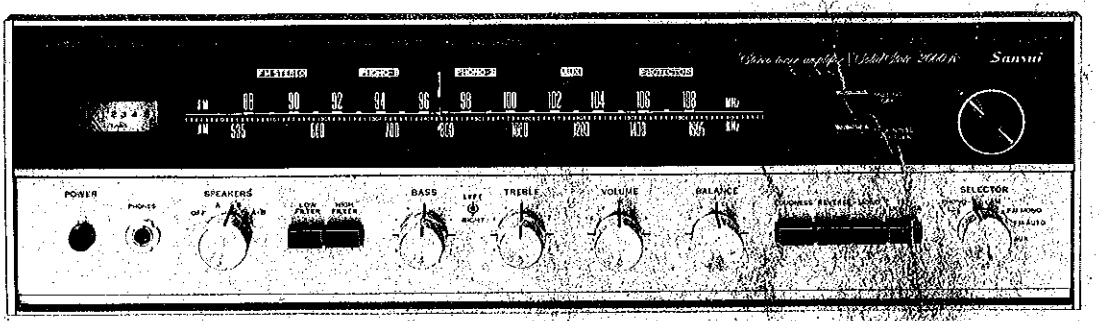
SERVICE MANUAL

SOLID-STATE AM/FM STEREO TUNER AMPLIFIER

SANSUI 2000A



Sansui

SANSUI ELECTRIC COMPANY LIMITED

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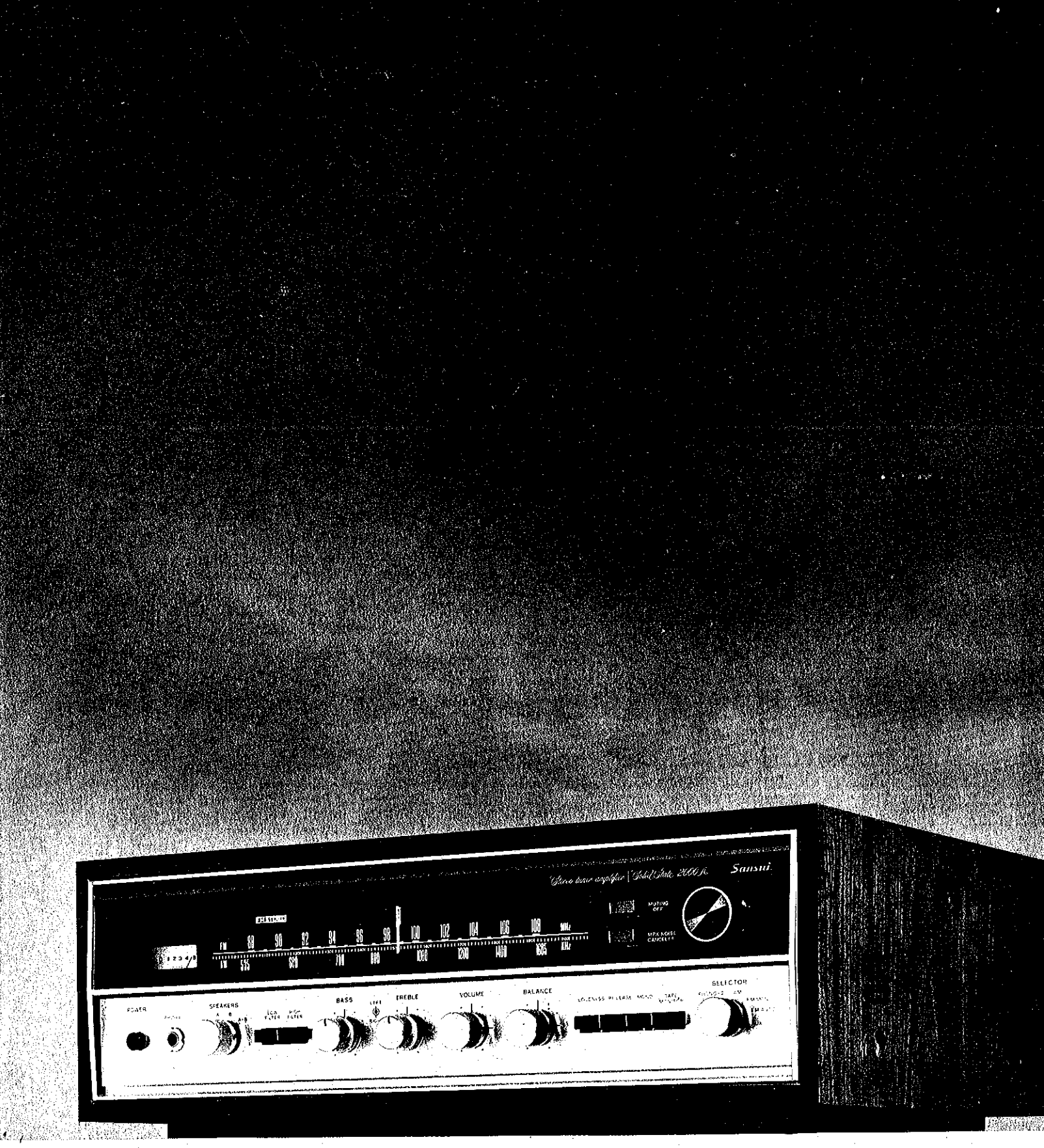

Sansui
POWER
SPEAKERS
BASS
TREBLE
VOLUME
BALANCE
SELECTOR

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 recorder, antenna and line cord.
2. Improper operation. Before operating any audio component, 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	* Discharge or oscillation caused by electrical appliances, such as fluorescent lamp, TV set, D.C. motor, rectifier or oscillator * Natural phenomena, such as atmospherics, statics or thunderbolts * Insufficient antenna input due to ferroconcrete wall or long distance from the station * Wave interference from other electrical appliances	* Attach a noise limiter to the electrical appliance causing the noise, 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 tuning meter does not move sharply	* Receiver is located in a weak signal area	* Place the set to receive maximum signal strength
	C. The zero point of the meter diverges much	* Regional difference in field intensity.	* 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	* Due to the nature of AM broadcasts	* 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	* Adjacent-channel interference or beat interference * TV set too close to audio system	* 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	* Poor noise limiter effect or too low S/N ratio due to insufficient antenna input 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	* 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

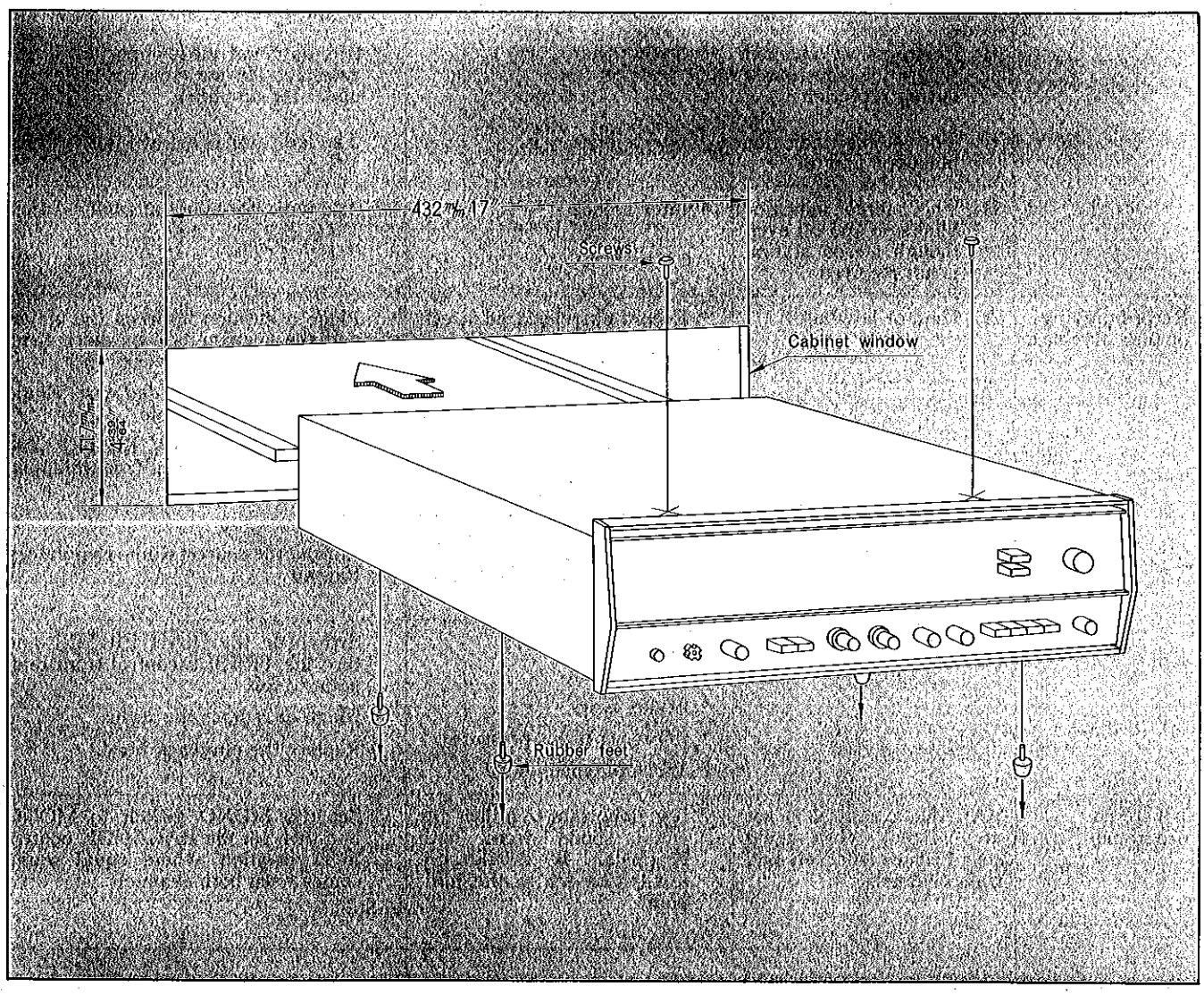
PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
FM reception (cont'd)	B. A series of pops is heard	* Ignition noise caused by an automobile engine	* Install the antenna and its lead-in wire in proper distance from the road or raise the antenna input as described above
	C. Tuning noise between stations	* This 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	* Turn the MUTING switch on. It reduces the sensitivity, and therefore it should be used sparingly
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 * 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 shord as possible * Switch on the LOW FILTER and turn the BASS control from midpoint to left * Consult the nearest Radio Regulatory Bureau
	B. Surface noise	* Worn or old record * Worn stylus * Stylus dusty * Improper stylus pressure * Worn playback head	* Switch on the HIGH FILTER and turn the TREBLE control from midpoint to left * Clean or replace the stylus * Replace the playback head.
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	* Set the MONO switch to MONO and then set the BALANCE control to a position where equal sound comes from both channels

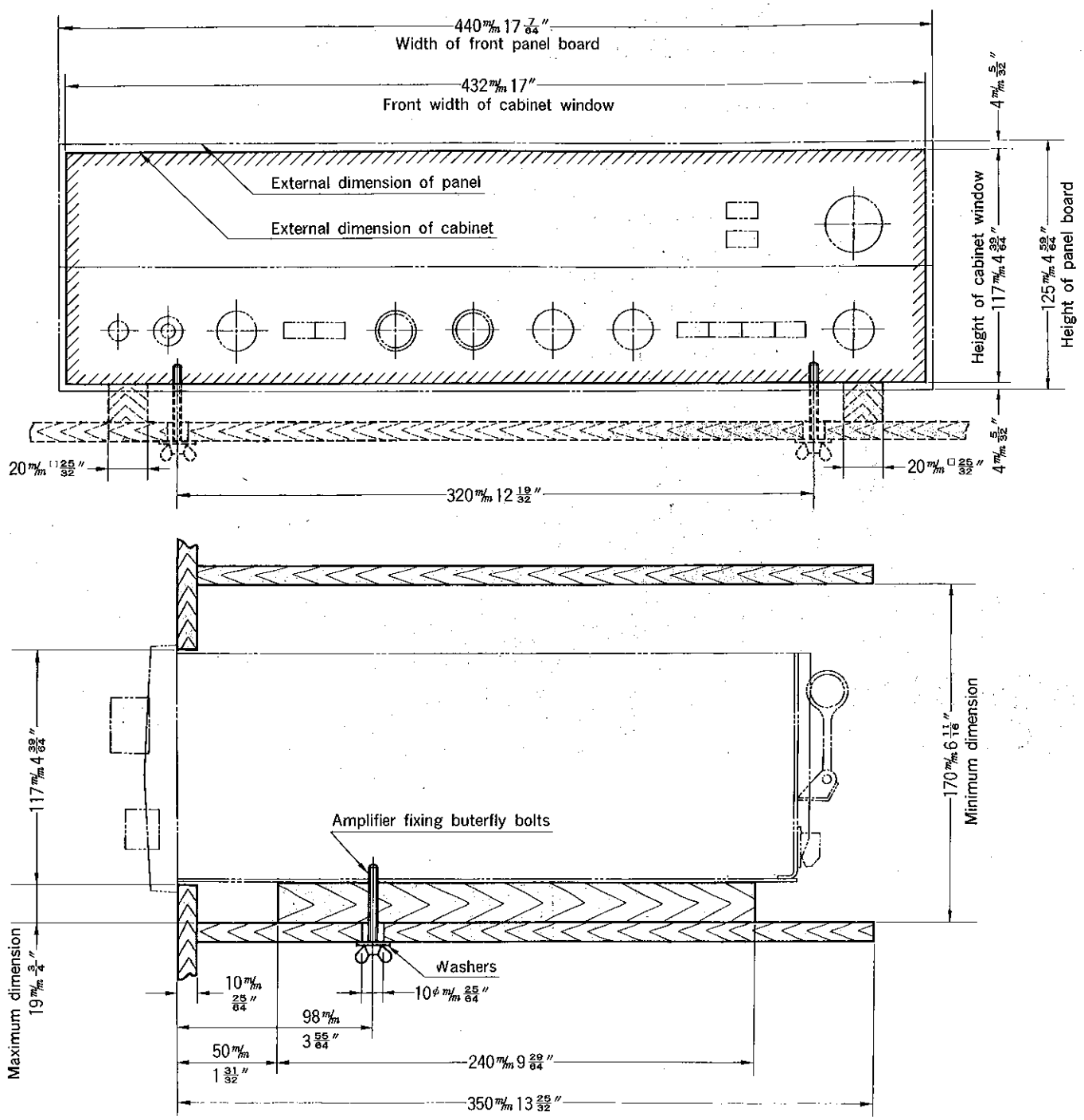
CUSTOM MOUNTING

How to install the amplifier in a wooden cabinet

1. Make a cabinet window of 432mm or 17″ in width and 117mm or $4^{39}/_{64}$″ in height.
2. Place two square pieces of wood (20×20×240mm or $^{25}/_{32}$″×$^{25}/_{32}$″×$9^{29}/_{64}$″) for supporting the amplifier in the bottom board of the cabinet.
3. Cut two holes for attachment bolts in the bottom board of the cabinet.
4. Remove the four rubber feet and two screws from the amplifier.
5. Place the amplifier in position through the cabinet window.
6. Make sure the amplifier is in position, then put the washers in butterfly bolts (supplied) and fix the amplifier to the cabinet with butterfly bolts.

