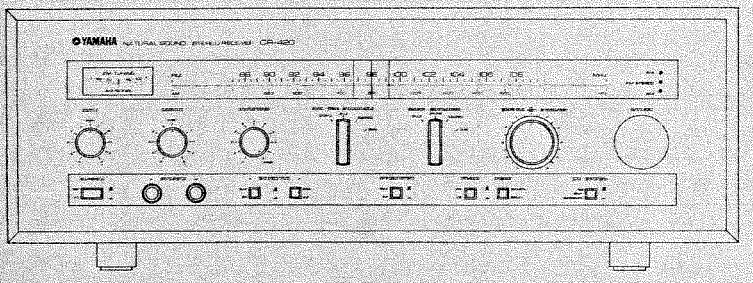
SERVICE MANUAL

CR-420/CR-420BL

FM/AM STEREO RECIEVER



SINCE 1887

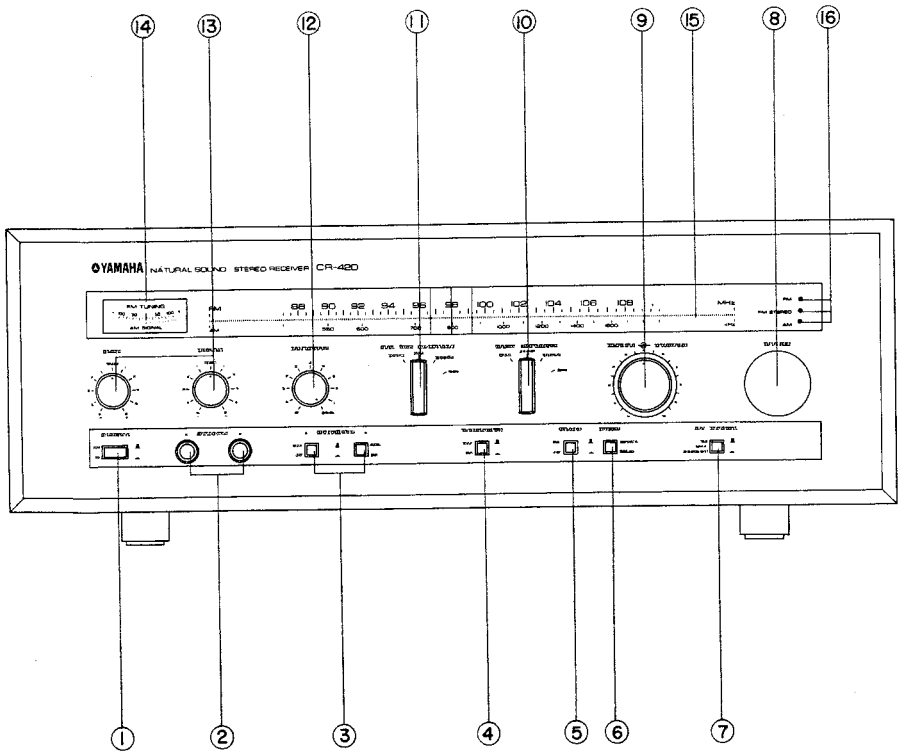
YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

■CONTENTS/目次

■PANEL OPERATION/パネルオペレーション

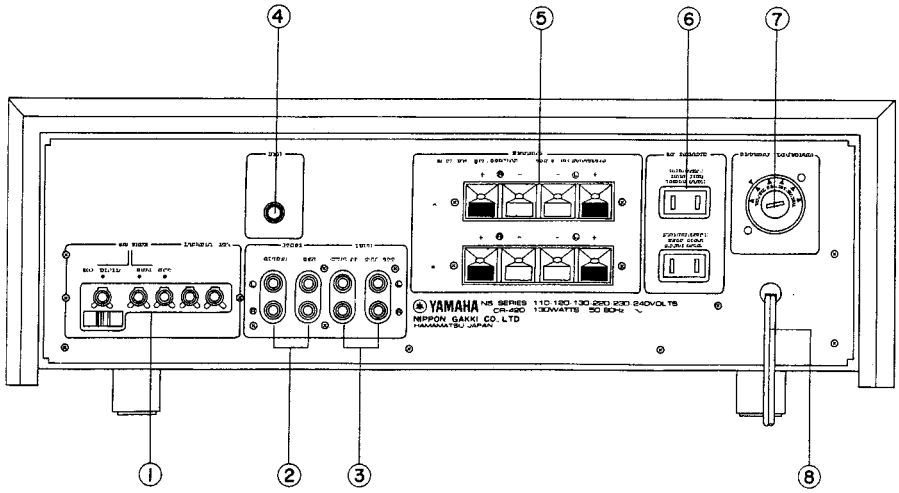
FRONT PANEL



1 POWER ON/OFF Switch
2 PHONES A/B Jacks
3 SPEAKERS A/B
4 HIGH FILTER Switch
5 TUNER FM/AM Switch
6 MODE Switch
7 FM MUTING: ON/OFF FM MONO
8 TUNING Control
9 VOLUME and BALANCE Control
10 The INPUT SELECTOR Switch
11 REC OUT Selector
12 The LOUDNESS Control
13 BASS and TREBLE Control
14 FM TUNING/AM SIGNAL METER
15 FM/AM Tuning Scale
16 LED Indicators

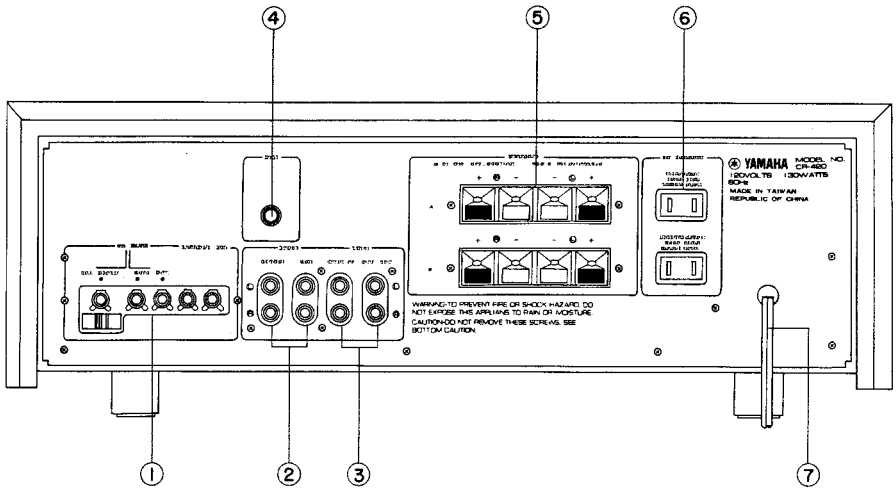
REAR PANEL

GENERAL EXPORT MODEL



1 Antenna Connectors
2 INPUT Terminals
3 TAPE PB and REC OUT Terminals
4 GND (Ground) Terminal
5 SPEAKERS Terminals
6 AC OUTLETs
7 VOLTAGE SELECTOR
8 AC Power Cord

U.S.A. MODEL



1 Antenna Connectors
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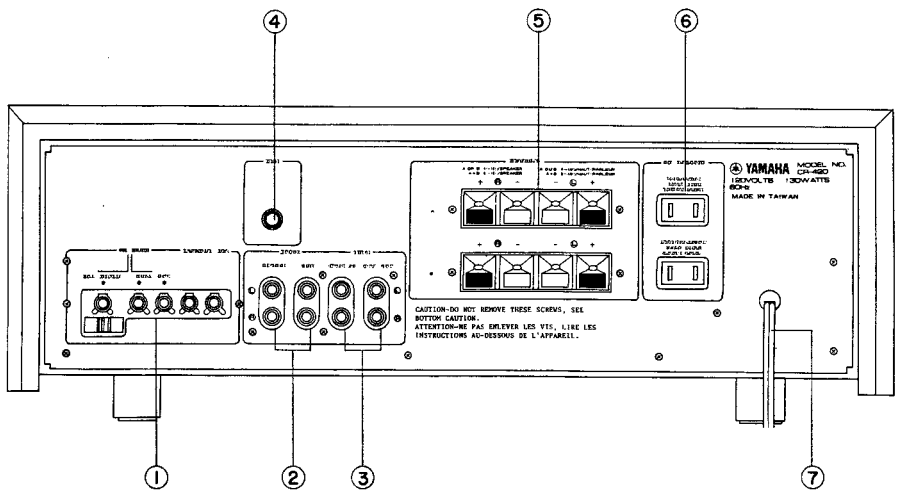
7 AC Power Cord

CANADIAN MODEL



1 Antenna Connectors
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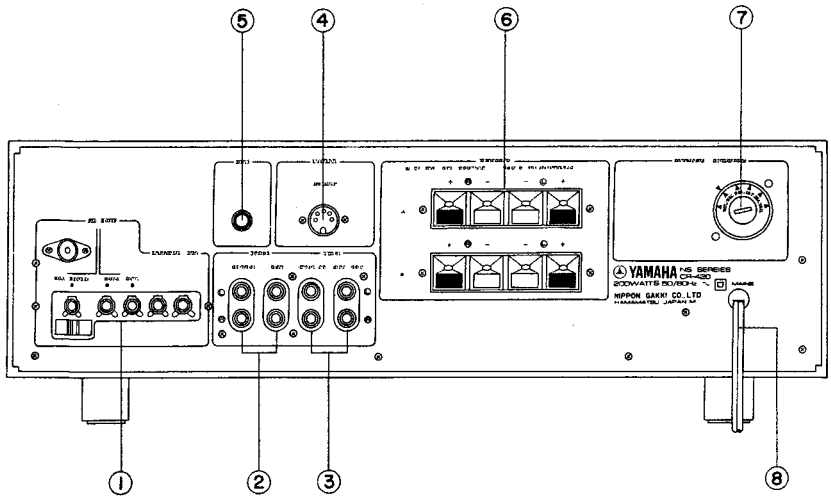
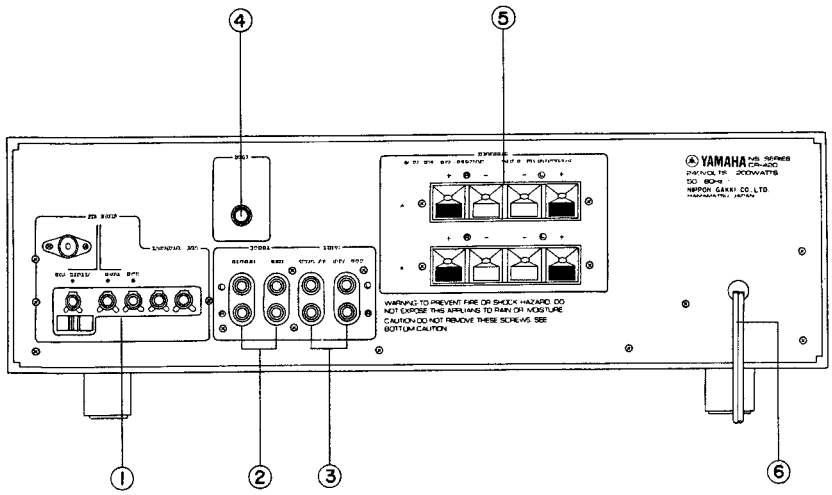
3 TAPE PB and REC OUT Terminals
4 GND Terminal
5 SPEAKERS Terminals
6 AC OUTLETs
7 AC Power Cord

