ORDER NO. SD7703-1200

Service Manual

FM/AM Stereo Tuner

ST-7300

(XA), (XAL), (XG), (XGH),
(XGF), (XSD), (XSW), (XE)



The cabinet color shall be subject to change dependent on the destination.

The model ST-7300 [XA] is available in Asia, Latin America, Middle East and Africa only.
The model ST-7300 [XAL] is available in Australia only.
The model ST-7300 [XG] is available in European only.
The model ST-7300 [XGH] is available in Holland only.
The model ST-7300 [XGF] is available in France only.
The model ST-7300 [XSD] is available in Scandinavia only.
The model ST-7300 [XSW] is available in Switzerland only.
The model ST-7300 [XE] is available in England only.

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

FM TUNER SECTION

Frequency range:	88 ~ 108MHz
Antenna terminals:	300Ω (balanced) 75Ω (unbalanced)
Sensitivity:	2.0μV
S/N 46 dB sensitivity:	**STEREO** 19μV (75Ω)
Total harmonic distortion:	
MONO	0.2% (100Hz), 0.2% (1kHz), 0.5% (6kHz)
STEREO	0.4% (100Hz), 0.4% (1kHz), 0.5% (6kHz)
S/N:	**MONO** 75 dB, **STEREO** 70 dB
Frequency response:	20Hz ~ 15kHz, $^{+0.2}_{-1.0}$ dB
Alternate channel selectivity:	75 dB
Capture ratio:	1.0 dB
Image rejection (at 98MHz):	55 dB
IF rejection (at 98MHz):	82 dB
Spurious response rejection (at 98MHz):	80 dB
AM suppression:	55 dB
Stereo separation:	45 dB at 1kHz, 35 dB at 10kHz
Leak carrier (19kHz, 38kHz):	–60 dB

AM TUNER SECTION

Frequency range:	525 ~ 1605kHz
Sensitivity:	30μV, 260μV/m
Selectivity:	20 dB
Image rejection (at 1000kHz):	45 dB
IF rejection (at 1000kHz):	40 dB

GENERAL

Output voltage & impedance:	0.5V/4.7kΩ
Power supply: (50/60Hz)	110/120/220/240V 220V/240V (for united kingdum) 240V only (for Australia)
Power consumption:	11W
Dimensions (W x H x D):	410 x 139 x 317mm (16⅛" x 5½" x 12½")
Weight:	5.1 kg (11.2 lb.)

TECHNISCHE DATEN (DIN) Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

UKW-TUNERTEIL

Frequenzgang:	88 ~ 108MHz
Eingangsimpedanz:	300Ω (symmetrisch) 75Ω (unsymmetrisch)
Empfindlichkeit (±40kHz deviation)	
2.0V beim Rauschverh. v. 30 dB,	300Ω
1.8V beim Rauschverh. v. 26 dB,	300Ω
1.5V beim Rauschverh. v. 20 dB,	300Ω
1.4V beim Rauschverh. v. 30 dB,	75Ω
1.2V beim Rauschverh. v. 26 dB,	75Ω
1.0V beim Rauschverh. v. 20 dB,	75Ω
Klirrfaktor:	**MONO** 0,2%, **STEREO** 0.4%
Rauschabstand (±40kHz Hub)	**MONO** 69 dB, **STEREO** 65 dB
Selektivität:	75 dB
Gleichwellenselektion:	1,0 dB
Spiegelfrequenzunterdrückung 98 MHz:	55 dB
ZF-Festigkeit bei 98 MHz:	82 dB
Unselektivität-Dämpfung bei 98 MHz:	80 dB
AM-Unterdrückung:	55 dB
Kanaltrennung:	45 dB bei 1kHz, 35 dB bei 10kHz
Hilfsträgerdämpfung (Pilotton):	–60 dB (19kHz) –60 dB (38kHz)
Begrenzungseinsatz:	1.2μV
Bandbreite: **ZF-Verstärker**	200kHz
Ratiodetektor	820kHz
Kanaltrennung: (250Hz ~ 6300Hz)	±1.5 dB

AM-TUNERTEIL

Frequenzgang:	525 ~ 1605kHz
Eingangsempfindlichkeit:	30μV, 260μV/m
Selektivität:	20 dB
Spiegelfrequenz-Selektion bei 1000kHz:	45 dB
ZF-Festigkeit bei 1000kHz:	40 dB

ALLGEMEINE DATEN

Ausgangsaufnahme:	0.5V/4.7kΩ
Netzspannung: (50/60Hz)	110/120/220/240V
Leistungsaufnahme:	11W
Abmessungen (B x H x T):	410 x 139 x 317mm
Gewicht:	5.1kg

National Technics

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

CARACTERISTICS TECHIQUES (IHF) Sujet á changement sans préaris.

