

Service Manual

Technics
by Panasonic

HI-FI COMPONENTS

Technics
by Panasonic



FM/AM
VISUAL 4 CHANNEL RECEIVER

MODEL **SA-6700X**

TECHNICAL SPECIFICATIONS (Specifications are subject to change without notice for further improvement.)

AUDIO SECTION

Music power (IHF): 1 kHz RMS (continuous) power . Each ch. driven	240W (4Ω)
	45W/45W/45W/45W (4Ω)
	32W/32W/32W/32W (8Ω)
All ch. driven	30W+30W+30W+30W (4Ω)
	23W+23W+23W+23W (8Ω)
20 Hz~20 kHz RMS (continuous) power:	
All ch. driven	16W+16W+16W+16W (8Ω)
Total harmonic distortion:	0.5%
Intermodulation distortion (60 Hz : 7 kHz = 4 : 1, SMPTE):	0.7%
Power bandwidth (all ch. driven at 8Ω):	7 Hz~40 kHz, -3 dB
Frequency response: PHONO	RIAA standard curve ±1 dB
AUX	15 Hz~60 kHz, +0 dB -3 dB
Residual hum & noise:	1.5 mV
Input sensitivity & impedance:	
PHONO	2.5 mV/50kΩ
AUX	150 mV/60kΩ
PLAYBACK	150 mV/60kΩ
MIC	3 mV/50kΩ
S/N (IHF, A):	
PHONO	70 dB
AUX	90 dB
Tone controls: BASS	50 Hz, +13 dB -13 dB
TREBLE	10 kHz, +10 dB -10 dB
Loudness control (volume at -30 dB):	50 Hz, +10 dB
REC OUT:	150 mV
Damping factor:	30 (8Ω)
Load impedance: Main or Remote	4~16 Ω
Main + Remote	8~16 Ω

FM TUNER SECTION

Frequency range:	88~108 MHz
FM sensitivity (IHF):	1.8 μV
Alternate channel selectivity:	65 dB
Harmonic distortion: MONO	0.3%
STEREO	0.4%
S/N:	65 dB
Frequency response:	20 Hz~13 kHz, ±1 dB
Image rejection (at 98 MHz):	85 dB
IF rejection (at 98 MHz):	85 dB
Spurious response rejection:	80 dB
Capture ratio:	1.5 dB
AM suppression:	50 dB
Stereo separation (at 1 kHz):	40 dB
Leak carrier (19 kHz, 38 kHz):	50 dB

AM TUNER SECTION

Frequency range:	520~1610 kHz
Sensitivity:	20 μV
Selectivity:	25 dB
Image rejection (at 1000 kHz):	40 dB
IF rejection (at 1000 kHz):	40 dB

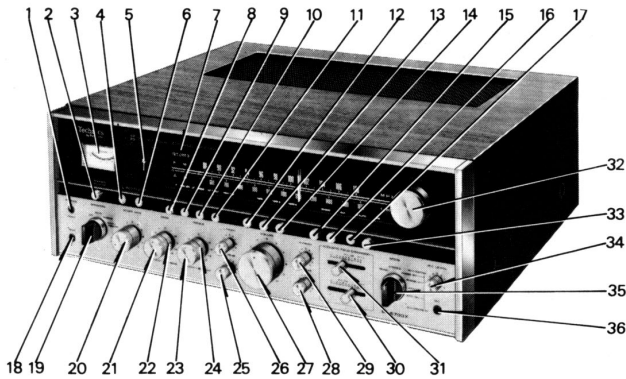
GENERAL

Power consumption:	180 W
Power supply:	AC 120V 60 Hz
Dimensions (W × H × D):	17 1/2" × 6 3/16" × 16 1/2"
Weight:	35.6 lb.

MATSUSHITA ELECTRIC CORP. OF AMERICA
MATSUSHITA ELECTRIC OF HAWAII, INC.
MATSUSHITA ELECTRIC OF CANADA LTD.

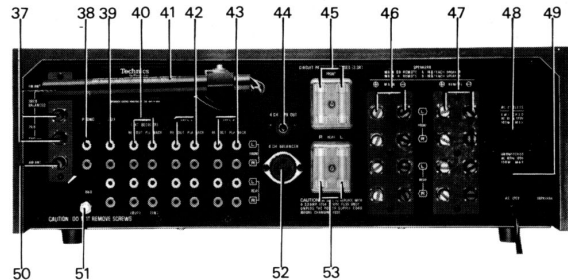
Pan-Am Bldg., 200 Park Ave. New York, N. Y. 10017
320, Waialeale Road Honolulu, Hawaii 96817
40 Ronson Drive, Rexdale, Ont.

LOCATION OF CONTROLS



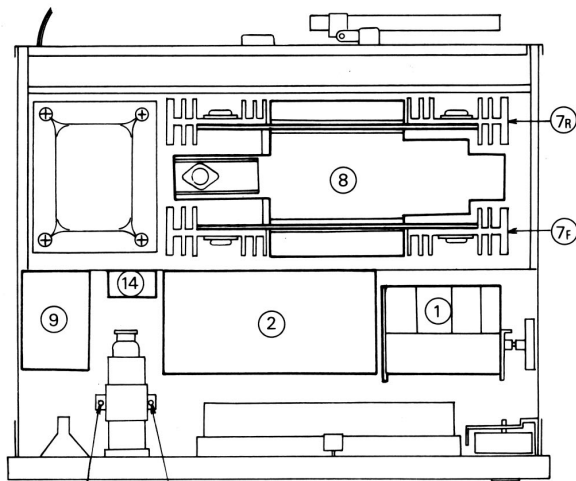
1. HEADPHONES JACK.....Front Channel
2. POWER SOURCE SWITCH (S13)
3. SIGNAL STRENGTH METER
4. SCOPE POSITION CONTROL (VR905) [↘]
5. SCOPE
6. SCOPE POSITION CONTROL (VR906) [↗]
7. FM STEREO INDICATOR
8. FM MUTING SWITCH (S11)
9. LOUDNESS SWITCH (S10)
10. LOW FILTER SWITCH (S9)
11. HIGH FILTER SWITCH (S8)
12. TAPE MONITOR SWITCH.....TAPE 1 (S7)
13. TAPE MONITOR SWITCH.....TAPE 2 (S6)
14. TAPE MONITOR SWITCH.....TAPE 3 (S5)
15. SELECTOR SWITCH.....PHONO (S4)
16. SELECTOR SWITCH.....AUX (S3)
17. SELECTOR SWITCH.....FM AUTO (S2)
18. HEADPHONES JACK.....Rear Channel
19. SPEAKERS SWITCH (S14)
20. SCOPE GAIN SWITCH (S15)
21. BASS CONTROL.....Front Channel (VR601)
22. BASS CONTROL.....Rear Channel (VR601)
23. TREBLE CONTROL.....Front Channel (VR602)
24. TREBLE CONTROL.....Rear Channel (VR602)
25. LEFT REAR LEVEL CONTROL (VR605)
26. LEFT FRONT LEVEL CONTROL (VR603)
27. MAIN VOLUME CONTROL (VR607)
28. RIGHT REAR LEVEL CONTROL (VR606)
29. RIGHT FRONT LEVEL CONTROL (VR604)
30. AFD [DEPTH] CONTROL (VR1)

31. AFD [WIDTH] CONTROL (VR2)
32. TUNING CONTROL
33. SELECTOR SWITCH.....AM (S1)
34. MIC LEVEL CONTROL (VR501)
35. MODE SWITCH (S12)
36. MICROPHONE JACK
37. EXT. FM ANTENNA TERMINALS
38. PHONO INPUT TERMINALS
39. AUX INPUT TERMINALS
40. TAPE MONITOR TERMINALS.....TAPE 1
41. AM FERRITE CORE ANTENNA
42. TAPE MONITOR TERMINALS.....TAPE 2
43. TAPE MONITOR TERMINALS.....TAPE 3
44. 4CH MPX OUTPUT TERMINAL
45. FRONT CHANNEL CIRCUIT PROTECTION FUSES
46. MAIN SPEAKER TERMINALS
47. REMOTE SPEAKER TERMINALS
48. AC POWER OUTLET.....SWITCHED
49. AC POWER OUTLET.....UNSWITCHED
50. EXT. AM ANTENNA TERMINAL
51. GROUND TERMINAL
52. 4CH BALANCER CONNECTION SOCKET
53. REAR CHANNEL CIRCUIT PROTECTION FUSES



LOCATION OF CIRCUIT BOARDS

1. FM RF CIRCUIT BOARD
2. AM & FM-IF/FM-MPX CIRCUIT BOARD
3. TAPE MONITOR & INPUT SELECTOR SWITCH CIRCUIT BOARD (A)
4. TAPE MONITOR & INPUT SELECTOR SWITCH CIRCUIT BOARD (B)
5. MUTING, LOUDNESS & FILTER SWITCH CIRCUIT BOARD
6. EQUALIZER, MIC AMP, 4CH MATRIX & TONE AMP CIRCUIT BOARD
- 7R. REAR CHANNEL MAIN AMP CIRCUIT BOARD
- 7F. FRONT CHANNEL MAIN AMP CIRCUIT BOARD
8. POWER SOURCE CIRCUIT BOARD
9. HIGH VOLTAGE CIRCUIT BOARD
10. SCOPE CONTROL CIRCUIT BOARD
11. AFD VOLUME CIRCUIT BOARD
12. TONE CONTROL CIRCUIT BOARD
13. SCOPE GAIN SWITCH CIRCUIT BOARD
14. TUNING VISION ADJUSTMENT CIRCUIT BOARD



(CRT LOCK SCREW)(CRT LOCK SCREW)

Fig. 1 (Top View)