EUROPEAN MODEL



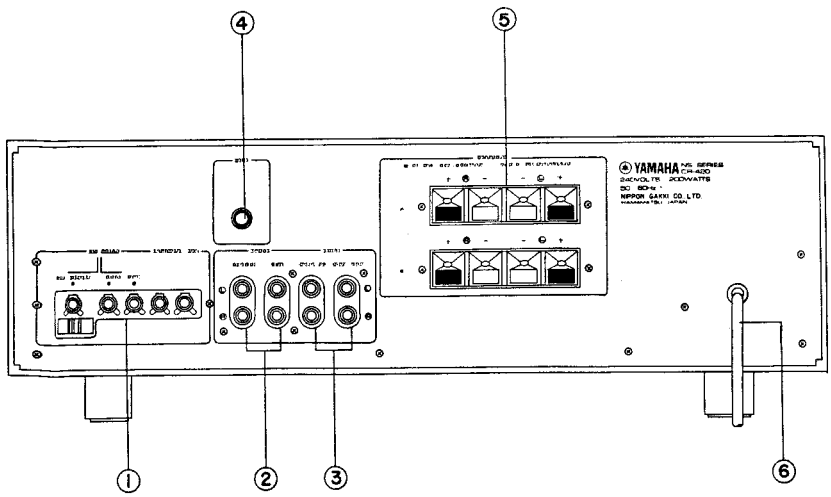
1 Antenna Connectors
2 INPUT Terminals
3 4 TAPE PB and REC OUT Terminals
5 GND (Ground) Terminal
6 SPEAKERS Terminals
7 VOLTAGE SELECTOR
8 AC Power Cord

BRITISH MODEL



1 Antenna Connectors
2 INPUT Terminals
3 TAPE PB and REC OUT Terminals
4 GND (Ground) Terminal
5 SPEAKERS Terminals
6 AC Power Cord

AUSTRALIAN MODEL

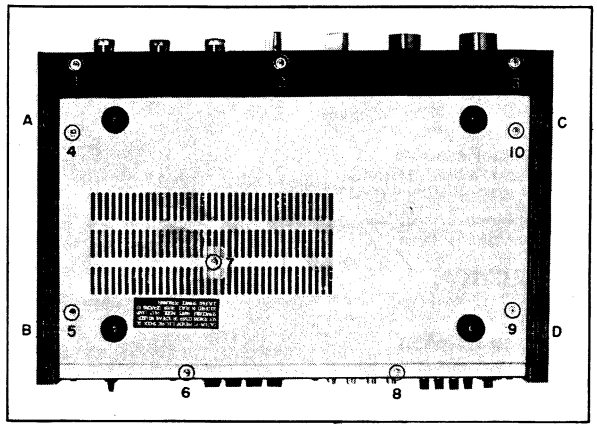


1 Antenna Connectors
2 INPUT Terminals
3 TAPE PB and REC OUT Terminals
4 GND (Ground) Terminal
5 SPEAKERS Terminals
6 AC Power Cord

■DISASSEMBLY PROCEDURES/分解手順

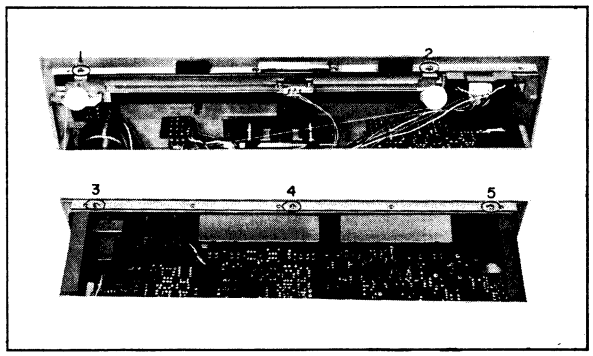
1. Cabinet Removal

Step1, A to D Four Bind Head Screws (Ref. No. 70) for Top cover,
Step2, 1 to 3 Three Pan Head Tapping Screws, Sems Type II (Ref. No. 71)
Step3, 4 to 10 7 Pan Head Tapping Screws (Ref. No. 64)



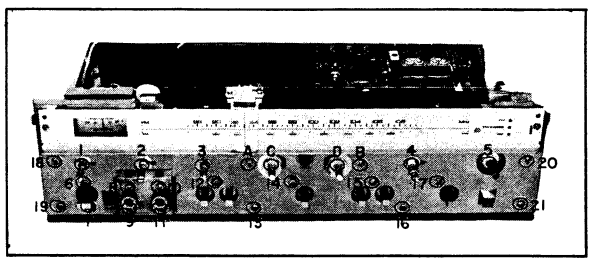
2. Front Panel Removal

Step1, 1, 2 Two Pan Head Tapping Screws (Ref. No. 64)
Step2, 3 to 5 Three Pan Head Tapping Screws (-do.-)



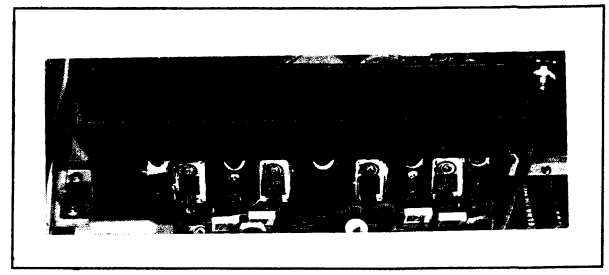
3. Sub Panel Removal

Step1, 1 to 5 Five Hexagonal Nuts
Step2, 6 to 7 Two for Power Switch
Step3, 8 to 11 Seven for Phone Jacks
Step4, 12 to 17 Six for Switch Holder
} Bind Head Screws (Ref. No. 66)
A,B and C,D . . . Unnecessary to remove.



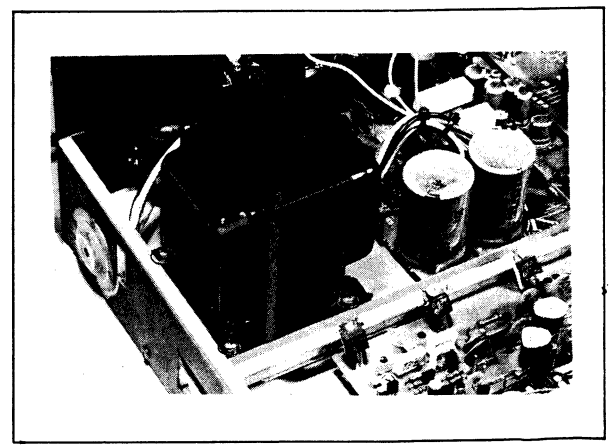
4. Radiator Removal

Step1, 1,2 Two Pan Head Tapping Screws (Ref. No. 62) for Sub Radiator
Step2, 3 to 6 Four Pan Head Sems Type Screws (Ref. No. 82) for Transistors)
Step3, 7 to 9 Three Pan Head Tapping Screws (Ref. No. 64) for Main Radiator.



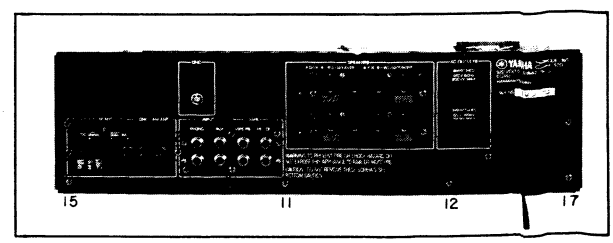
5. Transformer Removal

1 to 4 Four Pan Head Sems Type Screws (Ref. No. 68)



6. Rear Panel Removal

Step1, 1,2 Two for Antenna Terminal
Step2, 3 to 6 Four for Input Jacks
Step3, 7,8 and 9,10 Four for Speaker Terminals
Step4, 12 and 14 to 17 Five for Rear Panel
these are all Pan Head Tapping Screws (Ref. No. 65)
Step5, 11 Bind Head Tapping Screws (Ref. No. 77) for C. Board Holder
Step6, 13 Pan Head Tapping Screw Type II (Ref. No. 75) for Earth Lug Terminal



■SPECIFICATIONS

AUDIO SECTION

Continuous RMS Output Power
25W (Both channels driven, 1kHz, THD; 0.05%)
22W (-do.- , 10 to 40kHz, THD; 0.05%)
Input Sensitivity/Impedance
Phono: 2mV/50kΩ
Aux., Tape: 120mV/45kΩ
120mV/37kΩ for European model.
DIN: (Only for European model) 120mV/37kΩ
Maximum Input Level
Phono: 110mV at 1kHz
Output Level/Impedance
Rec. Out: Phono; 120mV/220Ω (1kHz)
Tuner; 120mV/6kΩ
DIN Out: (Only for European model) 30mV/52kΩ
Frequency Response
Phono: RIAA deviation; ±0.5dB
Aux., Tape 1, 2: to SP. output; ±1.5dB (20 to 20kHz)
Tone Control Characteristics
Bass: Turnover frequency; 350Hz
Control range; ±12dB (50Hz, boost/cut)
Treble: Turnover frequency; 3.5kHz
Control range; ±11dB (10kHz, boost/cut)
Filter and Loudness Control Characteristics
Low filter: 10Hz, −12dB/oct. (built-in)
High filter: 10kHz, −6dB/oct.
Loudness control: Accordance with the Equivalent Loudness Curve
Signal-to-Noise Ratio (IHF-A Network Weighted)
Phono: 91dB (10mV; 1kHz vs. short-circuited)
Aux., Tape: 97dB (Input; 500Ω loaded)
Residual noise: 0.14mV
Total Harmonic Distortion (20 to 20kHz)
Phono: to Rec. Out; 0.05% (1.2V)
Aux., Tape: to SP. output; 0.02% (11W/8Ω)
0.05% (0.25W to 23W/8Ω)
Noise Distortion Clearance Range (NDCR)
Phono: 0.1W to 22W/8Ω (20 to 20kHz, 0.1% Vol; −20dB)
Intermodulation Distortion
Aux: to SP. Output; 0.02% (20 to 20kHz, 11W/8Ω)
0.05% (-do.-, 0.25W to 22W/8Ω)
Power Band-Width (IHF)
10 to 40kHz
Damping Factor
More than 40 (1kHz, 8Ω)

FM SECTION

Tuning Range
87.6 to 108MHz
76 to 90MHz for Japanese model.
Usable Sensitivity (98/84MHz)
IHF Mono: 10.3dBf, 1.8μV/300Ω
10.3dBf, 0.9μV/75Ω
DIN Mono: 1.5μV (Dev.; 40kHz, S/N; 26dB)
Stereo: 50μV (Dev.; 40kHz, S/N; 46dB)
Quieting Characteristics (for 50dB signal-to-noise)
Mono: 16.1dBf, 3.5μV
Stereo: 38dBf, 43.5μV
Image Rejection (98/84MHz)
50dB
IF Rejection (98/84MHz)
75dB
Spurious Rejection (98/84MHz)
75dB
AM Suppression (IHF)
56dB
Capture Ratio
1.0dB
Usable Selectivity
IHF: 65dB
DIN: 30dB (±300kHz, Dev.; 49kHz)
Signal-to-Noise Ratio
Mono: IHF; 77dB
DIN; 71dB (Dev.; 40kHz)
Stereo: IHF; 71dB
DIN; 65dB (Dev.; 40kHz)
Total Harmonic Distortion
Mono: 100Hz; 0.15%
1kHz; 0.15%
6kHz; 0.3%
Stereo: 100Hz; 0.25%
1kHz; 0.25%
6kHz; 0.8%
Intermodulation Distortion (IHF)
Mono: 0.1%
Stereo: 0.2%
Sub-Carrier Suppression
40dB
Stereo Separation
50Hz: 30dB
1kHz: 40dB
10kHz: 30dB
Frequency Response
50 to 10kHz: ±0.5dB
30 to 15kHz: ±1.0, −3.0dB
Muting Level
19.2dBf, 5μV

AM SECTION

Tuning Range
525 to 1,605kHz
Sensitivity
IHF: 18μV/m
Selectivity (1,000kHz)
20dB
Signal-to-Noise Ratio
50dB (80dB/m)
Image Rejection (1,000kHz)
40dB
IF Rejection (1,000kHz)
40dB
Spurious Rejection (1,000kHz)
50dB
Total Harmonics Distortion
0.6% (80dB/m)
Tuner Section Output Level/Impedance
FM: 450mV/6.5kΩ (Mod.; 100%, Rec. Out)
AM: 100mV/6.5kΩ (Mod.; 30%, -do.-)

GENERAL

Semiconductors
53 transistors, 2ICs, 1FET, 25 diodes,
5 zener diodes, 3 LEDs, 2 ceramic filters
Power Supplies
U.S.A., Canadian models: 120V, 60Hz
European, General Models: 110/120/130/220/230/240V, 50/60Hz
U.K., Australian models: 240V, 50/60Hz
Japanese models: 100V, 50/60Hz
Power Consumption
U.S.A., Canadian, General models: 130W
U.K., Australian, European models: 200W
Japanese models: 70W
Dimensions (W x H x D)
U.S.A., Canadian, Austrialian, General models:
451 x 161 x 324(mm), 17-3/4 x 6-5/16 x 12-3/4(in.)
U.K., European, Japanese models:
435 x 145 x 324(mm), 17-1/8 x 5-11/16 x 12-3/4(in.)
Weight
U.S.A., Japanese models: 8.5kg, 18.7 lbs
U.K., Australian, Canadian, European, General models:
9.0kg, 20 lbs

Design and Specifications subject to change without notice for improvement.