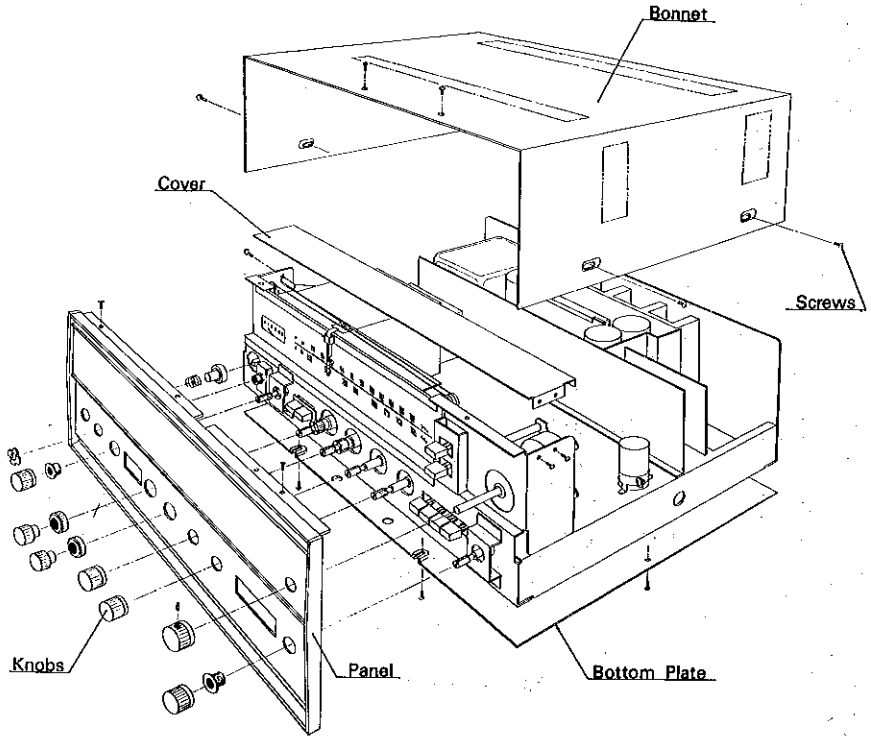
NOTE: 1) When the amplifier is built into the cabinet, for rubber feet and two screws are not used. Retain them for future use.
2) To install the amplifier with a wood case in the cabinet, the wood case must first be removed as in the section entitled "Removing the Wood Case".



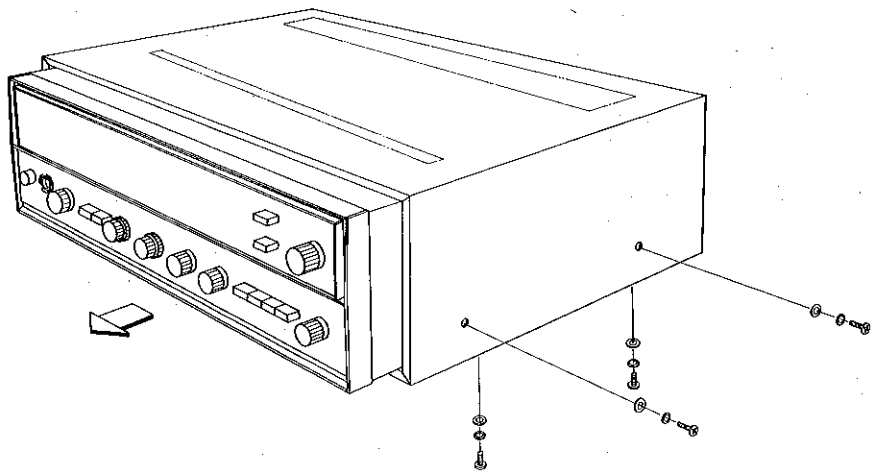

440m/m 17 7/64"
Width of front panel board
432m/m 17"
Front width of cabinet window
External dimension of panel
External dimension of cabinet
4m/m 5/32"
Height of cabinet window
117m/m 4 39/64"
125m/m 4 59/64"
Height of panel board
4m/m 5/32"
20m/m □ 25/32"
20m/m □ 25/32"
320m/m 12 19/32"
117m/m 4 39/64"
Maximum dimension
19m/m 3/4"
Amplifier fixing buterfly bolts
170m/m 6 11/16"
Minimum dimension
Washers
10m/m 25/64"
10φ m/m 25/64"
98m/m 3 55/64"
50m/m 1 31/32"
240m/m 9 29/64"
350m/m 13 25/32"

DISASSEMBLY PROCEDURE

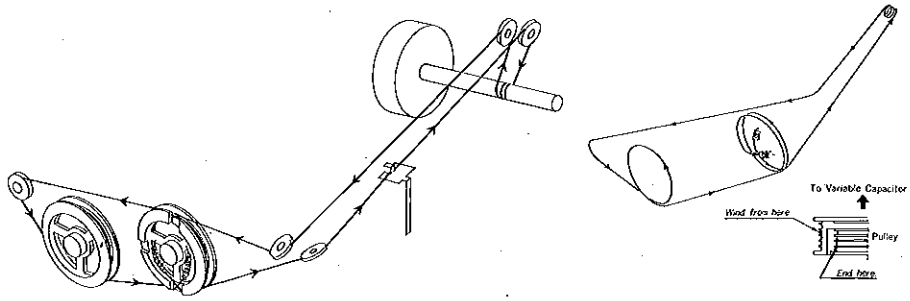
REMOVING THE FRONT PANEL, BONNET AND BOTTOM PLATE