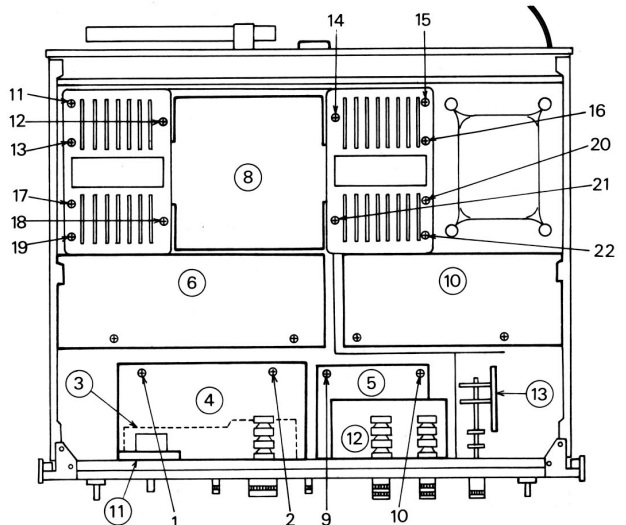
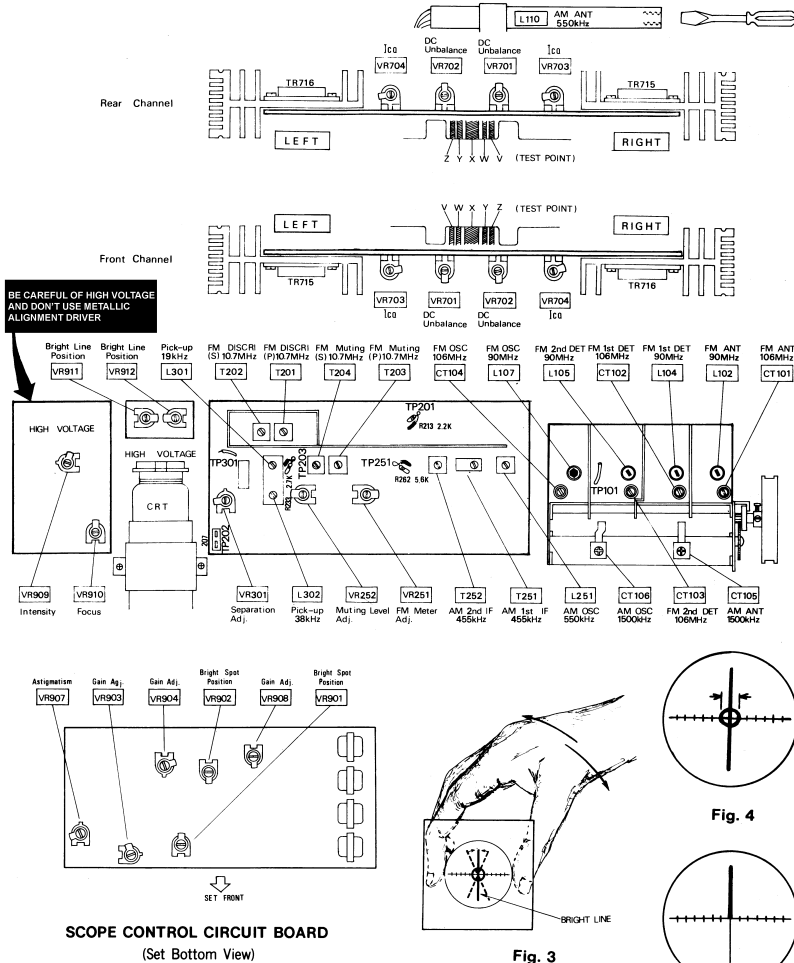


Fig. 2 (Bottom View)

ALIGNMENT INSTRUCTIONS.....READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT					
MAIN AMP ALIGNMENT					
Notes : 1. Volume control Maximum 2. Mode switch 4CH DISCRETE AFD OFF 3. Tape monitor switch Source 4. Speakers switch MAIN 5. Scope gain switch OFF 6. Maintain line voltage at 120 volts. 7. The adjustment should be started one (1) minutes after setting the power switch to the ON position. 8. Before adjusting, Icq adjusting volumes (VR703 and VR704) as shown in Alignment Point Location. 9. Rear channel alignments is same as front channel alignments.					
ALIGNMENT	DC VTVM CONNECTION	ADJUSTMENT POINTS	REMARKS		
1	DC Unbalance	Connect DC VTVM to TP ⊕ and TP ⊙ (Left Front), TP ⊕ and TP ⊙ (Right Front) terminals.	VR701 (Left Front) VR702 (Right Front)	Make sure that DC VTVM becomes 0 mV.	
2	Icq	Connect DC VTVM to TP ⊕ and TP ⊙ (Left Front), TP ⊕ and TP ⊙ (Right Front) terminals.	VR703 (Left Front) VR704 (Right Front)	Make adjustments so that the indication on DC VTVM becomes 3mV.	
SCOPE POSITION ALIGNMENT					
BE CAREFULL OF HIGH VOLTAGE AND DON'T USE METALLIC ALIGNMENT DRIVER					
Notes : 1. Volume control Minimum 2. Mode switch 4CH DISCRETE AFD OFF 3. Muting switch ON 4. Maintain line voltage at 120 volts. 5. Scope gain switch position 1 6. Before adjusting, all adjusting volumes (VR901~VR904 and VR907~VR912) as shown in Alignment Point Location.					
ALIGNMENT	ADJUSTMENT POINTS	REMARKS			
3	Position of Bright Spot	VR901, VR902	Adjust bright spot to center of scope scale.		
Note : Scope gain switch to FM TUNING position.					
4	Position of Bright Line	VR911, VR912	Adjust bright line to center of scope.		
5	Focus	VR910	Adjust focus of bright line as best condition.		
6	Intensity	VR909	Adjust bright line for proper bright.		
7	Astigmatism	VR907	Adjust bright line clearly.		
8	Turning CRT, adjust bright line to parallel with vertical line of scope scale and mount CRT by screw as shown in fig. 1 and 3.				
9	Scope Gain	VR904	Adjust circular wave form as shown in fig. 4.		
10	Scope Gain	VR908	Adjust circular wave form to perfect circle.		
Note : Scope gain switch to position 1.					
11	Position of Bright Spot	VR901, VR902	Adjust bright spot to center of scope scale again.		
Note : Scope gain switch to FM TUNING position.					
12	Position of Bright Line	VR912	Adjust bright line to vertical line of scope scale.		
13	Position of circular wave	VR911	Adjust circular wave form to center of scope scale.		
RECTILINEAR WAVE ALIGNMENT					
Notes : 1. Volume control Maximum 2. Selector switch AUX 3. Mode switch 4CH DISCRETE AFD OFF 4. Scope gain switch Variable 5. Maintain line voltage at 120 volts.					
OSCILLATOR CONNECTION	INPUT FREQ.	ADJUSTMENT	REMARKS		
14	Connect oscillator to front ch. L and R AUX terminals of set.	1kHz (10mV) VR903	Maintaining a constant input level and phase, regulate until the conditions are the same as those indicated in figure 5.		
Notes : 1. Volume control Maximum (AM-RF) 2. Bass and treble control Variable (FM-RF) 3. Band selector switch Center 4. Loudness switch FM-Auto (FM-RF, FM-IF) 5. Muting switch OFF 6. Scope gain switch FM TUNING 7. Tape-monitor switch Source 8. Mode switch Stereo 9. Maintain line voltage at 120 volts. 10. Output of signal generator should be no higher than necessary to obtain an output reading.					
SIGNAL GENERATOR or SWEEP GENERATOR	RECEIVER DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS	
CONNECTION	FREQUENCY	AM ALIGNMENT			
15	High side through 0.001 μF to antenna terminal, Common to chassis.	455kHz (20kHz Sweep)	Point of non-interference	Connect vert. amp. of scope to TP251. T251 (1st IFT) T252 (2nd IFT)	Adjust for maximum output.
16	Fashion loop of several turns of wire and radiate signal into loop of receiver.	550kHz (30% Mod. with 400Hz)	550kHz (6.6mm (1/4"))	Connect meter to speakers terminal of set.	Adjust for maximum output. Adjust ferrite core of L110 by alignment screw driver.
17	Fashion loop of several turns of wire and radiate signal into loop of receiver.	1500kHz (30% Mod. with 400Hz)	1500kHz [158.4mm (6 1/8")]	Connect meter to speakers terminal of set.	Adjust for maximum output. Repeat steps (16) and (17).

CONNECTION	FREQUENCY	RECEIVER DIAL SETTING [DISTANCE]	INDICATOR VTVM or SCOPE (and DISTORTION METER)	ADJUSTMENT POINTS	REMARKS
18	High side through 0.001 μF to TP101. Common to chassis.	10.7MHz (400kHz Sweep)	Point of non-interference.	Connect vert. amp. of scope through detector to TP201. Refer to figure 6.	Confirm center frequency.
19	High side through 0.001 μF to TP101. Common to chassis.	10.7MHz (400kHz Sweep)	Point of non-interference.	Connect vert. amp. of scope to TP203.	T203 (Muting IFT) (P) T204 (Muting IFT) (S) Adjust for maximum sharp and proper linearity. Adjust to center frequency as step 18. Refer to figure 7.
20	High side through 0.001 μF to TP101. Common to chassis.	10.7MHz (400kHz Sweep)	Point of non-interference.	Connect vert. amp. of scope to TP202.	T201 (FM DISCRI) (P) Adjust for maximum output noise. Refer to figure 8.
21			Point of non-interference.	Connect DC VTVM between TP202 and chassis.	T202 (FM DISCRI) (S) Make sure that VTVM becomes 0V. (Or adjust circular wave form to center of bright line.)
FM-RF ALIGNMENT					
22	Connect to FM antenna terminal through FM dummy antenna. (Refer to fig. 9).	90MHz (100% Mod. with 400Hz)	90MHz [23.2mm (9/8")]	Output meter across speaker terminals.	L107 (FM OSC Coil) * L104 (FM DET Coil) L105 (FM DET Coil) L102 (FM ANT Coil) Adjust for maximum output.
23	Connect to FM antenna terminal through FM dummy antenna. (Refer to fig. 9).	106MHz (100% Mod. with 400Hz)	106MHz [152mm (6 1/8")]	Output meter across speaker terminals.	CT104 (FM OSC Trimmer) CT102 (FM DET Trimmer) CT103 (FM DET Trimmer) CT101 (FM ANT Trimmer) Adjust for maximum output. Repeat steps (22) and (23).
* Use six cornered alignment tool for aligning FM OSC coil (L107).					
FM-MONO DISTORTION ALIGNMENT					
Note : Before adjusting, muting level adjusting volume (VR252) should be turned to the right side completely.					
24	Connect to FM antenna terminal through FM dummy antenna.	98MHz (100% Mod. with 400Hz) Output 72dB	98MHz	Connect distortion meter to speaker terminals.	T201 (FM DISCRI IFT) (P) Adjust for minimum distortion.
SIGNAL METER ALIGNMENT					
25	Connect to FM antenna terminal through FM dummy antenna.	98MHz (30% Mod. with 400Hz) Output 72dB	98MHz	Signal meter of set.	VR251 (Indicated Position) Adjust for about 4.8 point of signal meter indication.
MUTING LEVEL ALIGNMENT					
Note : Muting switch.....ON					
26	Connect to FM antenna terminal through FM dummy antenna.	98MHz (100% Mod. with 400Hz) Output 28dB	98MHz	Output meter or speaker across speaker terminals.	VR252 (Muting Level) Adjust so that output can be obtained.
Notes : Stereo-modulator Connect stereo-modulator output to EXT. MOD. terminal of signal generator. Internal OSC 1kHz. Pilot signal modulation 10%. Signal generator Frequency approximately 98MHz. Output level 72dB. Modulation mode to FM. 1. Band selector FM-Auto 2. Bass and treble control Center 3. Scope gain switch FM TUNING 4. Mode switch Stereo 5. Maintain line voltage at 120 volts. 6. Muting switch OFF 7. Loudness switch OFF 8. Tape monitor switch Source 9. Dummy load 8 Ω 10. Before adjusting, separation adjusting volume (VR301) as shown in Alignment Point Location.					
19 kHz COIL and PHASE ALIGNMENT					
SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE and MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS	
27	FM antenna terminal through dummy antenna.	Pilot signal to ON.	Connect scope to TP301. Common to chassis.	L301 (19kHz Coil)	Adjust for maximum output.
28	FM antenna terminal through dummy antenna.	Pilot signal to ON. L (or R) 30% Mod.	Connect scope to speaker terminals.	L302 (38kHz Coil) (Phase Alignment)	Adjust for minimum right (or left) output.
SEPARATION ALIGNMENT					
29	FM antenna terminal through dummy antenna.	L (and R) 30% Mod.	Output meter across speaker terminals through low pass filter. (Refer to fig. 10).	VR301 (Separation)	Adjust for minimum right (and left) output.