■ADJUSTMENTS

FM SECTION

Step	ITEMS	ADJUSTING POINTS	SETTING EQUIPMENT	SETTING TUNER	RATED VALUE	METHOD (REMARKS)
1	DISCRI. BALANCE	T101 (Upper-side core)		98MHz Detuned Tuning Meter	±1mm	Before adjusting confirm that the Tuning Meter read zero when the power sw. is off. (Mechanical zero)
2	TUNING POINT SETTING	Tuning Knob	FM SG: 98MHz 60dBμ	98MHz (Tuned) Tuning Meter	±1mm	Connect FM SG to FM antenna terminal.
3	MONO. DISTORTION	T101 (Bottom-side core)	FM SG: -do.- mono. 1kHz 100% Distortion Meter (DM) VTVM Oscilloscope (OSC)	-do.- L output	L output −54dB	Connect Distortion Meter, Oscilloscope and VTVM to Left output terminal.
4	V.C.O FREE RUN FREQUENCY	VR101	FM SG: -do.- mono. 0% Frequency Counter	-do.- 19kHz TP	19kHz ±20Hz	FM SG must not be modulated. Connect Frequency Counter to Test Point of C. Board.
5	STEREO DISTORTION	IFT (FM Front end pack)	FM SG: -do.- stereo 1kHz 100% DM/OSC/VTVM	-do.- L output	Less than −46dB	FM SG to stereo mode (Pilot 10%).
6	SEPARATION	VR102	FM SG: -do.- stereo L or R 1kHz 100% VTVM/OSC.	-do-. R or L	More than 30dB	Connect VTVM to R or L output terminal so that the leakage voltage becomes minimum.
7	HIGH END TRACKING CONFIRMATION		FM SG: 108MHz 60dBμ	108MHz	±2mm	Read error between the pointer and dial scale.
8	DIAL POINTER CLARIFICATION	Pointer	FM SG: 98MHz 60dBμ	98MHz	±1mm	Tune to SG frequency, then loosen the pointer from dial string and set the pointer onto 98MHz of dial scale.
9	TRACKING ERROR TRIMMING (Only when proper confirmation cannot be made by Step 8 proceed Step 9)	Pointer	FM SG: 98MHz to 108MHz	98MHz to 108MHz	±2mm	Reset the pointer, so that error in all range must be within allowance.
10	TRACKING ERROR ADJUSTING(Only when proper trimming cannot be made by Step 9, proceed Step 10)	Pointer	FM SG: 98MHz 108MHz	98MHz 108MHz	±2mm	Adjust error by the pointer and TCO alternately 98MHz ..... Pointer 108MHz ..... TCO

AM SECTION

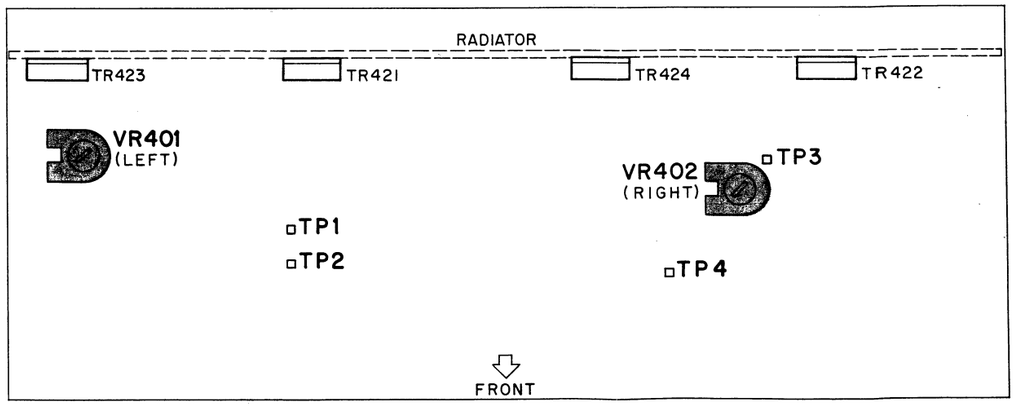
ADJUST AM SECTION AFTER ADJUSTMENT OF FM SECTION MADE CORRECTLY.

Step	ITEMS	ADJUSTING POINTS	SETTING EQUIPMENT	SETTING TUNER	RATED VALUE	METHOD (REMARKS)
1	LOW END TRACKING	T103	AM SG: 600kHz 80dBμ to 100dBμ	AM Ant. terminal 600kHz (pointer)		Connect AM SG to AM antenna terminal.
2	LOW END SENSITIVITY	T102	AM SG: -do.- 60dBμ	-do.-		Decrease AM SG output to 60dBμ.
3	HIGH END TRACKING	CTO	AM SG: 1350kHz 60dBμ	1350kHz (pointer)		CTO: Front-end pack, paralleled to AM OSC. V.C..
4	HIGH END SENSITIVITY	CTA	AM SG: -do.-	-do.-		CTA: Front-end pack, paralleled to AM ANT. V.C..
5	REPEAT ADJUSTMENT	T103 T102 CTO CTA	AM SG: 600kHz 1350kHz 60dBμ	600kHz 1350kHz	±1.5mm	The above adjustments are necessary to repeat 2 to 3 times until tracking error and differential of sensitivity between low and high end become minimum.
6	MID RANGE CONFIRMATION		AM SG: 950kHz	950kHz	±2mm	Confirm tracking error.

AMPLIFIER SECTION

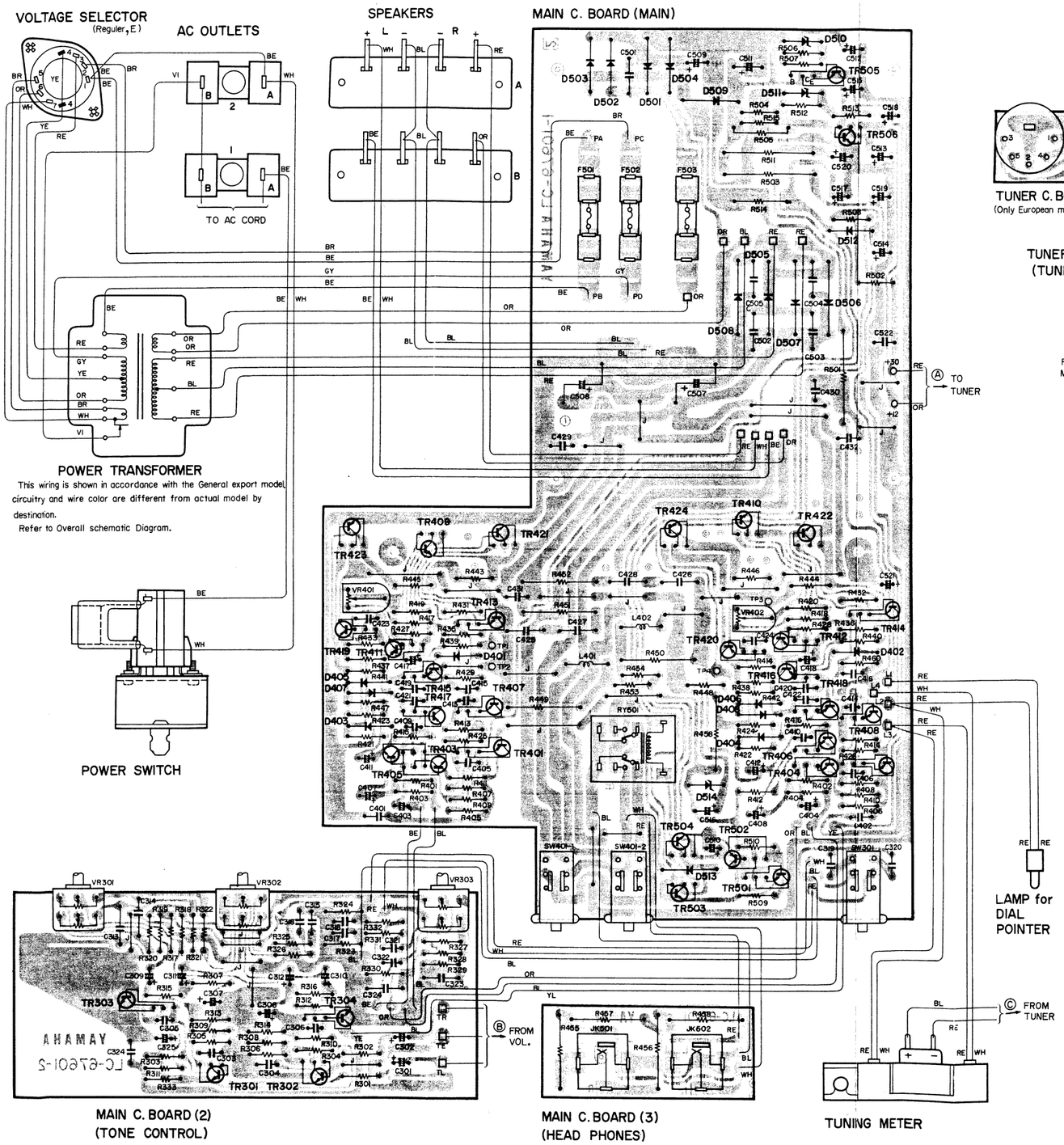
ITEM	ADJUSTING POINTS	SETTING EQUIPMENT	SETTING POINTS	RATED VALUE	METHOD
IDLING CURRENT	VR401 VR402	TESTER or ELECTRONIC VOLTMETER	TP1-TP2 TP3-TP4	20mV ±3mV	Adjust VR401 (Left) and VR402 (Right) so that the voltages between TP1-TP2 (Left), and TP3-TP4 (Right) become rated value as shown in left hand side.

