C011	220μF } 50 V EC.	0515221	2 A, B
C012	220μF }	0515221	2 B

W	X	Y	Z
C014	0.022μF ^{+80%} / _{-20%} 50 V CC.	0650223	2 A
C015	0.022μF ^{+80%} / _{-20%} 50 V CC.	0650223	2 A
C016	220μF 25 V EC.	0513221	2 A
C017	220μF 50 V EC.	0515221	2 B
C901	1μF } 50 V EC.	0515109	1 B
C902	1μF }	0515109	1 B
C903	0.01μF ±10% 50 V MC.	0601107	1 B
TR010	2SD223 (O, Y, G)	0308230, 1, 2	1 B
TR011		0308230, 1, 2	1 A
TR901	2SC711 (E, F)	0305731, 2	1 A, B
TR902		0305731, 2	1 A, B
TR903	2SA628 (E, F)	0300282, 3	1 A
D010	ZBI-12	0310641	2 A
D011	ZBI-25	0310710	2 A, B
D012	10DC1	0310680	1 B
D901	1N60	0310331	1 B
D902		0310331	1 B
SCR901	2SF656	0350020	1 A
L010	Micro Inductor 3.3μH	4900100	2 A



OTHER PARTS AND THEIR POSITION ON CHASSIS

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

W	X	Y
R001	18Ω	0111180
R002	12kΩ	0111123
R032	47Ω	0101470
R033	2.2kΩ	0101222
R034	4.7Ω	0162479
R247	680kΩ	0101684
R338	100Ω	0101101
R527	10Ω	0101100
R631	470kΩ	0101474
R632	470kΩ	0101474
R633	100kΩ	0101104
R634	100kΩ	0101104
R635	470kΩ	0101474
R636	470kΩ	0101474
R637	100kΩ	0101104
R638	100kΩ	0101104
R640	100Ω	0101101
R641	100Ω	0101101
R761	39kΩ	0101394
R762	39kΩ	0101394
R825	0.7Ω	0157688
R826	0.7Ω	0157688
R827	0.7Ω	0157688
R828	0.7Ω	0157688
R829	150Ω	0155151
R830	150Ω	0155151
R831	470Ω	0162471
R832	470Ω	0162471
VR402	100kΩ(B) Muting Adjustor	1005042
C001	0.033μF	0591337
C002	0.0047μF	0591476
C003	220μF	0511221
C004	1000μF	0559302
C005	3300μF	0559831
C006	100μF	0507101
C007	0.01μF	0659011
C032	220μF	0515221
C235	0.022μF	0657223
C619,620	0.047μF × 4	0800121
C739	3.3μF RN	0519102
C740	3.3μF RN	0519102
C811	2200μF	0559830
C812	2200μF	0559830
C813	0.1μF	0592108
C814	0.1μF	0592108
VC301~303	3 Gang AM Variable Condenser	1200020
TR001	2SC627(3)	0305582
TR807	} 2SC1116(R,O,Y)	0305840, 1, 2
TR808		0305840, 1, 2
TR809		0305840, 1, 2
TR810		0305840, 1, 2
D001		DS10BN-M
D002	SRIFM2	0310870
S1(a~j)	Selector Switch Y-5-14-6	1105070, 1
S3(a~f)	Speakers Switch Y-2-2-6	1102260, 1

W	X	Y
S12	Power Limiter Switch	1160100
S13	Power Switch	1130350
J501	Microphone Jack	2430110
DIN J601	} DIN Jack	2430040
DIN J602		2430040
J601	Tape Recording Jack	2430110
J801	Headphones Jack	2430010
PU001	Voltage Selector Plug	2410170
	Main Voltage Selector Plug	2410180
	Sub Voltage Selector Plug	2410190
CO001	} AC Outlet	2450040
CO002		2450040
T001	Power Transformer 400-5474	4000910
T101	Balun 75Ω : 300Ω	4290021
T306	AM Bar Antenna	4300380
L301	Micro Inductor 100μH	4900110
M001	Tune Meter ±100μA	4300320
M002	Signal Meter 200μA	4300310
PL006	5V 0.06A Needle Indicator	0400100
PL007	7V 0.2A Signal Meter Lamp	0400150
PL008	6V 0.1A Phono 2 Indicator	0400160
PL009	6V 0.1A Phono 1 Indicator	0400160
PL010	7V 0.2A Tune Meter Lamp	0400150
PL011	6V 0.1A FM Indicator	0400160
PL012	6V 0.1A AM Indicator	0400160
PL013	6V 0.1A AUX Indicator	0400160
F001	3A Fuse (220~250V)	0431260
	5A Fuse (100~127V)	0431280
F801	} 5A Quick Acting Fuse	0433280
F802		0433280
F-1323	FM Front End	7510400

OTHER PARTS AND THEIR POSITION ON CHASSIS