ALIGNMENT POINTS



SCOPE CONTROL CIRCUIT BOARD
(Set Bottom View)

Fig. 3

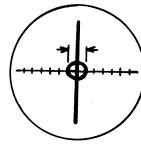


Fig. 4

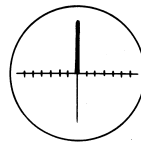


Fig. 5

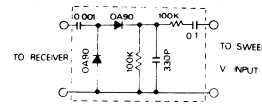
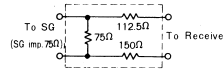


Fig. 6



300Ω FM Dummy Antenna

Fig. 9

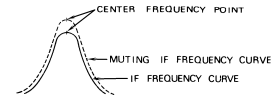


Fig. 7

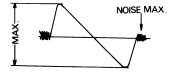


Fig. 8

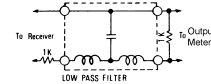


Fig. 10

TO REMOVE CIRCUIT BOARDS

1. Remove Cabinet, Bottom Board and Front Panel in advance. (Refer to Cabinet & Chassis Parts Location on Page 16.)
2. Remove connecting socket (SJS463 or SJS464) and circuit board as occasion demand.

• To remove No. ③, No. ④ circuit board and push switches

1. Remove four (4) screws, nos. 1~4, as illustrated in figure 2 and 12.
2. Do not damage push switch knobs, when removing circuit board.

• To remove No. ⑤ circuit board and push switches.

1. Remove two (2) nuts, nos. 5 and 6, as illustrated in figure 12.

• To remove No. ⑫ circuit board

1. Remove four (4) screws, nos. 7~10, as illustrated in figure 2 and 12.

2. Do not damage push switch knob, when removing circuit board.

3. To reassemble, reverse the above procedure.

(Notes for reassembly)

1. Connect connecting socket (SJS463 or SJS464) to original position.
2. Shaft of push switch should be mounted in the center hole of the frontpanel hole.

• To remove No. ⑮ circuit board

1. Remove six (6) black screws, nos. 11~16, as illustrated in figure 2.
2. Pull out No. ⑮ circuit board from No. ③ circuit board connecting socket.

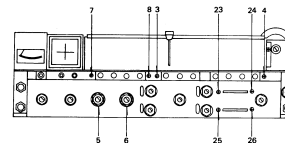
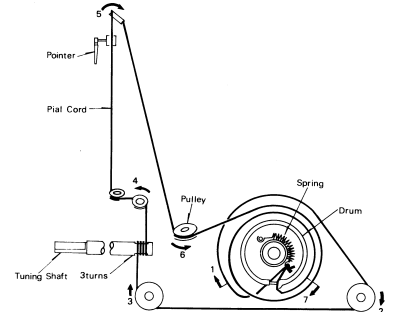


Fig. 12

DIAL CORD INSTALLATION GUIDE

1. Dial cord length is 60.15/16" (155cm).
2. Tuning gang is positioned at maximum capacity. (Frequency is minimum)
3. Arrow marks (1~7) indicate correct order and direction of stringing dial cord.

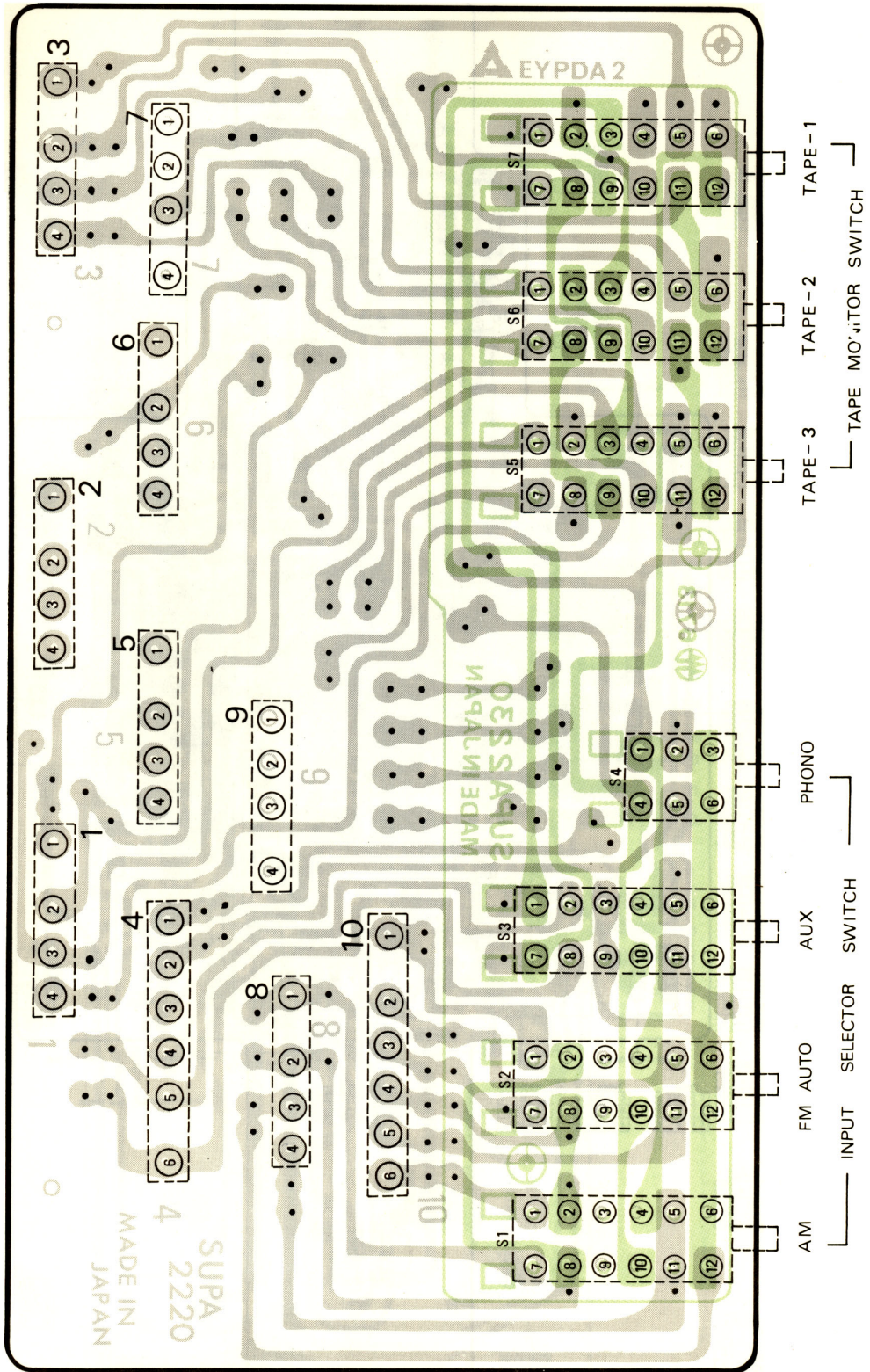


TAPE MONITOR & INPUT SELECTOR SWITCH Circuit Board

A Bottom View

TAPE MONITOR & INPUT SELECTOR SWITCH Circuit Board

B Bottom View

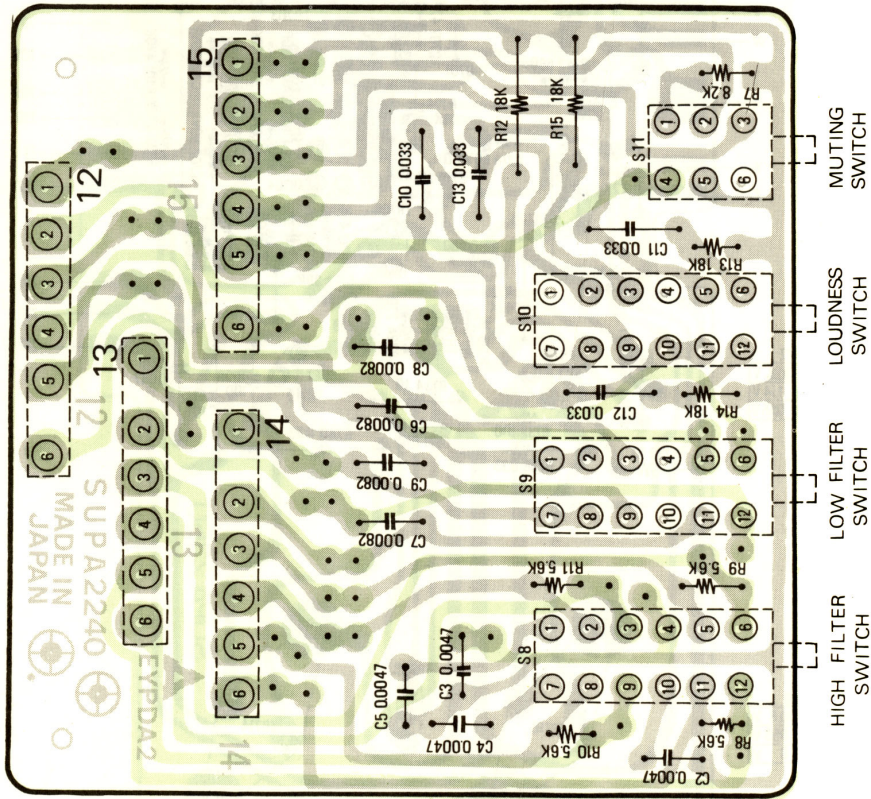


MUTING, LOUDNESS & FILTER SWITCH Circuit Board

Bottom View

MUTING, LOUDNESS & FILTER SWITCH Circuit Board

Top of p.c.b.