ADJUSTING POINTS

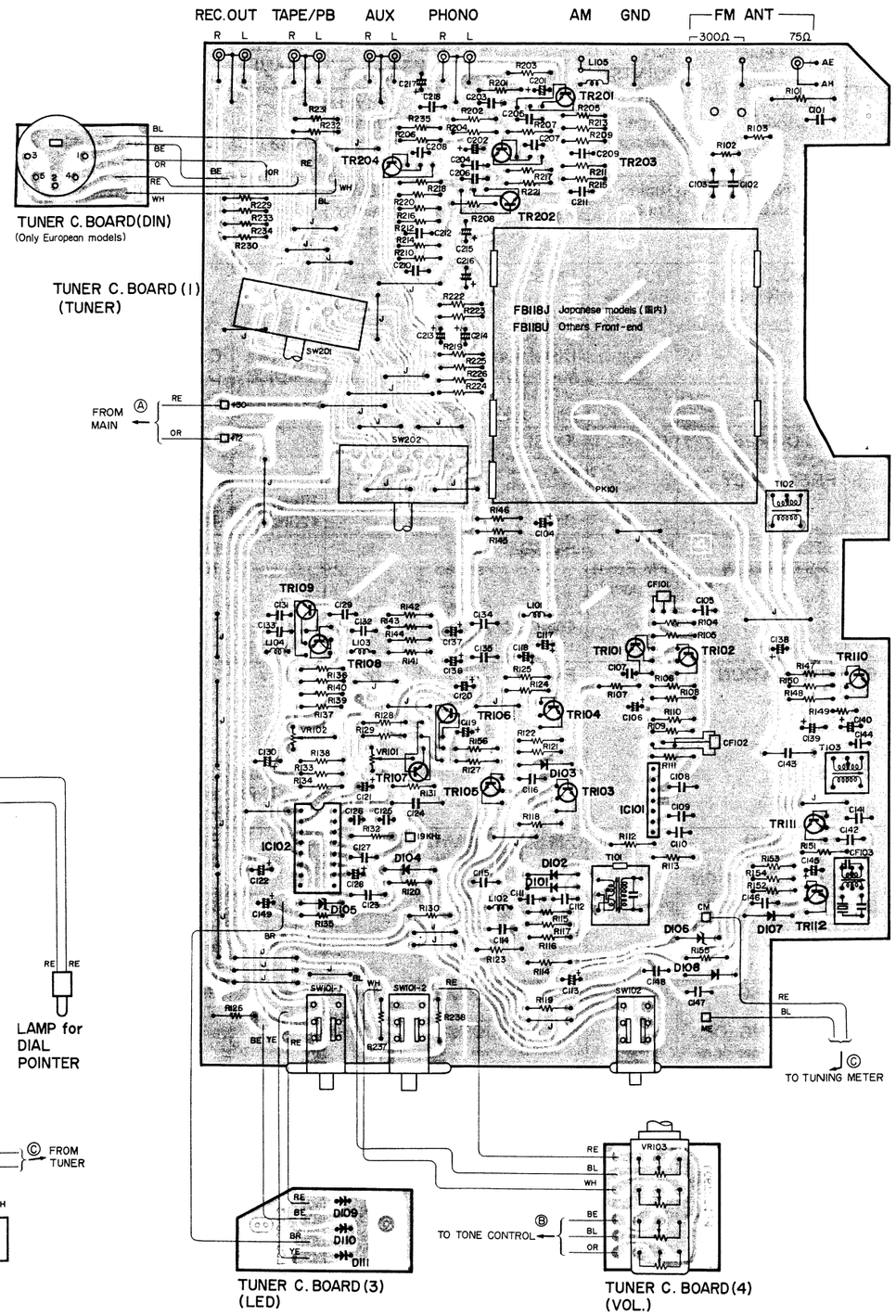


■CIRCUIT BOARDS/シート図

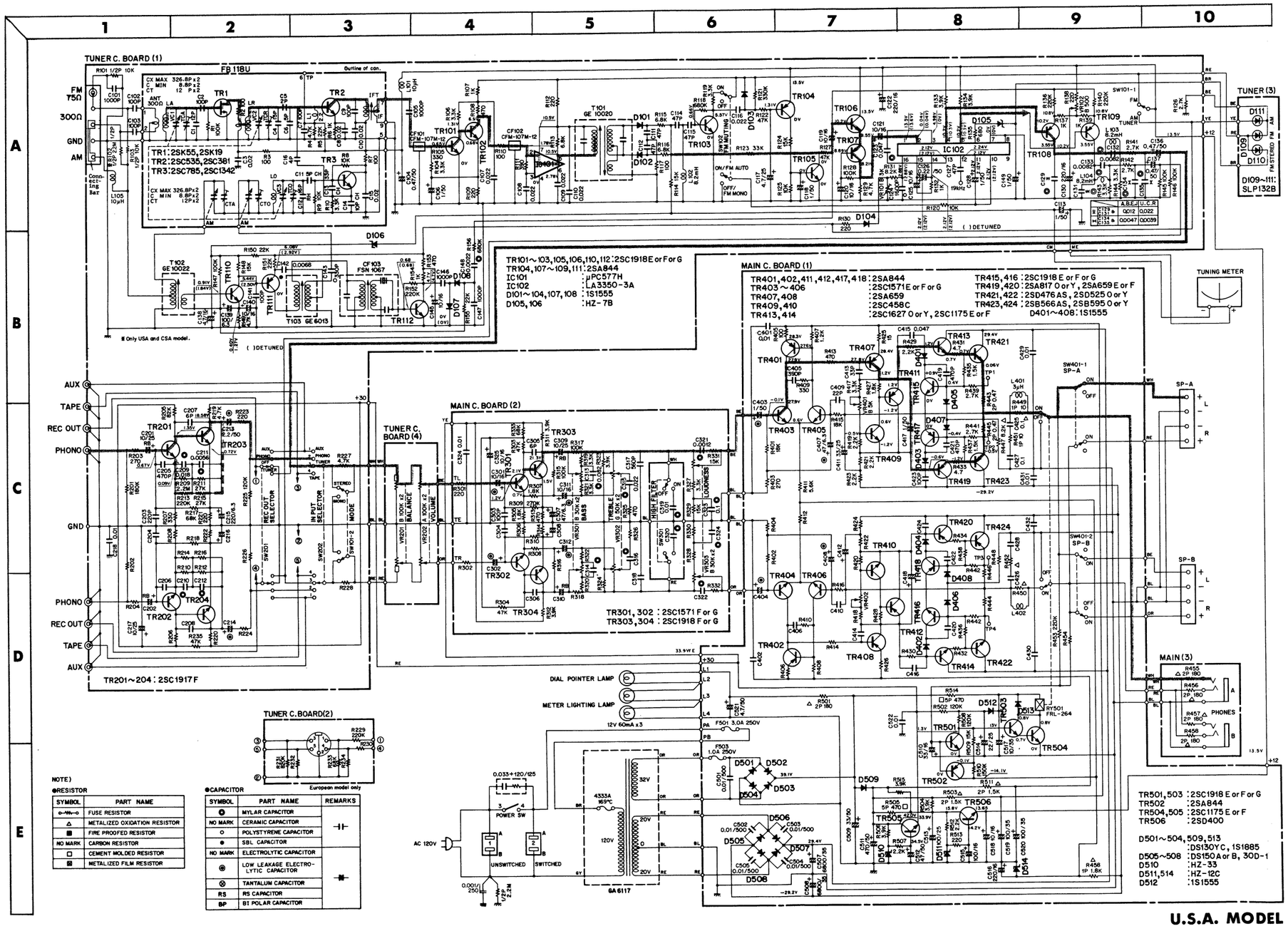
AMPLIFIER SECTION



TUNER SECTION



■SCHEMATIC DIAGRAM/総合回路図



NOTE)

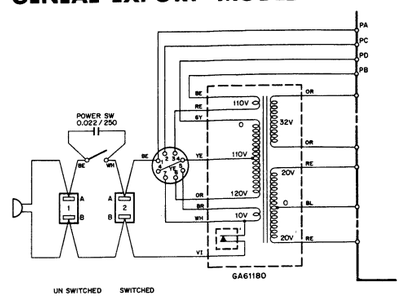
●RESISTOR

SYMBOL	PART NAME
○-W-○	FUSE RESISTOR
△	METALIZED OXIDATION RESISTOR
■	FIRE PROOFED RESISTOR
NO MARK	CARBON RESISTOR
□	CEMENT MOLDED RESISTOR
⊠	METALIZED FILM RESISTOR

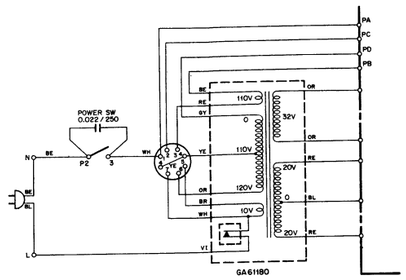
●CAPACITOR

SYMBOL	PART NAME	REMARKS
●	MYLAR CAPACITOR	⊣⊢
NO MARK	CERAMIC CAPACITOR	
○	POLYSTYRENE CAPACITOR	
◉	SBL CAPACITOR	
NO MARK	ELECTROLYTIC CAPACITOR	
◉	LOW LEAKAGE ELECTRO-LYTIC CAPACITOR	⊣⊢
⊗	TANTALUM CAPACITOR	
RS	RS CAPACITOR	
BP	BI POLAR CAPACITOR	

