ORDER NO. SD7805-1318

Service Manual

SA-700

FM/AM STEREO RECEIVER

SA-700

(D), (XGH), (XGF), (XSW), (XE), (XAL), (XA), (X)

* Cabinet colour differs according to destination.

* The model SA-700 (D) is available in Scandinavia and European only.
* The model SA-700 (XGH) is available in Holland only.
* The model SA-700 (XGF) is available in France only.
* The model SA-700 (XSW) is available in Switzerland only.
* The model SA-700 (XE) is available in United Kingdom only.
* The model SA-700 (XAL) is available in Australia only.
* The models SA-700 (XA) and SA-700 (X) are available in Asia, Latin America, Middle East and Africa only.

TECHNICAL SPECIFICATIONS

Specifications are subject to change without notice for further improvement.

[DIN 45 500]

AMPLIFIER SECTION

1 kHz continuous power output	
both channels driven	2 x 120 W (4Ω), 2 x 110 W (8Ω)
40 Hz ~ 16 kHz continuous power output	
both channels driven	2 x 110 W (4Ω), 2 x 100 W (8Ω)
20 Hz ~ 20 kHz continuous power output	
both channels driven	2 x 110 W (4Ω), 2 x 100 W (8Ω)
Power bandwidth	
both channels driven at 4Ω	10 Hz ~ 40 kHz (−3 dB)
Total harmonic distortion	
rated power at 1 kHz	0.04% (4Ω, 8Ω)
rated power at 40 Hz ~ 16 kHz	0.04% (4Ω, 8Ω)
rated power at 20 Hz ~ 20 kHz	0.04% (4Ω, 8Ω)
half power at 20 Hz ~ 20 kHz	0.025% (4Ω), 0.015% (8Ω)
half power at 1 kHz	0.005% (4Ω, 8Ω)
−26 dB power at 1 kHz	0.04% (4Ω)
50 mW power at 1 kHz	0.2% (4Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz = 4:1, 4Ω	0.04%
rated power at 60 Hz: 7 kHz = 4:1, SMPTE, 8Ω	0.04%
Damping factor	25 (4Ω), 50 (8Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47 kΩ
AUX	150 mV/47 kΩ
PLAYBACK (TAPE 1), REC/PLAY input	180 mV/47 kΩ
PLAYBACK (TAPE 2)	150 mV/47 kΩ
MAIN IN	1 V/100 kΩ
PHONO maximum input voltage (1 kHz, RMS)	200 mV
S/N	
rated power at 4Ω **PHONO**	75 dB (IHF, A: 83 dB)
AUX	88 dB (IHF, A: 95 dB)
−26 dB power at 4Ω **PHONO**	65 dB, **AUX** 70 dB
50 mW power at 4Ω **PHONO**	55 dB, **AUX** 55 dB
Frequency response **PHONO**	RIAA standard curve
	30 Hz ~ 15 kHz, ±0.2 dB
AUX	20 Hz ~ 20 kHz, +0 dB, −0.3 dB
	10 Hz ~ 40 kHz, −1 dB
Tone controls **BASS**	50 Hz, +12 dB ~ −12 dB
TREBLE	20 kHz, +12 dB ~ −12 dB
MIDDLE	1 kHz, +7 dB ~ −7 dB
Low boost at tone controls "0" position	100 Hz, +6 dB
High boost at tone controls "0" position	10 kHz, +6 dB
Low filter	100 Hz, −6 dB/oct.
High filter	7 kHz, −6 dB/oct.
Loudness control (volume at −30 dB)	50 Hz, +9 dB
Output voltage and impedance	
PRE OUT	1V/4.7 kΩ
REC OUT (TAPE 1,2)	150 mV
REC/PLAY output	30 mV/80 kΩ
Channel balance (250 Hz ~ 6300 Hz), AUX	±1.0 dB
Channel separation at 1 kHz, AUX	63 dB
Headphones output level and impedance	500 mV/330Ω
Load impedance **MAIN or REMOTE**	4 ~ 16Ω
MAIN + REMOTE	8 ~ 16Ω

FM TUNER SECTION

Frequency range	88 ~ 108 MHz
Antenna terminals	300Ω (balanced), 75Ω (unbalanced)
Sensitivity (±40 kHz deviation)	
S/N 30 dB	1.8μV (300Ω), 1.3μV (75Ω)
S/N 26 dB	1.6μV (300Ω), 1.2μV (75Ω)
S/N 20 dB	1.5μV (300Ω), 0.9μV (75Ω)
IHF usable sensitivity	1.8μV (IHF '58)
IHF S/N 46 dB stereo quieting sensitivity	18μV (75Ω)
Total harmonic distortion **MONO**	0.1%
STEREO	0.2%
S/N (±40 kHz deviation) **MONO**	60 dB (IHF: 77 dB)
STEREO	58 dB (IHF: 73 dB)
Frequency response	20 Hz ~ 15 kHz, +0.2 dB, −0.8 dB
Alternate channel selectivity	80 dB
Capture ratio	1.0 dB
Image rejection at 98 MHz	85 dB
IF rejection at 98 MHz	100 dB
Spurious response rejection at 98 MHz	100 dB
AM suppression	60 dB
Stereo separation **1 kHz**	45 dB, **10 kHz** 35 dB
Leak carrier **19 kHz**	−60 dB (−65 dB, IHF)
38 kHz	−65 dB (−70 dB, IHF)
Limiting point	1.2μV
Bandwith **IF amplifier**	180 kHz
FM demodulator	1000 kHz
Channel balance (250 Hz ~ 6300 Hz)	±1.5 dB

AM TUNER SECTION

Frequency range	525 ~ 1605 kHz
Sensitivity (S/N 20 dB)	30μV, 250μV/m
Selectivity	35 dB
Image rejection at 1000 kHz	50 dB
IF rejection at 1000 kHz	45 dB

GENERAL

Power consumption	850 W
Power supply (50 Hz/60 Hz)	110V/120V/220V/240V
Dimensions (W x H x D)	510 x 160 x 390 mm (20 3/32" x 6 5/16" x 15 11/32")
Weight	16.1 kg (35.5 lb.)

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ TECHNICAL GUIDE

- **Power-indication circuitry**

The power amplifier output signal is attenuated by the sensitivity selector, and is applied to the logarithmic-compression circuitry. In this circuitry, as shown in figure 1, the output characteristics change logarithmically in relation to input, and the output is applied to the window comparator IC. Here, the pulse waveform becomes as shown in figure 2, and the indicator illuminates according to the input of the IC (the output of the power amplifier).

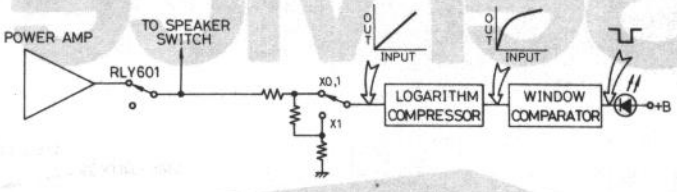


Fig. 1

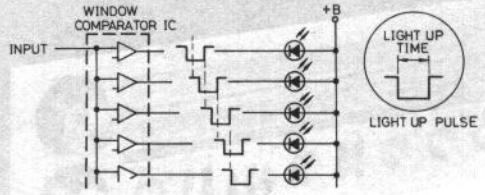


Fig. 2

- **Tone-control circuitry**

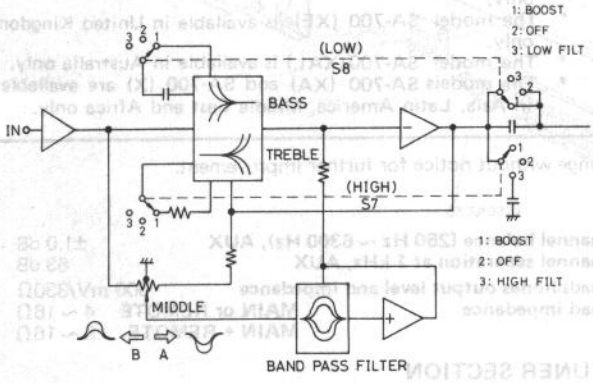


Fig. 3

Configuration is as shown in figure 3. Bass and treble are the BAX type of control circuitry, and a bandpass filter is used for control of intermediate frequencies. If the middle control is moved in direction A, a valley-like characteristic can be obtained. If it is moved in direction B, a peak-like characteristic can be obtained.

■ ALIGNMENT INSTRUCTIONS (Main Amplifier Circuitry) ENGLISH

- **Main amplifier (ICQ) alignment** . . . . . Refer to fig. 4.

1. The "ICQ" adjustment should be started about 5 minutes after setting the power switch to the ON position.
2. Speakers switch to "push" position.
3. Connect DC voltmeter between TP601 and ⊕ speaker terminal of right channel.
4. Adjust VR602 to 12 mV on DC voltmeter indication.
5. Connect DC voltmenter between Emitter (TR613) and ⊕ speaker terminal of left channel.
6. Adjust VR601 to 12 mV on DC voltmeter indication.

- **Power level indication alignment** . . . . . Refer to fig. 4.

1. Connect AC VTVM to speakers terminal. (Left and Right channels)
2. Power display switch to "ON" position and display range switch to "XO. 1" position.
3. Selector switch to "AUX" position.
4. Apply a 1 kHz signal to "AUX" terminal. (Left and Right channels)
5. Volume control to maximum position of set.
6. Adjust supply signal level to 12.6V ~ 12.7V output of speaker terminal.
7. Adjust VR801 (Left channel) and VR802 (Right channel) until "200W" indicator lights up.

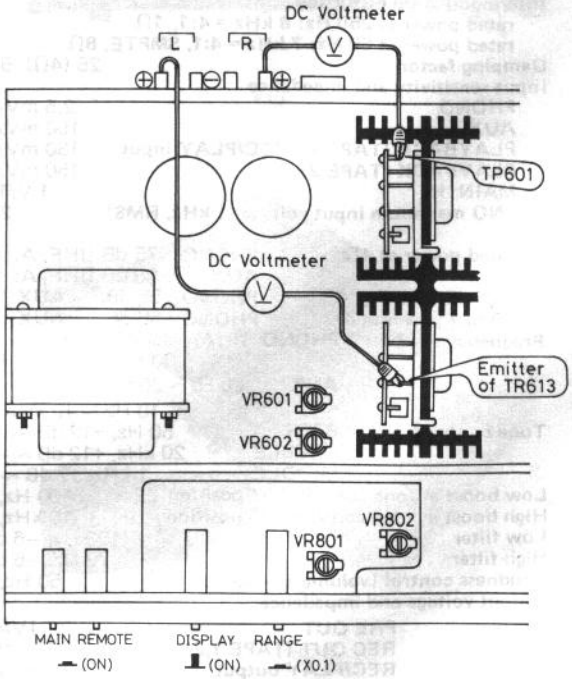
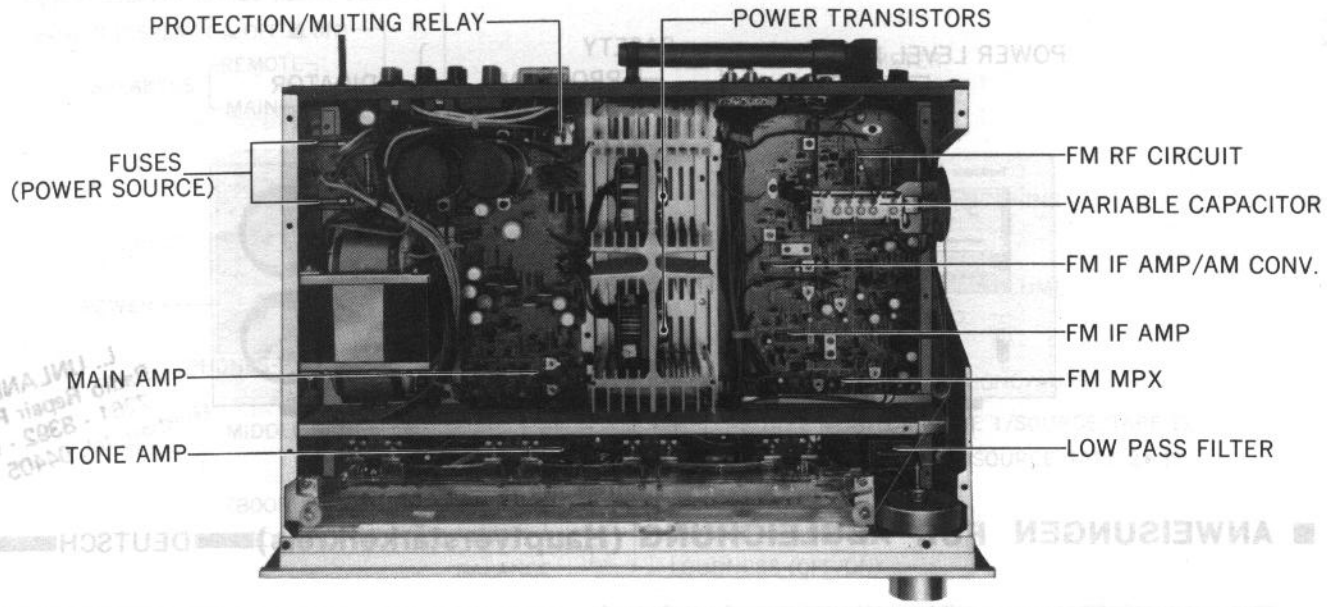


Fig. 4 (Abb. 4)

■ CHASSIS VIEW



■ NOTE The unit is provided with the speaker circuit protection fuses at the right and left channels respectively. The fuse is to prevent the power transistor from destruction, should the speaker terminals be short-circuited. Accordingly, if the unit fails to function upon completion of the speaker connections, check the speaker circuit protection fuses first of all for possible blowing.