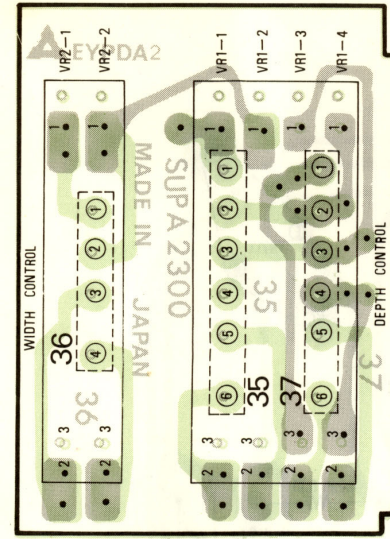


AFD VOLUME Circuit Board

Bottom View

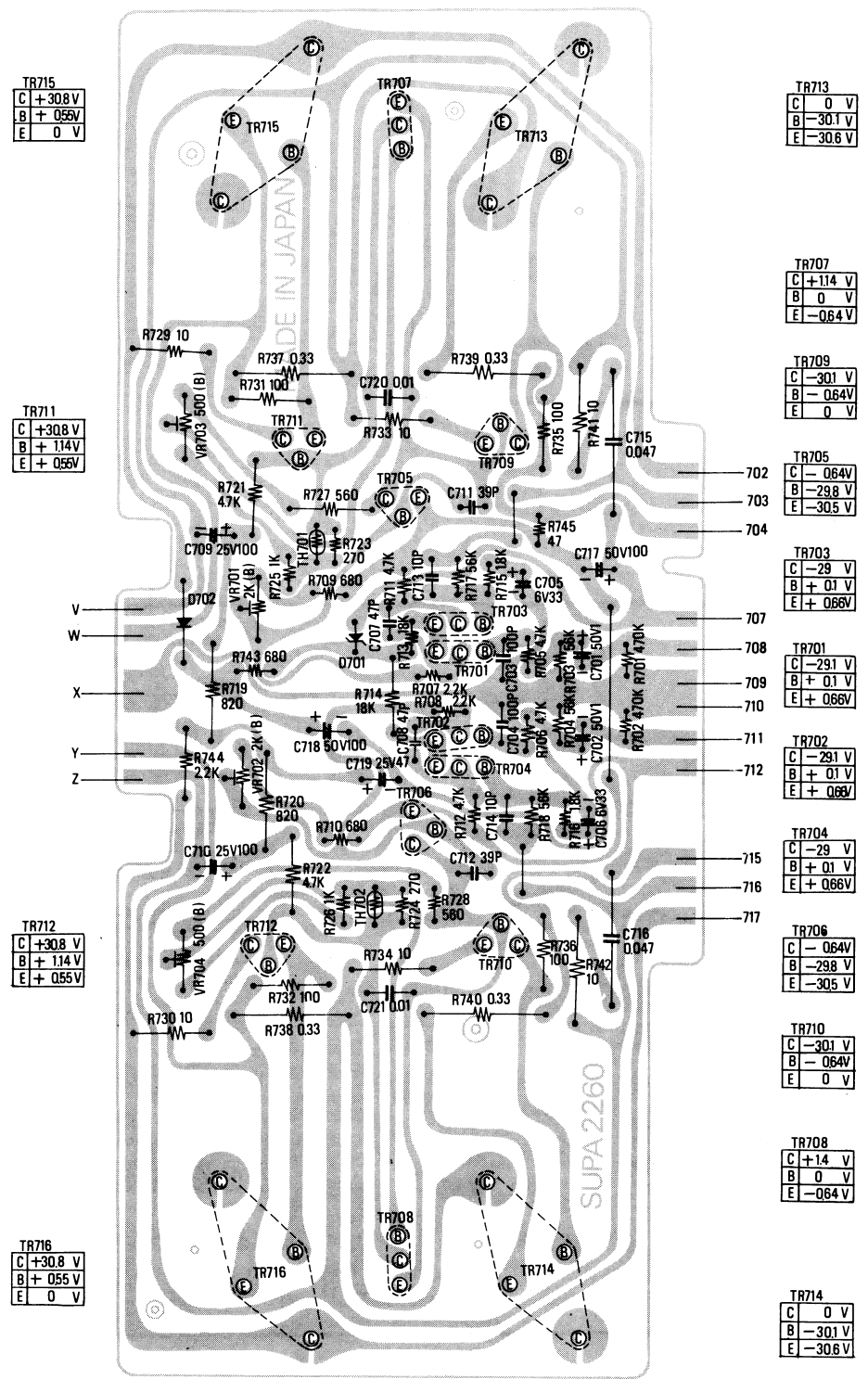
AFD VOLUME Circuit Board

Top of p.c.b.



FRONT CHANNEL MAIN AMP. Circuit Board

Rear channel is same as Front channel.