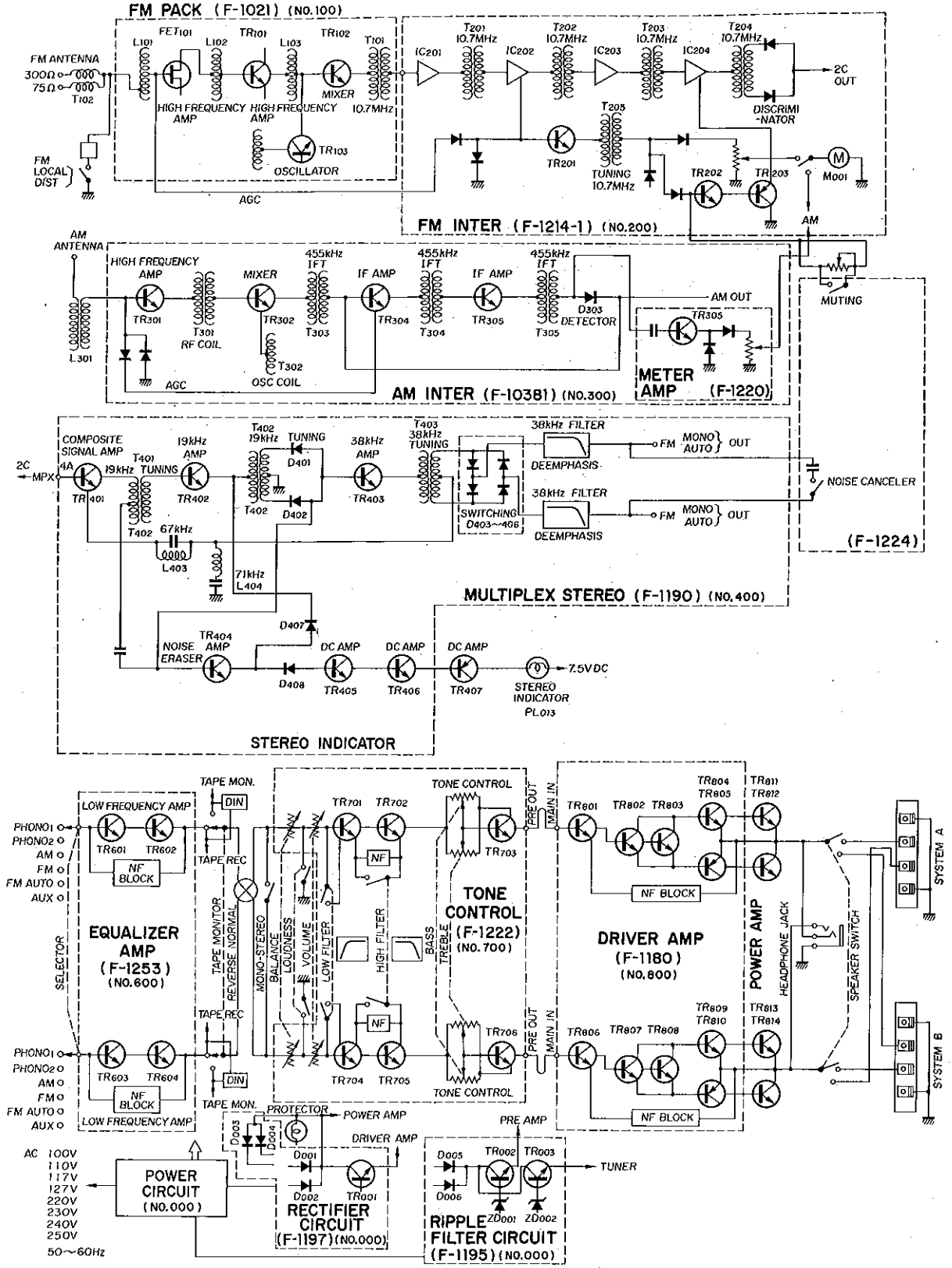
REMOVING THE WOOD CASE



DIAL MECHANISM

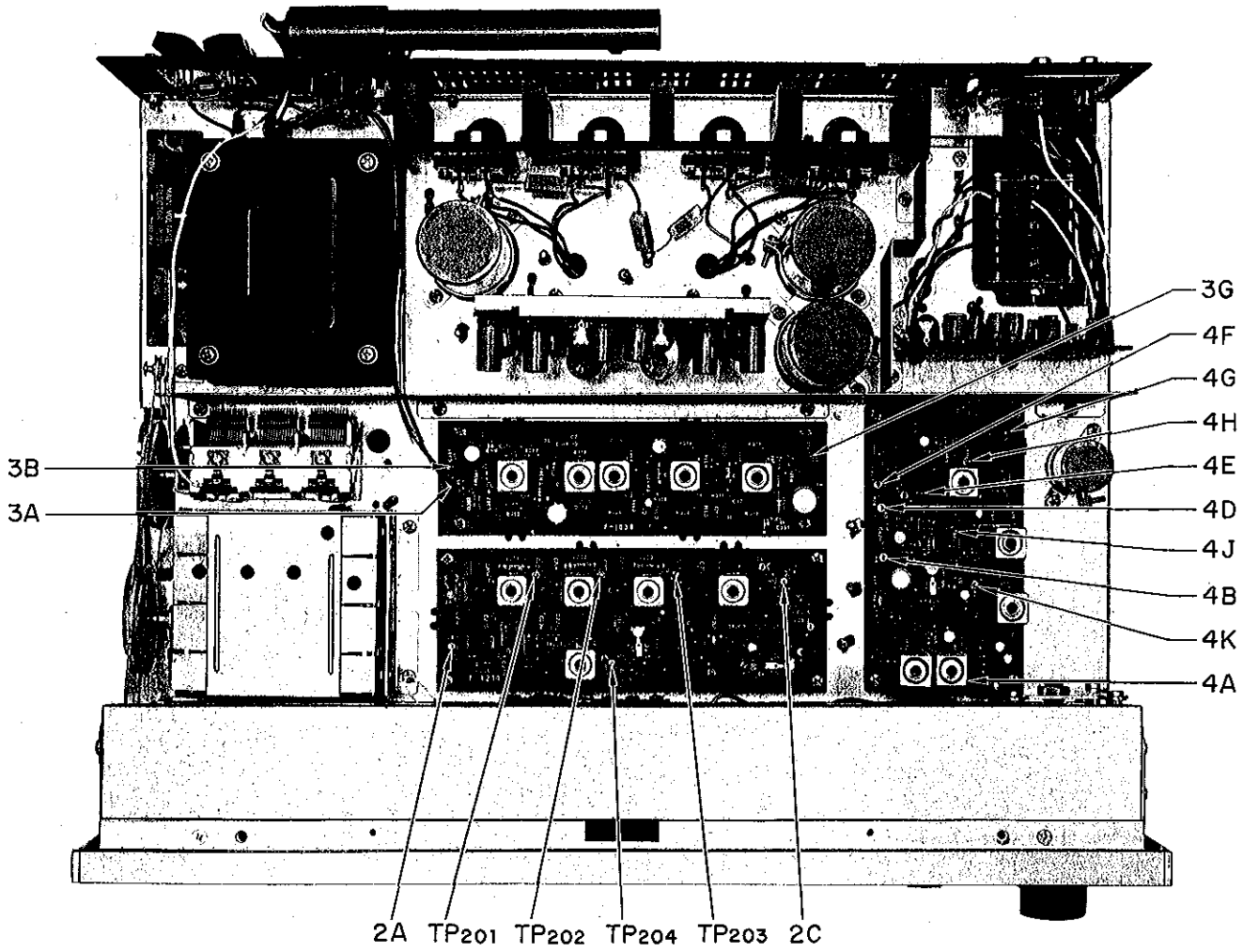


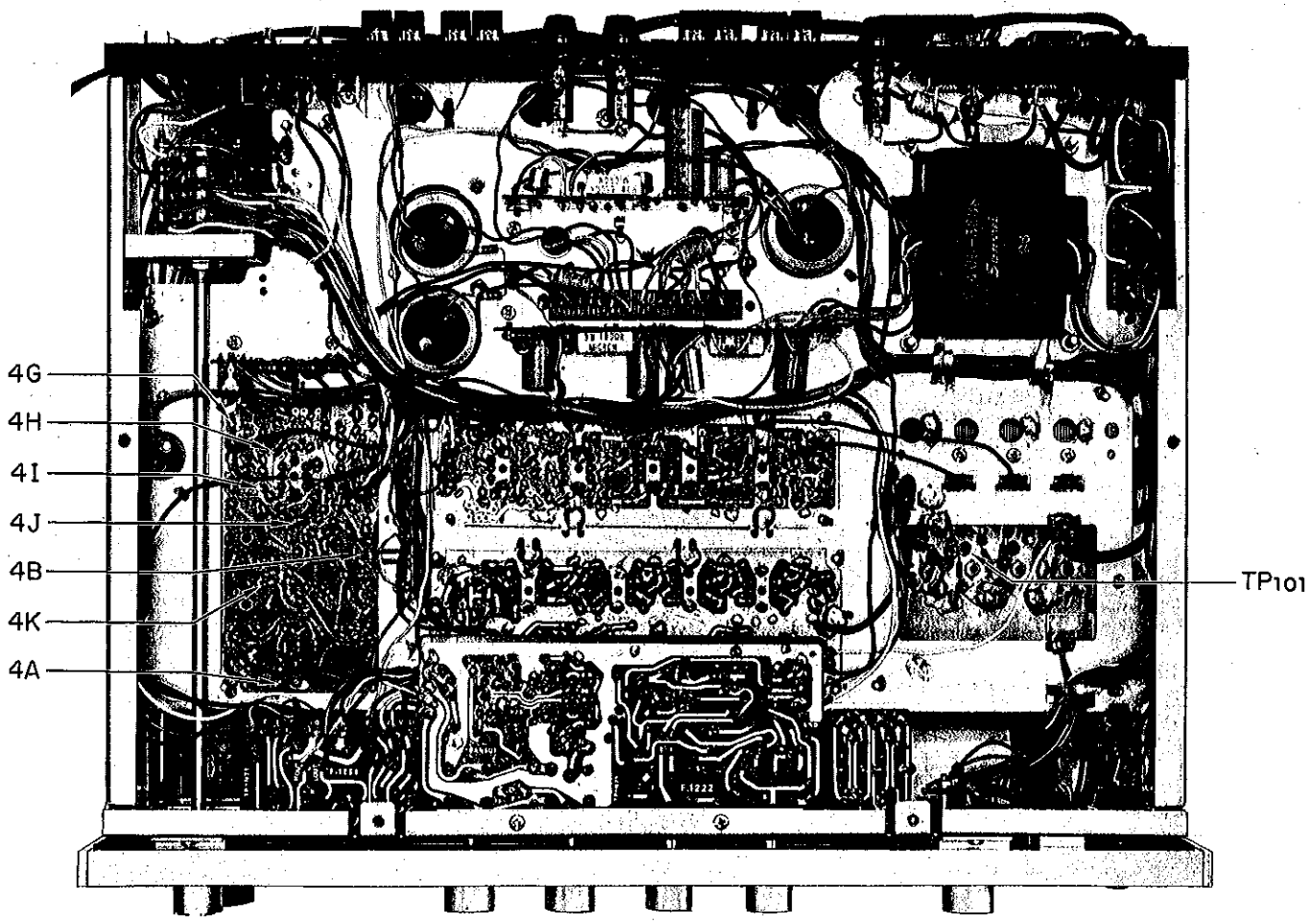
BLOCK DIAGRAM



ALIGNMENT

TEST POINTS




4G
4H
4I
4J
4B
4K
4A
TP101

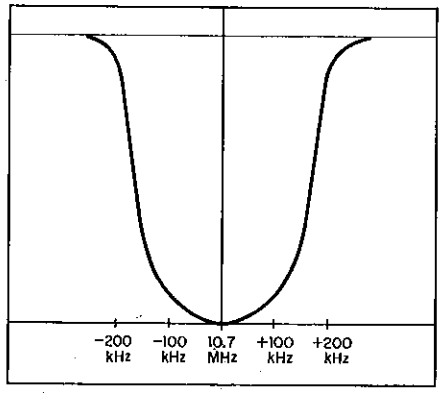
ALIGNMENT

FM ALIGNMENT PROCEDURE

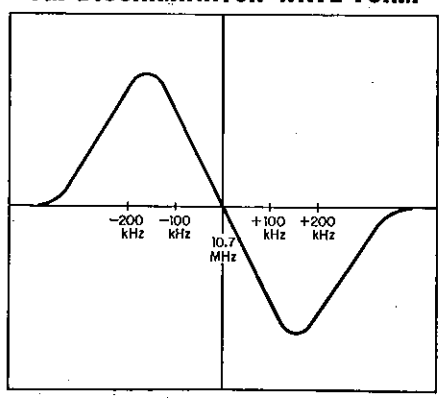
NOTE: To align, set the signal generator level to minimum.
Turn tuning gang fully.
Center carrier wave.
Set pointer at reference mark.

STEP	ALIGN	GENERATOR	FEED SIGNAL	CONNECT	DIAL SETTING	ADJUST	ADJUST FOR
1.	IF Transformer	10.7 MHz ±200 kHz	Sweep signal to TP_{101} via the 10pF ceramic condenser	Oscilloscope to $TP_{201,\ 202}$ and $_{203}$ via the 10μF ceramic condenser with probe		Top and bottom sides of $T_{202,\ 203}$	Best I.F.T. wave form
2.	Discriminator	10.7 MHz ±200 kHz	Sweep signal to TP_{101} via the 10pF ceramic condenser	Oscilloscope 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. to 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. to output load	106 MHz	O.S.C. trimmer TC_{105}	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. to 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. to output load	106 MHz	Trimmer TC_{101}, TC_{103} and TC_{104}	Maximum
8.	Reiterate 6 and 7.						

FM IF WAVE FORM



FM DISCRIMINATOR WAVE FORM



FM MULTIPLEX ALIGNMENT PROCEDURE

1. Do not attempt to align the Multiplex Circuit unless the following equipments are 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 TO	TEST EQUIPMENT (S)	ADJUST	ADJUST FOR
1.	67 kHz Trap	67 kHz Audio Signal	TP_{4A} or 2C	V.T.V.M. at 4_I	L_{408}	Minimum
2.	71 kHz Trap	71 kHz Audio Signal	TP_{4A} or 2C	V.T.V.M. at 4_I	L_{404}	Minimum
3.	19 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	Antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at 4_K	T_{401}	Maximum
4.	19 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	Antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at 4_J	T_{402}	Maximum
5.	38 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	Antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at 4_H	T_{403}	Maximum
6.	38 kHz Transformer and Separation VR	FM Signal Gen. Modulated 30% by STEREO Signal Gen, channel-L	Antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at output load, (channel-R)	T_{402} or T_{403} within ¼ turn and Separation VR(VR_{601})	Minimum, (Channel-R)

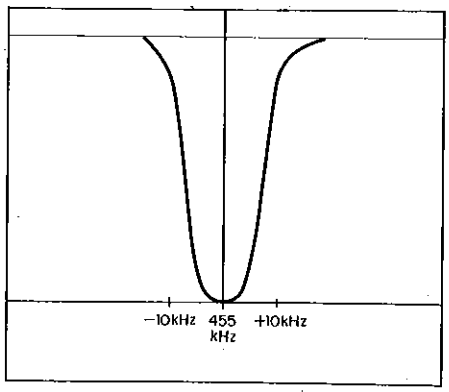
ALIGNMENT

AM ALIGNMENT PROCEDURE

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

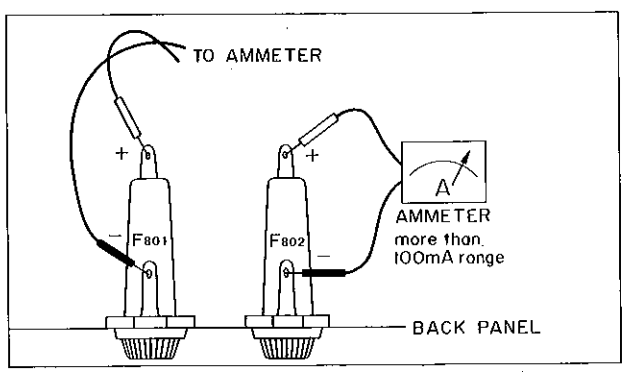
STEP	ALIGN	GENERATOR	FEED SIGNAL TO	TEST EQUIPMENTS	DIAL SETTING	ADJUST	ADJUST FOR
1.	I.F. Transformer	455 kHz ±30 kHz Sweep-generator	Antenna terminals	Oscilloscope and V.T.V.M. at 3G		Top and bottom sides from the 1st I.F.T. (T_{308}) to the 3rd I.F.T. ($_{305}$)	Best I.F.T. wave form
2.	O.S.C.	AM-generator 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 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.	Reiterate 5. 6. 7. 8.						

AM IF WAVE FORM



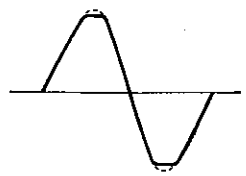
1. CURRENT ADJUSTMENT

STEP	SETTING OF AMMETER (TESTER)	WAHT TO DO	NOTE
1.		Remove F_{801} and F_{802}	Use an ammeter having 100 or 50mA range.
2.		Set VR_{802} and VR_{804} to minimum.	
3.		Set VR_{702} and VR_{706} (VOLUME) to minimum.	
4.		Push the POWER switch ON.	Be sure to switch on lst and then connect the ammeter.
5.	100mA range.	Connect the ammeter to F_{801} as illustrated in Fig. 1.	
6.		Turn VR_{802} clockwise and adjust current to 15 to 10mA at room temperature of 25°C or less or to 20 to 15mA at 25°C or more.	
7.	100mA 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} as illustrated in Fig. 1.	
9.		Turn VR_{804} clockwise and adjust current to 15 to 10mA at 25°C or less or to 20 to 15mA at 25° C or more.	
10.		Attach F_{802} 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 1,000Hz and connect it to the LEFT AUX input.	The oscillator used should have the oscillation frequency of 20 to 20,000Hz and the output voltage of more than 200mV.
3.	Set the SELECTOR switch to AUX.	Set other controls and switches as follows: BALANCE to CENTER TAPE MON. to OFF MODE to STEREO TONE to CENTER Others to OFF
4.	Connect a 8- or 16-ohm load resistor having capacitor of more than 50 watts to the LEFT SPEAKER output.	
5.	Connect an osscilloscope 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} so that the fronts of sine wave are clipped simultaneously	
8.	Adjust the right channel as above. In Step 7, adjust VR_{803}.	

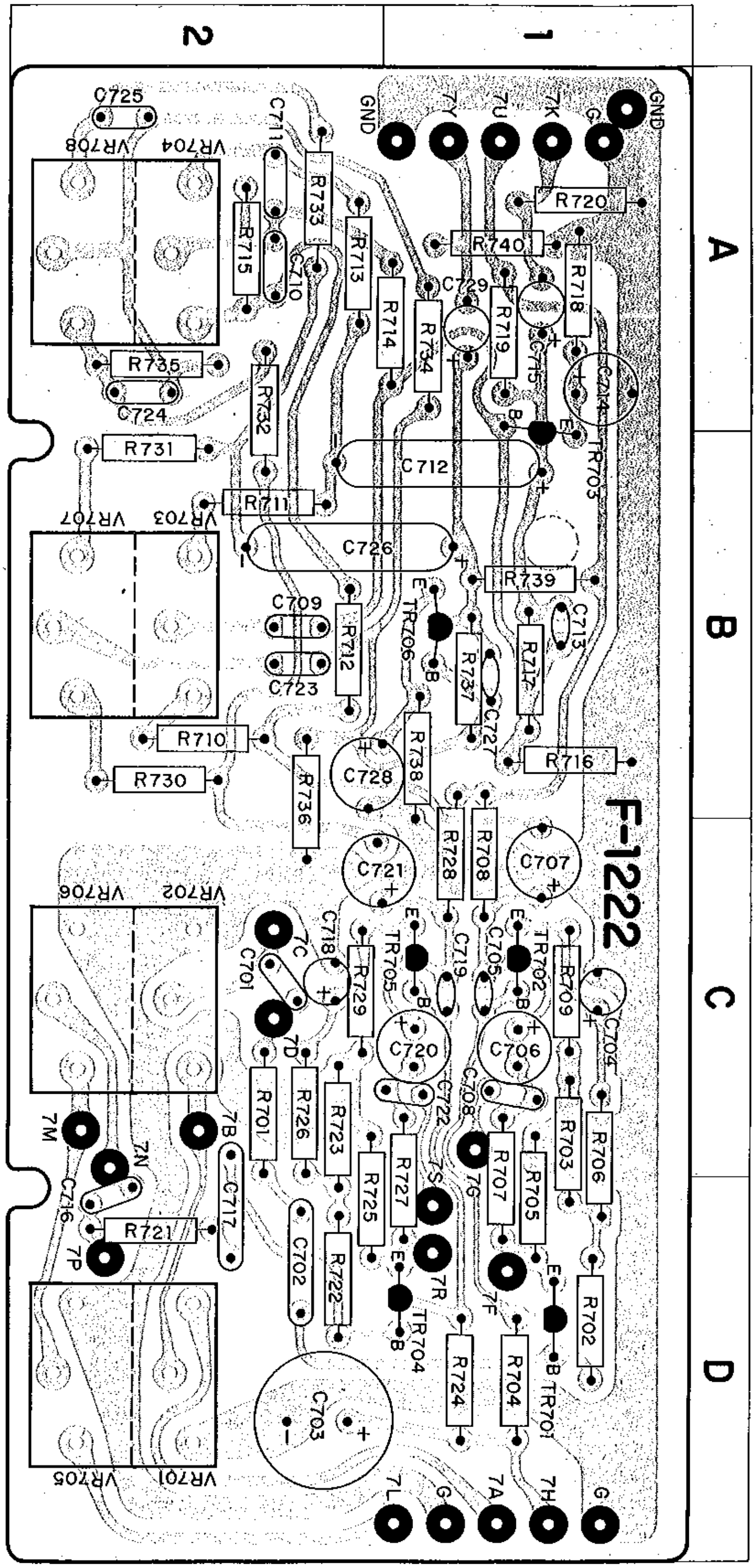
PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