PARTIE TUNER FM

Gamme reçue:	88 ~ 108MHz
Bornes d'antenne:	300Ω (symétrique)
	75Ω (asymétrique)
Sensibilité:	2.0μV
Signal/Bruit 46 dB senibilite	**STEREO** 19μV (75Ω)
Distorsion harmonique totale:	
MONO	0.2% (100Hz), 0.2% (1kHz), 0.5% (6kHz)
STEREO	0.4% (100Hz), 0.4% (1kHz), 0.5% (6kHz)
Rapport S/B:	**MONO** 75 dB, **STEREO** 70 dB
Courbe de réponse:	20Hz ~ 15kHz, $^{+0,2}_{-1,0}$ dB
Sélectivité en canaux alternés:	75 dB
Rapport de capture:	1,0 dB
Réjection de fréquence image à 98MHz:	55 dB
Réjection FI à 98MHz:	82 dB
Réjection de réception non sélective à 98MHz:	80 dB
Suppression AM:	55 dB
Séparation des canaux:	1kHz 45 dB, 10kHz 35 dB
Résidus de porteuse (19kHz, 38kHz):	−60 dB

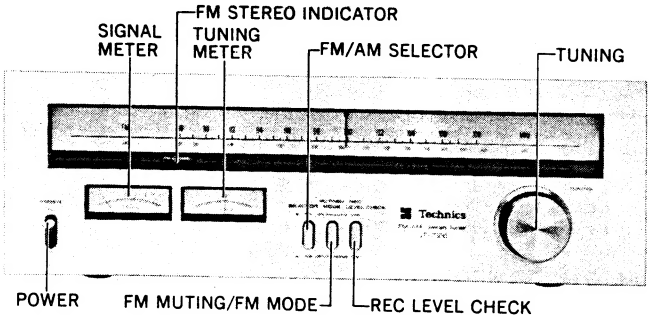
PARTIE TUNER AM

Gamme reçue:	525 ~ 1605kHz
Sensibilité:	30μV, 260μV/m
Sélectivité:	20 dB
Réjection de fréquence image à 1000kHz:	45 dB
Réjection FI à 1000kHz:	40 dB

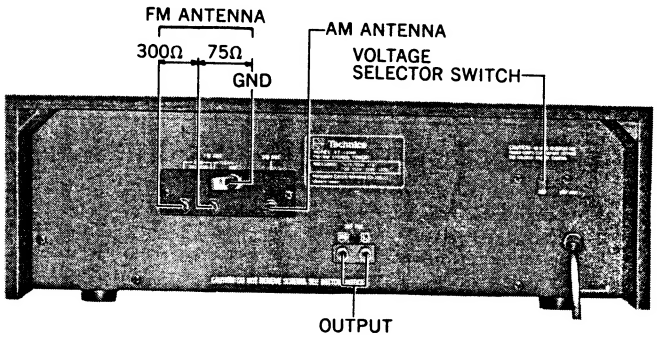
GÉNERALITÉS

Tension de sortie:	0.5V/4.7kΩ
Alimentation: (50/60Hz)	110/120/220/240V
Consommation:	11W
Dimensions (L x H x P):	410 x 139 x 317mm
Poids:	5,1 kg