TR715
C +30.8 V
B + 0.55V
E 0 V

TR713
C 0 V
B -30.1 V
E -30.6 V

TR711
C +30.8 V
B + 1.14V
E + 0.55V

TR707
C +1.14 V
B 0 V
E -0.64 V

TR709
C -30.1 V
B - 0.64V
E 0 V

TR705
C - 0.64V
B -29.8 V
E -30.5 V

TR703
C -29 V
B + 0.1 V
E + 0.66V

TR701
C -29.1 V
B + 0.1 V
E + 0.66V

TR702
C -29.1 V
B + 0.1 V
E + 0.66V

TR704
C -29 V
B + 0.1 V
E + 0.66V

TR706
C - 0.64V
B -29.8 V
E -30.5 V

TR710
C -30.1 V
B - 0.64V
E 0 V

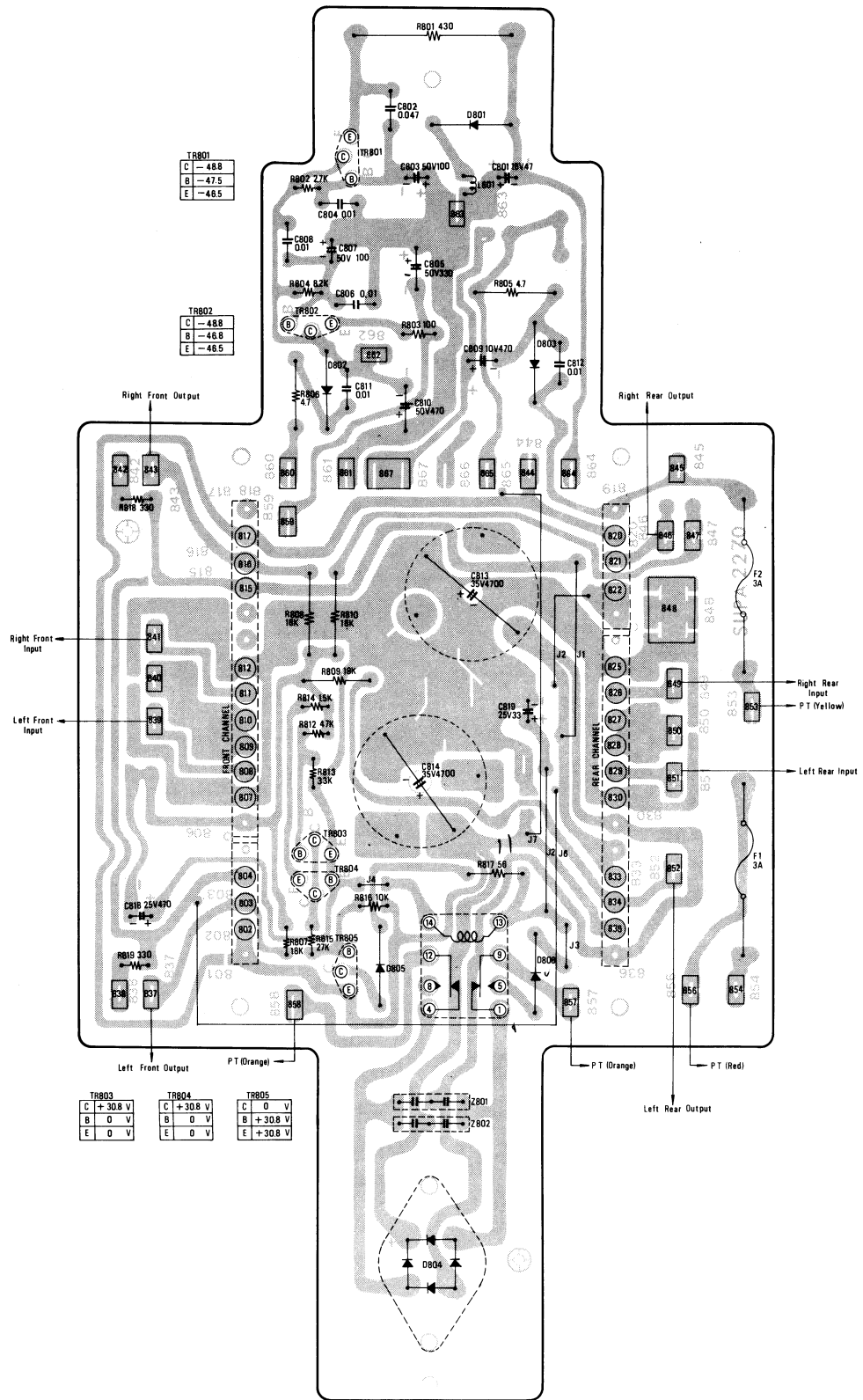
TR708
C +1.4 V
B 0 V
E -0.64 V

TR712
C +30.8 V
B + 1.14 V
E + 0.55 V

TR716
C +30.8 V
B + 0.55 V
E 0 V

TR714
C 0 V
B -30.1 V
E -30.6 V

POWER SOURCE Circuit Board



TR801

C	-488
B	-47.5
E	-46.5

TR802

C	-488
B	-46.8
E	-46.5

TR803

C	+30.8 V
B	0 V
E	0 V

TR804

C	+30.8 V
B	0 V
E	0 V

TR805

C	0 V
B	+30.8 V
E	+30.8 V

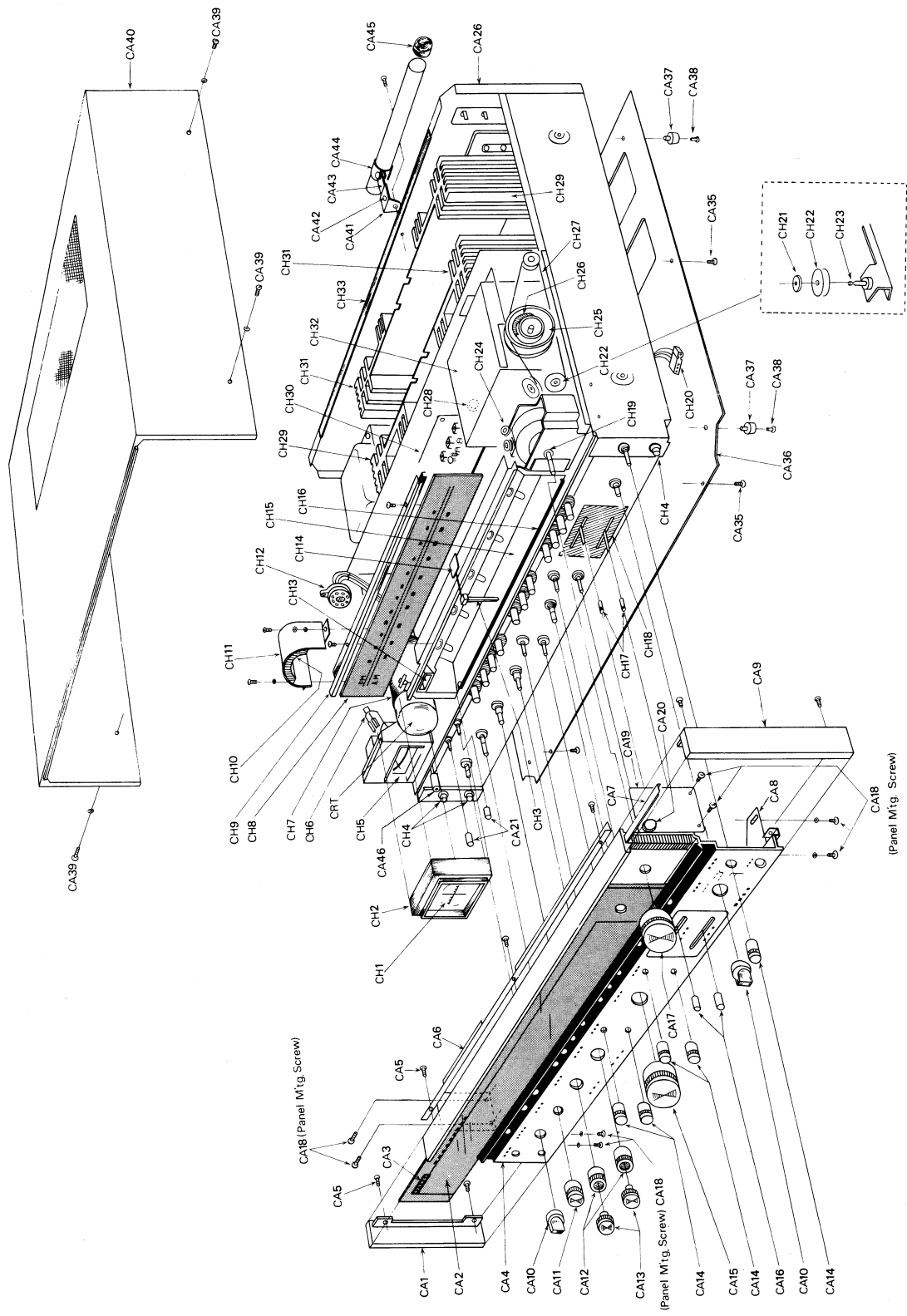
Z801

1	2	3	4
5	6	7	8

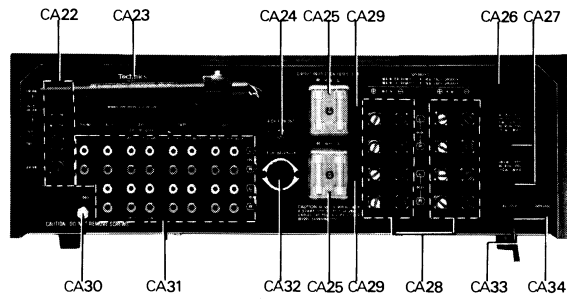
Z802

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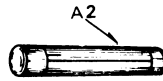
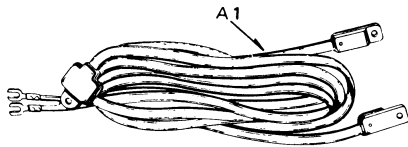
■ CABINET & CHASSIS PARTS LOCATION



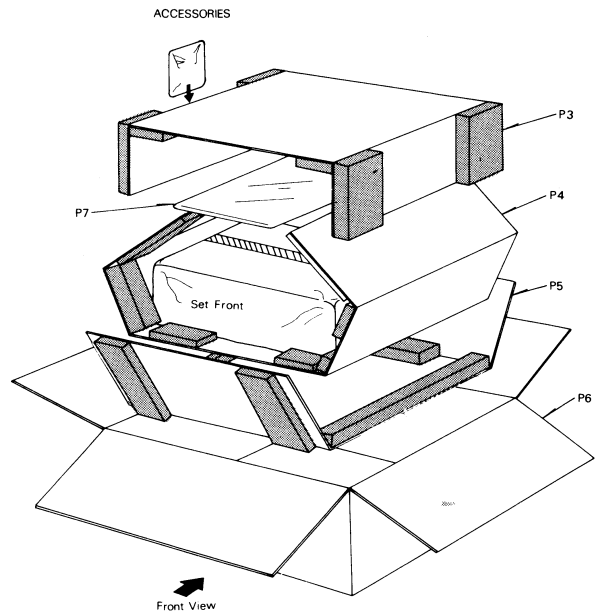
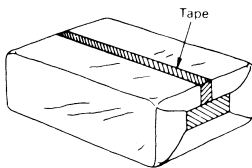
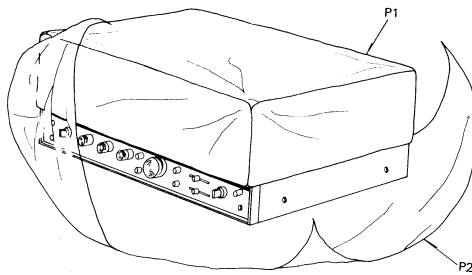
■ REAR PANEL PARTS LOCATION



■ ACCESSORIES



■ PACKINGS



REPLACEMENT PARTS LIST

NOTES :

- 1 Part numbers are indicated on most mechanical parts.
Please use this part number, for parts orders.
2 Indicates the New Parts