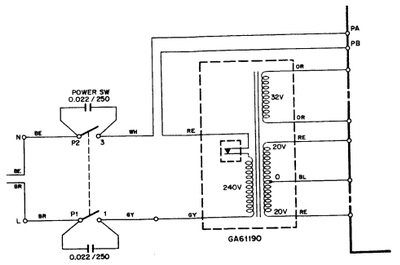
GENEAL EXPORT MODEL



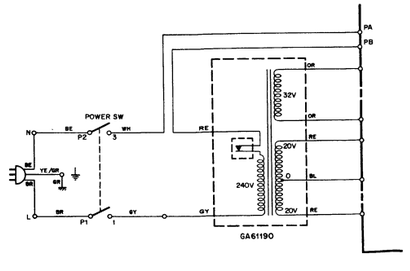
EUROPEAN MODEL



BRITISH MODEL

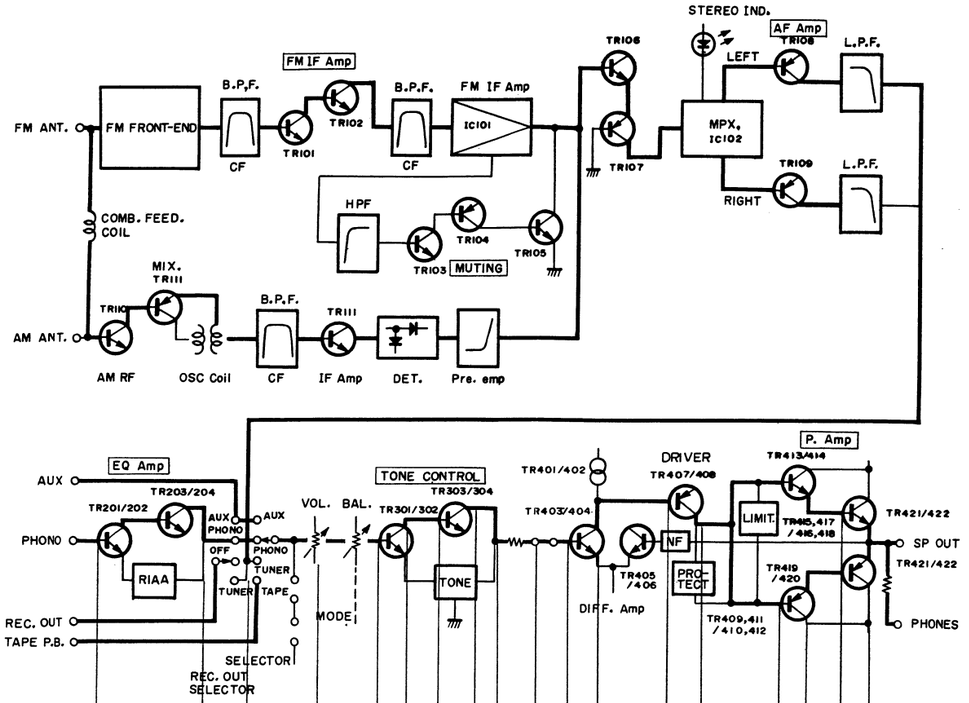


AUSTRALIAN MODEL

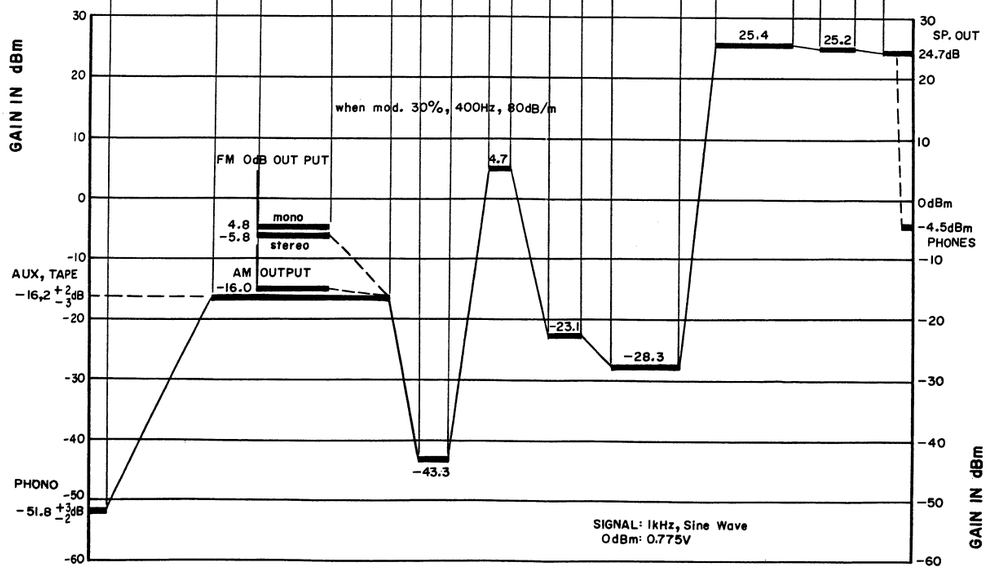


■BLOCKDIAGRAM, LEVEL DIAGAM/ブロックダイア, レベルダイア

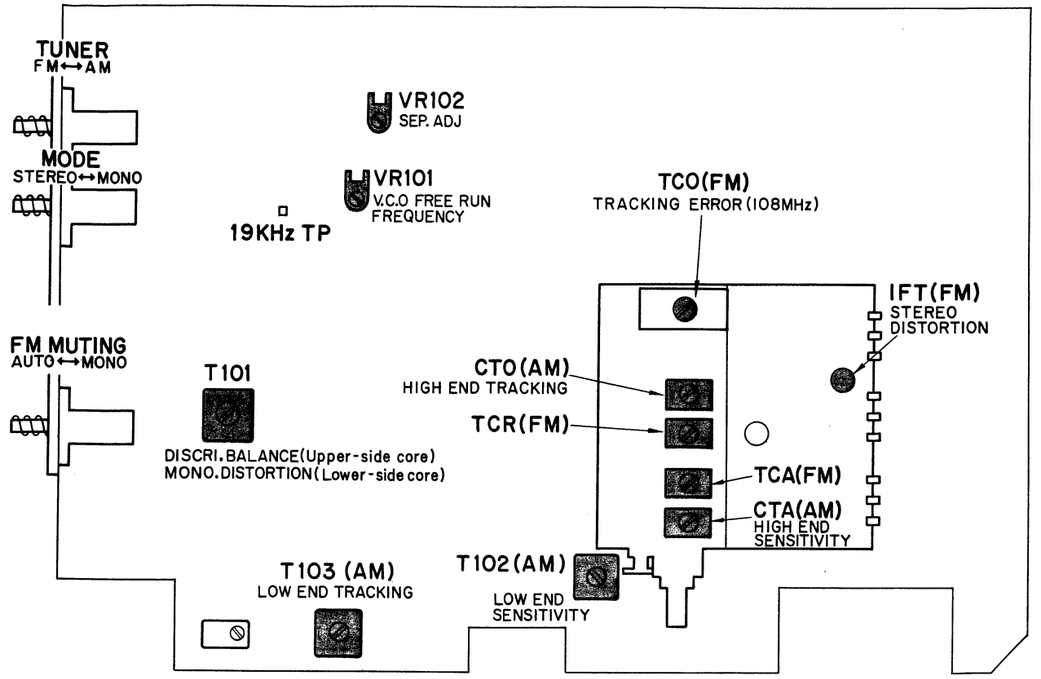
BLOCK DIAGRAM



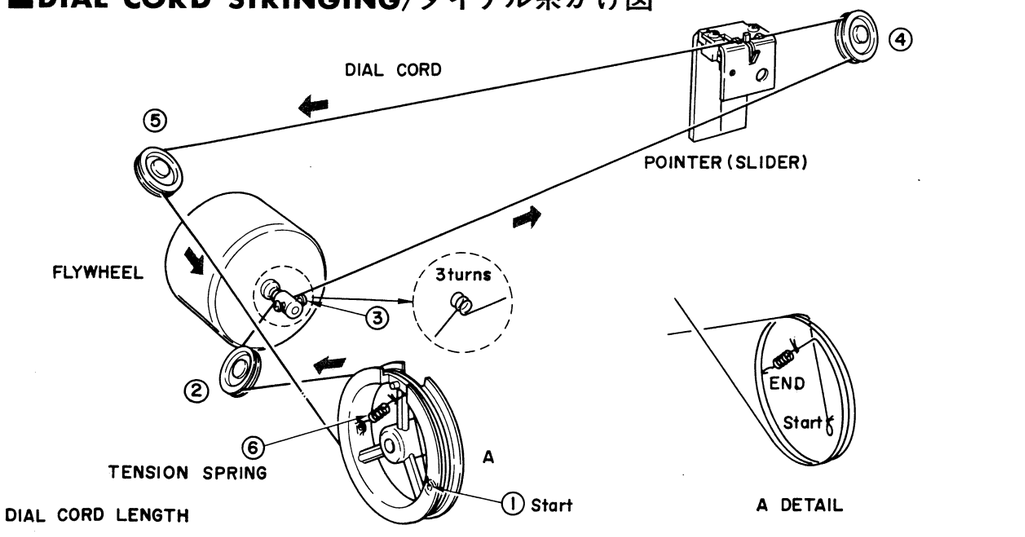
LEVEL DIAGRAM



■ADJUSTING POINTS/調整個所図

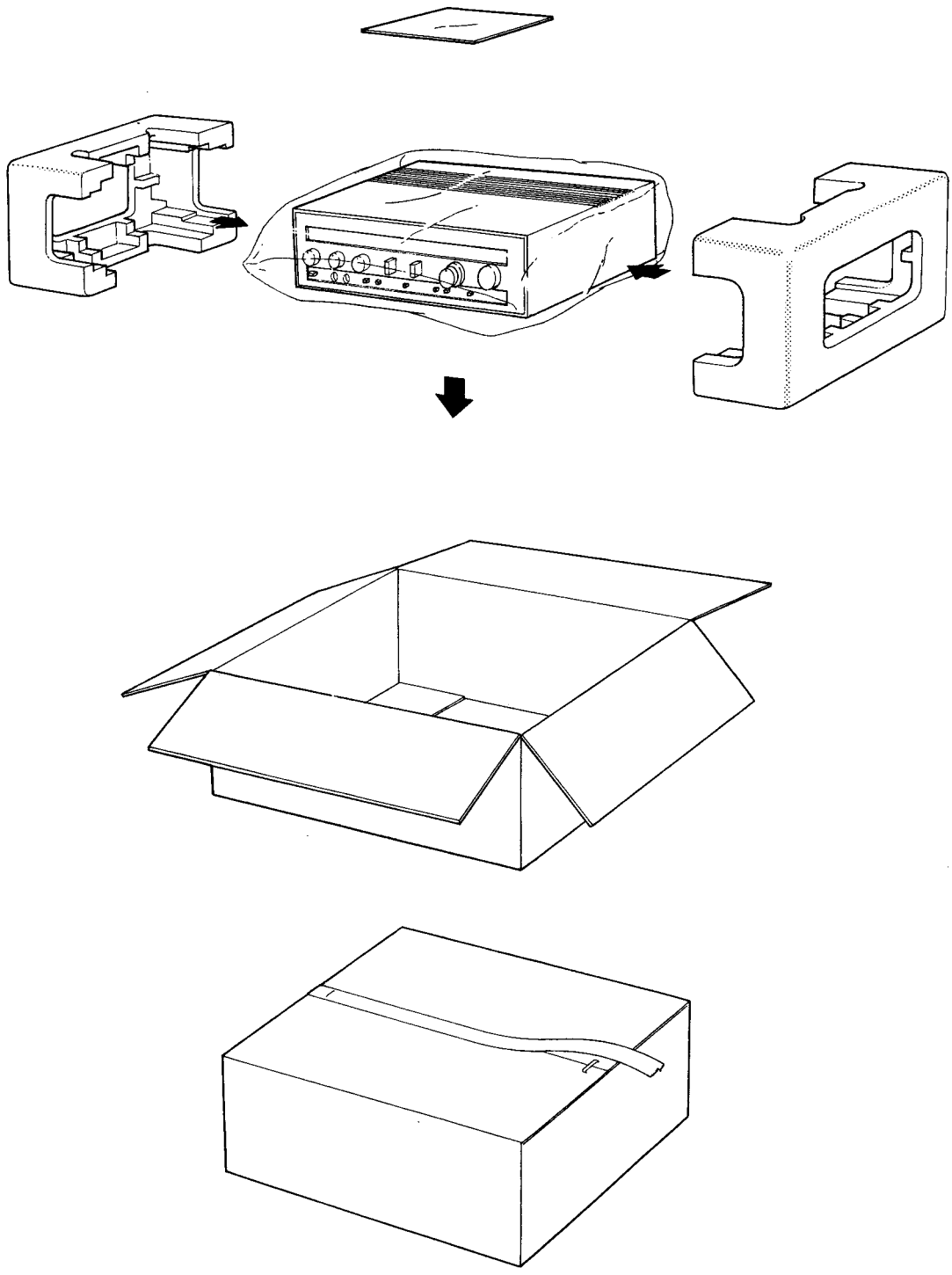


■DIAL CORD STRINGING/ダイアル糸かけ図

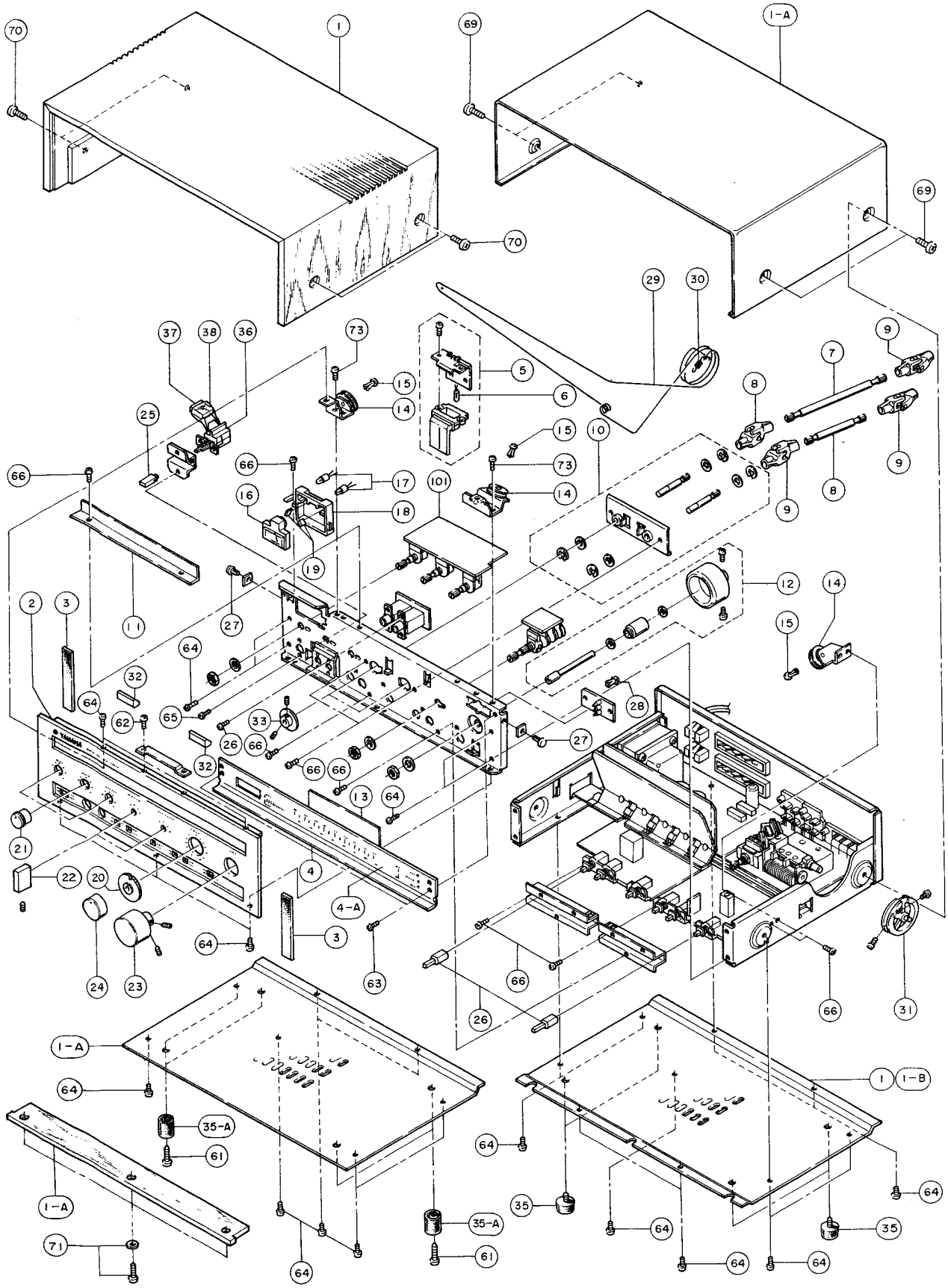


When tension spring expands to 20 ±1mm, proper dial cord tension (260 ±65gr) will be obtained.