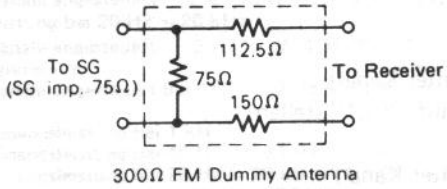
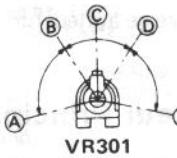


Fig. 5 (Abb. 5)



VR301

A – B, D – E: Stereo OFF Position.
B – D: Stereo ON Position (Indicator Lighting).
C: Adjust Point of Pilot Circuit.

Fig. 6 (Abb. 6)

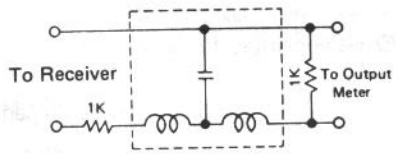
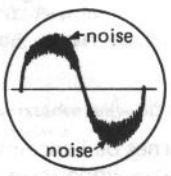


Fig. 7 (Abb. 7)



(SINE WAVE)

Fig. 8 (Abb. 8)

■ ALIGNMENT POINTS (FM/AM tuner circuitry)

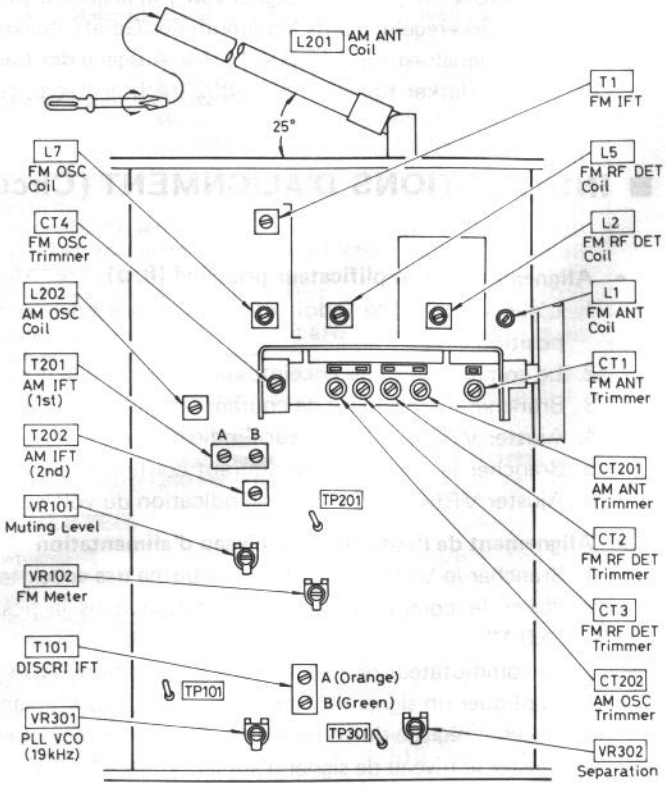


Fig. 9 (Abb. 9)

■ ALIGNMENT INSTRUCTIONS (FM/AM tuner circuitry) —— ENGLISH

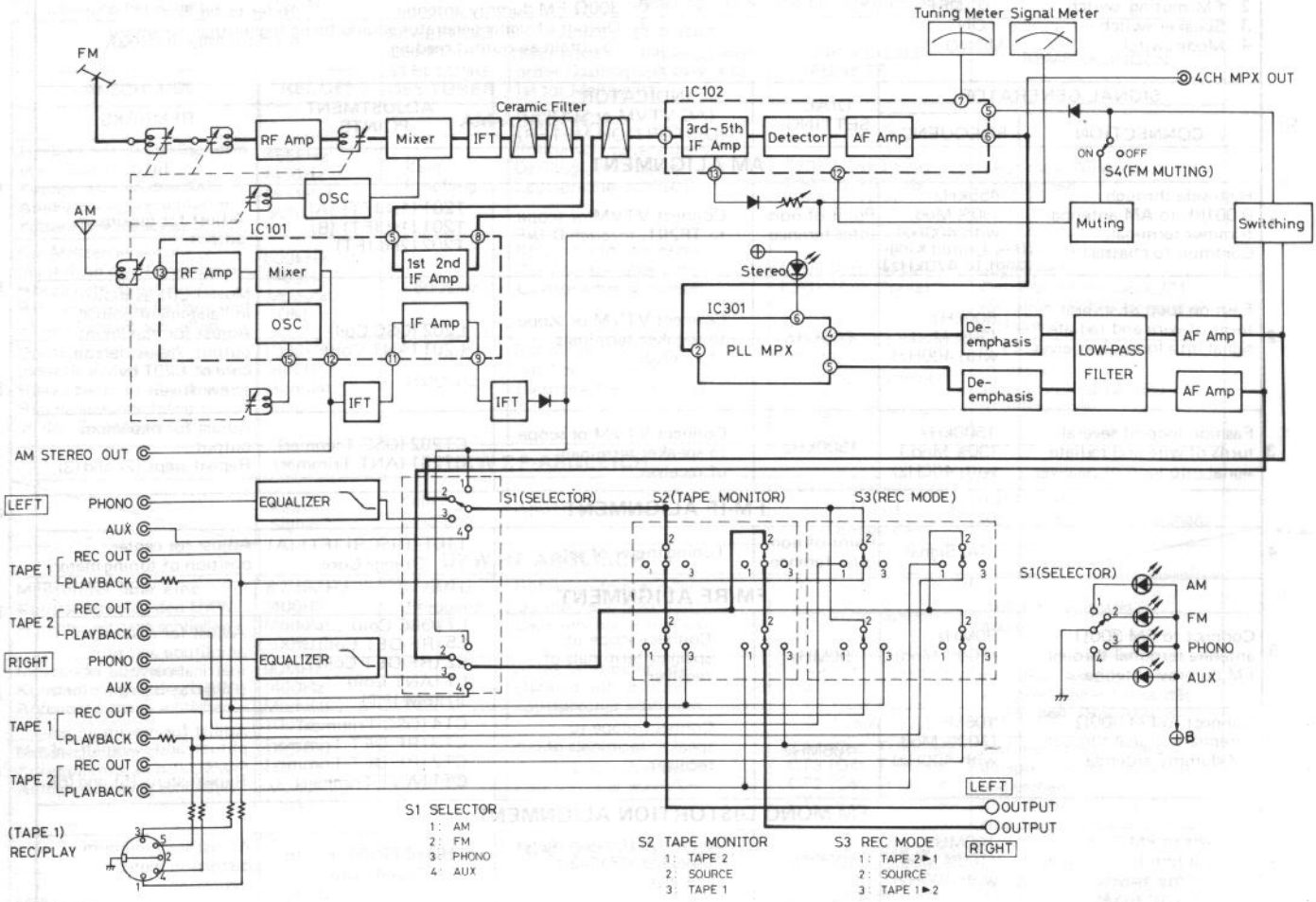
Notes:
1. Band selector switch . . . . . AM/FM AUTO (FM, RF FM-IF)
2. FM muting switch . . . . . OFF
3. Speaker switch . . . . . ON
4. Mode switch . . . . . MONO
5. Maintain line voltage at rated voltage.
6. 300Ω FM dummy antenna . . . . . Refer to fig. 5
7. Output of signal generator should be no higher than necessary to obtain an output reading.

	SIGNAL GENERATOR		DIAL SETTING	INDICATOR (AC VTVM or SCOPE) (DISTORTION METER)	ADJUSTMENT POINTS	REMARKS
	CONNECTION	FREQUENCY				
	AM ALIGNMENT					
1	High side through 0.001μF to **AM** antenna trimmer terminal. Common to chassis.	455kHz (30% Mod. with 400Hz) (For United Kingdom to 470kHz)	Point of non-inter-ference	Connect VTVM or scope to **TP201.** through 0.1μF	T201 (1st IFT) (A) T201 (1st IFT) (B) T202 (2nd IFT)	Adjust for maximum output.
2	Fashion loop of several turns of wire and radiate signal into loop of receiver	600kHz (30% Mod. with 400Hz)	600kHz	Connect VTVM or scope to speaker terminals of receiver.	L202 (OSC Coil) L201 (ANT Coil)	Move L201 as shown in "alignment points" Adjust for maximum output, Adjust ferrite core of L201 by screw driver.
3	Fashion loop of several turns of wire and radiate signal into loop of receiver	1500kHz (30% Mod.) with 400Hz)	1500kHz	Connect VTVM or scope to speaker terminals of receiver.	CT202 (OSC Trimmer) CT201 (ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
	FM-IF ALIGNMENT					
4		No Signal	Point of non-inter-ference.	Tuning meter of set.	T101 (DISCRI IFT) (A) Orange Core	Adjust for center position of tuning meter.
	FM-RF ALIGNMENT					
5	Connect to FM 300Ω antenna terminal through FM dummy antenna.	90MHz (100% Mod. with 400Hz)	90MHz	Connect scope to speaker terminals of receiver.	L7 (OSC Coil) L5 (RF-DET Coil) L2 (RF-DET Coil) L1 (ANT Coil) T1 (FM IFT)	Adjust for maximum amplitude and symmetrical curve. (Refer to fig. 8).
6	Connect to FM 300Ω antenna terminal through FM dummy antenna.	106MHz (100% Mod. with 400Hz)	106MHz	Connect scope to speaker terminals of receiver.	CT4 (OSC Trimmer) CT3 (RF DET Trimmer) CT2 (RF DET Trimmer) CT1 (ANT Trimmer)	Adjust for maximum amplitude and symmetrical curve. Repeat steps **(5) and (6)**.
	FM MONO DISTORTION ALIGNMENT					
7	Connect to FM 300Ω antenna terminal through FM dummy antenna. Apply 60 dB to set.	100MHz (100% Mod. with 400Hz)	100MHz	Connect distortion meter to speaker terminals of receiver.	T101 (DISCRI IFT) (B) Green Core	Adjust for minimum distortion meter indication
	FM MUTING LEVEL ALIGNMENT					
8	Connect to FM 300Ω antenna terminal through FM dummy antenna. Apply 16dB (6.3μV) to set.	100MHz (100% Mod. with 400Hz)	100MHz	Connect VTVM or scope to speaker terminals.	VR101	FM muting switch to "ON". Adjust so that output can be obtained.
	FM SIGNAL METER ALIGNMENT					
9	1 Apply 100MHz FM signal of 100dB (400Hz 30% modulation) to FM 300Ω antenna terminal through FM dummy antenna. 2 Tuning at 100MHz. 3 Adjust **VR102** for about 4.7 point of signal meter indication.					
	FM MPX PILOT ALIGNMENT					
	Using a frequency counter			Using alternate system		
10	1 100 MHz Non-modulated mono signal applied to set. 2 Muting switch to "ON" 3 Connect frequency counter to **TP301** through resistor (100kΩ). 4 Adjust **VR301** to 19kHz, ±30Hz.			1 Apply stereo signal from generator or stereo station to receiver. 2 Adjust **VR301** until stereo indicator lights up. Cement arm of **VR301** as shown in fig. 6.		