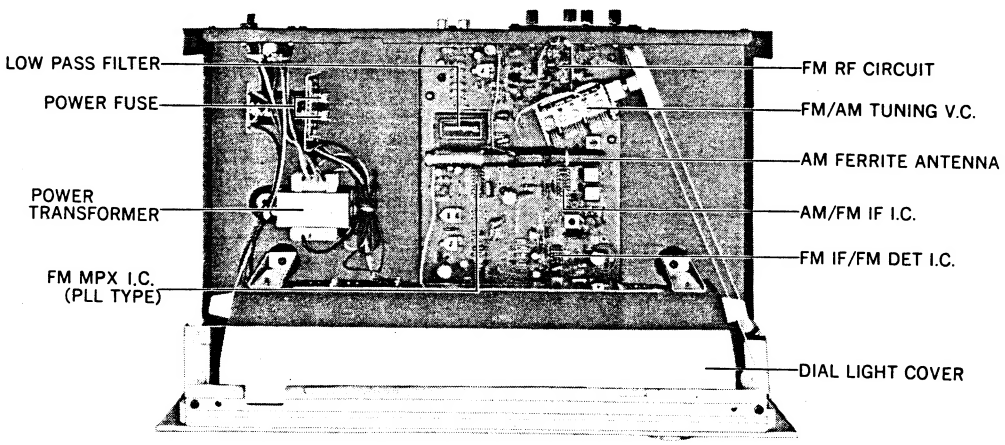
■ LOCATION OF CONTROLS



Front Panel View



Rear Panel View



Chassis View

■ RECORDING LEVEL CHECK SWITCH (REC LEVEL CHECK)

The phase shift oscillation circuit consisting of one transistor and CR is incorporated, and when the switch is turned "ON", since wave in the vicinity of "440Hz" is continuously developed from the output terminal at a level equivalent to 50% modulation. (This means that, when the output of 500mV is obtained with signal of 60dB being applied at 100% modulation half of the output which is approximately 250mV is the oscillating output). By utilizing this signal, control the recording level, while watching the meter of the tape deck through the input level control of the tape deck.
(Note) Be sure to turn this switch "OFF" when recording broadcasts or listening in the broadcasts.

■ ALIGNMENT INSTRUCTIONS

Notes:
1. Selector switch ..... { AM (AM Alignment) / FM (FM Alignment)
2. Muting/FM mode ... off/FM mono
3. Maintain line voltage at rated voltage
4. Output of signal generator should be no higher than necessary to obtain an output reading
5. 300Ω FM dummy antenna ..... Refer to fig. 4

	AM/FM SIGNAL GENERATOR		DIAL SETTING	INDICATOR (VTVM or SCOPE) (DISTORTION METER)	ADJUSTMENT POINTS	REMARKS
	CONNECTION	FREQUENCY				
	AM ALIGNMENT					
1	AM signal generator high side through 0.001μF to AM antenna terminal.	455kHz (30% Mod. with 400Hz) [Set for England to 470kHz]	Point of non-inter-ference	Connect VTVM or scope to output terminal (L or R) of set	T201 (1st IFT) T202 (2nd IFT) T203 (3rd IFT)	Adjust for maximum output.
2	Fashion loop of several turns of wire and radiate signal into loop of tuner.	600kHz (30% Mod. with 400Hz)	600kHz	Connect VTVM or scope to output terminal (L or R) of set.	L203 (OSC Coil) L201 (ANT Coil)	Adjust for maximum output. Adjust L201 by moving coil bobbin along ferrite core.
3	Fashion loop of several turns of wire and radiate signal into loop of tuner.	1500kHz (30% Mod. with 400Hz)	1500kHz	Connect VTVM or scope to output terminal (L or R) of set	CT5 (OSC Trimmer) CT4 (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) Primary [A]	Adjust for center of tuning meter indi-cation.
	FM RF ALIGNMENT					
5	Connect FM signal gene-rator to 300Ω FM antenna terminals through FM dummy antenna.	90MHz (100% Mod. with 400Hz)	90MHz	Connect VTVM or scope to output terminal (L or R) or TP101 of set	L3 (OSC Coil) L2 (DET Coil) L1 (ANT Coil)	Adjust for maximum output.
6	Connect FM signal gene-rator to 300Ω FM antenna terminals through FM dummy antenna.	106MHz (100% Mod. with 400Hz)	106MHz	Connect VTVM or scope to output terminal (L or R) or TP101 of set	CT3 (OSC Trimmer) CT2 (DET Trimmer) CT1 (ANT Trimmer)	Adjust for maximum output. Repeat steps (5) and (6)
	FM MONO DISTORTION ALIGNMENT					
7	Connect FM signal gene-rator to 300Ω FM antenna terminals through FM dummy antenna	100MHz (100% Mod. with 400Hz)	100MHz	Connect distortion meter to output terminal (L or R) of set.	T101 (Discri IFT) Secondary [B]	Tuning at 100MHz and adjust for mini-mum distortion. Repeat steps (4) and (7)
	FM SIGNAL METER ALIGNMENT					
8	Connect FM signal gene-rator to 300Ω FM antenna terminals through FM dummy antenna. Apply about 100dB (0.1V)	100MHz (100% Mod. with 400Hz)	100MHz	Signal meter of set.	VR102	Adjust VR102 to about "4.7" on signal meter scale.
	FM MUTING LEVEL ALIGNMENT					
9	Connect FM signal gene-rator to 300Ω FM antenna terminals through FM dummy antenna. Apply 13dB (4.5μV) to set. SG indication are 25 dB (IHF)	100MHz (100% Mod. with 400Hz)	100MHz	Connect VTVM or scope to output terminal (L or R) of set.	VR101	Muting switch to ON. Adjust so that output can be obtained.