F-1222 〈TONE CONTROL BLOCK〉

X	Y	Z
R701	1kΩ ±10% ¼W Carbon Resistor	2C
R702	47kΩ ±10% ¼W Carbon Resistor	1D
R703	68kΩ ±10% ¼W Carbon Resistor	1C
R704	100kΩ ±10% ¼W Carbon Resistor	1D
R705	1kΩ ±10% ¼W Carbon Resistor	1D
R706	270kΩ ±10% ¼W Carbon Resistor	1C
R707	3.9kΩ ±10% ¼W Carbon Resistor	1C
R708	8.2kΩ ±10% ¼W Carbon Resistor	1C
R709	2.7kΩ ±10% ¼W Carbon Resistor	1C
R710	6.8kΩ ±10% ¼W Carbon Resistor	2B
R711	6.8kΩ ±10% ¼W Carbon Resistor	2B
R712	10kΩ ±10% ¼W Carbon Resistor	2B
R713	10kΩ ±10% ¼W Carbon Resistor	2A
R714	22kΩ ±10% ¼W Carbon Resistor	1A
R715	150kΩ ±10% ¼W Carbon Resistor	2A
R716	150kΩ ±10% ¼W Carbon Resistor	1B
R717	390kΩ ±10% ¼W Carbon Resistor	1B
R718	560Ω ±10% ¼W Carbon Resistor	1A
R719	5.6kΩ ±10% ¼W Carbon Resistor	1A
R720	100kΩ ±10% ¼W Carbon Resistor	1A
R721	1kΩ ±10% ¼W Carbon Resistor	2D
R722	47kΩ ±10% ¼W Carbon Resistor	2D
R723	68kΩ ±10% ¼W Carbon Resistor	2C
R724	100kΩ ±10% ¼W Carbon Resistor	1D
R725	1kΩ ±10% ¼W Carbon Resistor	2D
R726	270kΩ ±10% ¼W Carbon Resistor	2C
R727	3.9kΩ ±10% ¼W Carbon Resistor	1D
R728	8.2kΩ ±10% ¼W Carbon Resistor	1C
R729	2.7kΩ ±10% ¼W Carbon Resistor	2C
R730	6.8kΩ ±10% ¼W Carbon Resistor	2B
R731	6.8kΩ ±10% ¼W Carbon Resistor	2B
R732	10kΩ ±10% ¼W Carbon Resistor	2A
R733	10kΩ ±10% ¼W Carbon Resistor	2A
R734	22kΩ ±10% ¼W Carbon Resistor	1A
R735	150kΩ ±10% ¼W Carbon Resistor	2A
R736	150kΩ ±10% ¼W Carbon Resistor	2B
R737	390kΩ ±10% ¼W Carbon Resistor	1B
R738	560Ω ±10% ¼W Carbon Resistor	1B
R739	5.6kΩ ±10% ¼W Carbon Resistor	1B
R740	100kΩ ±10% ¼W Carbon Resistor	1A
C701	0.01μF ±10% 50 WV Mylar Capacitor	2C
C702	0.22μF ±10% 50 WV Mylar Capacitor	2D
C703	220μF 25 WV Electrolytic Capacitor	2D
C704	33μF 6.3 WV Electrolytic Capacitor	1C
C705	22pF ±10% 50 WV Ceramic Capacitor	1C
C706	33μF 15 WV Electrolytic Capacitor	2C
C707	1μF 50 WV Electrolytic Capacitor	1C
C708	0.015μF ±10% 50 WV Mylar Capacitor	1C
C709	0.0015μF ±10% 50 WV Mylar Capacitor	2B
C710	0.04μF ±10% 50 WV Mylar Capacitor	2A
C711	0.04μF ±10% 50 WV Mylar Capacitor	2A
C712	10μF 50 WV Electrolytic Capacitor	1B
C713	100μF ±10% 50 WV Ceramic Capacitor	1B
C714	47μF 6.3 WV Electrolytic Capacitor	1A
C715	1μF 50 WV Electrolytic Capacitor	1A
C716	0.01μF ±10% 50 WV Mylar Capacitor	2D

X	Y	Z
C717	0.22μF ±10% 50 WV Mylar Capacitor	2D
C718	33μF 6.3 WV Electrolytic Capacitor	2C
C719	22pF ±10% 50 WV Ceramic Capacitor	1C
C720	33μF 15 WV Electrolytic Capacitor	2C
C721	1μF 50 WV Electrolytic Capacitor	2C
C722	0.015μF ±10% 50 WV Mylar Capacitor	1C
C723	0.0015μF ±10% 50 WV Mylar Capacitor	2B
C724	0.04μF ±10% 50 WV Mylar Capacitor	2A
C725	0.04μF ±10% 50 WV Mylar Capacitor	2A
C726	10μF 50 WV Electrolytic Capacitor	2B
C727	100pF ±10% 50 WV Ceramic Capacitor	1B
C728	47μF 6.3 WV Electrolytic Capacitor	2B
C729	1μF 50 WV Electrolytic Capacitor	1A
VR701	250kΩ M, N Balance Control (101040)	2D
VR705		2D
VR702	250kΩ B Volume Control (101020)	2C
VR706		2C
VR703	100kΩ B, Bass Control (102004)	2B
VR707		2B
VR704	100kΩ B Treble Control (102004)	2A
VR708		2A
TR701	2SC458 LG(C) (030531)	1D
TR702	2SC458 LG(B) (030531)	1C
TR703	2SC458 LG(C) (030531)	1A
TR704	2SC458 LG(C) (030531)	1D
TR705	2SC458 LG(B) (030531)	1C
TR706	2SC458 LG(C) (030531)	1B

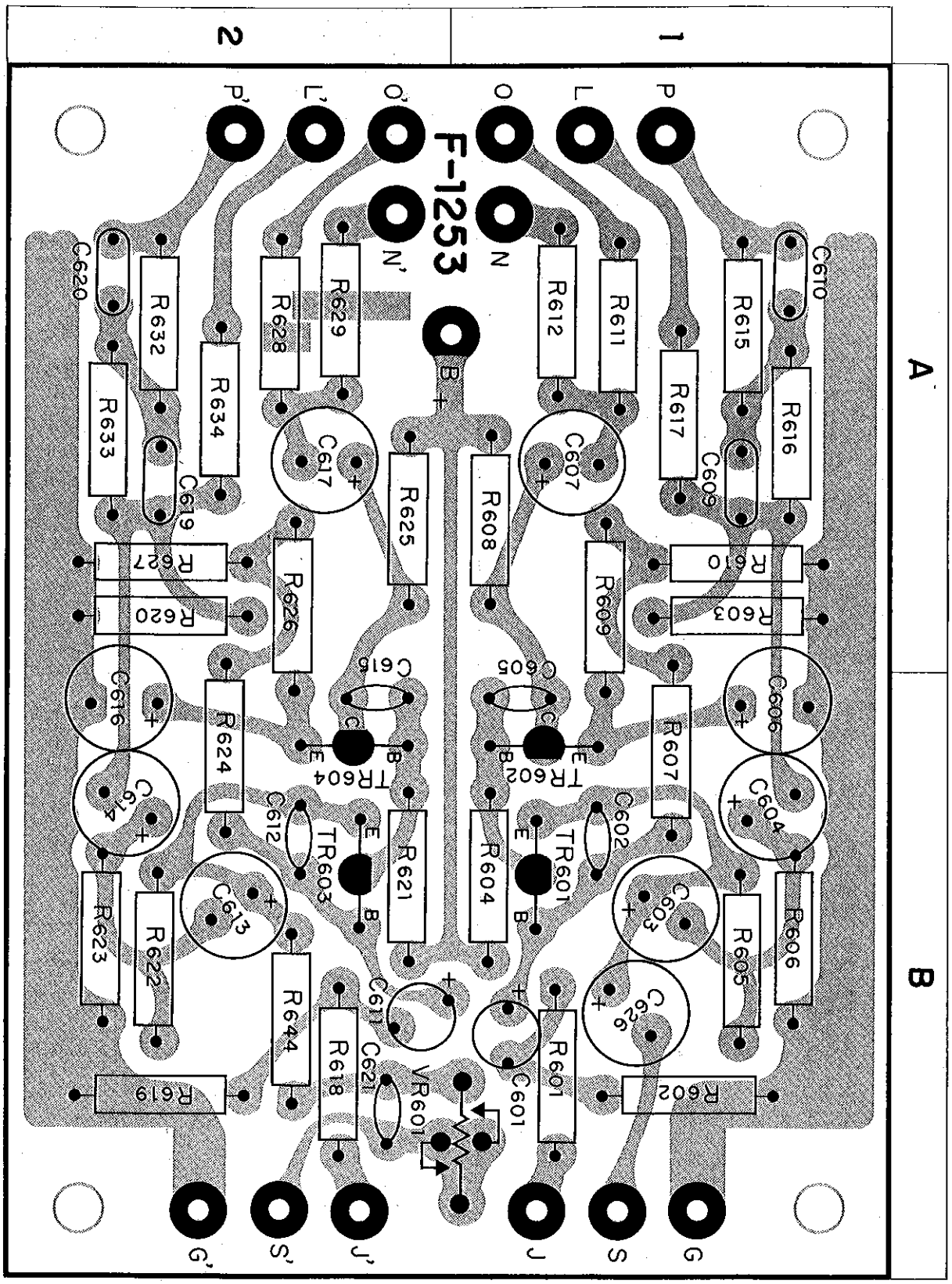

F-1222
1
2
A
B
C
D
GND
7Y
7U
7K
G
GND
R720
R740
R718
R719
C729
C715
C714
TR703
C712
C711
R733
R713
R714
R734
R715
C710
C725
VR708
VR704
R735
C724
R732
R731
R711
VR707
VR703
C726
R739
C713
R717
R737
C727
TR706
R712
C709
C723
R710
R730
R736
C728
R738
R716
R728
R708
C707
C721
VR706
VR702
C718
C701
7C
7D
TR705
R729
C719
C705
TR702
R709
C704
C720
C706
R701
R726
R723
C722
C708
R703
R706
7M
7N
7B
C716
C717
R725
R727
7S
7G
R707
R705
R721
7P
C702
R722
7R
7F
TR704
R724
R704
R702
TR701
C703
VR705
VR701
7L
G
7A
7H
G

PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

F-1253 〈EQUALIZER AMP. BLOCK〉

X	Y	Z
R601	1kΩ ±10% ¼W Carbon Resistor	1 B
R602	680kΩ ±10% ¼W Carbon Resistor	1 B
R603	4.7kΩ ±10% ¼W Carbon Resistor	1 A
R604	100kΩ ±10% ¼W Carbon Resistor	1 B
R605	1.8kΩ ±10% ¼W Carbon Resistor	1 B
R606	470Ω ±10% ¼W Carbon Resistor	1 B
R607	390kΩ ±10% ¼W Carbon Resistor	1 B
R608	6.8kΩ ±10% ¼W Carbon Resistor	1 A
R609	220Ω ±10% ¼W Carbon Resistor	1 A
R610	680Ω ±10% ¼W Carbon Resistor	1 A
R611	12kΩ ±10% ¼W Carbon Resistor	1 A
R612	100Ω ±10% ¼W Carbon Resistor	1 A
R615	25kΩ ±10% ¼W Carbon Resistor	1 A
R616	390kΩ ±10% ¼W Carbon Resistor	1 A
R617	3.9kΩ ±10% ¼W Carbon Resistor	1 A
R618	1kΩ ±10% ¼W Carbon Resistor	2 B
R619	680kΩ ±10% ¼W Carbon Resistor	2 B
R620	4.7kΩ ±10% ¼W Carbon Resistor	2 A
R621	100kΩ ±10% ¼W Carbon Resistor	2 B
R622	1.8kΩ ±10% ¼W Carbon Resistor	2 B
R623	470Ω ±10% ¼W Carbon Resistor	2 B
R624	390kΩ ±10% ¼W Carbon Resistor	2 B
R625	6.8kΩ ±10% ¼W Carbon Resistor	2 A
R626	220Ω ±10% ¼W Carbon Resistor	2 A
R627	680Ω ±10% ¼W Carbon Resistor	2 A
R628	12kΩ ±10% ¼W Carbon Resistor	2 A
R629	100Ω ±10% ¼W Carbon Resistor	2 A
R632	25kΩ ±10% ¼W Carbon Resistor	2 A
R633	390kΩ ±10% ¼W Carbon Resistor	2 A
R634	3.9kΩ ±10% ¼W Carbon Resistor	2 A
R644	100Ω ±10% ¼W Carbon Resistor	2 B
C601	1.5μF 15 WV Tantalume Capacitor	1 B
C602	150 pF ±10% 25 WV Ceramic Capacitor	1 B
C603	33μF 6.3 WV Electrolytic Capacitor	1 B
C604	33μF 6.3 WV Electrolytic Capacitor	1 B
C605	150 pF ±10% 25 WV Ceramic Capacitor	1 B
C606	47μF 6.3 WV Electrolytic Capacitor	1 B
C607	10μF 25 WV Electrolytic Capacitor	1 A
C609	0.01μF ±10% 50 WV Mylar Capacitor	1 A
C610	0.03μF ±10% 50 WV Mylar Capacitor	1 A
C611	1.5μF 15 WV Tantalume Capacitor	2 B
C612	150 pF ±10% 25 WV Ceramic Capacitor	2 B
C613	33μF 6.3 WV Electrolytic Capacitor	2 B
C614	33μF 6.3 WV Electrolytic Capacitor	2 B
C615	150 pF ±10% 25 WV Ceramic Capacitor	2 B
C616	47μF 6.3 WV Electrolytic Capacitor	2 B
C617	10μF 25 WV Electrolytic Capacitor	2 B
C619	0.01μF ±10% 50 WV Mylar Capacitor	2 A
C620	0.03μF ±10% 50 WV Mylar Capacitor	2 A
VR601	3kΩB Separation Adjustor (103066)	1 B, 2 B
TR601	2SC871 F (103054)	1 B
TR602	2SC871 F (030547-2)	1 B
TR603	2SC871 F (030547-2)	2 B
TR604	2SC871 F (030547-2)	2 B