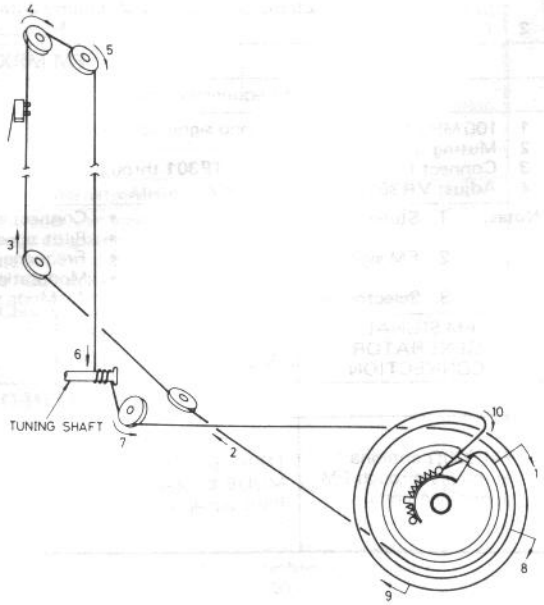
Notes:
1. Stereo modulator . . . . . • Connect stereo modulator output to EXT MOD terminal of signal generator.
   • Pilot signal modulation to "10%"
2. FM signal generator . . . . . • Frequency approximatery 100MHz/Output level to "72dB (IHF)"
   • Modulation mode to "FM"
3. Selector switch to "FM AUTO"
4. Mode switch to "STEREO"

	FM SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE & MOD. RATE	INDICATOR (AC VTVM)	ADJUSTMENT POINTS	REMARKS
	FM STEREO SEPARATION ALIGNEMNT				
11	FM 300Ω antenna terminals through FM dummy antenna.	(1kHz 30% Modulation) MODE **L** (and R) Pilot signal to "ON"	Connect VTVM to speaker terminals through low pass filter. (Refer to fig. 7)	VR302	• Tuning at 100MHz. • Make adjustment so that, when the antenna input is subjected to L modulation (or R modulation), R channel output (or L channel output) becomes minimum.

■ BLOCK DIAGRAM ..... FM/AM Tuner and tape monitor selection circuitry

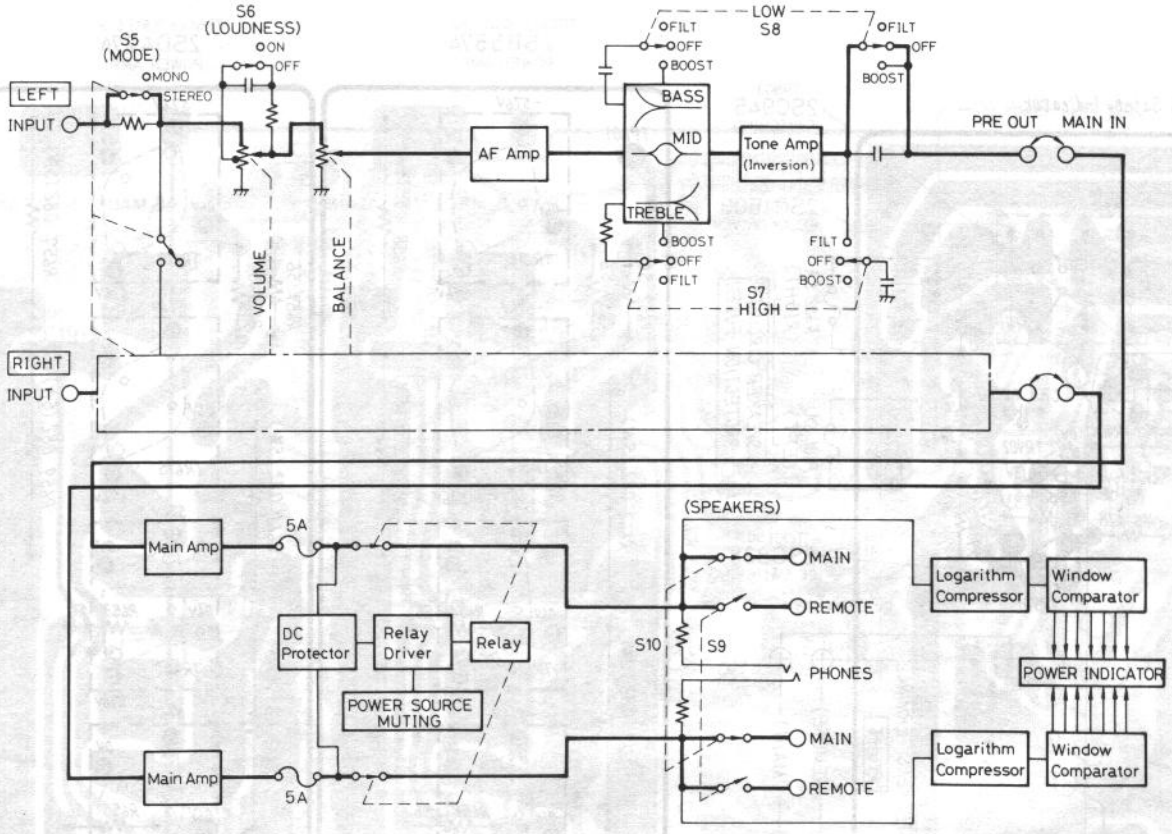


■ DIAL CORD INSTALLATION GUIDE



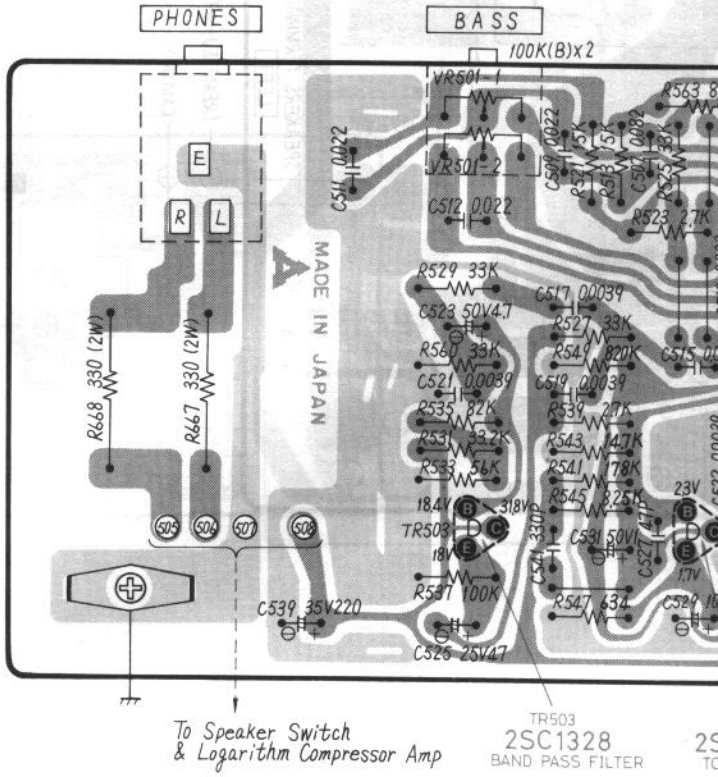
- For threading a fresh cord, proceed as follws.
  1. Prepare a fresh cord more than 220cm (86-⅜") in length.
  2. Bring the variable capacitor into a state where the drum is completely turned to the right (maximum capacity and lowest frequency for the variable capacitor).
  3. Direct the cord in the order from 1 to 10.
  4. Stretch the cord in such a tension as the spring length is elongated by 1.5 times that of the original state.
  5. Fix the knot of the cord with the bond.

■ BLOCK DIAGRAM ..... Pre and Main amplifier circuitry



■ TONE AMPLIFIER CIRCUIT BOARD

Earth (Ground) Lines



■ REPLACEMENT PARTS LIST ...... Electric Parts

NOTES 1: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. S indicates that only parts specified by the manufacturer be used for safety.

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
			INTEGRATED CIRCUITS		
IC101	AN217-BB		IC, FM IF Amplifier & AM Converter	1	
IC102	AN377		IC, FM IF Amplifier & FM Detector	1	
IC301	AN363		IC, FM Multiplex	1	
IC801, 802	SVIMS1901P		IC, Window Comparator	2	
			TRANSISTORS		
TR1	3SK40-M		Transistor, [FET] FM RF Amplifier	1	
TR2	**2SC1047-C**		Transistor, FM Mixer (Use in ranks C or D)	1	
TR4	2SC1675-L1		Transistor, Local-Oscillator	1	
TR5	2SK49-H1		Transistor, [FET] Buffer	1	
TR101, 102, 103, 105, 106, 201, 202	**2SC1328-T**		Transistor, Muting Switching (Use in ranks S, T or U)	7	
TR104	**2SA666AI-R**		Transistor, Muting Switching (Use in ranks Q, R or S)	1	
TR301, 302	**2SA902S-F**		Transistor, AF Amplifier (Use in ranks F or G)	2	
TR303	**2SC1398-Q**		Transistor, Regulator (Use in ranks P, Q or R)	1	
TR401, 402	SVTM47LP		Transistor, Equalizer Amplifier	2	
TR403, 404	**2SC1328-T**		Transistor, Equalizer Amplifier (Use in ranks S or T)	2	
TR405, 406	**2SA720-R**		Transistor, Equalizer Amplifier (Use in ranks Q or R)	2	
TR501, 502, 503, 504, 505, 506, 507, 508	**2SC1328-T**		Transistor, Tone Amplifier	8	
TR601, 602	**2SA798A-G2**		Transistor, Differential Amplifier (Use in ranks F2 or G2)	2	
TR603, 604	**2SC1328-T**		Transistor, Current Mirror (Use in ranks S or T)	2	
TR605, 606	2SC1628-0		Transistor, Pre Driver (Use in ranks Y or O)	2	
TR607, 608	**2SC945-R**		Transistor, Thermal Compensation (Use in ranks P1, P2 or R)	2	
TR609, 610	2SC1913A-R		Transistor, Drive Amplifier (Use in ranks R or Q)	2	○
TR611, 612	2SA913A-R		Transistor Drive Amplifier (Use in ranks R or Q) (Use pair ranks as same as TR609, 610 and TR612.)	2	○
TR613, 615 617, 619	2SD427A-R		Transistor, Power Amplifier (Use in ranks O or R)	4	○
TR614, 616, 618, 620	2SB557A-R		Transistor, Power Amplifier (Use in ranks O or R) (Use pair ranks as same as TR613 ~ TR619 and TR620.)	4	○
TR701	2SD38I-L		Transistor, Regulator (Use in ranks L or M)	1	
TR702	2SB536-L		Transistor, Regulator (Use in ranks L or M)	1	