FM MPX PILOT ALIGNMENT

Using a frequency counter	Using alternate system
10 1. 98MHz Non-modulated mono signal applied to set. 2. Muting/FM mode switch to "on/FM auto". 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 tuner. 2. Adjust **VR301** until stereo indicator lights up. Cement arm of **VR301** as shown in fig. 5.

STEREO SEPARATION ALIGNMENT

Notes: 1. Stereo modulator ..... Connect stereo modulator output to EXT. MOD, terminal of signal generator. Internal OSC ..... 1kHz Pilot signal modulation 10%
2. FM signal generator ..... Frequency approximately 98MHz. Output level to 72dB (IHF) Modulation mode to FM
3. Band selector switch ..... FM
4. Muting/FM mode switch ..... on/FM auto

	FM SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE AND MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINT	REMARK
11	300Ω FM antenna terminals through FM dummy antenna	**L** (and R) 30% Modulation	Connect VTVM or scope to output terminals through low pass filter. Refer to fig. 6.	VR402	Adjust for minimum **right** (and left) output

RECORDING CHECK LEVEL OUTPUT ALIGNMENT

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① FM muting / mode switch to on/FM auto.
② Apply 60dB 100MHz (400Hz modulation) stereo signal to set.
③ AF signal level at OUTPUT terminal should then be OdB.
④ Reduce recording level check switch to ON.
⑤ Adjust VR401 so that the output is then 6dB less than the previous output.

■ ABGLEICHANWEISUNGEN

(Für Deutshland)

Anmerkungen:
1. Bereichsschalter ..... AM (AM Abgleich) / FM (FM Abgleich)
2. Muting/FM mode Schalter . .off /FM mono
3. Die Netzspannung auf ihren Sollwert einstellen.
4. Der Ausgang des Meßsenders darf nicht höher sein als unbedingt notwendig für eine gute Ablesung.
5. UKW-Kunstantenne, 300 ohm .....Vgl. Abb.4.