F-1253
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P'
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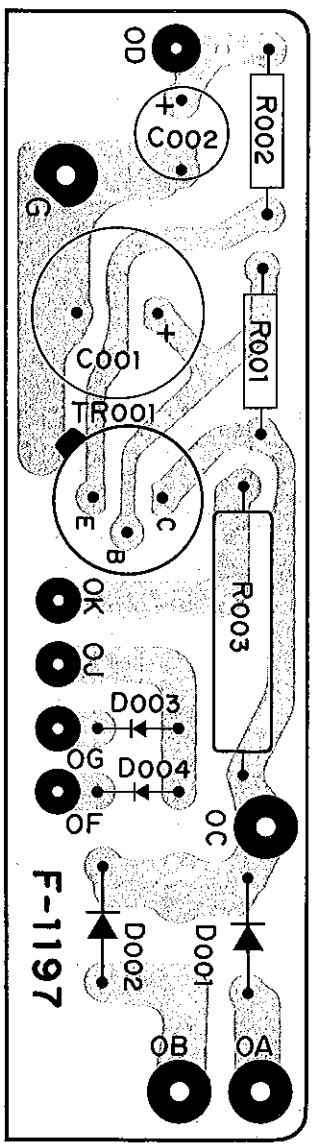
J
S'
J'
G'
B+
C610
R615
R616
R617
C609
R611
R612
C607
R608
R609
C606
C604
R606
R605
C603
R607
C602
TR601
R604
C601
R601
R602
VR601
C621
R618
C611
R644
TR603
C612
R621
C613
R622
R624
R623
C614
C616
R619
R626
C615
TR604
R625
C617
R628
R629
C618
R634
R633
C619
R627
R620
R632
C620

PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

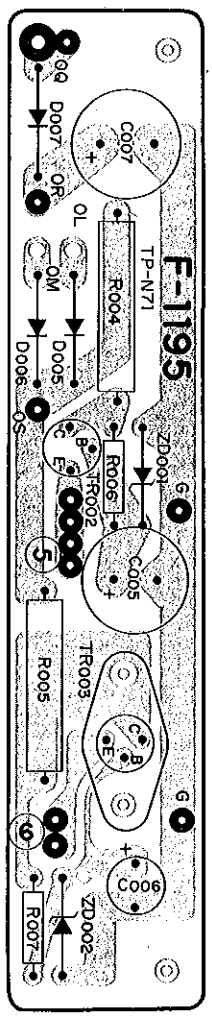
F-1197 〈RECTIFIER BLOCK〉

X	Y	Z
R001	12kΩ ±10% ½W Solid Resistor	
R002	6.8Ω ±10% ½W Solid Resistor	
R003	560Ω ±10% 3 W Wire Wound Resistor	
C001	200μF 75 WV Electrolytic Capacitor	
C002	5μF 75 WV Electrolytic Capacitor	
D001	SA-3Z (031042)	
D002	SA-3Z (031042)	
D003	10D-1 (031035)	
D004	10D-1 (031035)	
TR001	2SC627 (0305581-3)	



F-1195 〈RIPPLE FILTER BLOCK〉

X	Y	Z
R004	68Ω ±10% 3 W Wire Wound Resistor	
R005	180Ω ±10% 3 W Wire Wound Resistor	
R006	3.9kΩ ±10% ¼W Carbon Resistor	
R007	1.5kΩ ±10% ¼W Carbon Resistor	
C005	220μF 25 WV Electrolytic Capacitor	
C006	330μF 16 WV Electrolytic Capacitor	
C007	330μF 10 WV Electrolytic Capacitor	
D005	10D-2 (031034-1)	
D006	10D-2 (031034-1)	
D007	10D-1 (031034)	
ZD001	ZB-1-25 Zener Diode (031071)	
ZD002	ZB-1-14 Zener Diode (031069-1)	
TR002	2SC971 (030553-1	
TR003	2SD205 (030813)	



F-1224 〈NOISE CANCELER AND MUTING BLOCK〉

X	Y
R433	3.3MΩ ±10% ½W Solid Resistor
C430	330pF ±10% 50 WV Mica Capacitor
S6, S7	(113013-1)

F-1223 〈HIGH-LOW FILTER BLOCK〉

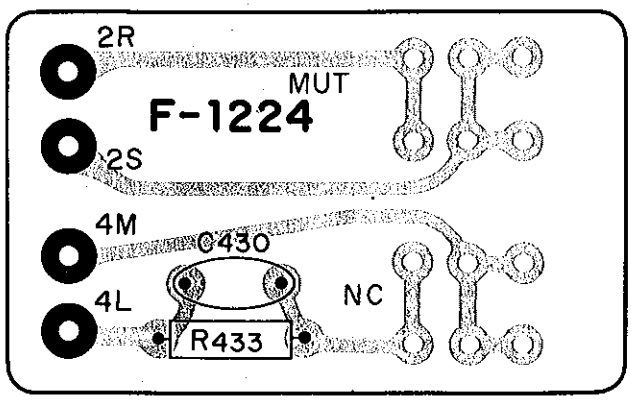
X	Y	Z
R741	1MΩ ±10% ¼W Carbon Resistor	
R742	1MΩ ±10% ¼W Carbon Resistor	
R743	1MΩ ±10% ¼W Carbon Resistor	
R744	1MΩ ±10% ¼W Carbon Resistor	
S8, S9	(113007)	

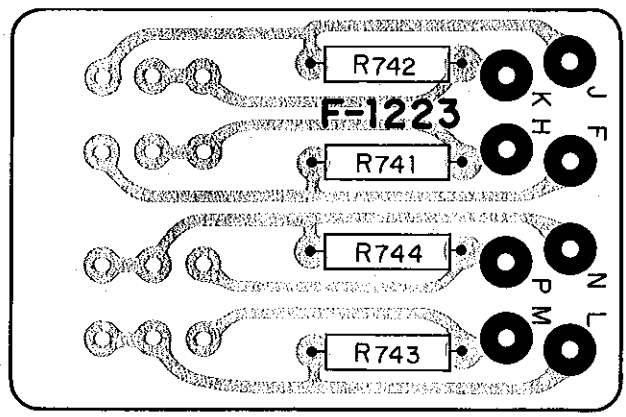
F-1220 AM METER BLOCK

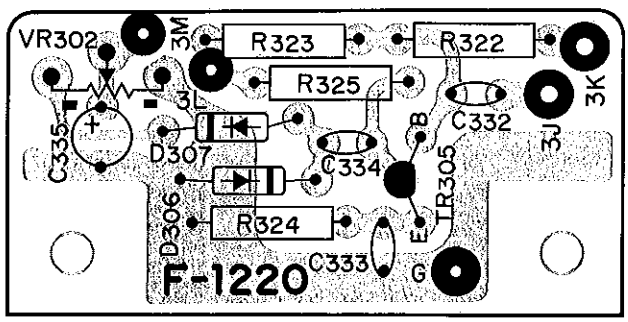
X	Y	Z
R322	68kΩ ±10% ¼W Carbon Resistor	
R323	330kΩ ±10% ¼W Carbon Resistor	
R324	2.2kΩ ±10% ¼W Carbon Resistor	
R325	4.7kΩ ±10% ¼W Carbon Resistor	
C332	0.01μF 50 WV Ceramic Capacitor	
C333	0.001μF 50 WV Ceramic Capacitor	
C334	0.01μF 50 WV Ceramic Capacitor	
C335	1μF 50 WV Electrolytic Capacitor	
VR302	50kΩB AM Meter Adjustor (103049)	
D306	IN60 (031033)	
D307	IN60 (031033)	
TR305	2SC460(B) (030535~1)	

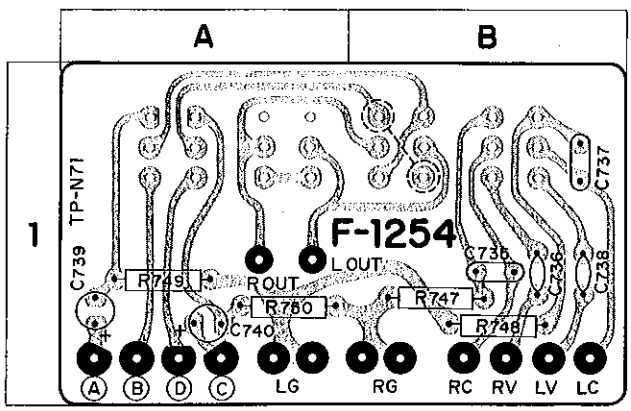
F-1254 〈ACCESSORIES BLOCK〉

X	Y	Z
R747	27kΩ ±10% ¼W Carbon Resistor	1 B
R748	27kΩ ±10% ¼W Carbon Resistor	1 B
R749	100kΩ ±10% ¼W Carbon Resistor	1 A
R750	100kΩ ±10% ¼W Carbon Resistor	1 A
C735	0.02μF ±10% 50 WV Mylar Capacitor	1 B
C736	150pF ±10% 50 WV Mica Capacitor	1 B
C737	0.02μF ±10% 50 WV Mylar Capacitor	1 B
C738	150pF ±10% 50 WV Mica Capacitor	1 B
C739	0.47μF ±20% 25 WV Al. Solid Capacitor	1 A
C740	0.47μF ±20% 25 WV Al. Solid Capacitor	1 A
S2,3,4,5	(113014)	