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
TR801, 802	**2SA666AI-R**		Transistor, Logarithm Compressor (Use in ranks P, Q or R)	2	
TR803, 804, 805, 806	**2SC1328-T**		Transistor, Logarithm Compressor (Use in ranks S, T or U)	4	
TR807	**2SC1398-Q**		Transistor, Regulator (Use in ranks P, Q or R)	1	
TR901, 902	**2SC1328-T**		Transistor, Power Amp DC Detector (Use in ranks S, T or U)	2	
TR903	**2SC945-R**		Transistor, Relay Switching (Use in P1, P2 or R)	1	
TR904	2SC1509-R		Transistor, Relay Driver (Use in ranks Q or R)	1	
			DIODES		
D101, 102, 103 204, 301, 302	MA150		Diode, Switching	6	
D104	SVDKB262E		Diode, Meter Detector	1	
D201, 202, 203	OA99		Diode, AM Detector & AGC	3	
D303	SVDMZ312C		Diode, 12V Zener	1	○
D304	LN35BP		Light Emitting Diode, Safety Indicator	1	
D305, 306, 307 308, 309	LN25RP		Light Emitting Diode, Program Indicator	5	
D601 602	SVDMA26-1		Diode, Current Mirror	2	
D701	SVDS15VB20	S	Rectifier	1	
D702	**SM112**	S	Rectifier	1	
D703	SVDMZ336B		Diode, Zener 36V	1	○
D704	SVDMZ330B		Diode, Zener 30V	1	
D801	SVDMZ214A		Diode, Zener 14V	1	
D803 ~ D810	LN26RP		Light Emitting Diode, Red	8	
D811 ~ D818	LN46YP		Light Emitting Diode, Orange	8	○
D819 ~ D826	LN36BP		Light Emitting Diode, Green	8	
D901, 902	**SM112**		Relay Diode & Rectifier	2	
			COILS and TRANSFORMERS		
L1	SLA4P25		Coil, FM Antenna	1	
L2	SLD4P9		Coil, FM RF Detector	1	
L3, 4	**RLQY25S2**		Coil, Choke	2	
L5	SLD4P15		Coil, FM RF Detector	1	
L6	**RLQY15G5**		Coil, Choke	1	
L7	SLO4P31		Coil, FM Local Oscillator	1	
L101	SLQX180-2		Coil, Choke	1	
L201	SLF2D45		Coil, AM Bar Antenna (w/Mounting)	1	
L202	SLO2C9		Coil, AM Local Oscillator	1	
L203	SLQX101-2D		Coil, Choke	1	
L601, 602	SLQY15G-3U		Coil, Power Amplifier Output	2	
T1	SLI4C109		Transformer, FM IF	1	
T101	SLI4D513-3		Transformer, FM IF	1	
T201	SLI7C101-T		Transformer, AM IF (455 kHz)	1	
T201 (XE) only	SLI7Z103-T		Transformer, AM IF (470 kHz)	1	
T202	SLI2C413		Transformer, AM IF	1	
T301	SLMA1Z3-Z		Transformer, Low Pass Filter	1	
T701	SLT5S27-W	S	Transformer, Power	1	○

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
			CERAMIC FILTERS		
(	SVFE107MM-A		Ceramic Filter, Red, 10.7MHz		

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
			SWITCHES		

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
CERAMIC FILTERS					
CF101, 102	SVFE107MM-A		Ceramic Filter, Red, 10.7MHz	each 2	○
	SVFE107MM-B		Ceramic Filter, Blue, 10.67MHz		
	SVFE107MM-C		Ceramic Filter, Orange, 10.73MHz		
	SVFE107MM-D		Ceramic Filter, Black, 10.64MHz		
	SVFE107MM-E		Ceramic Filter, White, 10.76MHz		
CF103	SVFE107ML-A		Ceramic Filter, Red, 10.7MHz	each 1	○
	SVFE107ML-B		Ceramic Filter, Blue, 10.67MHz		
	SVFE107ML-C		Ceramic Filter, Orange, 10.73MHz		
	SVFE107ML-D		Ceramic Filter, Black, 10.64MHz		
	SVFE107ML-E		Ceramic Filter, White, 10.76MHz		
	(Use pair ranks as same as CF101, CF102 and CF103.)				
THERMISTORS					
TH601, 602	RRT251		Thermistor, Driver Amplifier Circuit	2	
TH801, 802 803	ERTD2FHL103S		Thermistor, Output Indicator Circuit	3	
VARIABLE RESISTORS					
VR101	**EVLS3AA00B15**		Muting Level Adjustment, 100kΩ(B)	1	
VR102	**EVLS3AA00B24**		FM Meter Adjustment, 20kΩ(B)	1	
VR301	EVTS3MA00B14		PLL VCO Adjustment, 10kΩ(B)	1	
VR302	**EVLT3AA00B14**		Separation Adjustment, 10kΩ(B)	1	
VR501, 502	EWK6GA029B15		Bass & Treble Control, 100kΩ(B)	2	
VR503	EWK7KA029B15		Middle Control, 100kΩ(B)	1	
VR601, 602	**EVLS3AA00B52**		ICQ Adjustment, 500Ω(B)	2	
VR801, 802	**EVLS3AA00B24**		LED Lighting Level Adjustment, 20kΩ(B)	2	
VR1001	EWFMTA029BF5		Volume Control, 250kΩ(B)	1	
VR1002	EWKK4A029252		Balance Control, 250kΩ(BH)	1	
VARIABLE CAPACITOR					
CV1,2,3,4, 201, 202 (CT1,2,3,4) (CT201, 202)	ECVC763J124AS		Variable Capacitor, with Trimmer	1	
COMPONENT COMBINATIONS					
Z201	EXRF203Z471S		Component Combination, AM Detector	1	
Z701, 702	EXRFS203ZS		Component Combination, Rectifier	2	
RELAY					
RLY601	SSY19-1	S	Relay, Protection & Muting	1	
FUSES					
F1	XBA2C63TRO	S	Fuse, T6.3A (250V), Primary	1	
F2	XBA2C20TRO	S	Fuse, T 2A (250V), Lamp	1	
F3	XBA2C16TRO	S	Fuse, T 1.6A (250V), RF Circuit	1	
F4	XBA2C31TRO	S	Fuse, T3.15A (250V), Primary	1	
F601, 602	XBA2C50SSO	S	Fuse, 5A (250V), Speaker Circuit	2	○
LAMPS					
PL1, 2, 3, 4	XAMR62S	S	Lamp, Dial (6.3V 0.25A)	4	

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
SWITCHES					
S1	ESRM164F25A		Switch, Selector	1	
S2, 3	SSL95		Switch, Tape Monitor & Recording Mode	2	
S4, 6	SSL97		Switch, Loudness & FM Muting	2	
S5	SSL99		Switch, Mode	1	
S7, 8	SSL93		Switch, Low & High Filter	2	
S9, 10	SSH223S		Switch, Speakers (Main & Remote)	1	
S13	SSL103	S	Switch, Power Source	1	
S14	SSR53S	S	Switch, Voltage Adjuster	1	
S15, 17	SSH63S		Switch, Sensitivity & Display OFF	2	

NOTES 2:

Guide letters of Resistor and Capacitor indicate;

Resistors

ERD. . . . Carbon
ERO. . . . Metal film
ERF. . . . Non-flammable
ERG. . . . Metal oxide
ERX. . . . Metal film
ERC. . . . Solid

Capacitors

ECC . . . . Ceramic
ECG . . . . Ceramic
ECQM . . Polyester
ECN . . . . Paper
ECE . . . . Electrolytic
ECK . . . . Ceramic
ECQP . . . Polypropylene
ECQS . . . Polystyrene
ECE□N. . Non-Polar Electrolytic

No. 1

Ref. No.	Part No.
RESISTORS	
R1, 2	**ERD50TJ104**
(The products for [XAL] are not provided.)	
R3	**ERD25TJ563**
R4	**ERD25TJ223**
R5	**ERD25TJ181**
R6	**ERD25TJ562**
R7	**ERD25TJ333**
R8	**ERD25TJ102**
R9, 10	**ERD25TJ181**
R15	**ERD25TJ100**
R16	**ERD25TJ681**
R17, 18	**ERD25TJ223**
R19	**ERD25TJ102**
R20	**ERD25TJ333**
R21	**ERD25TJ102**
R101	**ERD25TJ102**
R102, 103	**ERD25TJ331**
R104	**ERD25TJ823**
R105	**ERD25TJ331**
R106	**ERD25TJ102**
R107	**ERD25TJ274**
R108	**ERD25TJ104**
R109	**ERD25TJ101**
R110	**ERD25TJ221**
R111	**ERD25TJ822**
R112	**ERD25TJ392**
R113	**ERD25TJ562**
R114	**ERD25TJ272**

No. 2

Ref. No.	Part No.
R115	**ERD25TJ470**
R116	**ERD25TJ181**
R117	**ERD25TJ103**
R118	**ERD25TJ274**
R119	**ERD25TJ331**
R120	**ERD25TJ223**
R121	**ERD25TJ563**
R122	**ERD25TJ224**
R123	**ERD25TJ333**
R124	**ERC14GK825**
R125, 126	**ERD25TJ103**
R127	**ERD25TJ223**
R128	**ERD25TJ104**
R129	**ERD25TJ683**
R201	**ERD25TJ152**
R202	**ERD25TJ562**
R203	**ERD25TJ181**
R204	**ERD25TJ392**
R205	**ERD25TJ274**
R206, 207	**ERD25TJ333**
R208	**ERD25TJ104**
R209	**ERD25TJ393**
R210	**ERD25TJ333**
R211	**ERD25TJ472**
R212	**ERD25TJ332**
R213	**ERD25TJ104**
R214	**ERD25TJ272**
R215	**ERD25TJ472**
R216	**ERD25TJ682**

No. 3

Ref. No.	Part No.	
R220	**ERD25TJ472**	
R301	**ERD25TJ151**	
R302, 303	**ERD25TJ392**	
R304	**ERD25TJ823**	
R305	**ERD25TJ123**	
R306	**ERD25TJ102**	
R307	**ERD25TJ103**	
R308, 309	**ERD25TJ472**	
R310	**ERD25TJ680**	
R311, 312	**ERD25TJ332**	
R313, 314	**ERD25TJ392**	
R315, 316	**ERD25TJ271**	
R317, 318	**ERD25TJ104**	
R319	**ERD14FJ100**	S
R320	**ERD14FJ122**	S
R321	**ERD25TJ181**	
R322, 323	**ERD25TJ472**	
R324, 325	**ERD25TJ102**	
R326, 327	**ERD25TJ153**	
R328	**ERD25TJ471**	
R401, 402	**ERD25TJ470**	
R403, 404	ERO25CKG2203	
R405, 406	ERO25CKG5602	
R407, 408	ERO25CKG8202	
R409, 410	ERO25CKG1502	
R411, 412	**ERD25TJ821**	
R413, 414	**ERD25TJ123**	
R415, 416	**ERD25TJ152**	
R417	**ERD25TJ103**	
R419	**ERD25TJ561**	
R421, 422	ERO25CKG2201	
R423, 424	**ERD25TJ122**	
R425, 426	ERO25CKF8202	
R427, 428	ERO25CKF6801	
R429, 430	ERO25CKG2203	
R431, 432	**ERD25TJ680**	
R433, 434	**ERD25TJ151**	
R501, 502	**ERD25TJ394**	
R503, 504	**ERD25TJ331**	
R505, 506	ERO25CKG3922	
R507, 508	ERO25CKF5231	
R509, 510	ERO25CKG3321	
R511, 512	ERO25CKG3320	
R513, 514	**ERD25TJ153**	
R515, 516	**ERD25TJ153**	
R517, 518	**ERD25TJ153**	
R519, 520	**ERD25TJ122**	
R521, 522	**ERD25TJ153**	
R523, 524	**ERD25TJ272**	
R525, 526	**ERD25TJ333**	
R527, 528	**ERD25TJ333**	
R529, 530	**ERD25TJ333**	
R531, 532	ERO25CKG3322	
R533, 534	**ERD25TJ563**	
R535, 536	**ERD25TJ823**	
R537, 538	**ERD25TJ104**	
R539, 540	**ERD25TJ272**	

No. 4

Ref. No.	Part No.	
R541, 542	ERO25CKG1783	
R543, 544	ERO25CKF1472	
R545, 546	ERO25CKG8251	
R547, 548	ERO25CKG6340	
R549, 550	**ERD25TJ824**	
R551, 552	**ERD25TJ392**	
R553, 554	**ERD25TJ824**	
R555, 556	**ERD25TJ224**	
R557	**ERD25TJ122**	
R558, 559	**ERD25TJ473**	
R560, 561	**ERD25TJ333**	
R562, 563	**ERC14GK825**	
R564, 565	**ERD25TJ824**	
R601, 602	**ERD25TJ824**	
R603, 604	**ERD25TJ222**	
R605, 606	**ERD25TJ683**	
R607, 608	**ERD25TJ223**	
R609, 610	**ERD25TJ272**	
R611, 612	**ERD25TJ151**	
R613, 614	**ERD14FJ471**	S
R615, 616	**ERD14FJ100**	S
R617, 618	**ERD14FJ681**	S
R619, 620	**ERD14FJ182**	S
R621, 622	**ERD25TJ471**	
R623, 624	**ERG1ANJ472**	
R625, 626	**ERG1ANJ102**	
R627, 628	**ERD14FJ471**	S
R629, 630	**ERD14FJ471**	S
R631, 632	**ERD14FJ101**	S
R633, 634	**ERD14FJ470**	S
R635, 636	**ERD14FJ180**	S
R637, 638	**ERD14FJ3R3**	S
R639, 640	**ERD14FJ820**	S
R641, 642	**ERD14FJ820**	S
R643, 644	**ERD25TJ563**	
R645, 646	**ERD25TJ182**	
R647, 648	**ERD25TJ151**	
R649, 650	**ERD14FJ5R6**	S
R651, 652	**ERD14FJ5R6**	S
R653, 654	**ERD14FJ5R6**	S
R655, 656	**ERD14FJ5R6**	S
R657, 658	**ERF5SJR82**	S
R659, 660	**ERF5SJR82**	S
R661, 662	**ERF5SJR82**	S
R663, 664	**ERF5SJR82**	S
R665, 666	**ERG2ANJ100**	
R667, 668	**ERG2ANJ331**	
R669, 670	**ERX1ANJ5R6**	
R702	**ERD14FJ100**	S
R703, 704	ERD18FAJ2R2	S
R705, 706	**ERD25TJ223**	
R707	**ERD14FJ331**	S
R708	**ERD14FJ561**	S
R709	**ERD14FJ391**	S
R801, 802	**ERG1ANJ152**	
R803, 804	**ERD50TJ221**	
R805, 806	**ERD25TJ101**	