	AM/UKW MESSENDER order WOBBELGENERATOR		SKALENZEIGEREINSTELLUNG DES TUNER	ANZEIGE (Röhrenvoltmeter order Oszillograph ozw. Klirrfaktor-Meßgerät)	ABGLEICHS-PUNKTE	BEMERKUNGEN
	ANSCHLUSS	FREQUENZ				
	AM-ABGLEICH					
1	Das hohe Ende des AM-Signal-Generators über 0.001mfd an AM Antennenanschluß Schirm an Masse.	455kHz (400Hz Modulat., 100%)	Kein Empfang	Röhrenvoltmeter oder Oszillograph an den Tuner-Ausgang schließen.	T201 (1. IFT) T202 (2. IFT) T203 (3. IFT)	Anf max. Ausgang abgleichen.
2	Das Meßsendersignal induktiv in den Tuner speisen. Hierzu behelfsmäßig eine Rahmenantenne fertigen und an den Eingang schließen.	600kHz (400Hz Modulat., 30%)	600kHz	Röhrenvoltmeter order Oszillograph an den Tuner-Ausgang schließen.	L203 (Osc. Spule) L201 (Ant. Spule)	Auf max. Ausgang abgleichen. L201 wird abgeglichen, indem die Spule am Ferritstab. entlanggeschoben wird.
3	Das Meßsendersignal induktiv in den Tuner speisen. Hierzu behelfsmäßig eine Rahmenantenne fertigen und an den Eingang schließen.	1500kHz (400Hz Modulat., 30%)	1500kHz	Röhrenvoltmeter oder Oszillograph an den Tuner-Ausgang schließen.	CT5 (Osc. Trimmer) CT4 (Ant. Trimmer)	Auf max. Ausgang abgleichen. Schritte (2) und (3) sind zu wiederholen.
	UKW ZF-ABGLEICH					
4		Kein Signal	Kein Empfang	Abstimmungsanzeiger des Geräts	T101 (Diskriminator IFT) [A]	Den Abstimmungsanzeiger auf den zentrum Wert einstellen.
	UKW HF-ABGLEICH					
5	Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.	87.5MHz (400Hz Modulat., 100%)	87.5MHz (Frequenz min.)	Röhrenvoltmeter oder Oszillograph an den Tuner-Ausgang schließen.	L3 (Osc. Spule)	Auf max. Ausgang abgleichen.
6	Meßsender üder eine Kunstantenne an den UKW-Antenneneingang schließen.	90MHz (400Hz Modulat., 100%)	90MHz	Röhrenvoltmeter oder Oszillograph an den Tuner-Ausgang schließen.	L2 (Det. Spule) L1 (Ant. Spule)	Auf max. Ausgang abgleichen.
7	Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.	106MHz (400Hz Modulat., 100%)	106MHz	Röhrenvoltmeter oder Oszillograph an den Tuner-Ausgang schließen.	CT3 (Osc. Trimmer) CT2 (Det. Trimmer) CT1 (Ant. Trimmer)	Auf max. Ausgang abgleichen Schritte(5), (6) und (7) sind zu wiederholen.
	ABGLEICH AUF MIN. VERZERRUNG IN STELLUNG UKW-MONO					
8	Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.	100MHz (400Hz Modulat., 100%)	100MHz	Klirrfaktor-Meßbrücke über Tuner-Ansgang anschließen.	T101 (Diskriminator IFT) [B]	Auf min. Verzerrung auf der Klirrfaktor-Meßbürcke abgleichen Schritt (4) und (8) sind zu wiederholen.
	UKW-FELDSTÄRKEANZEIGE-ABGLEICH					
9	Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen. Meßsender für 100dB (IHF) (ca. 100mV) einstellen.	100MHz (400Hz Modulat., 30%)	100MHz	Feldstärkenanzeige	VR102	VR102 auf ca. 4,7 der Feldstärkeanzeige einstellen.
	UKW-MUTING-ABGLEICH					
10	Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen. Meßsender auf 13 dB (4.5μV) einstellen.	100 MHz (400 Hz Modulat., 100%)	100 MHz	Röhrenvoltmeter oder Oszillograph an den Tuner-Ausgang schließen.	VR101	(FM-Muting-Schalter auf ön/ FM auto") So einstellen, daß ein Ausgang zu vernehmen ist.

UKW-STEREO-DEKODER-ABGLEICH

	Unter Verwendung eines Zählers	Alternativ-Meßmethode
11	1. Unmoduliertes Mono-Signal 98MHz in das Gerät speisen. 2. Muting-Schalter auf "on/FM auto" stellen. 3. Zähler über einen Widerstand 100K ohm an **TP301** schließen. 4. **VR301** auf 19kHz ±30Hz einstellen.	1. Stereosignal entweder von einem Stereogenerator oder einem Sender einspeisen. 2. **VR301** so einstellen, bis die Stereolampe auf leuchtet. Schleifer von **VR301** sichern, wie in Abb. 5 gezeigt.