■PACKAGE INSTRUCTION/梱包仕様



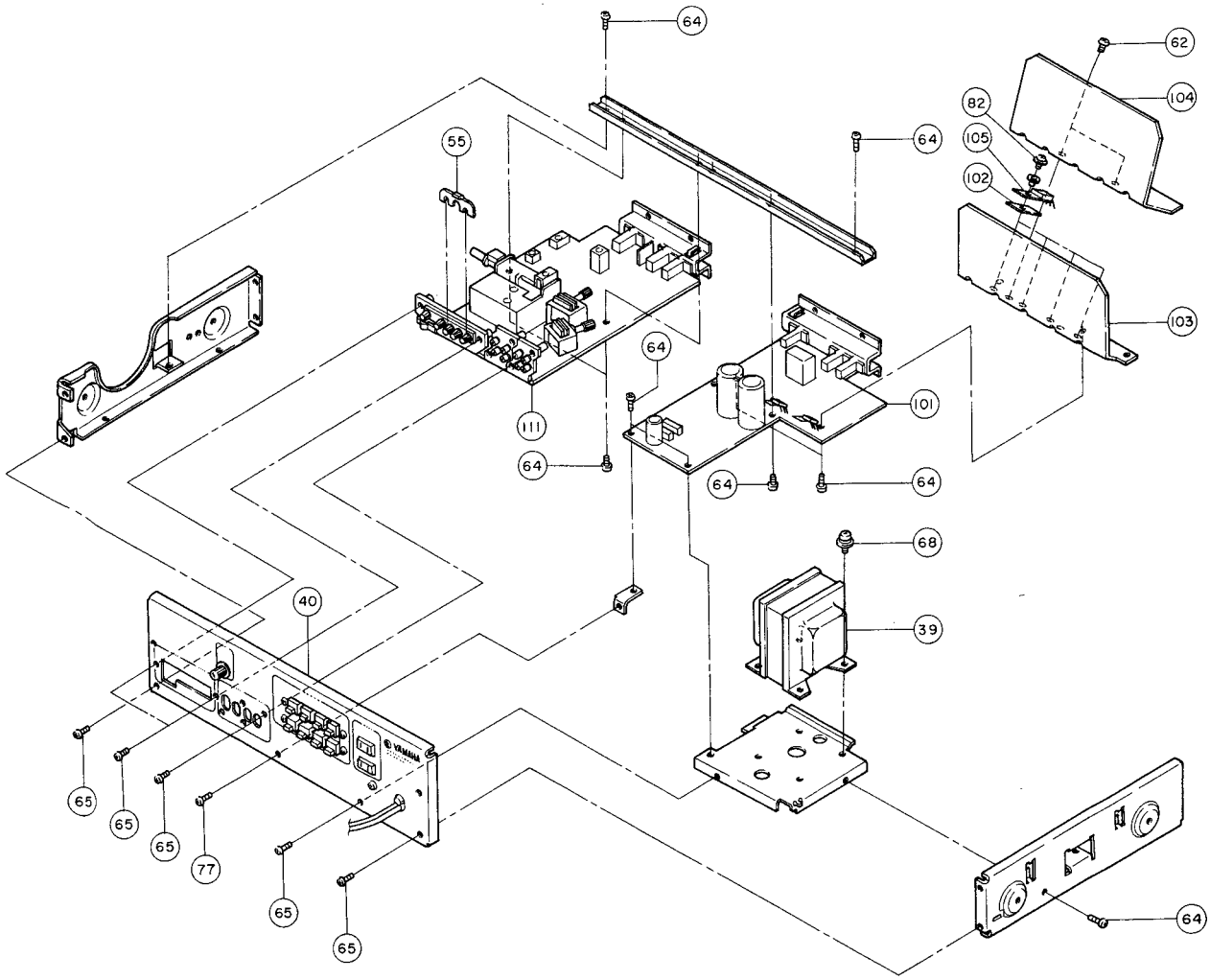
■EXPLODED VIEW (1)/分解図(1)



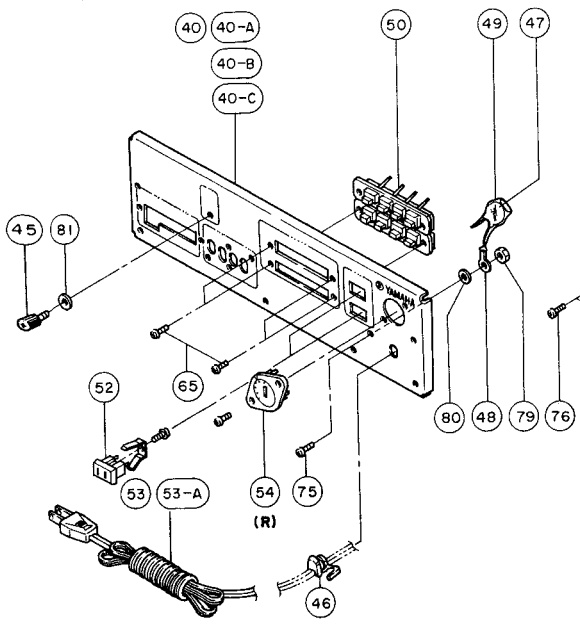
■PARTS LIST/パーツリスト

Ref. No.	Part No.	Description	部品名	Remarks	Common Models	卸価	小売価
1	32 00 00 90 61 67 10	Cabinet	外装組立	E,B			
	32 00 00 90 61 84 10	—do.—	〃	CR420BL			
	32 00 00 90 61 68 10	—do.—	〃	R,U,C,A			
A	32 00 00 AA 08 83 10	Top Cover #8831	トップカバー	J			
2	32 00 00 NB 08 05 70	Panel Unit	パネルユニット				
	32 00 00 NB 08 34 90	—do.—	〃	CR420BL			
3	42 00 00 CB 07 28 50	Damper #7285	遮光ダンパー		CR-400		
4	32 00 00 NB 08 05 80	Scale Plate Unit	目盛板ユニット	J			
A	32 00 00 NB 08 07 50	—do.—	〃				
	32 00 00 NB 08 35 00	—do.—	〃	CR420BL			
B	42 00 00 CB 07 41 80	String No.3	ナイロン線				
5	32 00 00 NB 08 08 70	Dial Pointer Unit	ダイアル指針ユニット	J,R,A,E,B			
	32 00 00 NB 08 08 80	—do.—	〃	U,C			
6	42 00 00 JB 00 00 90	Pilot Lamp W/Lead 12V60mA	パイロットランプリード式	J,R,A,E,B			
	42 00 00 JB 00 03 20	—do.— 12V60mA	〃	—do.—			
	42 00 00 JB 00 04 50	—do.— UL Lead AW28 12V60mA	〃	U,C			
7	32 00 00 BA 07 09 10	Extension Shaft(L) #7091	延長シャフト(L)				
8	32 00 00 BA 07 09 20	—do.— (S) #7092	延長シャフト(S)				
9	32 00 00 CB 07 79 40	Joint #7794	ジョイント		CA-1000Ⅲ		
10	32 00 00 AA 08 81 20	Shaft Unit #8812	シャフトユニット				
11	32 00 00 AA 08 51 70	Dial Pointer Rail #8517	指針レール		CR-620		
12	32 00 00 NB 07 81 50	Fly Wheel Ass'y	チューニングユニット				
13	42 00 00 CB 06 88 30	Double Face #6883	ダブルフェース		CR-400		
14	32 00 00 CB 07 58 40	Wheel #7584	滑車		CT-1000		
15	32 00 00 CB 07 78 90	Pulley-Clip No.513	プーリークリップ		—do.—		
16	42 00 00 Ji 00 07 30	Tuning Signal Meter	チューニングシグナルメーター				
	42 00 00 Ji 00 07 70	—do.—	〃	CR420BL			
17	42 00 00 JB 00 04 00	Pilot Lamp 12V60mA	パイロットランプ				
18	32 00 00 CB 08 16 70	Meter Holder #8167	メーターホルダー				
19	32 00 00 CB 07 93 10	Color Plate #7931	カラープレート		CR-2020		
20	32 00 00 BA 07 09 00	Knob Balance #7090	バランスツマミ				
	32 00 00 BA 07 22 20	—do.— #7222	〃	CR420BL			
21	32 00 00 BA 06 65 50	Knob #6655	ツマミ		CR-450		
	32 00 00 BA 07 04 80	—do.— #7048	〃	CR420BL			
22	32 00 00 BA 06 77 90	Knob, Switch #6779	スイッチツマミ		CA-610		
	32 00 00 BA 06 85 50	—do.— #6855	〃	CR420BL			
23	32 00 00 BA 06 98 50	Knob, Tuning #6985	チューニングツマミ		CR-620		
	32 00 00 BA 07 22 00	—do.— #7220	〃	CR420BL			
24	32 00 00 BA 07 98 60	Knob, Volume #6986	ボリュームツマミ		CR-620		
	32 00 00 BA 07 22 10	—do.— #7221	〃	CR420BL			
25	32 00 00 CB 08 16 80	Power Button #8168	パワーボタン				
	32 00 00 CB 08 36 30	—do.— #8363	〃	CR420BL			
26	32 00 00 CB 08 16 90	Push Button #8169	プッシュボタン				
	32 00 00 CB 08 36 20	—do.— #8362	〃	CR420BL			
27	32 00 00 CB 08 17 00	Clip #8170	クリップ	R,U,C,A			
	32 00 00 CB 08 17 30	—do.— #8173	〃	E,B,J			
28	42 00 00 CB 06 88 80	Plastic Rivet φ35 #6888	プラスチックリベット	J,U,C,A,B,R,E			
29	42 00 00 CB 07 70 70	Dial String φ0.39×1.5m	ダイアル糸				
30	32 00 00 AA 08 98 60	Dial Spring #8986	ダイアルスプリング		CR-450		