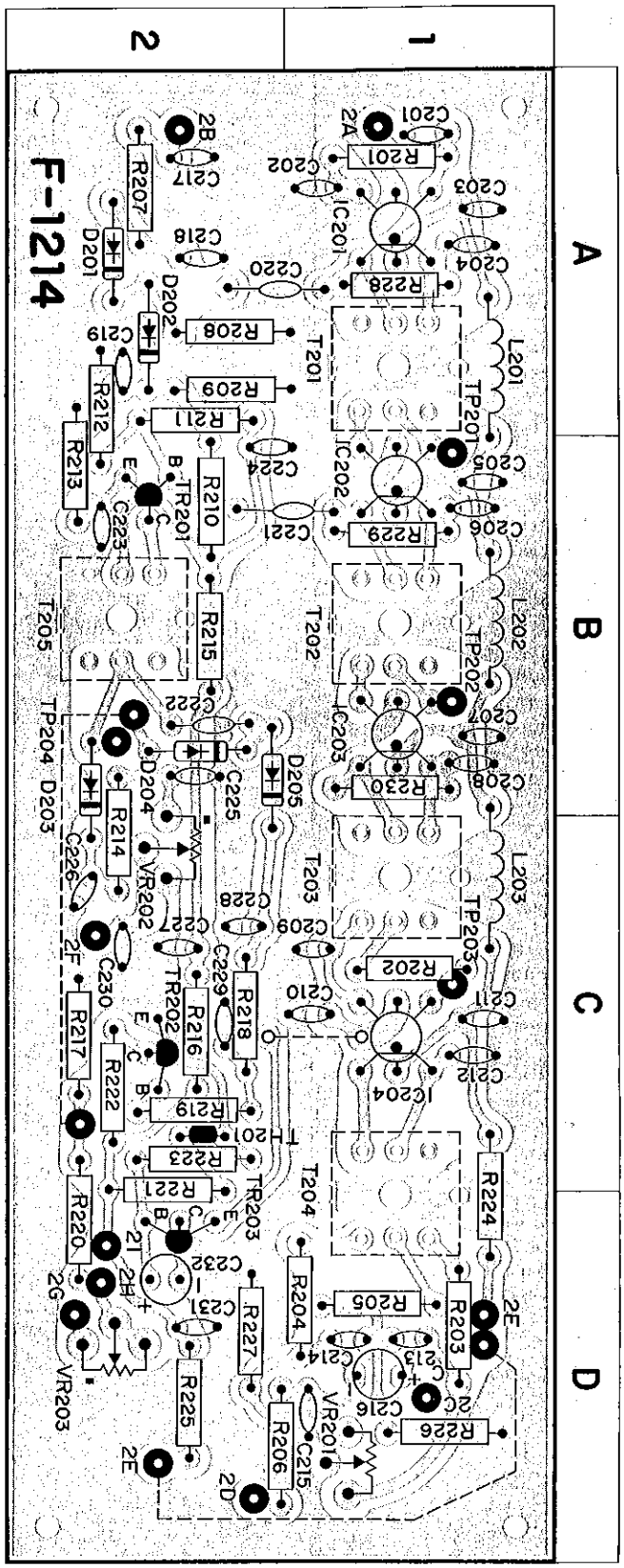


PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

F-1214 〈FM IF BLOCK〉

X	Y	Z
R201	1.5kΩ ±10% ¼W Carbon Resistor	1 A
R202	68Ω ±10% ¼W Carbon Resistor	1 C
R203	1kΩ ±10% ¼W Carbon Resistor	1 D
R204	1kΩ ±10% ¼W Carbon Resistor	1 D
R205	56Ω ±10% ¼W Carbon Resistor	1 D
R206	22kΩ ±10% ¼W Carbon Resistor	2 D
R207	100kΩ ±10% ¼W Carbon Resistor	2 A
R208	220kΩ ±10% ¼W Carbon Resistor	2 A
R209	680Ω ±10% ¼W Carbon Resistor	2 A
R210	68kΩ ±10% ¼W Carbon Resistor	2 B
R211	22kΩ ±10% ¼W Carbon Resistor	2 A
R212	10kΩ ±10% ¼W Carbon Resistor	2 A
R213	1kΩ ±10% ¼W Carbon Resistor	2 B
R214	2.2kΩ ±10% ¼W Carbon Resistor	2 C
R215	22Ω ±10% ¼W Carbon Resistor	2 B
R216	22Ω ±10% ¼W Carbon Resistor	2 C
R217	10kΩ ±10% ¼W Carbon Resistor	2 C
R218	1kΩ ±10% ¼W Carbon Resistor	2 C
R219	68kΩ ±10% ¼W Carbon Resistor	2 C
R220	100kΩ ±10% ¼W Carbon Resistor	2 D
R222	18kΩ ±10% ¼W Carbon Resistor	2 D
R223	2.7kΩ ±10% ¼W Carbon Resistor	2 C
R224	56Ω ±10% ¼W Carbon Resistor	2 C
R225	820Ω ±10% ¼W Carbon Resistor	2 D
R226	10kΩ ±10% ¼W Carbon Resistor	1 D
R227	10kΩ ±10% ¼W Carbon Resistor	2 D
R228	15kΩ ±10% ¼W Carbon Resistor	1 A
R229	15kΩ ±10% ¼W Carbon Resistor	1 B
R230	15kΩ ±10% ¼W Carbon Resistor	2 B
C201	0.01μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C202	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C203	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C204	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C205	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 B
C206	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 B
C207	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 B
C208	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 B
C209	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 C
C210	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 C
C211	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 C
C212	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 C
C213	220pF ±10% 50 WV Ceramic Capacitor	1 D
C214	220pF ±10% 50 WV Ceramic Capacitor	1 D
C215	47pF ±10% 50 WV Ceramic Capacitor	1 D
C216	10μF 10 WV Electrolytic Capacitor	1 D
C217	0.05μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 A
C218	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 A
C219	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 A
C220	3.3pF ±10% 50 WV Ceramic Capacitor	2 A
C221	3.3pF ±10% 50 WV Ceramic Capacitor	2 A
C222	6.8pF ±10% 50 WV Ceramic Capacitor	2 B
C223	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C224	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C225	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C226	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 C
C227	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 C
C228	330pF ±10% 25 WV Ceramic Capacitor	2 C
C229	330pF ±10% 25 WV Ceramic Capacitor	2 C
C230	0.05μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 C
C231	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 D
C232	1μF 50 WV Electrolytic Capacitor	2 D
VR202	50kΩB Tuning Meter Adjustor (103020)	2 C
VR203	100kΩB Muting Adjustor (103034)	2 D
T201	FM IFT 10.7MHz (423537)	1 A
T202	FM IFT 10.7MHz (423548)	1 B
T203	FM IFT 10.7MHz (423549)	1 C
T204	FM Detector 10.7MHz (423518)	1 D
T205	FM Meter Transformer 10.7MHz (423529)	2 B
L201	3.3μH Choke Coil (429001-1)	1 A
L202	3.3μH Choke Coil (429001-1)	1 B
L203	3.3μH Choke Coil (429001-1)	1 C
IC201	PA-7703E (036001)	1 A
IC202	PA-7703E (036001)	1 B
IC203	PA-7703E (036001)	1 B
IC204	PA-7703E (036001)	1 C
TR201	2SC 380 (O) (030533)	2 B
TR202	2SC 828 (T) (030527-4)	2 C
TR203	2SA 564 (P) or (Q) (030008,-1)	2 D
D201	IN60 (031033)	2 A
D202	IN60 (031033)	2 A
D203	IN60 (031033)	2 B
D204	IN60 (031033)	2 B
D205	IN60 (031033)	2 B


F-1214
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2J

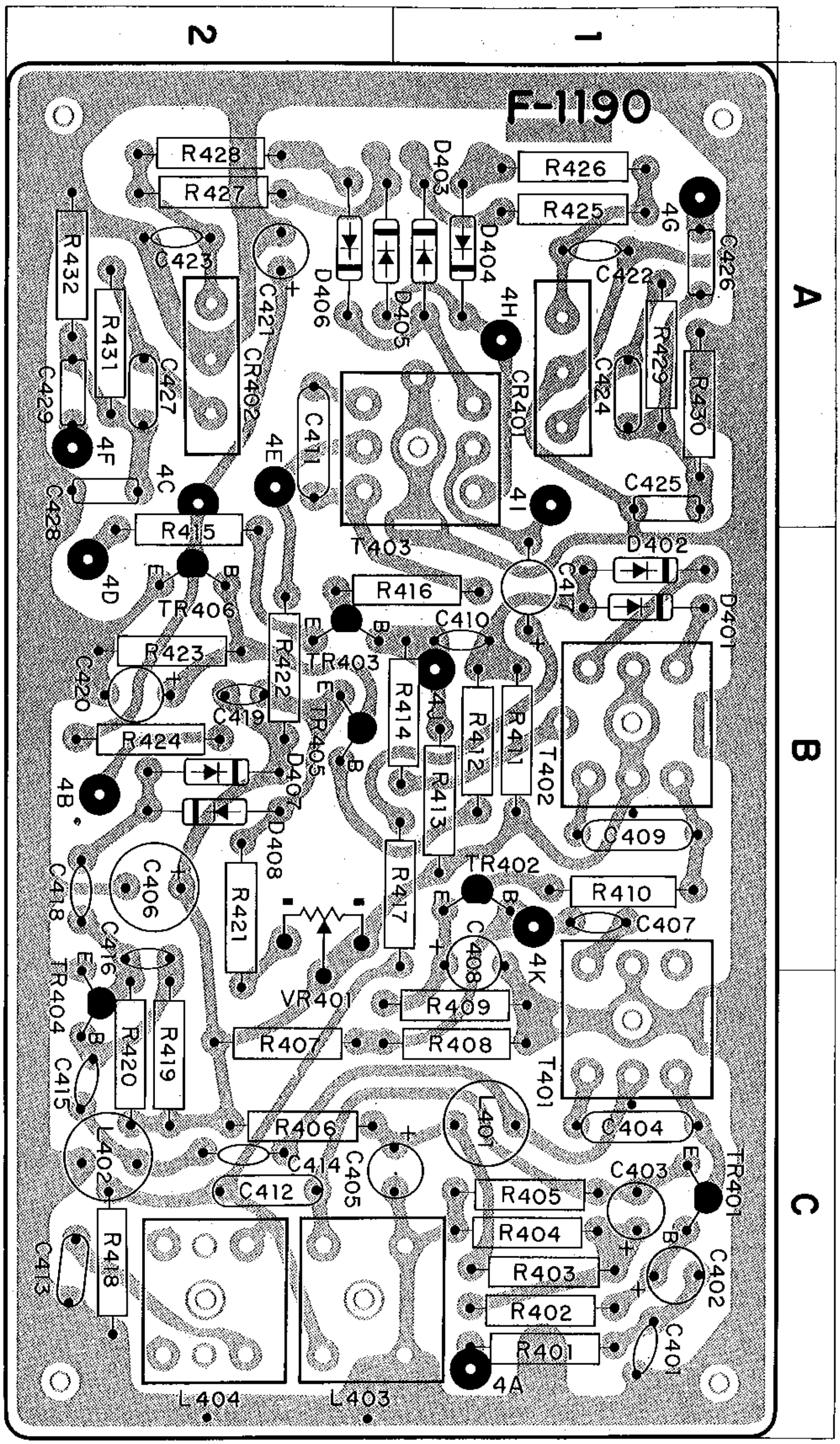
PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

F-1190 〈MULTIPLEX BLOCK〉

X	Y	Z
R401	1kΩ ±10% ¼W Carbon Resistor	1 C
R402	100kΩ ±10% ¼W Carbon Resistor	1 C
R403	100kΩ ±10% ¼W Carbon Resistor	1 C
R404	22kΩ ±10% ¼W Carbon Resistor	1 C
R405	680Ω ±10% ¼W Carbon Resistor	1 C
R406	100Ω ±10% ¼W Carbon Resistor	2 C
R407	47kΩ ±10% ¼W Carbon Resistor	2 C
R408	22kΩ ±10% ¼W Carbon Resistor	1 C
R409	2.2kΩ ±10% ¼W Carbon Resistor	1 C
R410	1kΩ ±10% ¼W Carbon Resistor	1 B
R411	10kΩ ±10% ¼W Carbon Resistor	1 B
R412	10kΩ ±10% ¼W Carbon Resistor	1 B
R413	100kΩ ±10% ¼W Carbon Resistor	1 B
R414	18kΩ ±10% ¼W Carbon Resistor	1 B
R415	5.6kΩ ±10% ¼W Carbon Resistor	2 A
R416	470Ω ±10% ¼W Carbon Resistor	1 B
R417	2.2kΩ ±10% ¼W Carbon Resistor	1 B
R418	10kΩ ±10% ¼W Carbon Resistor	2 C
R419	1.2MΩ ±10% ¼W Solid Resistor	2 C
R420	4.7kΩ ±10% ¼W Carbon Resistor	2 C
R421	3.3kΩ ±10% ¼W Carbon Resistor	2 B
R422	47Ω ±10% ¼W Carbon Resistor	2 B
R423	1.8kΩ ±10% ¼W Carbon Resistor	2 B
R424	6.8kΩ ±10% ¼W Carbon Resistor	2 B
R425	22kΩ ±10% ¼W Carbon Resistor	1 A
R426	22kΩ ±10% ¼W Carbon Resistor	1 A
R427	22kΩ ±10% ¼W Carbon Resistor	2 A
R428	22kΩ ±10% ¼W Carbon Resistor	2 A
R429	100kΩ ±10% ¼W Carbon Resistor	1 A
R430	220kΩ ±10% ¼W Carbon Resistor	1 A
R431	100kΩ ±10% ¼W Carbon Resistor	2 A
R432	220kΩ ±10% ¼W Carbon Resistor	2 A
C401	100pF ±10% 50 WV Ceramic Capacitor	1 C
C402	1μF 50 WV Electrolytic Capacitor	1 C
C403	33μF 6.3 WV Electrolytic Capacitor	1 C
C404	5000pF ±10% 50 WV Styrol Capacitor	1 C
C405	10μF 25 WV Electrolytic Capacitor	1 C
C406	47μF 25 WV Electrolytic Capacitor	2 B
C407	0.02μF ±10% 50 WV Mylar Capcitor	1 B
C408	1μF 50 WV Electrolytic Capacitor	1 B
C409	6800pF ±10% 50 WV Styrol Capacitor	1 B
C410	0.02μF ±10% 50 WV Mylar Capcitor	1 B
C411	1700pF ±10% 50 WV Styrol Capacitor	2 A
C412	1500pF ±10% 50 WV Styrol Capacitor	2 D
C413	220pF ±10% 50 WV Styrol Capacitor	2 C
C414	330pF ±10% 50 WV Ceramic Capacitor	2 C
C415	330pF ±10% 50 WV Ceramic Capacitor	2 C
C416	50pF ±10% 50 WV Ceramic Capacitor	2 B
C417	10μF 25 WV Electrolytic Capacitor	1 B
C418	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C419	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C420	3.3μF 25 WV Electrolytic Capacitor	2 B
C421	10μF 10 WV Electrolytic Capacitor	2 A
C422	220pF ±10% 50 WV Ceramic Capacitor	1 A
C423	220pF ±10% 50 WV Ceramic Capacitor	2 A
C424	560pF ±10% 50 WV Styrol Capacitor	1 A

X	Y	Z
C425	1000pF ±10% 50 WV Styrol Capacitor	1 A
C426	0.03μF ±10% 50 WV Mylar Capacitor	1 A
C427	560pF ±10% 50 WV Styrol Capacitor	2 A
C428	1000pF ±10% 50 WV Styrol Capacitor	2 A
C429	0.03μF ±10% 50 WV Mylar Capacitor	2 A
CR401	FP-38A (080008)	1 A
CR402	FP-38A (080008)	2 A
T401	19kHz (424028)	1 C
T402	19kHz (424029)	1 B
T403	38kHz (424029)	1 A
L401	4.7MH (490003)	1 C
L402	4.7MH (490003)	2 C
L403	68kHz (424026)	2 C
L404	71kHz (424027)	2 C
D401	IN34A (031040)	1 B
D402	IN34A (031040)	1 B
D403	IN34AⓎ (031040-1)	1 A
D404	IN34AⓎ (031040-1)	1 A
D405	IN34AⓎ (031040-1)	2 A
D406	IN34AⓎ (031040-1)	2 A
D407	IN34A (031040)	2 B
D408	IN34A (031040)	2 B
TR401	2SC458LG(B) (030531-1)	1 C
TR402	2SC536V, E (0305244)	1 B
TR403	2SC536V, E (0305244)	2 B
TR404	2SC536V, E (0305244)	2 C
TR405	2SA564 (030008-1)	2 B
TR406	2SC536V, E (0305244)	2 B



2
1
A
B
C
F-1190
R428
R427
R426
R425
R432
R431
R430
R429
C423
C421
C422
C424
C427
C429
C428
C426
C425
C411
D403
D404
D405
D406
D402
D401
D407
D408
CR402
CR401
4G
4H
4F
4C
4E
4I
4D
4B
4K
4A
T403
T402
T401
R415
R416
R423
R422
R424
R414
R412
R411
R413
R417
R421
R410
R409
R408
R407
R406
R405
R404
R403
R402
R401
R420
R419
R418
TR406
TR403
TR405
TR402
TR404
TR401
C417
C410
C420
C419
C409
C418
C406
C416
C407
C408
C415
C404
C414
C405
C403
C412
C413
C402
C401
VR401
L402
L401
L404
L403