KANALTRENNUNG-ABGLEICH

Anmerkungen:
1. Stereo-Modulator ..... Ansgang des Stereo-Modulators an den Eingang EXT MOD des Meßsenders schließen. Eingebauter Oszillator ..... 1kHz / Pilotton-Modulation 10%
2. UKW Meßsender ..... Auf etwa 98MHz einstellen. Ausgangspegel 72dB (IHF). Modulation FM
3. Wellenbereichsumschalter ..... FM
4. Muting/FM mode ..... on/FM auto

	ANSCHLUSS DES UKW MESSENDERS	STEREO MODULATOR MODE oder MOD. RATE	ANZEIGE (Röhrenvoltmeter oder Oszillograph)	ABGLEICHS-PUNKTE	ANMERKUNGEN
12	Meßsender über eine Kunstantenne an den UKW-Antenneneingang schließen.	**L**(und R) Modulation 30%	Röhrenvoltmeter oder Oszillograph über Tiefpassfilter an den Tuner-Ausgang schließen. Vgl. Abb. 6.	VR402	Auf min. Ausgang **rechter** (und linker) abgleichen.

NACHEICHUNG DER AUFNAHMEPEGEL-KONTROLLE

13	(1) Den Dämpfungs-/FM Betriebsart-Schalter auf "ON/FM AUTO" stellen. (2) Ein Stereosignal von 60 dB, 100 MHz (400 Hz Modulation) dem Gerät zuleiten. (3) Der Summer-Signalpegel am Ausgangsanschluß ("OUTPUT") sollte nun 0 dB betragen.	(4) Den Aufnahmepegel-Kontrolle-Schalter auf "ON" stellen. (5) VR401 so regulieren, daß die Ausgangsleistung 6 dB weniger als die vorherige Ausgangsleistung beträgt.

■ INSTRUCTIONS D'ALIGNEMENT

Notes:
1. Commutateur de gamme..... AM (Alignement AM) / FM (Alignement FM)
2. Commutateur de silencieux ... off/FM mono
3. Conserver la tension du secteur à la tension nominale.
4. Le signal de sortie du générateur ne doit pas être plus élevé que nécessaire à la lecture en sortie de làppareil.
5. Antenne fictive FM 300Ω .....Voir fig. 1.

	AM/FM GENERATEUR		AIGUILLE SUR LE CADRAN	INDICATEUR (VOLTMETRE ELECTRONIQUE OSCILLOSCOPE OU DISTORSIONMETRE)	POINTS DE REGLAGE	OBSERVATIONS
	BRANCHEMENT	FREQUENCE				
	ALIGNEMENT AM					
1	Côté chaud, à travers 0.001μF, sur le de l'antenne AM, commum an shâssis	455kHz (modulé à 30% par 400Hz)	Point sans s signal	Voltmètre électronique ou oscilloscope sur prise de l'appareil.	T201 (1 transfo FI) T202 (2 transfo FI) T203 (3 transfo FI)	Réglez au maximum de signal de sortie.
2	Faire une boucle de quelgues tours et rayonner le signal dans le cadre du tuner.	600kHz (modué à 30% par 400Hz)	600kHz	Voltmètre électronique ou oscilloscope sur prise de l'appareil.	L203 (bobine OSC) L201 (bobine ANT)	Réglez au maximum de signal de sortie. Réglez L201 en déplacant la bobine le long du noyau de ferrite.
3	Faire une boucle de quelgues tours et rayonner le signal dans le cadre du tuner.	1500kHz (modulé à 30% par 400Hz)	1500kHz	Voltmètre électronique ou oscilloscope sur prise de l'appareil.	CT5 (trimmer OSC) CT4 (trimmer ANT)	Réglez au maximum de signal de sortie. Recommencez les étapes (2) et (3).
	A LIGNEMENT FI—FM					
4		Sans signal	point sans signal	Indicateur d'accord de l'appareil	T101 (Transfo FI discri.) [A]	Réglez pour atteindre position médiane sur l'indicateur d'accord.
	ALIGNEMENT RF—FM					
5	Branchez sur la prise d'antenne FM à travers une antenne fictive FM.	90MHz (modulé à 100% par 400Hz)	90Mhz	Voltmètre électronique ou oscilloscpe sur prise de sortie de l'appareil.	L3 (bobine OSC) L2 (bobine DET) L1(bobine ANT)	Réglez au maximum de signal de sortie.
6	Branchez sur la prise d'antenne FM à travers une antenne fictive FM.	106MHz (modulé à 100% par 400Hz)	106MHz	Voltmètre électronique ou oscilloscope sur prise de sortie de l'appareil.	CT3 (trimmer OSC) CT2 (trimmer DET) CT1 (trimmer ANT)	Réglez au maximum de signal de sortie. Recommencez les étapes (5) et (6).
	REGLAGE DE LA DISTORSION FM EN MONO					
7	Branchez sur la prise d'antenne FM à travers une antenne fictive FM.	100MHz (modulé à 100% par 400Hz)	100MHz	Distorsionmétre sur prise de sortie du tuner.	T101 (Transfo FI discri.) [B]	Réglez au minimum d'indication du distorsiomètre. Recommencez les étapes (4) et (7).
	REGLAGE DE L'INDICATEUR D'ACCORD FM					
8	Branchez sur la prise d'antenne FM à travers une antenne fictive FM. Niveau de sortie du générateur 100dB(0.1V)	100MHz (modulé à 100% par 400Hz)	100MHz	Indicateur d'intensité du tuner	VR102	Réglez VR102 pour obtenir env. "4.7" points sur l'échelle d'intensité.
	REGLAGE DU SEUIL DU SILENCIEUX D'ACCORD					
9	Branchez sur la prise d'antenne FM à travers une antenne fictive FM. Niveau de sortie du générateur 13 dB (4.5μV).	100 MHz (modulé à (100% par 400Hz)	100 MHz	Voltmètre électronique ou oscilloscope sur prise de sortie de l'appareil. (De gauche à droite)	VR101	Avec le commutateur de silencieux sur ON Régler pour obtenir une lecture en sortie.