No. 5

Ref. No.	Part No.	
R807, 808	**ERD25TJ222**	
R809, 810	**ERD25TJ223**	
R811, 812	**ERD25TJ274**	
R813, 814	**ERD25TJ562**	
R815, 816	**ERD25TJ822**	
R817, 818	**ERD25TJ122**	
R819, 820	**ERD25TJ181**	
R821, 822	**ERD25TJ101**	
R823, 824	**ERD25TJ683**	
R825	ERD12FJ100	S
R826	**ERD25TJ332**	
R827	**ERD25TJ123**	
R828	**ERD25TJ682**	
R829	**ERD25TJ822**	
R831, 832	**ERD25TJ123**	
R837, 838	**ERD25TJ681**	
R839, 840	**ERD25TJ681**	
R841, 842	**ERD25TJ681**	
R843, 844	**ERD25TJ681**	
R845, 846	**ERD25TJ181**	
R847, 848	**ERD25TJ181**	
R849, 850	**ERD25TJ181**	
R851, 852	**ERD25TJ181**	
R853, 854	**ERD25TJ181**	
R855, 856	**ERD25TJ181**	
R857, 858	**ERD25TJ181**	
R859, 860	**ERD25TJ181**	
R901, 902	**ERD25TJ183**	
R903	**ERD25TJ682**	
R904	**ERD25TJ332**	
R905	**ERD25TJ473**	
R906	**ERD25TJ472**	
R907	**ERD25TJ333**	
R908	**ERD25TJ824**	
R909	**ERD25TJ563**	
R910	**ERD25TJ393**	
R911	**ERG2ANJ681**	
R912	**ERD25TJ182**	
R1005, 1006	**ERD25TJ472**	
R1007	**ERD25TJ394**	
R1008	**ERD25TJ472**	
R1009	**ERD25TJ394**	
R1010, 1011	**ERD25TJ274**	
R1012, 1013	**ERD25TJ274**	
R1110	**ERD25TJ472**	
R1111, 1112	**ERD25TJ104**	

No. 6

Ref. No.	Part No.	
CAPACITORS		
C1, 2	ECCD1H150KC	
C3	ECCD1H150KC	
C4	ECGN50100K	
C5	ECCD1H180KC	
C6	ECKD1H102ZF	
C7	ECKD1H102MDA	
C8	ECCD1H120KC	
C9	ECCD1H030CC	
C10	ECCD1H050CC	
C11	ECCD1H181K	
C12	ECKD1H103ZF	
C14, 15	ECKD1H223ZF	
C17	ECCD1H220KR	
C18	ECCD1H070DC	
C19	ECCD1H390KC	
C20	ECCD1H150KC	
C21	ECCD1H030CC	
C22	ECKD1H102ZF	
C23	ECCD1H030CC	
C24	ECKD1H102ZF	
C90,91(XAL)only	ECKDHS101MB	S
C101, 102	ECKD1H223ZF	
C103	**ECEA50Z1**	
C104, 105	ECKD1H223ZF	
C106, 107	**ECEA50Z3R3**	
C108	ECCD1H680K	
C109	**ECEA2ASR47**	
C110	ECKD1H223ZF	
C111	**ECEA1HS100**	
C112	ECKD1H223ZF	
C113, 114	ECKD1H103ZF	
C115	**ECEA1AS331**	
C116	**ECEA50ZR22**	
C117	ECKD1H103ZF	
C118	**ECEA50Z1**	
C119	ECKD1H223ZF	
C120	ECCD1H181K	
C121	ECCD1H020CC	
C122	**ECEA1JS4R7**	
C201	ECCD1H150KC	
C203, 204	ECKD1H103ZF	
C205	ECKD1H103MD	
C206	ECQS05361JZ	
C207 (XAL) only	ECKDHS102MD	S
C208	**ECEA50Z3R3**	
C209	ECKD1H331KB	
C210	ECCD1H390KC	
C211, 212	ECKD1H103ZF	
C213	**ECEA1HS100**	
C214	ECQM1H223KZ	
C215	**ECEA50Z3R3**	
C216	ECQM1H223KZ	
C217	ECKD1H102ZF	
C220	ECQM1H223KZ	

No. 7

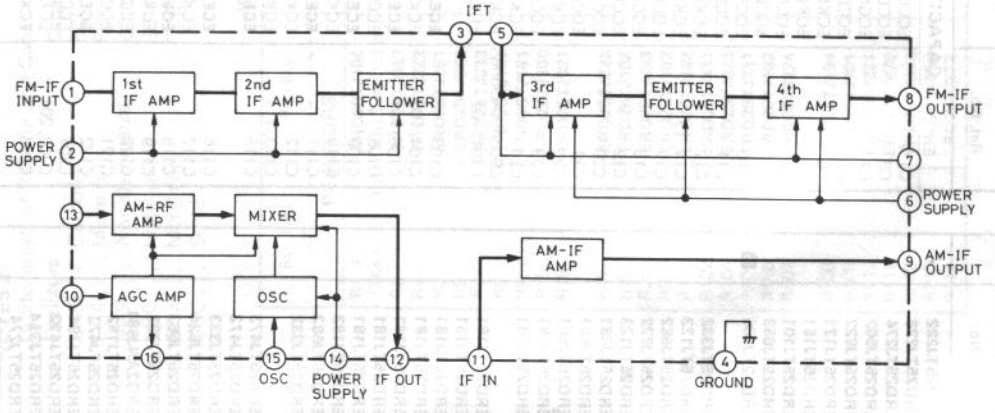
Ref. No.	Part No.	
C301	**ECEA1ES470**	
C302	**ECEA50Z3R3**	
C303, 304	ECQM1H183JZ	
C305	ECQS05471JZ	
C306, 307	**ECEA2ASR47**	
C308	ECQM1H473KZ	
C309	**ECEA50Z1**	
C310	**ECEA1ES470**	
C311, 312	**ECEA50ZR22**	
C313	**ECEA1ES101**	
C314	ECKD1H103ZF	
C315, 316	**ECEA1ES470**	
C317, 318	ECQM1H333KZ	
C319, 320	**ECEA50M3R3R**	
C401, 402	**ECEA50M3R3R**	
C403, 404	ECQM1H222KZ	
C405, 406	ECKD1H471KB	
C407, 408	ECCD1H220KC	
C409, 410	ECCD1H150KC	
C411, 412	**ECEA1CS330**	
C413, 414	**ECEA1AS331**	
C415, 416	ECQP1393GZ	
C417, 418	ECQP1103GZ	
C419, 420	ECQM1H102JZ	
C421, 422	**ECEA50M2R2R**	
C423, 424	**ECEA1JS330**	
C425, 426	ECQM1H102KZ	
C427, 428	**ECEA1HS470**	
C501, 502	**ECEA50M4R7R**	
C503, 504	ECKD1H331KB	
C505, 506	**ECEA50M3R3R**	
C507, 508	ECQM1H823KZ	
C509, 510	ECQM1H223KZ	
C511, 512	ECQM1H223KZ	
C513, 514	ECQM1H152KZ	
C515, 516	ECQM1H392KZ	
C517, 518	ECQM1H392KZ	
C519, 520	ECQM1H392KZ	
C521, 522	ECQM1H392KZ	
C523, 524	**ECEA50M4R7R**	
C525, 526	**ECEA1ES470**	
C527, 528	ECCD1H470K	
C529, 530	**ECEA1AS221**	
C531, 532	**ECEA50M1R**	
C533, 534	ECQM1H562KZ	
C535, 536	ECQM1H273KZ	
C537, 538	**ECEA50M4R7R**	
C539	**ECEA1VS221**	
C540	**ECEA1ES101**	
C541, 542	ECKD1H331KB	
C601, 602	**ECEA50M1R**	
C603, 604	ECCD1H181K	
C605, 606	ECCD1H101K	
C607, 608	ECKD1H331KB	
C609, 610	**ECEA1CS330**	

CAPACITORS

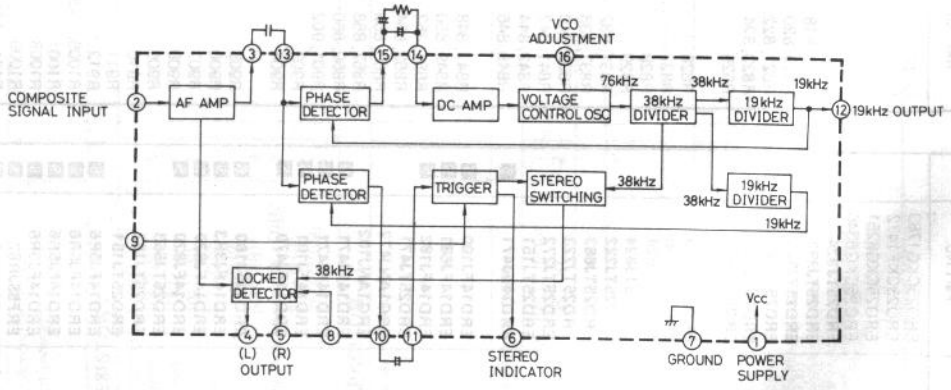
No. 8	Ref. No.	Part No.	
	C611, 612	ECCD1H010C	
	C613, 614	ECCD2H101K	
	C615, 616	ECCD2H220K	
	C617, 618	**ECEA1JS101**	
	C619, 620	ECKD1H102ZF	
	C621, 622	ECKD1H471KB	
	C623, 624	ECKD1H103ZF	
	C625, 626	**ECEA1JS101**	
	C627, 628	**ECEA1JS101**	
	C629, 630	ECQM1473KZ	
	C631, 632	ECCD2H101K	
	C633, 634	ECCD1HOR5CC	
	C701, 702	ECET63R153U	
	C703	ECKD1H103ZF	
	C704	**ECEA1ES471**	
	C705	**ECEA1ES101**	
	C706, 707	ECKD1H103ZF	
	C708	**ECEA1HS221**	
	C709	**ECEA1VS221**	
	C710	ECQM1H473KZ	
	C801, 802	**ECEA50Z1**	
	C803, 804	**ECEA1HS100**	
	C805, 806	**ECEA1HS100**	
	C807	ECKD1H102ZF	
	C808	**ECEA1ES470**	
	C809	**ECEA1HS100**	
	C901	ECKD1H103ZF	
	C902	**ECEA50Z3R3**	S
	C903	**ECEA16N220V**	S
	C904	**ECEA1CS330**	S
	C1001 (XSW) only	ECNC4A223M	