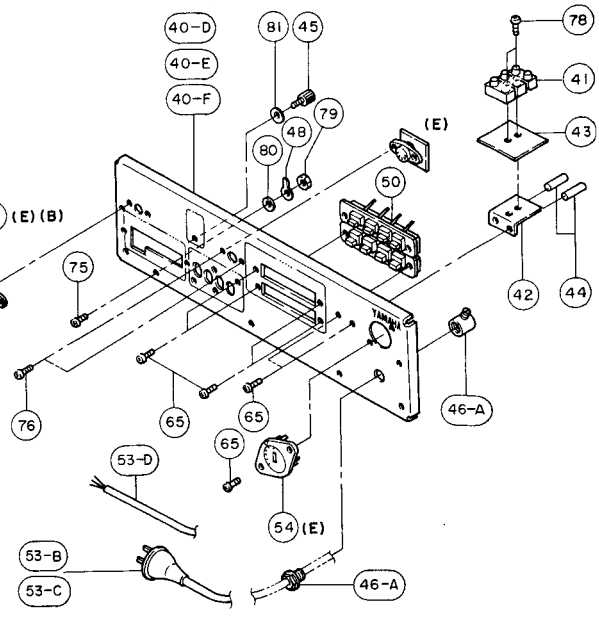
■EXPLODED VIEW (2)/分解図(2)



U.S.A(U), CANADIAN(C), JAPANESE(J) & GENERAL EXPORT(R)MODEL



BRITISH, EUROPEAN(E) & AUSTRALIAN(A) MODEL



■PARTS LIST/パーツリスト

Ref. No.	Part No.	Description	部品名	Remarks	Common Models	卸価	小売価
31	32 00 00 C B 07 92 60	Pulley, Variable Capacitor #7926	バリコンプーリー		CR-2020		
32	32 00 00 C B 07 93 20	Spacer, Warp Prevention #7932	反り止めスペーサー	R,U,C,A	—do.—		
33	32 00 00 C B 07 93 90	Switch Limiter #7939	スイッチリミッター		CR-820		
35	42 00 00 C B 07 25 10	Main Leg	トランレッグ(A)	R,U,C,A	B-1		
A	32 00 00 C B 08 13 90	Leg #8139	脚	J,E,B	CT-610II		
36	42 00 00 K A 80 03 60	Push Switch SDV TV-5	プッシュスイッチ	J,R,U,C			
	42 00 00 K A 80 02 10	—do.— SDG-5P 250V4A	//	A,E,B			
37	42 00 00 F H 23 41 00	Ceramic Capacitor YZ(P) 0.01/500	セラミックコンデンサー	J	TB-700		
	42 00 00 F Z 00 01 10	Spark Killer AC125V 0.033+120	スパークキラー	U			
	42 00 00 F Z 00 06 90	—do.— (Y) 250V 0.022μF	//	E,R,B			
	42 00 00 F Z 00 11 20	Spark Killer 125V 0.033+120	スパークキラー	C			
38	42 00 00 C B 07 21 90	Cover for Capacitor 820826	コンデンサーカバー角型	R,U,E,B	CT-400		
	42 00 00 C B 08 19 40	—do.— SB-0632E-A	//	C			
39	42 00 00 G A 61 17 00	Power Transformer	電源トランス	U,C			
	42 00 00 G A 61 19 00	—do.—	//	A,B			
	42 00 00 G A 61 21 00	—do.—	//	J			
	42 00 00 G A 61 18 00	—do.—	//	R,E			
40	32 00 00 A A 08 80 10	Rear Panel #8801	リヤパネル	J			
A	32 00 00 A A 08 80 20	—do.— #8802	//	R			
B	32 00 00 A A 08 80 30	—do.— #8803	//	U			
C	32 00 00 A A 08 80 50	—do.— #8805	//	C			
D	32 00 00 A A 08 80 70	—do.— #8807	//	A			
E	32 00 00 A A 08 80 80	—do.— #8808	//	E			
F	32 00 00 A A 08 80 90	—do.— #8809	//	B			
41	42 00 00 L A 00 10 40	Board, Terminal	3P中継端子台	A,E,B			
42	32 00 00 A A 08 46 20	Terminal Stay #8462	端子ステイ	A,E,B	CA-R1		
43	32 00 00 C B 07 65 90	Isolation Plate #7659	絶縁板	A,E,B	CT-800		
44	42 00 00 C B 07 82 50	Cover 3S	ビスカバー	E,A			
45	32 00 00 A A 08 73 20	GND Terminal #8732	GNDターミナル		CA-610II		
46	42 00 00 C B 06 86 30	Cord Stopper SR-3P-4	コードストッパー	J,R,U,C	CA-1000		
A	42 00 00 C B 07 06 90	—do.— EA-5	//	A,E,B			
47	42 00 00 F i 16 31 00	Ceramic Capcitor 0.001μF 150V DD1211E	セラミックコンデンサー	J			
	42 00 00 F Z 00 11 00	—do.— 0.001μF 125V	ラインバイパスコンデンサー	U,C			
48	42 00 00 L A 00 02 80	Lug Terminal 3mm	アースラグ	J,U,C,A			
49	42 00 00 C B 07 21 80	Capaitor Cover 811609	コンデンサーカバー丸型	J,R,U,C	CA-1000		
50	42 00 00 L A 00 18 80	4P Puch Terminal SPC×Q-2391	4Pプッシュターミナル				
51	42 00 00 L B 20 12 00	75Ω Coaxial Cable Socket	75Ω同軸コネクターソケット	E,B	CA-400		
52	42 00 00 L B 20 07 10	AC Socket, Spring-type S-16440 SD-6429	ACアウトレットバネ式	U,C			
	42 00 00 L B 20 09 10	—do.—	ACアウトレットワンタッチ	J,R			
53	42 00 00 MG 00 03 40	AC Cord P-07-64 #188F	電源コード	R,U,C			
A	42 00 00 MG 00 04 10	—do.—	//	J			
B	42 00 00 MG 00 02 90	—do.— #1272	//	E			
C	42 00 00 MG 00 05 00	—do.— SA-1	//	A			
D	42 00 00 MZ 06 78 40	AC Cord Ass'y for BS #6784	BS用電源コードAss'y	B			
54	42 00 00 L B 20 02 60	Voltage Selector Type II SWP033-3023	電圧切換器		CR-620		
55	32 00 00 B B 06 62 20	**Connecting Bar**	アッテネータ金具	J,R,U,C,A,B,E			

Ref. No.	Part No.	Description	部品名	Remarks	Common Models	卸価	小売価
61	42 00 00 EN 02 00 10	Pan Head Tapping Screw 4×20	鉄ナベタッピングネジ 2種みぞ	ZMC2-Y R,U,C,A			
62	42 00 00 EN 03 00 10	—do.— 3×6	鉄バインドタッピングネジ 2種みぞ	—do.— R,U,C,E,B,A			
63	42 00 00 EN 13 00 10	—do.— 3×6	//	FCrM3-3g			
64	42 00 00 EN 03 00 20	—do.— 3×8	//	ZMC2-Y R,U,C,A, J,E,B			
65	42 00 00 EN 34 00 10	—do.— 3×8	鉄バインドボンディグタッピングネジ 2種みぞ	FCM3-Bℓ			
66	42 00 00 ED 03 00 60	Bind Head Screw 3×6	鉄バインド小ネジ	ZMC2-Y			
67	42 00 00 ED 43 00 80	—do.— 2×8	//	FCM3-Bℓ E,B			
68	42 00 00 EH 04 00 80	Pan Head Sems Type Screw 3Piecies 4×8	鉄セムスナベ小ネジ (スリーピース)	ZMC2-Y			
69	42 00 00 ED 45 01 00	Bind Head Screw 5×10	鉄バイド小ネジ	FCM3-Bℓ J			
70	42 00 00 ED 45 02 00	—do.— 5×20	//	—do.— R,U,C,A,E,B			
71	42 00 00 EN 36 00 10	Pan Head Tapping Screw, Sems, Type II 3×16	鉄セムスナベタッピングネジ 2種みぞなし	—do.— —do.—			
72	42 00 00 EZ 00 05 00	Blaze Washer Head Screw 5×12	鉄ブレザーワッシャーヘッド小ネジ	FNM3-3g J			
73	42 00 00 Ei 03 00 60	Bind Head Tapping Screw Type II 3×6	鉄バインドタッピングネジ	ZMC2-Y			
74	42 00 00 EN 33 00 10	Pan Head Tapping Screw, Type II 3×8	鉄バインドタッピングネジ 2種みぞ	FCM3-Bℓ J,R,U,C, A,E,B			
75	42 00 00 EN 33 00 10	—do.— Type III 3×8	鉄バインドタッピングネジ 3種みぞ	FCM3-Bℓ J,R,U,C, A,E,B			
76	42 00 00 EN 32 00 10	—do.— 2.6×8	鉄ナベタッピングネジ 2種みぞ	—do.— E			
77	42 00 00 ED 43 00 60	Bind Head Screw 3×6	鉄バインド小ネジ	—do.—			
78	42 00 00 ED 03 01 60	—do.— 3×16	//	ZMC2-Y A,E,B			
79	42 00 00 EV 10 03 00	Hexagonal Nut 3	鉄六角ナット	—do.— J,U,C, R,A,E,B			
80	42 00 00 EV 41 03 00	Toothed Lock Washer 3	鉄内歯形歯付座金	—do.— J,U,C			
81	42 00 00 EV 90 13 60	Sems Type Plain Washer ϕ3.6×ϕ10×t0.8	鉄セムス平座金	FNM3-3g			
82	42 00 00 EH 02 60 80	Pan Head Sems Type Screw (Double Cums) 2.6×8	鉄セムスナベ小ネジ (ダブルカムス)	ZMC2-Y			

Ref. No.	Part No.	Description	部品名	Remarks	Common Models	卸価	小売価
101	32 00 00 NA 07 03 80	Main Circuit Board	メインシート	CR-420BL			
	32 00 00 NA 06 96 70	—do.—	//	J			
	32 00 00 NA 06 96 80	—do.—	//	R			
	32 00 00 NA 06 96 90	—do.—	//	U,C			
	32 00 00 NA 06 97 00	—do.—	//	A			
	32 00 00 NA 06 98 30	—do.—	//	E			
	32 00 00 NA 06 98 40	—do.—	//	B			
102	42 00 00 iL 00 02 70	Insulator AC229	ベース				
103	32 00 00 BA 07 08 80	Radiator #7088	ラジエーター				
104	32 00 00 BA 07 71 34	Sub Radiator #7134	サブラジエーター	J,C			
	32 00 00 BA 07 08 90	—do.— #7089	//	R,U,A,E,B			
	32 00 00 CB 07 28 80	Isolation Bush #7288	絶縁ブッシュ				
105	42 00 00 FG 71 06 00	Ceramic Capacitor 6P 50VSL(K)	セラミックコンデンサー				
	42 00 00 FG 71 12 20	—do.— 22P 50VSL(K)	//				
	42 00 00 FG 71 13 30	—do.— 33P 50VSL(K)	//				
	42 00 00 FG 71 21 00	—do.— 100P 50VSL(K)	//				
	42 00 00 FG 71 23 90	—do.— 390P 50VSL(K)	//				
	42 00 00 FG 71 24 70	—do.— 470P 50VSL(K)	//	R,U,A,C,E,B			
	42 00 00 FG 71 25 60	—do.— 560P YB(K)	//				
	42 00 00 FG 71 44 70	—do.— 0.047μF YZ(Z)	//				
	42 00 00 FG 14 41 00	—do.— 0.01μF YZ(Z)	//				
	42 00 00 FG 24 51 00	—do.— 0.1μF YM(Z)	//				
	42 00 00 FH 23 41 00	—do.— 0.01μF 500V YZ(P)	//				
	42 00 00 FJ 41 74 70	Electrolytic Capacitor Vert. 47μF 6.3V	ケミコンタテ型				
	42 00 00 FJ 43 71 00	—do.— 10μF 16V	//				
	42 00 00 FJ 33 73 30	—do.— 33μF 16V	//				
	42 00 00 FJ 33 81 00	—do.— 100μF 16V	//				
	42 00 00 FJ 33 82 20	—do.— 220μF 16V	//				
	42 00 00 FJ 44 72 20	—do.— 22μF 25V	//				
	42 00 00 FJ 34 73 30	—do.— 33μF 25V	//				
	42 00 00 FJ 34 81 00	—do.— 100μF 25V	//				
	42 00 00 FJ 45 71 00	—do.— 10μF 35V	//				
	42 00 00 FJ 35 81 00	—do.— 100μF 35V	//				
	42 00 00 FJ 46 61 00	—do.— 1μF 50V	//				
	42 00 00 FJ 36 74 70	—do.— 47μF 50V	//				
	42 00 00 FJ 46 64 70	—do.— 4.7μF 50V	//				
	42 00 00 FJ 16 84 70	—do.— 470μF 50V	//				
	42 00 00 FZ 00 08 30	Electrolytic Capacitor MS Vert. 47μF 6.3V	ケミコンタテMS型				
	42 00 00 FZ 00 04 70	—do.— 10μF 16V	//				
	42 00 00 FZ 00 05 70	—do.— 1μF 50V	//				
	42 00 00 FJ 36 73 30	Elcctrolytic Capacitor Vert. 33μF 50V	ケミコンタテ型				
	42 00 00 FZ 00 09 80	Elcctrolytic Capacitor RB Vert. 10μF 25V	ケミコンタテRB型				
	42 00 00 FM 45 96 80	Electrolytic Capacitor TS 6800μF 35V	ケミコン基板型				
	42 00 00 HT 37 00 50	Variable Resistor V8K4-1 B5KΩ	半固定VR				
	42 00 00 HL 61 41 00	Metal Oxide Film Resistor 10Ω	酸金抵抗				
	42 00 00 HL 61 61 80	—do.— 1.8KΩ	//				
	42 00 00 HL 42 51 80	—do.— 180Ω	//				
	42 00 00 HL 62 61 50	—do.— 1.5KΩ	//				
	42 00 00 HL 62 51 80	—do.— 180Ω	//				