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
INTEGRATED CIRCUIT					D910	RVDS-1	Rectifier	1	
IC301	SVIALA3300	MPX Circuit	1		D911, 912	RVDH-507	Rectifier	2	
					D913	SVDAEQA01-05	Zener, 5V, Voltage Stabilizer	1	Ⓝ
					V251	EYV320D1R2J3	Variatite	1	
TRANSISTORS					COILS and TRANSFORMERS				
TR101, 102	3SK39Q	FM RF 1st & 2nd Amplifier	2		L101	SLAA4W1-3	Balun Coil	1	
TR103	2SC922M	FM Mixer	1		L102	SLAA4N10	FM Antenna Coil	1	Ⓝ
TR104	2SC839H	FM Oscillator	1		L103, 109	RLQY15S-5	RF Choke Coil	2	
TR201, 202, 203, 204, 205, 206, 207, 208, 209, 251, 252, 253	2SC829C	FM IF & Muting IF Amplifier, AM OSC, MIX & IF Amplifier	12		L104	SLDA4N16	FM DET Coil	1	
TR210, 211, 707(x2), 708(x2), 908, 909, 910, 911	2SC828R	Muting Amp, Thermal Compensation, DC Differential Amplifier	10		L105	SLDA4N17	FM DET Coil	1	
TR254, 301, 302, 501, 502, 601, 602, 603, 604, 605, 606, 607, 608, 903, 904	2SA721T	AF Amp., Mic Amp., Tone Amp., & Multi-vibrator	15		L106	RLQY15G-5	Choke Coil	1	
TR303	2SA733MAP	Stereo Eye Switching	1		L107	SLQ4N10	FM OSC Coil	1	
TR401, 402, 551, 552, 553, 554	2SA722T	Equalizer & AFD Control	6		L108, 202, 203, 204, 801	SLQX151-1Y	Choke Coil	5	
TR403, 404	2SC1328T	Equalizer Amplifier	2		L110	SLFA2E17	AM Antenna Coil	1	Ⓝ
TR503	2SC644R	Mic Amplifier	1		L201	SLIA4B1	FM AGC Coil	1	
TR701(x2), 702(x2), 703(x2), 704(x2)	2SA666A-AD3	Differential Amplifier	8		L251	SL0A2C7	AM OSC Coil	1	Ⓝ
TR705(x2), 706(x2)	2SC983Y	Pre Driver Amplifier	4	Ⓝ	L301, 302	SLMA1Z2-K	19kHz & 38kHz Coil	1	
TR709(x2), 710(x2), 801, 802	2SA777Q	Driver Amplifier, Ripple Filter	6	Ⓝ	L901, 902, 903, 904	RLT3E12	AF Transformer	4	
TR711(x2), 712(x2)	2SC1509Q	Driver Amplifier	4	Ⓝ	T201	SLIA4C54	FM DISCRI IF Transformer (P)	1	
TR713(x2), 714(x2), 715(x2), 716(x2)	2SD180L	Power Amplifier	8		T202	SLIA4C56	FM DISCRI IF Transformer (S)	1	
TR803, 804	2SC828A-R	Speaker Protection Switching	2		T203, 204	SLIA4C24	Muting IF Transformer (P), (S)	2	
TR805	2SA545L	Speaker Protection Switching	1		T251	RLI7W105S-T	AM IF Transformer, 1st	1	
TR901, 902, 905, 906, 907	2SK34C	Speaker Protection Switching	5		T252	RLI2C450	AM IF Transformer, 2nd	1	
TR912, 913, 914, 915	2SC1012A	DC Amplifier	4		T801	SLTA5S3S	Power Transformer	1	Ⓝ
DIODES and VARIATITE					CATHODE RAY TUBE				
D201, 204, 205, 206, 207, 251, 252, 253, 254, 255, 301	0A99	AGC, Muting Detector, AM Detector & AOC	11		CRT	40GB1	1.5 inch Cathode Ray Tube	1	Ⓝ
D202, 203	2-0A99	FM Discriminator	1		CERAMIC FILTERS				
D208, 209, 903, 908	1S1211	FM Discriminator Detector & AOC	4		CF101, 201, 202	(RVFCF10M12CG FM IF Circuit, Green(10.6MHz) RVFCF10M12CB FM IF Circuit, Black(10.65MHz) RVFCF10M12CR FM IF Circuit, Red(10.7MHz) RVFCF10M12CW FM IF Circuit, White(10.75MHz) RVFCF10M12CY FM IF Circuit, Yellow(10.8MHz)		each 3	
D701(x2)	SVDAEQA01-15	Zener, 15V, Noise Cancel	2	Ⓝ	RESISTORS				
D702(x2), 802, 803, 805, 806, 914	RVD10D1	Rectifier	7		R805	ERD14TJ4R7	4.7Ω, ¼W, ± 5%, Carbon	1	
D801	SVDAEQB01-09	Zener, 9V, Voltage Stabilizer	1		R104, 108, 203, 207	ERD14TJ101	100Ω, ¼W, ± 5%, Carbon	4	
D804	SVDAS2HB10	Rectifier	1		R257	ERD14TJ151	150Ω, ¼W, ± 5%, Carbon	1	
D901, 902, 904, 905, 906, 907	1S2092	Detector	6	Ⓝ	R311, 312	ERD14TJ221	220Ω, ¼W, ± 5%, Carbon	2	
D909	SVDEQA01-12R	Zener, 12V, Voltage Stabilizer	1	Ⓝ	R111, 221	ERD14TJ391	390Ω, ¼W, ± 5%, Carbon	2	
					R208, 267	ERD14TJ471	470Ω, ¼W, ± 5%, Carbon	2	
					R727(x2)	ERD14TJ561	560Ω, ¼W, ± 5%, Carbon	2	
					R202, 217, 316	ERD14TJ102	1kΩ, ¼W, ± 5%, Carbon	3	
					R315, 637, 638, 639, 640	ERD14TJ122	1.2kΩ, ¼W, ± 5%, Carbon	5	
					R213, 744(x2), 957	ERD14TJ222	2.2kΩ, ¼W, ± 5%, Carbon	4	
					R233	ERD14TJ272	2.7kΩ, ¼W, ± 5%, Carbon	1	
					R206	ERD14TJ392	3.9kΩ, ¼W, ± 5%, Carbon	1	
					R211, 216, 268, 309, 310, 721(x2), 722(x2)	ERD14TJ472	4.7kΩ, ¼W, ± 5%, Carbon	9	
					R201, 262	ERD14TJ562	5.6kΩ, ¼W, ± 5%, Carbon	2	
					R1, 2, 256, 266, 307, 308, 629, 630, 631, 632	ERD14TJ103	10kΩ, ¼W, ± 5%, Carbon	10	
					R3, 4, 5, 6	ERD14TJ123	12kΩ, ¼W, ± 5%, Carbon	4	
					R215, 999	ERD14TJ153	15kΩ, ¼W, ± 5%, Carbon	2	
					R212	ERD14TJ331	330Ω, ¼W, ± 5%, Carbon	1	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
R12, 15, 109, 210, 714(x2), 808, 809, 810	ERD14TJ183	18kΩ, ¼W, ± 5%, Carbon	9		645, 646, 647, 648, 816				
R205	ERD14TJ273	27kΩ, ¼W, ± 5%, Carbon	1		R503, 612, 613, 614, 615	ERD14VJ123	12kΩ, ¼W, ± 5%, Carbon	5	
R987	ERD14TJ473	47kΩ, ¼W, ± 5%, Carbon	1		R115, 227, 235, 253, 506, 582, 633, 634, 635, 636, 910, 911, 922, 923, 925, 926	ERD14VJ153	15kΩ, ¼W, ± 5%, Carbon	16	
R265, 313, 314	ERD14TJ823	82kΩ, ¼W, ± 5%, Carbon	3		R13, 14, 713(x2), 807	ERD14VJ183	18kΩ, ¼W, ± 5%, Carbon	5	
R21, 24, 25, 28, 102, 103, 106, 107, 269, 948	ERD14TJ104	100kΩ, ¼W, ± 5%, Carbon	10		R114, 951, 952	ERD14VJ223	22kΩ, ¼W, ± 5%, Carbon	3	
R22, 23, 26, 27	ERD14TJ154	150kΩ, ¼W, ± 5%, Carbon	4		R413, 414, 419, 420, 511, 605, 606, 607, 608, 815, 949, 950	ERD14VJ273	27kΩ, ¼W, ± 5%, Carbon	12	
R305, 306	ERD14TJ184	180kΩ, ¼W, ± 5%, Carbon	2		R222, 813, 914, 916, 918, 919, 953, 954, 955, 956	ERD14VJ333	33kΩ, ¼W, ± 5%, Carbon	10	
R978	ERD14TJ274	270kΩ, ¼W, ± 5%, Carbon	1		R220, 557, 558, 681, 682	ERD14VJ393	39kΩ, ¼W, ± 5%, Carbon	5	
R988, 989	ERD14TJ394	390kΩ, ¼W, ± 5%, Carbon	2		R234, 567, 568, 573, 574, 812, 986, 993	ERD14VJ473	47kΩ, ¼W, ± 5%, Carbon	8	
R409, 410	ERD14TSJ683	68kΩ, ¼W, ± 5%, Carbon	2		R510, 703(x2), 704(x2), 717(x2), 718(x2)	ERD14VJ563	56kΩ, ¼W, ± 5%, Carbon	9	
R806	ERD14FJ4R7	4.7Ω, ¼W, ± 5%, Carbon	1		R110, 508, 509, 555, 556, 559, 560, 571, 572	ERD14VJ683	68kΩ, ¼W, ± 5%, Carbon	9	
R729(x2), 730(x2), 733(x2), 734(x2)	ERD14FJ100	10Ω, ¼W, ± 5%, Carbon	8		R101, 105, 425, 426, 512, 513, 669, 670, 671, 672, 906, 909, 929, 930, 985	ERD14VJ104	100kΩ, ¼W, ± 5%, Carbon	15	
R745(x2)	ERD14FJ470	47Ω, ¼W, ± 5%, Carbon	2		R516	ERD14VJ124	120kΩ, ¼W, ± 5%, Carbon	1	
R731(x2), 732(x2), 735(x2), 736(x2)	ERD14FJ101	100Ω, ¼W, ± 5%, Carbon	8		R565, 566, 569, 570, 583, 584, 585, 913, 915, 917, 920	ERD14VJ154	150kΩ, ¼W, ± 5%, Carbon	11	
R817	ERD14VJ560	56Ω, ¼W, ± 5%, Carbon	1		R318	ERD14VJ184	180kΩ, ¼W, ± 5%, Carbon	1	
R992	ERD14VJ750	75Ω, ¼W, ± 5%, Carbon	1		R263	ERD14VJ224	220kΩ, ¼W, ± 5%, Carbon	1	
R223	ERD14VJ820	82Ω, ¼W, ± 5%, Carbon	1		R401, 402, 501, 551, 552, 908	ERD14VJ274	270kΩ, ¼W, ± 5%, Carbon	6	
R231	ERD14VJ101	100Ω, ¼W, ± 5%, Carbon	1		R575, 576	ERD14VJ334	330kΩ, ¼W, ± 5%, Carbon	2	
R938, 946	ERD14VJ151	150Ω, ¼W, ± 5%, Carbon	2		R417, 418	ERD14VJ394	390kΩ, ¼W, ± 5%, Carbon	2	
R937, 945	ERD14VJ221	220Ω, ¼W, ± 5%, Carbon	2		R238, 586, 701(x2), 702(x2), 907	ERD14VJ474	470kΩ, ¼W, ± 5%, Carbon	7	
R723(x2), 724(x2)	ERD14VJ271	270Ω, ¼W, ± 5%, Carbon	4		R905	ERD14VJ684	680kΩ, ¼W, ± 5%, Carbon	1	
R249	ERD14VJ331	330Ω, ¼W, ± 5%, Carbon	1		R924, 927	ERD14VJ824	820kΩ, ¼W, ± 5%, Carbon	2	
R936, 944	ERD14VJ391	390Ω, ¼W, ± 5%, Carbon	2		R625, 626, 627, 628, 641, 642, 643, 644	ERD14VJ105	1MΩ, ¼W, ± 5%, Carbon	8	
R112, 209, 229, 254, 261, 415, 416	ERD14VJ471	470Ω, ¼W, ± 5%, Carbon	7		R403, 404	ERD14VSJ473	47kΩ, ¼W, ± 5%, Carbon	2	
R728(x2), 935, 943	ERD14VJ561	560Ω, ¼W, ± 5%, Carbon	4		R411, 412	ERD14VSJ563	56kΩ, ¼W, ± 5%, Carbon	2	
R302, 621, 622, 709(x2), 710(x2), 743(x2)	ERD14VJ681	680Ω, ¼W, ± 5%, Carbon	9		R505	ERD14VSJ683	68kΩ, ¼W, ± 5%, Carbon	1	
R623, 624, 968, 969	ERD14VJ821	820Ω, ¼W, ± 5%, Carbon	4		R609, 610, 611, 616	ERD14VSJ823	82kΩ, ¼W, ± 5%, Carbon	4	
R218, 224, 225, 251, 407, 408, 504, 507, 518, 553, 554, 601, 602, 603, 604, 725(x2), 726(x2), 901, 902, 903, 904, 934, 942, 958, 959	ERD14VJ102	1kΩ, ¼W, ± 5%, Carbon	27		R657, 658, 659, 660	ERD14VSJ124	120kΩ, ¼W, ± 5%, Carbon	4	
R116, 117	ERD14VJ122	1.2kΩ, ¼W, ± 5%, Carbon	2		R502	ERD14VSJ154	150kΩ, ¼W, ± 5%, Carbon	1	
R427, 587, 814, 933, 941	ERD14VJ152	1.5kΩ, ¼W, ± 5%, Carbon	5		R405, 406	ERD14VSJ334	330kΩ, ¼W, ± 5%, Carbon	2	
R715(x2), 255, 716(x2)	ERD14VJ182	1.8kΩ, ¼W, ± 5%, Carbon	5		R653, 654, 655, 656	ERD14VSJ394	390kΩ, ¼W, ± 5%, Carbon	4	
R665, 666, 667, 668, 707(x2), 708(x2), 928, 932, 940, 947	ERD14VJ222	2.2kΩ, ¼W, ± 5%, Carbon	12		R803	ERD12TJ101	100Ω, ¼W, ± 5%, Carbon	1	
R421, 422, 649, 650, 651, 652, 802, 960, 961, 962, 963	ERD14VJ272	2.7kΩ, ¼W, ± 5%, Carbon	11		R719(x2), 720(x2)	ERD12TJ821	820Ω, ¼W, ± 5%, Carbon	4	
R219, 303, 304	ERD14VJ332	3.3kΩ, ¼W, ± 5%, Carbon	3		R683	ERD12TJ102	1kΩ, ¼W, ± 5%, Carbon	1	
R214, 236, 579, 617, 618, 619, 620, 931, 939	ERD14VJ392	3.9kΩ, ¼W, ± 5%, Carbon	9		R974, 975, 976, 977	ERC12GK274	270kΩ, ½W, ± 10%, Solid	4	Ⓝ
R226, 228, 230, 232, 259, 270, 301, 577, 705(x2), 706(x2), 711(x2), 712(x2), 912, 921, 964, 965, 966, 967	ERD14VJ472	4.7kΩ, ¼W, ± 5%, Carbon	22		R991	ERC12GK564	560kΩ, ½W, ± 10%, Solid	1	Ⓝ
R8, 9, 10, 11, 514, 515, 673, 674, 675, 676	ERD14VJ562	5.6kΩ, ¼W, ± 5%, Carbon	10		R979, 980, 981, 982, 983, 984	ERC12GK185	1.8MΩ, ½W, ± 10%, Solid	6	Ⓝ
R517, 661, 662, 663, 664, 677, 678, 679, 680	ERD14VJ682	6.8kΩ, ¼W, ± 5%, Carbon	9		R20	ERC12GK335Z	3.3MΩ, ½W, ± 10%, Solid	1	Ⓝ
R7, 423, 424, 561, 562, 804	ERD14VJ822	8.2kΩ, ¼W, ± 5%, Carbon	6		R990	ERC1GK182	1.8kΩ, 1W, ± 10%, Solid	1	Ⓝ
R113, 204, 237, 258, 260, 264, 317, 563, 564, 578, 580, 581,	ERD14VJ103	10kΩ, ¼W, ± 5%, Carbon	17		R818	ERG2ANJ331	330Ω, 2W, ± 5%, Metallic	1	Ⓝ
					R970, 971, 972, 973	ERG2ANJ333	33kΩ, 2W, ± 5%, Metallic	4	Ⓝ
					R16, 17, 18, 19, 819	ERM2P331	330Ω, 2W, ± 5%, Wire	5	
					R801	ERM4P431	430Ω, 4W, ± 5%, Wire	1	
					R737(x2), 738(x2), 739(x2), 740(x2)	ERX2ANJR33	0.33Ω, 2W, ± 5%, Metallic	8	
					R741(x2), 742(x2)	ERX1ANJ100	10Ω, 1W, ± 5%, Metallic	4	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
VARIABLE RESISTORS					C503, 648, 649	ECQG05102KZKZ	0.001 μ F, 50WV, \pm 10%, Polyester	3	
VR1-1~1-4	EV20AA16397	50k Ω (ZU), AFD Control (DEPTH)	1	Ⓝ	C302	ECQG05152KZKZ	0.0015 μ F, 50WV, \pm 10%, Polyester	1	
VR2-1, 2-2	EV18AA16D55	500k Ω (D), AFD Control (WIDTH)	1	Ⓝ	C625, 626, 627, 628	ECQG05222KZKZ	0.0022 μ F, 50WV, \pm 10%, Polyester	4	
VR251, 903, 904, 908	EVLS3AA00B53	5k Ω (B), Meter Adj. Scope Gain Adj. & Wave Form Adjustment	4		C413, 414	ECQG05272JZKZ	0.0027 μ F, 50WV, \pm 5%, Polyester	2	
VR252, 907	EVLS3AA00B54	50k Ω (B), Muting Level & Astigmatism Adjustment	2		C267	ECQG05332KZKZ	0.0033 μ F, 50WV, \pm 10%, Polyester	1	
VR301	EVLS3AA00B13	1k Ω (B), Separation Adjustment	1		C411, 412	ECQG05822JZKZ	0.0082 μ F, 50WV, \pm 5%, Polyester	2	
VR501	EVHB8A036A15	100k Ω (B), Mic Level Adjustment	1		C253, 254, 263, 264, 561	ECQG05103KZKZ	0.01 μ F, 50WV, \pm 10%, Polyester	5	
VR601-1~601-4	EVI23AS21B15	100k Ω (B), Bass & Treble Control	2		C909, 910	ECQG05183KZKZ	0.018 μ F, 50WV, \pm 10%, Polyester	2	
602-1~602-4	EVHB8A034BF5	250k Ω (B), Channel Level Control	4		C205, 209, 213, 216, 221, 223, 225, 257, 617, 618, 619, 620, 621, 622, 623, 624, 252	ECQG05223KZKZ	0.022 μ F, 50WV, \pm 10%, Polyester	17	