■ BLOCK DIAGRAM OF INTEGRATED CIRCUITS

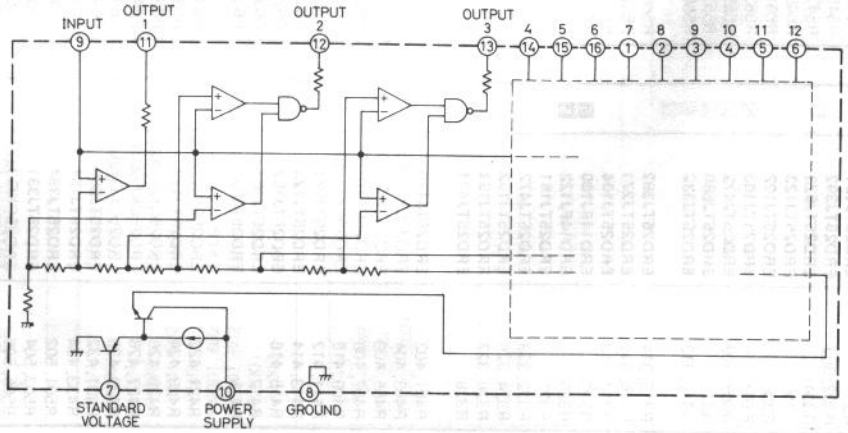
IC101 (AN217)
FM IF amplifier & AM converter



IC301 (AN363)
FM multiplex



IC801, 802 (SVIMS1901P)
Window comparator of power display circuitry

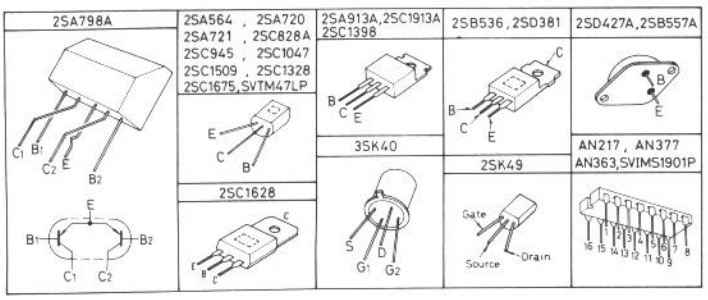


Schematic Diagram
Model SA-700 (XA), (X)

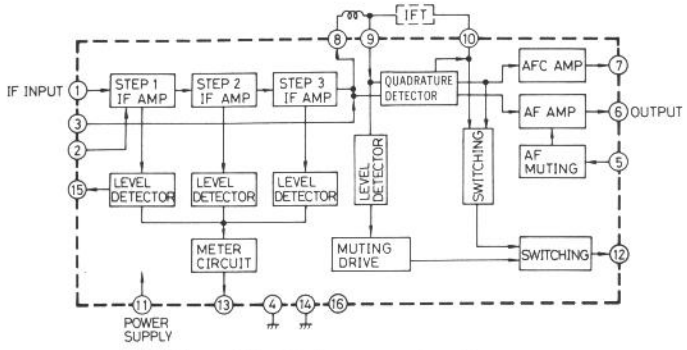
Notes:

1. **S1-1 ~ S1-6:** Selector switch in **"AM"** position.
   ① AM ↔ ② FM AUTO ↔ ③ PHONO ↔ ④ AUX
2. **S2-1 ~ S2-4:** Tape monitor switch in **"SOURCE"** position.
   ① TAPE 2 ↔ ② SOURCE ↔ ③ TAPE 1
3. **S3-1 ~ S3-4:** Recording mode switch in **"SOURCE"** position.
   ① TAPE 2 ▶1 ↔ ② SOURCE ↔ ③ TAPE 1▶2
4. **S4:** FM muting switch in **"ON"** position.
5. **S5-1 ~ S5-4:** Mode switch in **"STEREO"** position. (STEREO ↔ MONO)
6. **S6-1, S6-2:** Loudness switch in **"OFF"** position.
7. **S7:** Acoustic HIGH switch in **"OFF"** position.
   ① BOOST ↔ ② OFF ↔ ③ FILTER
8. **S8:** Acoustic LOW switch in **"OFF"** position.
   ① BOOST ↔ ② OFF ↔ ③ FILTER
9. **S9:** Remote speakers switch in **"OFF"** position.
10. **S10:** Main speakers switch in **"ON"** position.
11. **S13:** Power source switch in "**ON**" position.
12. **S14:** Voltage adjustment switch in **"240V"** position.
    ① 110V ↔ ② 120V ↔ ③ 220V ↔ ④ 240V
13. **S15:** Power display range switch in **"X1"** position. (X1 ↔ X0.1)
14. **S17:** Power display switch in **"ON"** position.
15. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
    ▭ Not apply signal to set and muting switch to OFF condition
    ( ) AM signal reception
    ⌐ ⌙ FM muting switch is turned on under no-signal condition.
16. ⟹ AF Signal lines. ⟹ FM Signal lines ⟹ AM Signal lines.
17. This schematic diagram may be modified at any time with the development of new technology.

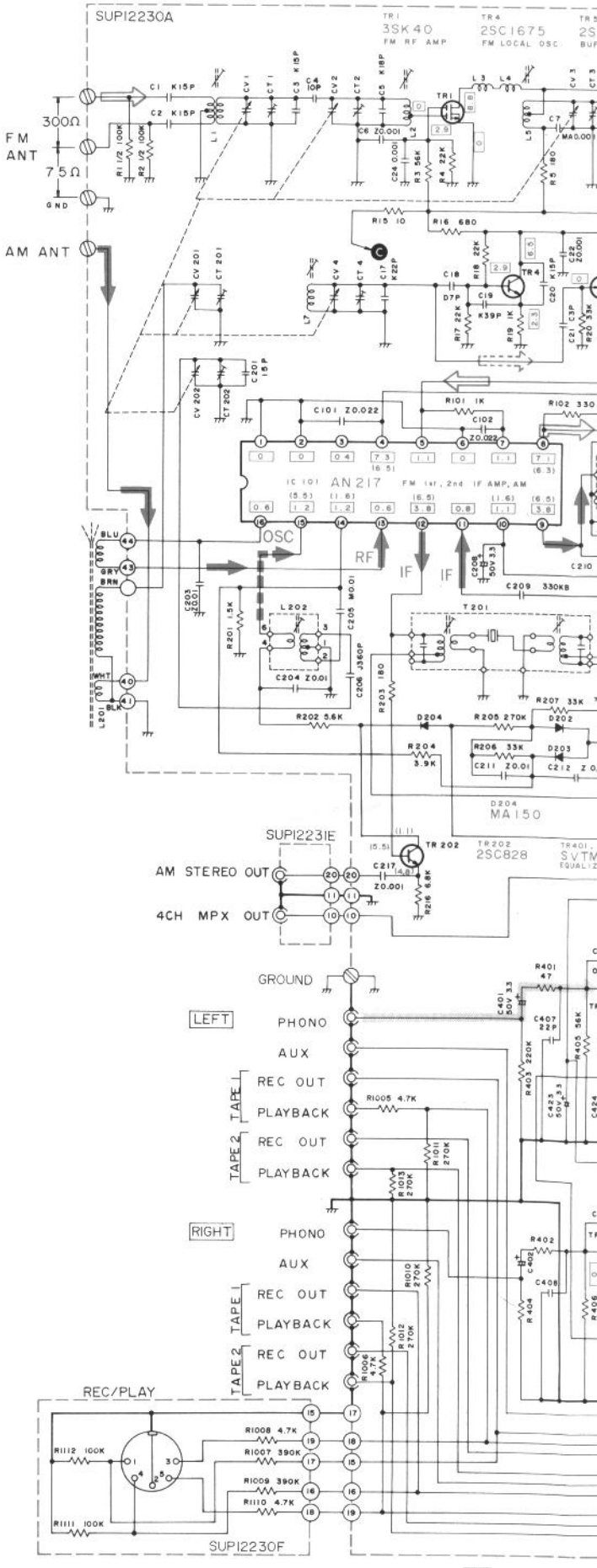
■ TERMINAL GUIDE OF TRANSISTOR & IC



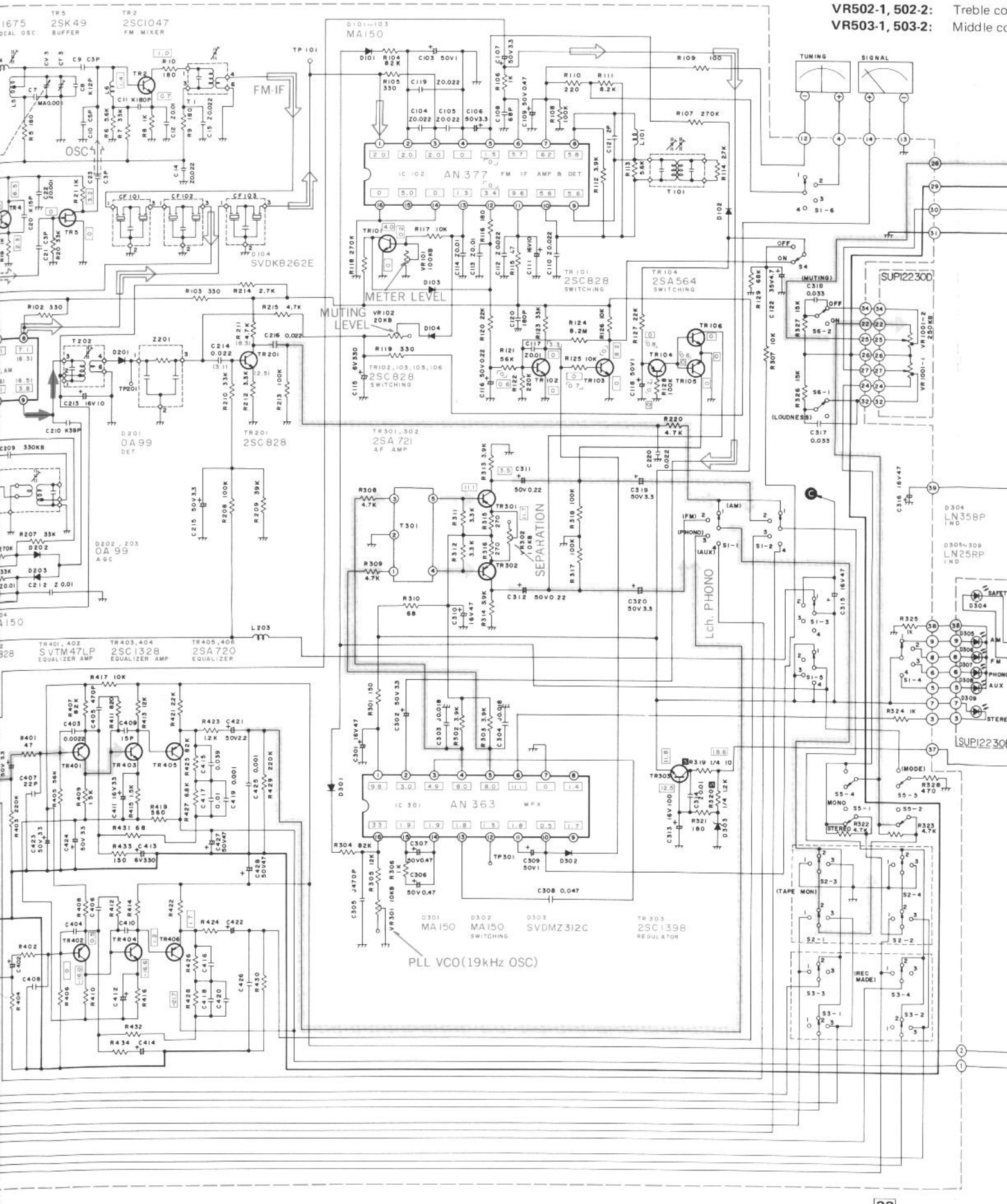
■ BLOCK DIAGRAM OF IC102 (AN377)