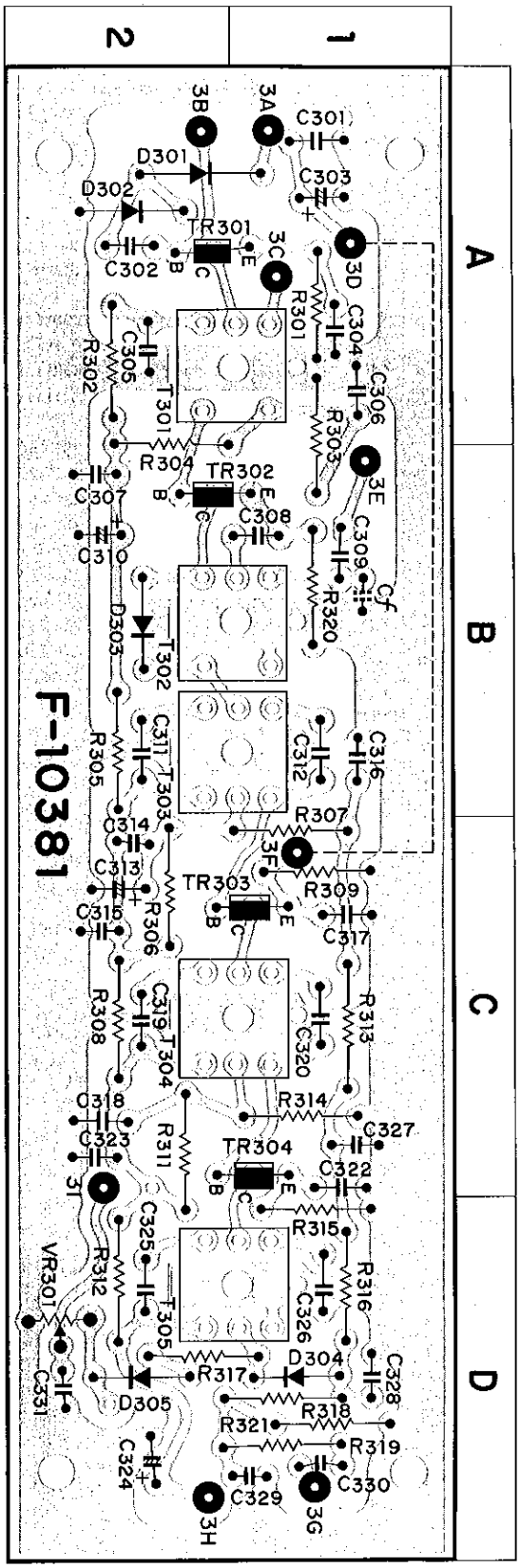
PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

F-10381 〈AM IF BLOCK〉

X	Y	Z
R301	1kΩ ±10% ¼W Carbon Resistor	1 A
R302	100Ω ±10% ¼W Carbon Resistor	2 A
R303	3.9kΩ ±10% ¼W Carbon Resistor	1 A
R304	33kΩ ±10% ¼W Carbon Resistor	2 B
R305	100Ω ±10% ¼W Carbon Resistor	2 B
R306	56kΩ ±10% ¼W Carbon Resistor	2 C
R307	22Ω ±10% ¼W Carbon Resistor	1 B
R308	22Ω ±10% ¼W Carbon Resistor	2 C
R309	1kΩ ±10% ¼W Carbon Resistor	1 C
R311	10kΩ ±10% ¼W Carbon Resistor	2 C
R312	22Ω ±10% ¼W Carbon Resistor	2 D
R313	100Ω ±10% ¼W Carbon Resistor	1 C
R314	6.8kΩ ±10% ¼W Carbon Resistor	1 C
R315	470Ω ±10% ¼W Carbon Resistor	1 C
R316	8.2kΩ ±10% ¼W Carbon Resistor	1 D
R318	1kΩ ±10% ¼W Carbon Resistor	1 D
R319	120kΩ ±10% ¼W Carbon Resistor	1 D
R320	1kΩ ±10% ¼W Carbon Resistor	1 B
R321	4.7kΩ ±10% ¼W Carbon Resistor	1 D
C301	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C302	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 A
C303	100μF 6.3 WV Electrolytic Capacitor	1 A
C304	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C305	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 A
C306	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 A
C307	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C308	0.01μF ±10% 50 WV Mylar Capacitor	1 B
C309	430pF ± 5 % 50 WV Mica Capacitor	1 B
C310	100μF 16 WV Electrolytic Capacitor	2 B
C311	500pF ± 5 % 50 WV Mica Capacitor	2 B
C312	500pF ± 5 % 50 WV Mica Capacitor	2 A
C313	4.7μF 16 WV Electrolytic Capacitor	2 C
C314	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 B
C315	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 C
C316	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 B
C317	47μF 6.3 WV Electrolytic Capacitor	1 C
C318	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 C
C319	500pF ± 5 % 50 WV Mica Capacitor	2 C
C320	500pF ± 5 % 50 WV Mica Capacitor	1 C
C322	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 C
C323	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	2 C
C324	220μF 16 WV Electrolytic Capacitor	2 D
C325	500pF ± 5 % 50 WV Mica Capacitor	2 D
C326	500pF ± 5 % 50 WV Mica Capacitor	1 D
C327	0.02μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 C
C328	0.02μF ±10% 50 WV Mylar Capacitor	1 D
C329	0.1μF ±10% 50 WV Mylar Capacitor	1 D
C330	0.04μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	1 D
C332	0.005μF $^{+80}_{-20}$% 25 WV Ceramic Capacitor	
T301	AM RF (421005)	1 A, 2 A

X	Y		Z
T302	AM OSC	(422007)	1 B, 2 B
T303	AM IFT 455kHz	(423019)	1 B, 2 B
T304	AM IFT 455kHz	(423019)	1 C, 2 C
T305	AM IFT 455kHz	(423018)	1 D, 2 D
TR301	2SC460Ⓒ	(030535-1)	2 A
TR302	2SC460Ⓑ	(030535)	2 B
TR303	2SC460Ⓑ	(030535)	1 C
TR304	2SC460Ⓒ	(030535-1)	1 C
D301	IN60	(031033)	2 A
D302	IN60	(031033)	2 A
D303	IN60	(031033)	2 B
D304	IN60	(031033)	1 D


F-10381
1
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3A
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3C
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C301
C302
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R319
R320
R321
T301
T302
T303
T304
T305
TR301
TR302
TR303
TR304
VR301
Cf

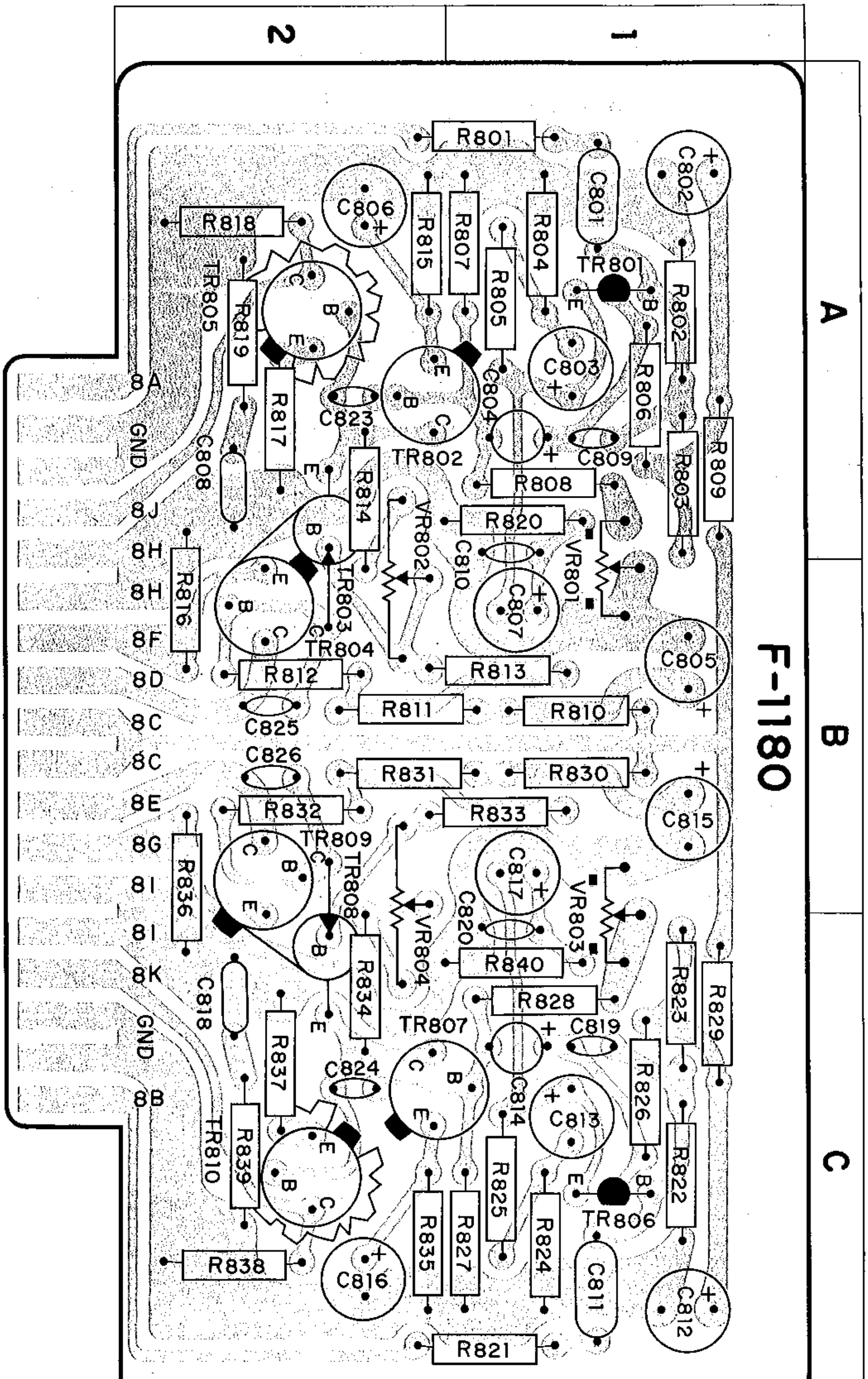
PRINTED CIRCUIT SHEETS AND PARTS LIST

X: Parts No **Y:** Parts Name **Z:** Position of Parts

F-1180 〈DRIVER AMP. BROCK〉

X	Y	Z
R801	2.2kΩ ±10% ¼W Carbon Resistor	1 A
R802	150kΩ ±10% ¼W Carbon Resistor	1 A
R803	560kΩ ±10% ¼W Carbon Resistor	1 A
R804	220Ω ±10% ¼W Carbon Resistor	1 A
R805	3.3kΩ ±10% ¼W Carbon Resistor	1 A
R806	3.3kΩ ±10% ¼W Carbon Resistor	1 A
R807	10kΩ ±10% ¼W Carbon Resistor	1 A
R808	47kΩ ±10% ¼W Carbon Resistor	1 A
R809	56kΩ ±10% ¼W Carbon Resistor	1 A
R810	1.8kΩ ±10% ¼W Carbon Resistor	1 B
R811	3.9kΩ ±10% ¼W Carbon Resistor	2 B
R812	39Ω ±10% ¼W Carbon Resistor	2 B
R813	3.3kΩ ±10% ¼W Carbon Resistor	1 B
R814	1.5kΩ ±10% ¼W Carbon Resistor	2 A
R815	220Ω ±10% ¼W Carbon Resistor	2 A
R816	100Ω ±10% ¼W Carbon Resistor	2 B
R817	4.7Ω ±10% ¼W Carbon Resistor	2 A
R818	100Ω ±10% ¼W Carbon Resistor	2 A
R819	10Ω ±10% ½W Solid Resistor	2 A
R820	8.2kΩ ±10% ¼W Carbon Resistor	1 A
R821	2.2kΩ ±10% ¼W Carbon Resistor	1 C
R822	150kΩ ±10% ¼W Carbon Ressitor	1 C
R823	560kΩ ±10% ¼W Carbon Resistor	1 C
R824	220Ω ±10% ¼W Carbon Resistor	1 C
R825	3.3kΩ ±10% ¼W Carbon Resistor	1 C
R826	3.3kΩ ±10% ¼W Carbon Resistor	1 C
R827	10kΩ ±10% ¼W Carbon Resistor	1 C
R828	47kΩ ±10% ¼W Carbon Resistor	1 C
R829	56kΩ ±10% ¼W Carbon Resistor	1 C
R830	1.8kΩ ±10% ¼W Carbon Resistor	1 B
R831	3.9kΩ ±10% ¼W Carbon Resistor	2 B
R832	39Ω ±10% ¼W Carbon Resistor	2 B
R833	3.3kΩ ±10% ¼W Carbon Resistor	1 B
R834	1.5kΩ ±10% ¼W Carbon Resistor	2 C
R835	220Ω ±10% ¼W Carbon Resistor	2 C
R836	100Ω ±10% ¼W Carbon Resistor	2 B
R837	4.7Ω ±10% ¼W Carbon Resistor	2 C
R838	100Ω ±10% ¼W Carbon Resistor	2 C
R839	10Ω ±10% ½W Solid Resistor	2 C
R840	8.2kΩ ±10% ¼W Carbon Resistor	1 C
C801	0.02μF ±10% 50 WV Mylar Capacitor	1 A
C802	100μF 25 WV Electrolytic Capacitor	1 A
C803	220μF 10 WV Electrolytic Capacitor	1 A
C804	1μF 50 WV Electrolytic Capacitor	1 A
C805	33μF 50 WV Electrolytic Capacitor	1 B
C806	100μF 10 WV Electrolytic Capacitor	2 A
C807	10μF 50 WV Electrolytic Capacitor	1 B
C808	0.047μF ±10% 50 WV Mylar Capacitor	2 A
C809	47pF ±10% 50 WV Ceramic Capacitor	1 A
C811	0.22μF ±10% 50 WV Mylar Capacitor	1 C
C812	100μF 25 WV Electrolytic Capacitor	1 C
C813	220μF 10 WV Electrolytic Capacitor	1 C
C814	1μF 50 WV Electrolytic Capacitor	1 C
C815	33μF 50 WV Electrolytic Capacitor	1 B
C816	100μF 10 WV Electrolytic Capacitor	2 C