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Models	卸価	小売価
	42 00 00 HZ 00 00 30	Metal Film Resistor 0.47Ω	金属板抵抗				
	42 00 00 HM 05 54 70	Cement Molded Resistor 5W 470Ω	セメント抵抗				
	42 00 00 iA 07 33 00	Transistor 2SA733	トランジスター	R,U,C,A,E,B TR417,418			
	42 00 00 iA 08 44 00	—do.— 2SA844	//	—do.—			
	42 00 00 iA 06 59 10	—do.— 2SA659	//	TR487,488			
	42 00 00 iA 08 17 00	—do.— 2SA817	//	TR419,420			
	42 00 00 iA 06 59 10	—do.— 2SA659	//	—do.—			
	42 00 00 iA 07 33 00	—do.— 2SA733	//	TR401,402,411,412,502			
	42 00 00 iA 08 44 00	—do.— 2SA844	//	—do.—			
	42 00 00 iB 05 66 20	—do.— 2SB566	//	TR423,424			
	42 00 00 iB 05 95 20	—do.— 2SB595	//	—do.—			
	42 00 00 iC 04 58 80	—do.— 2SC458	//	TR409,410			
	42 00 00 iC 11 75 10	—do.— 2SC1175	//	TR504,505			
	42 00 00 iC 15 71 40	—do.— 2SC1571	//	TR301,302,403～406			
	42 00 00 iC 19 18 00	—do.— 2SC1918	//	R,U,C,A,E,B TR415,416			
	42 00 00 iC 19 18 00	—do.— 2SC1918	//	TR501,503			
	42 00 00 iC 19 18 40	—do.— 2SC1918	//	TR303,304			
	42 00 00 iC 16 27 00	—do.— 2SC1627	//	TR413,414			
	42 00 00 iC 11 75 10	—do.— 2SC1175	//	—do.—			
	42 00 00 iD 04 00 00	—do.— 2SD400	//	TR506			
	42 00 00 iD 04 76 20	—do.— 2SD476	//	TR421,422			
	42 00 00 iD 05 25 20	—do.— 2SD525	//	—do.—			
	42 00 00 iF 00 00 40	Diode 1S1555	ダイオード	R,U,C,A,E,B D401～408			
	42 00 00 iF 00 00 40	—do.— 1S1555	//	D512			
	42 00 00 iH 00 06 50	—do.— DS-130Y	//	D501～504,509,513			
	42 00 00 iH 00 02 40	—do.— 1S-1885	//	—do.—			
	42 00 00 iH 00 06 60	—do.— DS-150	//	D505～508			
	42 00 00 iH 00 06 00	—do.— 30D-1	//	—do.—			
	42 00 00 iF 00 09 40	Zener Diode HZ-33	ツェナーダイオード	D510			
	42 00 00 iF 00 05 50	—do.— HZ-12C	//	D511,514			
	42 00 00 GD 90 00 50	Coil 3μH	コイル				
	42 00 00 HS 31 01 30	Variable Resistor 50KΩ	ボリューム				
	42 00 00 HS 11 02 20	—do.— 50KΩ 5BM	//				
	42 00 00 HS 31 01 40	—do.— 30KΩ B	//				
	42 00 00 KB 00 03 30	Fuse 1AT 250V	ヒューズタイラッシュ	A,R,J			
	42 00 00 KB 00 10 60	Fuse UL 1AT 250V	ヒューズULST-4	U,C			
	42 00 00 KB 00 06 70	Miniature Fuse 630mAT 250V	ヒューズ(S)タイムラグ	E,B			
	42 00 00 KB 00 03 40	Fuse 1.5AT 250V	ヒューズタイラッシュ	A			
	42 00 00 KB 00 03 40	—do.— 1.5AT 250V	//	R			
	42 00 00 KB 00 10 40	Fuse UL 3A 250V	ヒューズULSS-2	U,C			
	42 00 00 KB 00 07 30	Miniature Fuse 1.0AT 250V	ヒューズ(S)タイムラグ	E			
	42 00 00 KB 00 07 30	—do.— 1.0AT 250V	//	B			
	42 00 00 KB 00 03 60	Fuse 3.0AT 250V	ヒューズタイラッシュ	J			
	42 00 00 KA 80 02 60	Push Switch SUE	プッシュスイッチ				
	42 00 00 KA 80 03 40	—do.— i=1A	//				
	42 00 00 KC 00 04 20	Relay FRL-264	リレー				
	42 00 00 LB 30 04 80	Head-phone Jack	ホーンジャック				
	42 00 00 LB 30 06 80	—do.—	//	CR420BL			
	42 00 00 LB 20 09 00	Fuse Holder Pin	ヒューズホルダーピン	U,C,A,R			

Ref. No.	Part No.	Description	部品名	Remarks	Common Models	卸価	小売価
	42 00 00 iG 00 24 10	IC LA3350-3A	MPX iC	IC102	CT-610II		
	42 00 00 KA 50 08 20	Rotary Switch SRA-124	ロータリースイッチ				
III	32 00 00 NA 06 96 30	**Tuner Circuit Board**	チューナーシート	J			
	32 00 00 NA 06 96 40	—do.—	//	R			
	32 00 00 NA 06 96 50	—do.—	//	A,B			
	32 00 00 NA 06 96 60	—do.—	//	E			
	32 00 00 NA 06 98 20	—do.—	//	U,C			
	42 00 00 FE 15 23 30	Polystyrene Capacitor Tubl. 33PF	スチコンヨコ型				
	42 00 00 FE 15 31 60	—do.— 1600PF	//				
	42 00 00 FG 71 06 00	Ceramic Capacitor 6PF 50VSL(K)	セラミックコンデンサー				
	42 00 00 FG 71 14 70	—do.— 47PF 50VSL(K)	//				
	42 00 00 FG 71 21 00	—do.— 100PF 50VSL(K)	//				
	42 00 00 FG 71 22 20	—do.— 220PF 50VSL(K)	//				
	42 00 00 FG 71 24 70	—do.— 470PF 50VSL(K)	//				
	42 00 00 FG 14 31 00	—do.— 1000PF 50VSL(K)	//				
	42 00 00 FG 24 42 20	—do.— 0.022μF 50VSL(K)	//				
	42 00 00 FG 14 41 00	—do.— 0.01μF 50VSL(K)	//				
	42 00 00 FJ 44 71 00	Electrolytic Capacitor Vert. 10μF 25V	ケミコンタテ型				
	42 00 00 FJ 31 74 70	—do.— 47μF 6.3V	//				
	42 00 00 FJ 31 82 20	—do.— 220μF 6.3V	//				
	42 00 00 FJ 43 71 00	—do.— 10μF 16V	//				
	42 00 00 FJ 33 82 20	—do.— 220μF 16V	//				
	42 00 00 FJ 44 64 70	—do.— 4.7μF 25V	//				
	42 00 00 FJ 46 54 70	—do.— 0.47μF 50V	//				
	42 00 00 FJ 46 52 20	—do.— 0.22μF 50V	//				
	42 00 00 FJ 46 61 00	—do.— 1μF 50V	//				
	42 00 00 FJ 33 74 70	—do.— 47μF 16V	//				
	42 00 00 FZ 00 09 80	Electrolytic Capacitor RB Vert. 10μF 25V	ケミコンRB型				
	42 00 00 FZ 00 09 00	Electrolytic Capacitor MS 2.2μF 50V	ケミコンMS型				
	42 00 00 FS 11 36 80	SBL Capacitor 0.0068μF 50V(K)	SBLコンデンサー				
	42 00 00 GE 30 01 50	RF Inducitor Coil 8.2mH	RFインダイター				
	42 00 00 GE 10 02 00	FM Discriminater Coil GE10020	ディスクリコイル				
	42 00 00 GE 10 01 50	OSC Coil GE6013	OSCコイル				
	42 00 00 GE 10 02 20	AM Antenna Coil 10022	アンテナコイル				
	42 00 00 GE 30 01 30	RF Inductor Coil 10μH	RFインダクター				
	42 00 00 GG 00 00 20	Ceramic Filter CFM-107M-12	FMセラミックフィルター				
	42 00 00 GG 00 00 80	—do.— FSN-1067	AMセラミックフィルター				
	42 00 00 HT 37 00 40	Variable Resistor V8K4-1 B500Ω	半固定ボリューム				
	42 00 00 HT 37 00 70	—do.— V8K4-1 B3KΩ	//				
	42 00 00 HS 31 01 50	—do.— 100KΩ A×2 100KΩ B×2	ボリューム				
	42 00 00 iA 08 44 00	Transistor 2SA844	トランジスター	TR104,107,108,109,111			
	42 00 00 iA 07 33 00	—do.— 2SA733	//	TR104,107,108,109			
	42 00 00 iC 19 17 20	—do.— 2SC1917	//	TR201~204			
	42 00 00 iC 19 18 00	—do.— 2SC1918	//	TR101~103, 105,110,112			
	42 00 00 iC 19 18 40	—do.— 2SC1918	//	TR106			
	42 00 00 iF 00 00 40	Diode 1S1555	ダイオード	D101~104,107,108			
	42 00 00 iF 00 06 40	Zener Diode Hz-7B	ツェナーダイオード	D105,106			
	42 00 00 iF 00 06 80	LED SLP-132B	LED	D109~111			
	42 00 00 iG 00 03 90	IC μPC577H	FM IF iC	IC101			

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Models	卸価	小売価
	42 00 00 LB 20 10 60	Fuse Holder Pin	〃	E,B			
	42 00 00 AA 00 12 80	Wire Lapping Pin	ワイヤーラッピング用ピン	J,U,C,A,R,E			
	42 00 00 KA 80 02 60	Push Switch SUE	プッシュスイッチ				
	42 00 00 KA 80 02 80	－do.－ SUE	〃				
	42 00 00 LA 00 19 50	Antenna Terminal	アンテナ端子板				
	42 00 00 LB 40 03 10	4P Pin Juck PC L-Type PC-4P	ピンジャック		CA-V1		
	42 00 00 LB 50 01 90	DIN Connector Socket	DINコネクター	E			
	32 00 00 CB 07 93 00	LED Spacer #7930	LEDスペーサー		CR-2020		
	42 00 00 PA 00 03 30	RF Pack FB118 U14	パック	U,C,R,E,B,A	CT-610		
	42 00 00 PA 00 03 20	－do.－ FB118 J13	〃	J	CT-610		