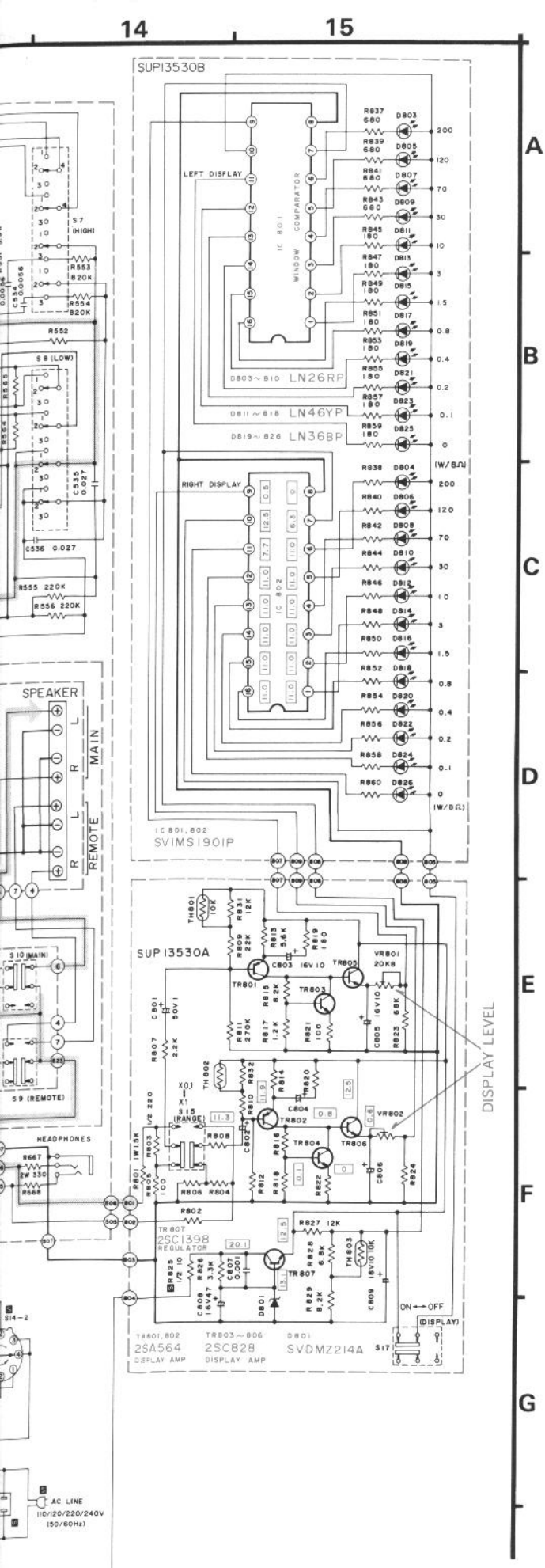
FM IF amplifer & detector circuitry



VR1001-1, 1001-2: Volume c
VR1002-1, 1002-2: Balance c
VR501-1, 501-2: Bass cont
VR502-1, 502-2: Treble co
VR503-1, 503-2: Middle co

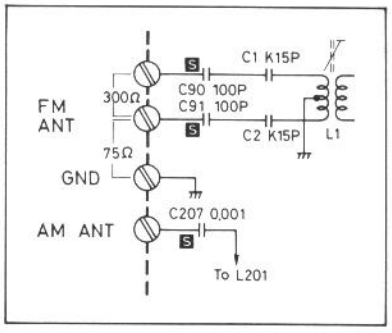


01-2: Volume control
02-2: Balance control.
2: Bass control
2: Treble control
2: Middle control



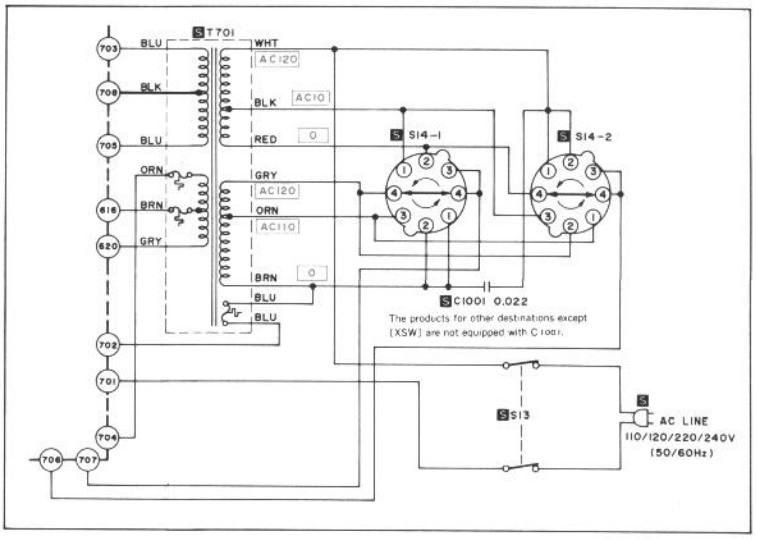
■ ANTENNA CAPACITORS

- Product for Australia [XAL] only.

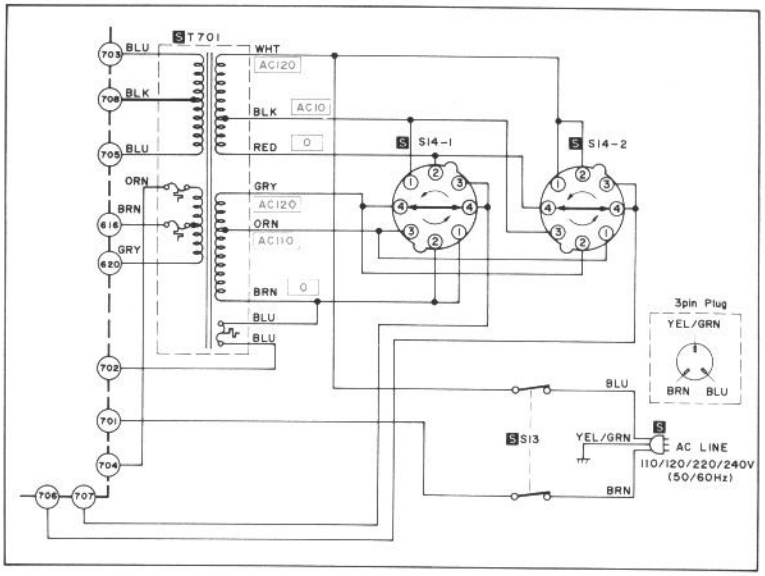


■ POWER SOURCE CIRCUITRY OF OTHER PRODUCTS

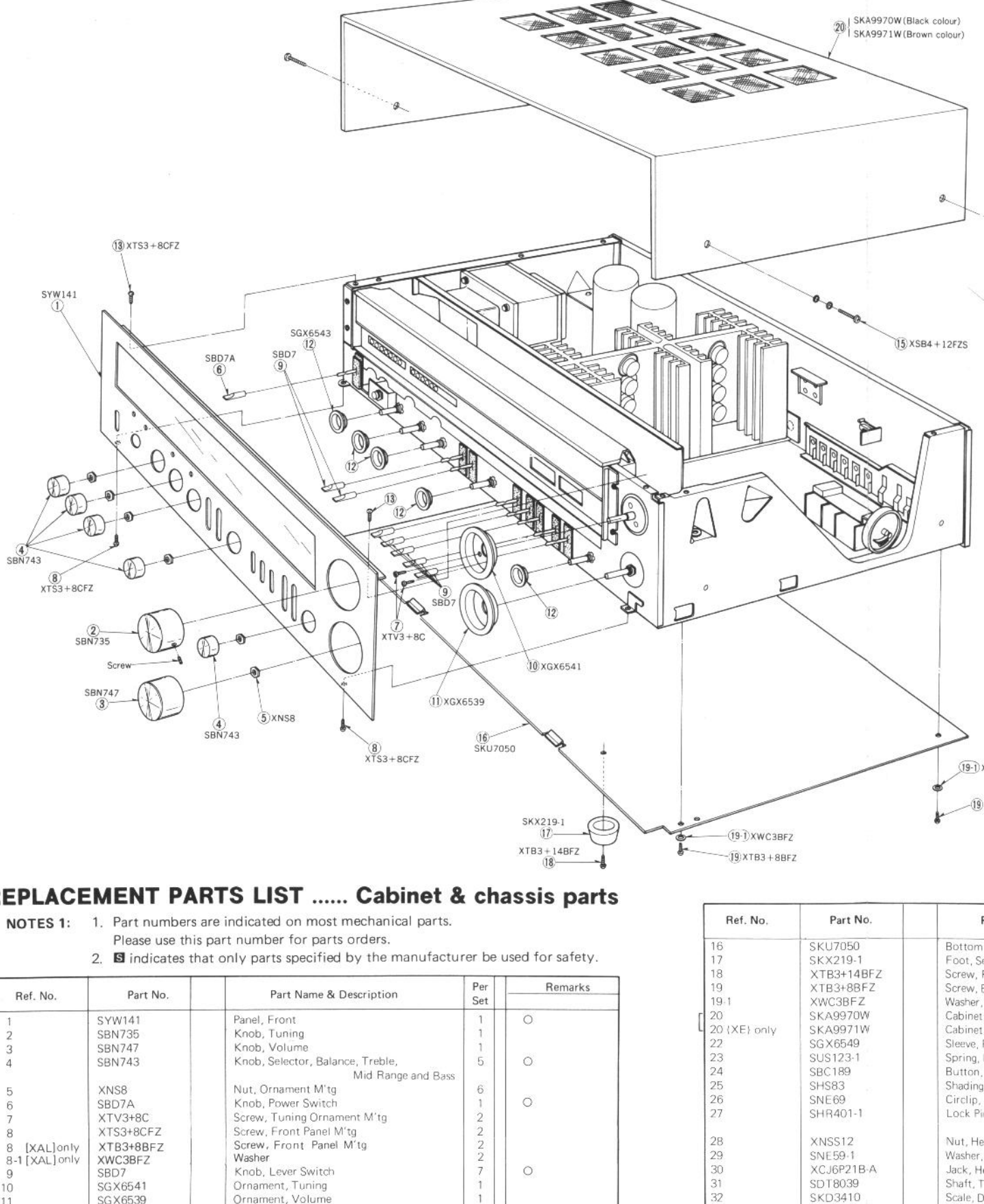
- Products for Scandinavia and European [D], Holland [XGH], France [XGF], Switzerland [XSW] and United Kingdom [XE] only.



- Product for Australia [XAL] only



■ EXPLODED VIEWS

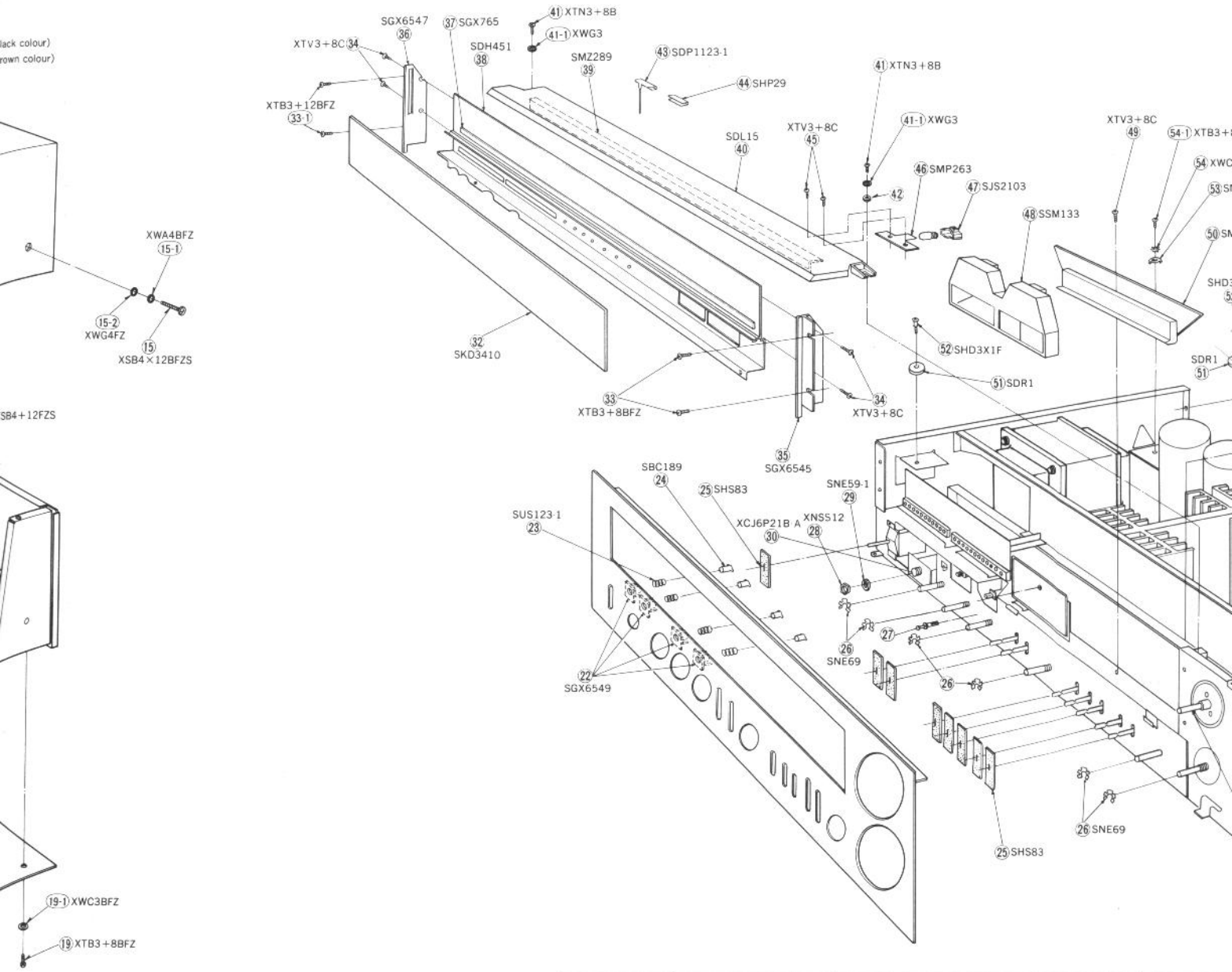


■ REPLACEMENT PARTS LIST ..... Cabinet & chassis parts

NOTES 1:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. **S** indicates that only parts specified by the manufacturer be used for safety.