X	Y	Z
C817	10μF 50 WV Electrolytic Capacitor	1 B
C818	0.047μF ±10% 50 WV Mylar Capacitor	2 C
C819	47pF ±10% 50 WV Ceramic Capacitor	1 C
C823	47pF ±10% 50 WV Ceramic Capacitor	2 A
C824	47pF ±10% 50 WV Ceramic Capacitor	2 C
C825	330pF ±10% 50 WV Ceramic Capacitor	2 B
C826	330pF ±10% 50 WV Ceramic Capacitor	2 B
VR801	200kΩB AC Balance Adjustor (103015)	1 A, 1 B
VR802	1kΩB DC Bias Adjustor (103051)	2 A, 2 B
VR803	200kΩB AC Balance Adjustor (103015)	1 B, 1 C
VR804	1kΩB DC Bias Adjustor (103051)	2 B, 2 C
TR801	2SC458LG (C) (030531-1)	1 A
TR802	2SC627 (1), (2) (030558-1-2)	2 A
TR803	2SC281 (B) (0305121-2)	2 A, 2 B
TR804	2SC708A (0305480-2)	2 B
TR805	2SA537A (0300120-2)	2 A
TR806	2SC458LG (C) (030531-1)	1 C
TR807	2SC627 (1), (2) (030558-1-2)	2 C
TR808	2SC281 (B) (0305121-2)	2 B, 2 C
TR809	2SC708 A (0305480-2)	2 B
TR810	2SA537 A (0300120-2)	2 C

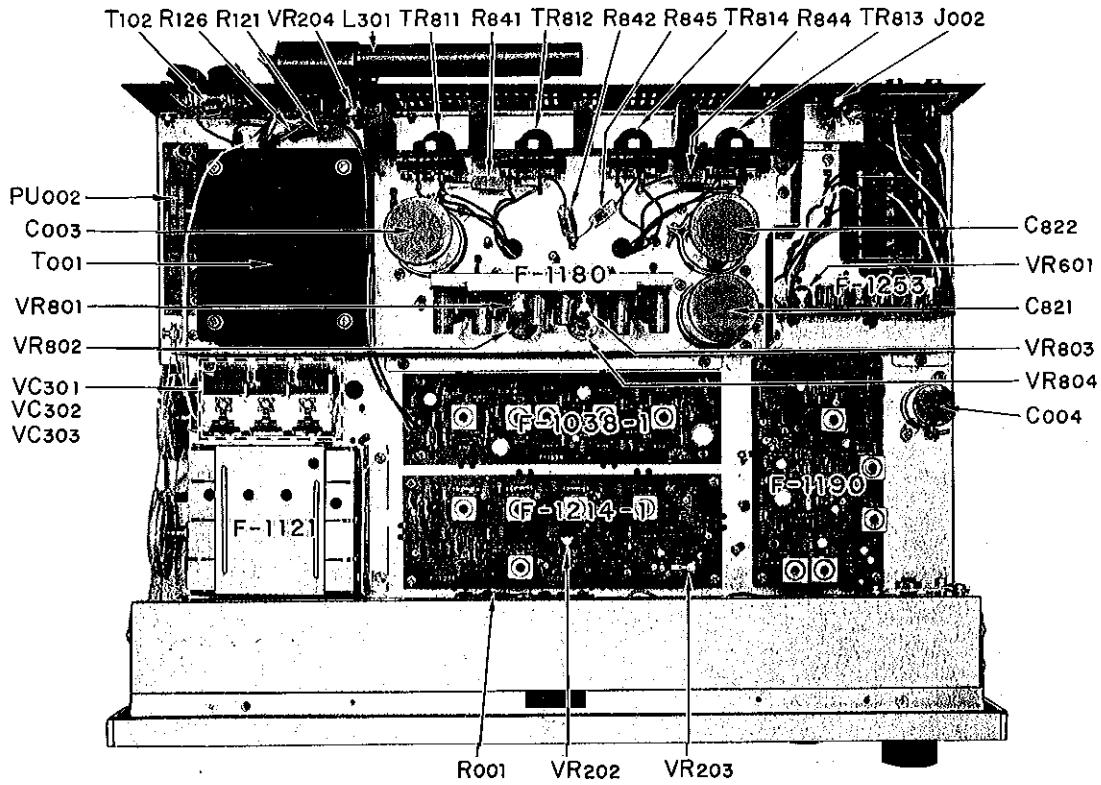

F-1180
1
2
A
B
C
R801
C802
C801
C806
R818
R815
R807
R804
TR801
R805
TR805
R819
R802
C803
R806
R817
C823
C804
TR802
C809
R803
R809
GND
C808
R814
R808
8A
8J
8H
8H
8F
8D
8C
8C
8E
8G
8I
8I
8K
GND
8B
VR802
R820
C810
VR801
R816
TR803
C807
TR804
R813
C805
R812
R811
R810
C825
C826
R831
R830
R832
R833
C815
TR809
TR808
C817
R836
VR803
C820
VR804
R840
R834
R828
R823
R829
C818
TR807
C819
R837
C824
C814
C813
R826
R839
TR810
R825
R822
R835
R827
R824
TR806
R838
C816
C811
C812
R821

OTHER PARTS AND THEIR POSITION ON CHASSIS

X: Parts No **Y:** Parts Name

X	Y	
R008	1.2kΩ ±10% ½W Solid Resistor	
R009	150Ω ±10% ¼W Carbon Resistor	
R010	10Ω ±10% ¼W Carbon Resistor	
R011	18Ω ±10% ¼W Carbon Resistor	
R120	56Ω ±10% ¼W Carbon Resistor	
R121	680Ω ±10% ¼W Carbon Resistor	
R635	68kΩ ±10% ¼W Carbon Resistor	
R636	180kΩ ±10% ¼W Carbon Resistor	
R637	100kΩ ±10% ¼W Carbon Resistor	
R638	22kΩ ±10% ¼W Carbon Resistor	
R639	15kΩ ±10% ¼W Carbon Resistor	
R640	100kΩ ±10% ¼W Carbon Resistor	
R641	220kΩ ±10% ¼W Carbon Resistor	
R642	100kΩ ±10% ¼W Carbon Resistor	
R643	220kΩ ±10% ¼W Carbon Resistor	
R645	68kΩ ±10% ¼W Carbon Resistor	
R646	180kΩ ±10% ¼W Carbon Resistor	
R647	100kΩ ±10% ¼W Carbon Resistor	
R648	15kΩ ±10% ¼W Carbon Resistor	
R841	0.5Ω ±10% 2 W Wire Wound Resistor	
R842	0.5Ω ±10% 2 W Wire Wound Resistor	
R843	330Ω ±10% ½W Solid Resistor	
R844	0.5Ω ±10% 2 W Wire Wound Resistor	
R845	0.5Ω ±10% 2 W Wire Wound Resistor	
R846	330Ω ±10% ½W Solid Resistor	
R847	560Ω ±10% 1 W Metal Film Resistor	
R848	560Ω ±10% 1 W Metal Film Resistor	
C003	2200μF 80 WV Electrolytic Capacitor	
C004	1000μF 50 WV Electrolytic Capacitor	
C008	0.033μF 600 WV Oil Capacitor	
C009	0.0047μF 600 WV Oil Capacitor	
C011	0.04μF 50 WV Ceramic Capacitor	
C012	0.04μF 50 WV Ceramic Capacitor	
C013	0.01μF 400 WV Oil Capacitor	
C014	0.01μF 400 WV Oil Capacitor	
C622	100pF ±10% 50 WV Ceramic Capacitor	
C623	100pF ±10% 50 WV Ceramic Capacitor	
C624	100pF ±10% 50 WV Ceramic Capacitor	
C625	100pF ±10% 50 WV Ceramic Capacitor	
C821	2200μF 75 WV Electrolytic Capacitor	
C822	2200μF 75 WV Electrolytic Capacitor	
VR204	1MΩB Muting Adjustor	(100508)
S001	UEH 12CD00	(113016)
S1(a~i)	Y-4-9-6	(110412)
S10	Y-1-4-4	(110118)
S11	SL-13-8-10H6-2-2	(111004)
J001	Headphones Jack	(243007)
J002	DIN Connector	(243004)
TR407	2SB324	(030311)
TR811~814	2SD202	(030820-1)
CO001,2	AC Outlet	(245001)
PU001	Multi Connector	(242002)
PU002	Voltage Selector	(241017)

X	Y	
M001	200μA Tuning Meter	(090020)
T001	400-5338 Power Trans.	(400051)
PL001 PL002 PL008	7V 0.2A PHONO 1, 2 AUX Indicator	(040015)
PL003 PL004 PL005 PL006 PL007 PL011	6.3V 0.25A Dial Scale Lamp	(040008)
PL009	25V 0.09A Protector Indicator	(040007)
PL010	6V 0.1A Stereo Indicator	(040016)
PL012	5V 0.06A Dial Pointer	(040010-1)
VC301~303	AM 3-Gang Variable Capacitor	(120002)
T306	9G-013	(420027)
T102	300Ω-75Ω Balance	(429002-1)
F001	Power Fuse (3A)	(043004)
F801	Quick Acting Fuse (2.5A)	(043011-1)
F802	Quick Acting Fuse (2.5A)	(043011-1)


T102 R126 R121 VR204 L301 TR811 R841 TR812 R842 R845 TR814 R844 TR813 J002
PU002
C003
T001
VR801
VR802
VC301
VC302
VC303
C822
VR601
C821
VR803
VR804
C004
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F-1253
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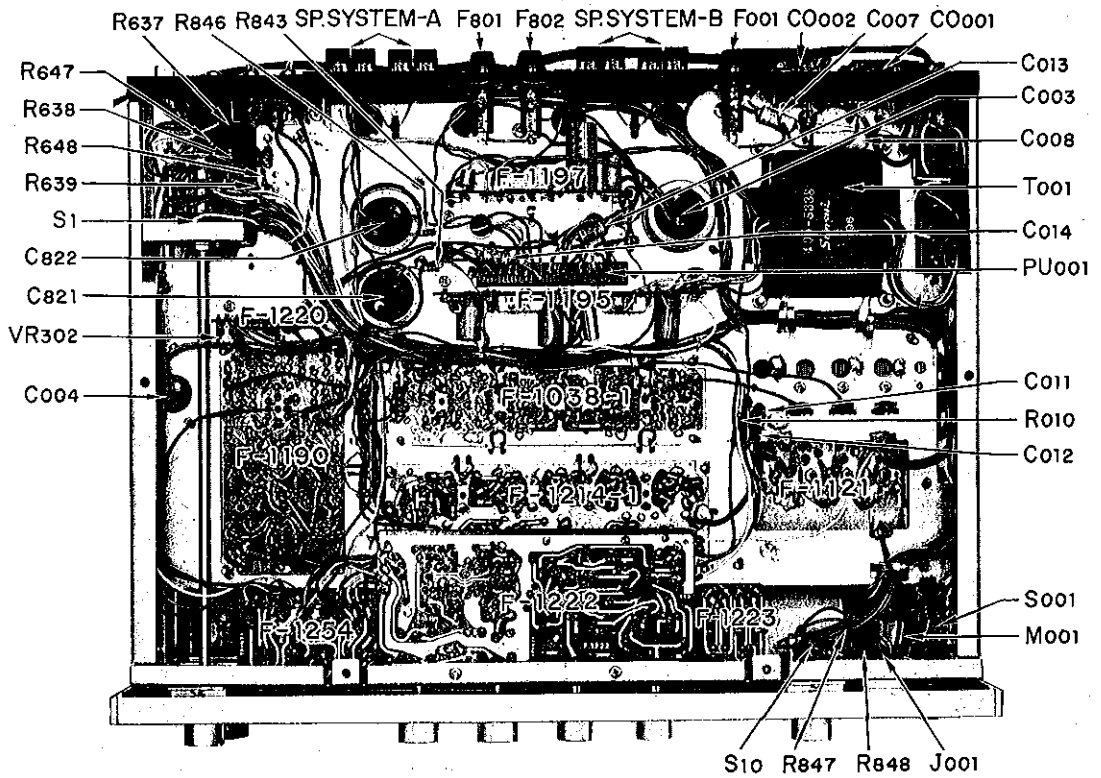
F-1190
F-1121
R001
VR202
VR203


R637 R846 R843 SP.SYSTEM-A F801 F802 SP.SYSTEM-B F001 CO002 C007 CO001
R647
R638
R648
R639
S1
C822
C821
VR302
C004
C013
C003
C008
T001
C014
PU001
C011
R010
C012
S001
M001
S10 R847 R848 J001
F-1197
F-1195
F-1220
F-1038-1
F-1190
F-1214-1
F-1121
F-1222
F-1223
F-1254

Sansui

SANSUI ELECTRIC COMPANY LIMITED
Head Office; 14-1, 2-chome, Izumi, Suginami-ku, Tokyo, Japan. TEL. 323-1111

Printed in Japan (20001M3)

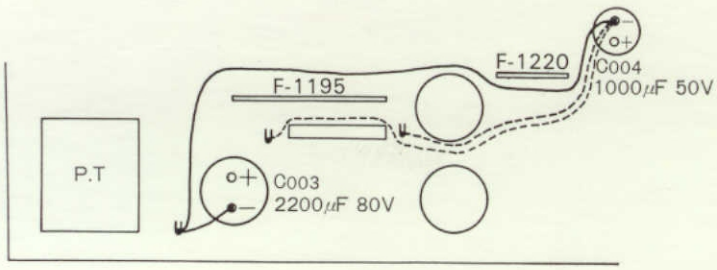
SANSUI ELECTRIC COMPANY LIMITED/14-1, 2-CHOME, IZUMI, SUGINAMI-KU, TOKYO, JAPAN/TELEPHONE: 323-1111/CABLE: SANSUIELEC TOKYO/TELEX: 232-2076

Sansui SERVICE BULLETIN

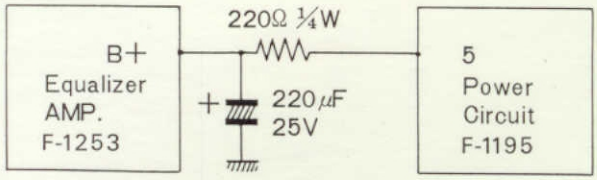
June 1, 1970
Ref. CE-013

Subject: MODIFICATION OF THE POWER CIRCUIT
Model: 2000A

1. If noise (input shorted) is noticeable in the power amplifier sections, change the connecting wire and grounding point in the power circuit.
   See Fig. below:



2. If Hum level is noticeable on PHONO 1 or 2 of the SELECTOR, insert the ripple filter between the equalizer amplifier "F-1253 (+B) and power circuit" F-1195 (5).
   See Fig. below:



STOCK NO.	DISCRIPTION
0101221	220Ω ¼W
0513221	220μF 25V