VR603, 604, 605, 606	EVHB8A034BF5	250k Ω (B), Channel Level Control	4		C201, 236, 237, 238, 282	ECQG05393KZKZ	0.039 μ F, 50WV, \pm 10%, Polyester	5	
VR607-1~607-4	EV894A031BF5	250k Ω (B), Main Volume Control	1	Ⓝ	C562, 564	ECQG05473KZKZ	0.047 μ F, 50WV, \pm 10%, Polyester	2	
VR701(\times 2), 702(\times 2)	EVLS0AA00B23	2k Ω (B), DC Unbalance Adjustment	4		C904	ECQG05683KZKZ	0.068 μ F, 50WV, \pm 10%, Polyester	1	
VR703(\times 2), 704(\times 2)	EVLS0AA00B52	500 Ω (B), ICQ Adjustment	4		C255	ECQS1361JZ	360pF, 125WV, \pm 5%, Styrol	1	
VR901, 902	EVLS3AA00B24	20k Ω (B), DC Balance Adjustment	2		C15	ECQU2A103MD	0.01 μ F, 250VAC, \pm 20%, Polyester	1	
VR905, 906	EVH56A047B53	5k Ω (B), Scope Position Control	2	Ⓝ	C914, 915, 921, 922	ECQH6474MZ	0.47 μ F, 630WV, \pm 20%, Polyester	4	Ⓝ
VR910	EVLS3AA00B25	200k Ω (B), Focus Adjustment	1		C501	ECSZ25EF1	1 μ F, 25WV, Electrolytic	1	
VR911, 912, 909	EVLS3AA00B15	100k Ω (B), FM Tuning Alignment Position Adj. & Scope Bright Adjustment	3	Ⓝ	C401, 402	ECSZ25EF3R3	3.3 μ F, 25WV, Electrolytic	2	
THERMISTORS					C417, 418	ECSZ35EFR47	0.47 μ F, 35WV, Electrolytic	2	
TH701(\times 2), 702(\times 2)	RRT251	Driver Circuit	4		C911, 926	ECAG25ER1X	0.1 μ F, 25WV, Electrolytic	2	
CAPACITORS					C504, 505, 557, 558	ECAG25ER33X	0.33 μ F, 25WV, Electrolytic	4	
C227	ECDD1H0R75CC	0.75pF, 50WV, \pm 0.25pF, Ceramic	1	Ⓝ	C285, 266, 283, 553, 554, 559, 560, 563, 601, 602, 603, 604, 629, 630, 631, 632, 637, 638, 639, 640	ECAG25ER47X	0.47 μ F, 25WV, Electrolytic	20	
C115	ECDD1H010CC	1pF, 50WV, \pm 0.25pF, Ceramic	1		C507, 551, 552, 555, 556, 901, 902, 905, 906, 907, 908	ECAG25ER68X	0.68 μ F, 25WV, Electrolytic	11	
C114	CCDD1H070DC	7pF, 50WV, \pm 0.5pF, Ceramic	1		C259, 415, 416, 705(\times 2), 706(\times 2)	ECEA6V33	33 μ F, 6.3WV, Electrolytic	7	
C104, 110, 116, 212	ECDD1H100KC	10pF, 50WV, \pm 10%, Ceramic	4		C409, 410, 605, 606, 607, 608, 641, 642, 643, 644	ECEA6V47	47 μ F, 6.3WV, Electrolytic	10	
C117	ECDD1H120KU	12pF, 50WV, \pm 10%, Ceramic	1		C1, 506, 509	ECEA6V100	100 μ F, 6.3WV, Electrolytic	3	
C121, 127	ECDD1H150KC	15pF, 50WV, \pm 10%, Ceramic	2		C403, 404	ECEA6V220	220 μ F, 6.3WV, Electrolytic	2	
C118	ECDD1H150KS	15pF, 50WV, \pm 10%, Ceramic	1		C222, 256	ECEA10V100	100 μ F, 10WV, Electrolytic	2	
C120	ECDD1H390KC	39pF, 50WV, \pm 10%, Ceramic	1		C809	ECEA10V470	470 μ F, 10WV, Electrolytic	1	
C217, 707(\times 2), 708(\times 2)	ECDD1H470KU	47pF, 50WV, \pm 10%, Ceramic	5		C234, 258, 280, 284, 301	ECEA16V10	10 μ F, 16WV, Electrolytic	5	
C218, 220, 229, 703(\times 2), 226, 704(\times 2)	ECDD1H101K	100pF, 50WV, \pm 10%, Ceramic	8		C801	ECEA16V47	47 μ F, 16WV, Electrolytic	1	
C405, 406	ECDD1H151K	150pF, 50WV, \pm 10%, Ceramic	2		C912	ECEA16V100	100 μ F, 16WV, Electrolytic	1	
C126	ECDD1H181K	180pF, 50WV, \pm 10%, Ceramic	1		C913, 924	ECEA16V470	470 μ F, 16WV, Electrolytic	2	
C231, 261, 646, 647	ECDD1H331K	330pF, 50WV, \pm 10%, Ceramic	4		C923	ECEA16V1000	1000 μ F, 16WV, Electrolytic	1	
C713(\times 2), 714(\times 2)	ECDD2H100K	10pF, 500WV, \pm 10%, Ceramic	4		C303	ECEA25V3R3	3.3 μ F, 25WV, Electrolytic	1	
C711(\times 2), 712(\times 2)	ECDD2H390K	39pF, 500WV, \pm 10%, Ceramic	4		C219, 613, 614, 615, 616, 633, 634, 635, 636	ECEA25V4R7	4.7 μ F, 25WV, Electrolytic	9	
C407, 408, 502, 609, 610, 611, 612	ECKD1H821KB	820pF, 50WV, \pm 10%, Ceramic	7		C819	ECEA25V33	33 μ F, 25WV, Electrolytic	1	
C102, 103, 105, 107, 108, 109, 111, 112, 113, 122, 123	ECKD1H102PF	0.001 μ F, 50WV, \pm 10%, Ceramic	11		C308, 719(\times 2)	ECEA25V47	47 μ F, 25WV, Electrolytic	3	
C106, 125	ECKD1H102MF	0.001 μ F, 50WV, \pm 20%, Ceramic	2	Ⓝ	C508, 709(\times 2), 710(\times 2)	ECEA25V100	100 μ F, 25WV, Electrolytic	5	
C802	ECKD1H473ZF	0.047 μ F, 50WV, \pm 8%, Ceramic	1		C645	ECEA25V220	220 μ F, 25WV, Electrolytic	1	
C811	ECKD2H103PF	0.01 μ F, 500WV, \pm 10%, Ceramic	1		C818	ECEA25V470	470 μ F, 25WV, Electrolytic	1	
C14	ECKDAL102PE	0.001 μ F, 125VAC, \pm 10%, Ceramic	1		C232, 281, 304, 305, 306, 307, 701(\times 2), 702(\times 2), 903	ECEA50V1	1 μ F, 50WV, Electrolytic	11	
C16	ECKDAL103PE	0.01 μ F, 125VAC, \pm 10%, Ceramic	1		C419, 565, 717(\times 2), 718(\times 2), 803, 807	ECEA50V100	100 μ F, 50WV, Electrolytic	8	
C101, 119, 124, 202, 206, 208, 211, 215, 720(\times 2), 721(\times 2), 804, 806, 808, 812, 925	ECKE1H103PF	0.01 μ F, 50WV, \pm 10%, Ceramic	17		C805	ECEA50V330	330 μ F, 50WV, Electrolytic	1	
C203, 204, 207, 210, 214, 224, 228, 230, 233, 251, 260, 262	ECKE1H223PF	0.022 μ F, 50WV, \pm 10%, Ceramic	12		C810	ECEA50V470	470 μ F, 50WV, Electrolytic	1	
C2, 3, 4, 5	ECQM05472KZ	0.0047 μ F, 50WV, \pm 10%, Polyester	4		C918, 919	ECEA350V10	10 μ F, 350WV, Electrolytic	2	Ⓝ
C6, 7, 8, 9	ECQM05822KZ	0.0082 μ F, 50WV, \pm 10%, Polyester	4		C813, 814	ECET35R4700Y	4700 μ F, 35WV, Electrolytic	2	
C10, 11, 12, 13	ECQM05333KZ	0.033 μ F, 50WV, \pm 10%, Polyester	4		VARIABLE CAPACITORS				
J715(\times 2), 716(\times 2)	ECQM1473M	0.047 μ F, 125WV, \pm 20%, Polyester	4		CV101, 102, 103, 104, 105, 106, (CT105, 106)	ECV6MX34X14G	Tuning Gang, FM/AM	1	Ⓝ
C916, 917	ECQM2104MZ	0.1 μ F, 250WV, \pm 20%, Polyester	2	Ⓝ	CT101, 102, 103	ECV1ZW10P32	Trimmer, FM ANT & AM OSC	3	
C920	ECQM4103MZ	0.01 μ F, 400WV, \pm 20%, Polyester	1	Ⓝ	CT104	ECV1ZW06P35	Trimmer, FM OSC, 6pF	1	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
COMPONENT COMBINATIONS					CA33	RJA34	AC Cord, Power Source	1	
Z201	EXA5DL04C	FM Discriminator Circuit	1		CA34	RHR111	Bushing, AC Cord & AM Antenna Coil Lead	2	
Z301, 302	SXAA1IHE001	Low Pass Filter, 19KHz & 38KHz	2		CA35	XTV3D8CR	Red Screw, Bottom Board M'tg.	7	
Z303, 304	SXAM675F	Compensation, FM Character	2			SYUA10C	Bottom Board, Complete	1	
Z801, 802	RXAF103P22HD	Hum Cancel, 0.01μF(x2), 500WV	2		CA36	SKUA291	Bottom Board Only(Order SYUA10C)	(1)	
SWITCHES					CA37	SKLA2-1	Leg, Bottom Board	4	
S1-1~S1-4	SSHA39S	Push Switch, AM	1	Ⓝ	CA38	SHEA3-1	Lock Pin, Leg	4	
S2-1~S2-4		Push Switch, FM AUTO			CA39	XSB4+16BVCS	Screw, Cabinet M'tg.	4	
S3-1~S3-4		Push Switch, AUX			CA40	SKAA680	Cabinet	1	Ⓝ
S4-1~S4-4		Push Switch, PHONO			CA41	SMAA19	Mounting, AM Antenna Coil	1	
S5-1~S5-4		Push Switch, TAPE 3			CA42	SUHA10	Rivet	1	
S6-1~S6-4	SSHA25S	Push Switch, TAPE 2	1	Ⓝ	CA43	SMAA18	Mounting, AM Antenna Coil	1	
S7-1~S7-4		Push Switch, TAPE 1			CA44	SMAA6-2	Band, AM Antenna Coil	1	
S8-1~S8-4		Push Switch, High Filter			CA45	SHGA925	Cap, AM Antenna Coil	1	
S9-1~S9-4		Push Switch, Low Filter			CA46	SBCA47	Button, Power Source Switch	1	
S10-1~S10-4		Push Switch, Loudness			CHASSIS PARTS				
S11-1		Push Switch, Muting			CH1	SKDA370	Scale, Scope	1	Ⓝ
S12-1~S12-10	SSRA53	Mode Switch	1	Ⓝ	CH2	SGXA56	Bracket, Scope Scale	1	Ⓝ
S13-1, S13-2	SSHA40S	Power Source Switch	1	Ⓝ	CH3	SDPA5018	Pointer, Dial	1	
S14-1~S14-4	ESRC244F20C	Speakers Selector Switch	1		CH4	SJJA10-1	Jack, Microphone & Headphones	3	
S15-1~S15-7	SSRA54	Scope Gain, Tuning, Multi Path Switch	1	Ⓝ	CH5	SSMA19-2	Meter, Signal Strength	1	
SPEAKER PROTECTION RELAY					CH6	RJV1A	Holder, Meter Lamp	1	
	SSYA1	Relay, Speakers Protection	1		CH7	SMCA90	Black Cover, Cathode Ray Tube	1	Ⓝ
FUSES and LIGHTS					CH8	SHRA518	Cushion, Cathode Ray Tube	1	Ⓝ
F1, 2	XBAS1B3003	3A, Power Source	2		CH9	SKDA390	Scale, Dial	1	Ⓝ
F3, 4, 5, 6	XBAS1A3301	3.3A, Circuit Protection	4		CH9	SUMA1	Mounting, Dial Scale	1	
PL1, 2, 3, 4, 5, 6	XAM35K	Meter & Dial Lamp.(6.3V 0.25A)	6		CH10	SHGA638	Rubber Cushion, Cathode Ray Tube	1	Ⓝ
PL7	XAM37K200	Stereo Indicator (7.5V 75mA)	1		CH11	SULA47	Mounting, Cathode Ray Tube	1	Ⓝ
PL8	XAMR33S400	Pointer Lamp (6.3V 75mA)	1		CH12	SJSA8001	Socket, CRT (with Socket Cap)	1	
CABINET PARTS					CH13	SMZA6099	Bracket, Stereo Eye	1	
CA1	SYWA120A	Front Panel, Complete	1	Ⓝ	CH14	SDPA1009	Bracket, Dial Pointer	1	
CA2	SGXA37	Side Panel, Left	1		CH15	SDHA45	Reflection Paper, Dial Light	1	
CA3	SGUA17	Panel, Dial (With Badge, SGBA9002)	1	Ⓝ	CH16	SJSA201	Holder, Dial Lamp	1	
CA4	SGBA9002	Badge, Technics by Panasonic	1		CH17	SHGA627	Rubber, Dial Scale	1	
CA5	SGWA1130	Panel (Not Available Order SYWA120A)	(1)		CH17	WETB4B-1.1	Tube, AFD Control Knobs	2	
CA6	XTV3D8C	Screw, Panel M'tg.	11		CH18	SMZA6110	Paper Cloth, AFD Control	1	
CA7	SULA15-1	Mounting, Panel	1		CH19	SDTA1S	Shaft, Tuning (Complete)	1	
CA8	SUSA42-2	Spring, Dial Panel	2			SDXA705S	Flywheel Not Available	(1)	
CA9	SGXA36	Side Panel, Right	1			SDTA6001	Shaft Only Order SDTA1S	(1)	
CA10	SBSA3-1	Knob, Speakers & Mode Switch	2		CH20	SJSA63	4pin Socket, Refer to Page 22	21	
CA11	SBNA103	Knob, Scope Gain Switch	1			SJSA64	6pin Socket, Refer to Page 22	15	
CA12	SBNA109	Knob, Bass Treble Control (Rear Side)	2	Ⓝ	CH21	RNW150-2	Look Washer, Pulley	6	
CA13	SBNA110	Knob, Bass Treble Control (Front Side)	2	Ⓝ	CH22	RDR23	Pulley, Dial Cord	4	
CA14	SBNA101	Knob, Channel Level & Mic Level Control	5	Ⓝ	CH23	RDY32	Shaft, Pulley (RDR23)	4	
CA15	SBNA102	Knob, Main Volume Control	1		CH24	RDR20	Pulley, Dial Cord	2	
CA16	SBD A1	Knob, AFD Control	2		CH25	RDY34	Shaft, Pulley (RDR20)	2	
CA17	SBNA100	Knob, Tuning Control	1			SDDA391S	Drum, Tuning	1	
CA18	XTV3D8CK	Black Screw, Panel M'tg.	8			XXAR3H6S	Screw, Drum M'tg.	2	
CA19	SULA12	Mounting, Panel Right Side	1		CH26	SDSA4141	Spring, Dial Cord	1	
CA20	SHGA950	Rubber Cushion, Panel	2		CH27	RDZ05A	Cord, Dial 60% (155cm)	1roll	
CA21	SBNA113	Knob, Scope Position Control	2		CH28	RHG5-1	Rubber Cushion, Variable Capacitor	1	
CA22	SYPA200AS	Rear Panel, Complete	1	Ⓝ	CH29	SMYA42	Heat Sink, Main Circuit Board	2	Ⓝ
CA23	SJFA4401	Terminal, FM & AM Ext. Antenna	1		CH30	SMCA83-1	Shield Plate, FM-IF Circuit Board	1	
CA24	SGTA1500	Name Plate	1	Ⓝ	CH31	SMYA41	Heat Sink, Main Circuit Board	2	Ⓝ
CA25	SJFA3101	Terminal, 4CH MPX OUT	1			SJSA5	Socket, Power Source Circuit Board	2	
CA26	SJFA5201	Holder, Circuit Protection Fuses	2		CH32	SUVA61	Cover, FM RF Circuit Board	1	Ⓝ
CA27	SGPA340A	Rear Panel Only	1	Ⓝ		SUVA60	Cover, High Voltage Circuit Board	1	Ⓝ
CA28	SJSA1	Socket, AC Power Source	2		CH33	SHGA901	Rubber Cushion, Rear Panel	1	
CA29	SMKA3S	Mounting, AC Socket	1		ACCESSORIES				
CA30	SJFA4806	Terminal, Speakers	2		A1	SSAA1	Cord, FM Antenna	1	
CA31	SJFA5202-1	Cap, Protection Fuse Holder	2		A2	XBAS1A3301	Fuse, Circuit Protection (3.3A)	4	
CA32	XSN26+12	Screw, Fuse Holder M'tg.	2		PACKING PARTS				
CA33	SNEA404	Nut, Ground Terminal (Outer)	1		P1	SPPA25	Soft Cover	1	
CA34	SNEA204-2S	Volt, Ground Terminal	1		P2	SPEA3	Cover, AC Plug	1	
CA35	SJFA3011	Terminal, Input & Tape Monitor	1	Ⓝ	P3	SPHA6008	Polyethylene Sheet	1	
CA36	RJS7A	Socket, 4CH Remote Balancer	1		P4	SPSA12	Pad, Upper	1	
					P5	SPSA11	Pad, Inside	1	
					P6	SPSA13	Pad, Lower	1	
					P7	SPGA320A	Carton Box	1	Ⓝ
						SQFA155	Printed Matter, Complete	1	Ⓝ
						SQXA5098	Instruction Book(Order SQFA155)	(1)	