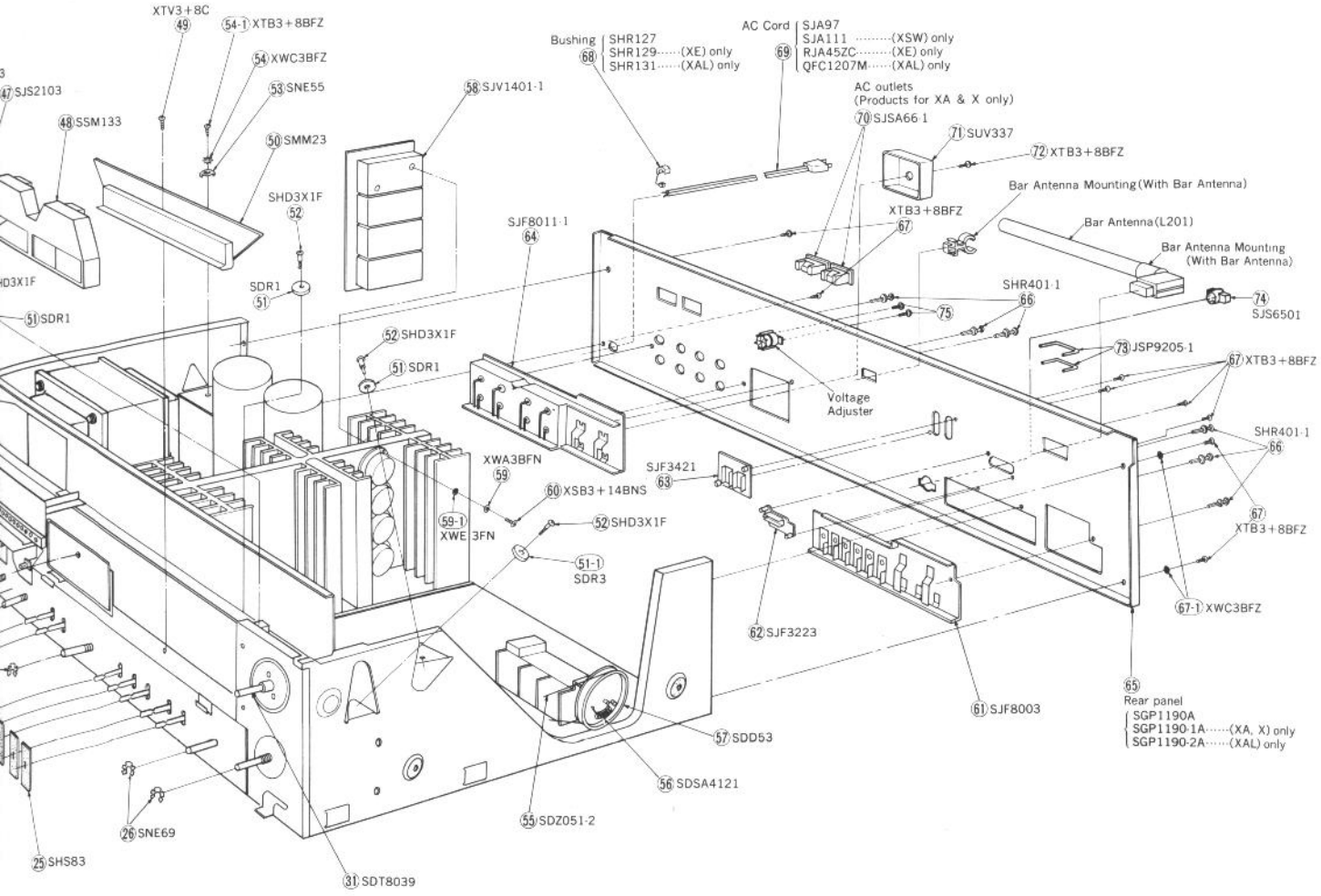
Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
1	SYW141		Panel, Front	1	○
2	SBN735		Knob, Tuning	1	
3	SBN747		Knob, Volume	1	
4	SBN743		Knob, Selector, Balance, Treble, Mid Range and Bass	5	○
5	XNS8		Nut, Ornament M'tg	6	
6	SBD7A		Knob, Power Switch	1	○
7	XTV3+8C		Screw, Tuning Ornament M'tg	2	
8	XTS3+8CFZ		Screw, Front Panel M'tg	2	
8 [XAL] only	XTB3+8BFZ		Screw, Front Panel M'tg	2	
8-1 [XAL] only	XWC3BFZ		Washer	2	
9	SBD7		Knob, Lever Switch	7	○
10	SGX6541		Ornament, Tuning	1	
11	SGX6539		Ornament, Volume	1	
12	SGX6543		Ornament, Selector, Balance, Treble, Mid Range and Bass	5	
13	XTS3+8CFZ		Screw, Front Panel M'tg	2	
15	XSB4+12FZS		Screw, Cabinet M'tg	4	
15-1	XWA4BFZ		Washer, Cabinet Screw (Spring)	4	
15-2	XWG4FZ		Washer, Cabinet Screw	4	

Ref. No.	Part No.		P
16	SKU7050		Bottom
17	SKX219-1		Foot, S
18	XTB3+14BFZ		Screw,
19	XTB3+8BFZ		Screw,
19-1	XWC3BFZ		Washer,
20	SKA9970W		Cabinet
20 (XE) only	SKA9971W		Cabinet
22	SGX6549		Sleeve,
23	SUS123-1		Spring,
24	SBC189		Button,
25	SHS83		Shading
26	SNE69		Circlip,
27	SHR401-1		Lock Pi
28	XNSS12		Nut, He
29	SNE59-1		Washer,
30	XCJ6P21B-A		Jack, H
31	SDT8039		Shaft, T
32	SKD3410		Scale, D
33	XTB3+8BFZ		Screw,
33-1	XTB3+12BFZ		Screw,
34	XTV3+8C		Screw,
35	SGX6545		Escutch
36	SGX6547		Escutch



	Part Name & Description	Per Set	Remarks
	Bottom Board	1	* ○
	Foot, Set	4	
	Screw, Foot M'tg	4	
	Screw, Bottom Board M'tg	12	
	Washer, Bottom Board Screw	12	
	Cabinet, Black Colour	1	○
	Cabinet, Brown Colour	1	○
	Sleeve, Push Switch Button	4	
	Spring, Push Switch Button	4	
	Button, Push Switch	4	
	Shading Cloth	8	
	Circlip, Volume	6	
	Lock Pin, Program Indicator Circuit Board M'tg	1	
	Nut, Headphones Jack	1	
	Washer, Headphones Jack	1	
	Jack, Headphones	1	
	Shaft, Tuning Control Ass'y	1	*
	Scale, Dial	1	*○
	Screw, Dial Scale M'tg	2	
	Screw, Dial Scale M'tg	2	
	Screw, Dial Scale Escutcheon M'tg	4	
	Escutcheon, Dial Scale (Right)	1	
	Escutcheon, Dial Scale (Left)	1	

Ref. No.	Part No.		Part Name & Description	Per Set	Rema
37	SGX765		Mirror, Dial Scale	1	○
38	SDH451		Plate, Indicator & Dial Memory	1	*○
39	SMZ289		Escutcheon, Reflector Plate	1	*○
40	SDL15		Reflector Plate	1	○
41	XTN3+8B		Screw, Reflector Plate M'tg	2	
41-1	XWG3		Washer	2	
42	SHR9339		Spacer, Reflector Plate Screw	1	
43	SDP1123-1		Pointer, Dial	1	*
44	SHP29		Paper, Pointer Slide	1	
45	XTV3+8C		Screw, Pilot Lamp Bracket M'tg	8	
46	SMP263		Bracket, Pilot Lamp	4	*
47	SJS2103		Socket, Pilot Lamp	4	
48	SSM133		Meter, Signal & Tuning	1	
49	XTV3+8C		Screw, Meter Bracket M'tg	1	
50	SMM23		Bracket, Meter	1	*
51	SDR1		Pulley, Dial Cord	3	
51-1	SDR3		Pulley, Dial Cord	1	
52	SHD3X1F		Shaft, Pulley	4	*
53	SNE55		Lug, Ground	1	
54	XWC3BFZ		Washer, Fuse Circuit Board Screw	1	
54-1	XTB3+8BFZ		Screw, Fuse Circuit Board M'tg	1	
55	SDZ051-2		Cord, Dial, 86-9/16 (220cm)	1 roll	
56	SDSA4121		Spring, Dial Cord	1	
57	SDD53		Drum, Dial Cord	1	
58	SJV1401-1		Socket, Power Transistors	8	
59	XWA3BFN		Washer, Power Transistors Screw	16	
59-1	XWE3FN		Washer, Power Transistors Screw	16	



Description	Per Set	Remarks
	1	○
ial Memory	1	*○
or Plate	1	*○
	1	○
ate M'tg	2	
	2	
ate Screw	1	
	1	*
	1	
Bracket M'tg	8	
	4	*
	4	
ing	1	
et M'tg	1	
	1	*
	3	
	1	
	4	*
	1	
t Board Screw	1	
Board M'tg	1	
(220cm)	1 roll	
	1	
	1	
sistors	8	
sistors Screw	16	
sistors Screw	16	

Ref. No.	Part No.		Part Name & Description	Per Set	Remarks
60	XSB3+14BNS		Screw, Power Transistors M'tg	16	
61	SJF8003		Terminal, Input and Antenna	1	
62	SJF3223		Terminal, 4CH Mpx Out and AM Stereo Out	1	
63	SJF3421		Terminal, Per Out and Main In	1	
64	SJF8011-1		Terminal, Speakers and Speaker Fuses	1	○
65 (XA, X) only	SGP1190-1A		Rear Panel	1	○
65 (XAL) only	SGP1190-2A		Rear Panel	1	○
65	SGP1190A		Rear Panel	1	○
66	SHR401-1		Lock Pin, Speakers Terminal and Input Terminal	6	
67	XTB3+8BFZ		Screw, Rear Panel M'tg	8	
67-1	XWC3BFZ		Washer	2	
68 (XAL) only	SHR131		Bushing, AC Cord	1	
68 (XE) only	SHR129		Bushing, AC Cord	1	
68	SHR127		Bushing, AC Cord	1	
69 (XAL)	QFC1207M	S	AC Cord, Power Source w/3 pin Plug	1	
69 (XE)	RJA45ZC	S	AC Cord, Power Source	1	
69 (XSW)	SJA111	S	AC Cord, Power Source w/Plug	1	
69 (D, XGH, XGF, XA, X)	SJA97	S	AC Cord, Power Source w/Plug	1	
70 (XA, X) only	SJSA66-1	S	Socket, AC Outlet	2	
71	SUV337		Cover, Speaker Circuit Fuse	1	
72	XTB3+8BFZ		Screw, Fuse Cover M'tg	1	
73	SJP9205-1		Short Pin, Pre & Main Amp Connection	2	
74	SJS6501		Socket, DIN (Tape Deck REC/PLAY)	1	
75	XSB3+8FZS		Screw, Voltage Adjuster M'tg	2	