■ SERVICE AID

How to install and remove the connection socket

1. Insert the lead wire into the lead wire pin clamp. (See fig. 1-①)
2. Bend the tabs of the lead wire pin clamp using radio pliers to attach the lead wire. (See fig. 1-② and ③)
3. Insert the lead wire pin clamp, to which the lead wire has been attached, into the connection socket. (See fig. 2)
4. In order to remove the lead wire pin clamp from the connection socket, insert a eyeleteer into the socket hole and touch it to the lead wire pin clamp stop. (See fig. 3-①)
5. Bend the stop inward toward the lead wire pin clamp and pull out the lead wire pin clamp. (See fig. 3-②)

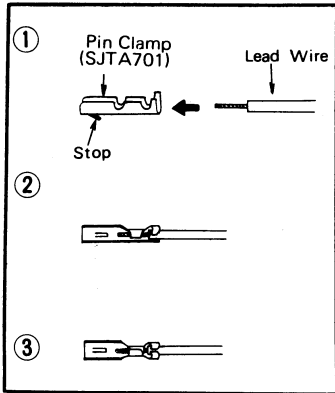


Fig. 1

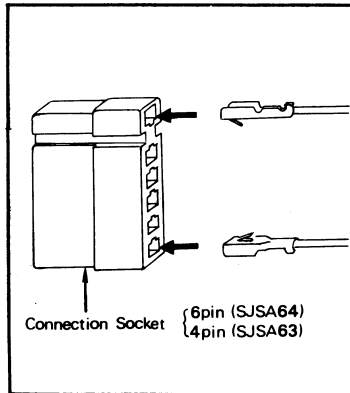


Fig. 2

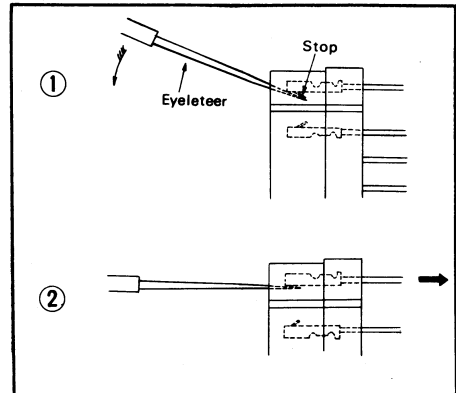


Fig. 3