ALIGNEMENT DU PILOTE MULTIPLEX FM

	Avec un fréquencemétre	Par un outre système
10	1. Signal mono 98MHz non modulé appliqué à l'appareil. 2. Commutateur de silencieux sur "on/FM auto". 3. Branchez le fréquencemètre sur **TP301**à travers une résistance de 100kΩ. 4. Réglez **VR301** sur 19kHz ± 30Hz.	1. Appliquez à l'appareil un signal stéréo provenant d'un générateur ou de la réception d'un émetteur. 2. Réglez **VR301** jusqu á ce que l'indicateur de stéréophonic s'allume. Collez le curseur de **VR301** comme indiqué sur la fig.2.

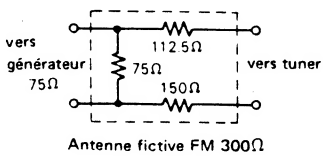
REGLAGE DE LA SEPARATION DES CANAUX

Notes: 1. Modulateur stéréo..... Branchez sa sortie sur la prise EXT. MOD. du générateur. OSC interne ..... 1kHz Modulation du signal pilote 10%
2. Générateur de signal ..... Fréquence env. 98MHz, niveau de sortie 72dB (IHF), genre de modulation sur FM.
3. Commutateur de gamme .... FM 4. Commutateur de silencieux ....on /FM auto

	BRANCHEMENT DU GENERATEUR DE SIGNAL	MODE DU MODULATEUR STEREO ET TAUX DE MODULATION	INDICATEUR (VOLTMETRE ELECTRONIQUE OU OSCILLOSCOPE)	POINTS DE REGLAGE	OBSERVATIONS
11	Borne d'antenne FM à travers antenne fictive.	**Gauche** (et droite) à 30% de modulation.	Sur les bornes de haut-parleur à travers un filtre passe-bas, voir fig. 3.	VR402	Réglez au minimum de sortie **droite**(et gauche)

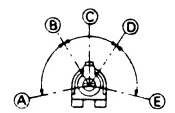
SYNTHONISATION DE CONTROLE DE NIVEAU D'ENREGISTREMENT

12	1. Commutateur de mode d'oscillation FM/réglage silencieux sur ON/-FM AUTO. 2. Appliquer un signal stéréo de 60 dB 100 MHz (modulation de 400 Hz) à l'appareil. 3. Le niveau de transmission d'audiofréquence (AF) à la borne de SORTIE, sera alors de 0 dB.	4. Abaisser le commutateur de contrôle du niveau d'enregistrement sur ON (marche). 5. Régler VR401, de façon que la sortie soit alors de 6 dB de moins que la sortie précédente.



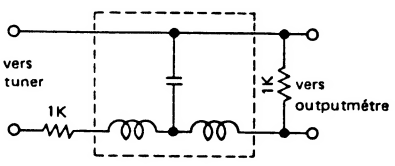
Antenne fictive FM 300Ω

Fig. 1



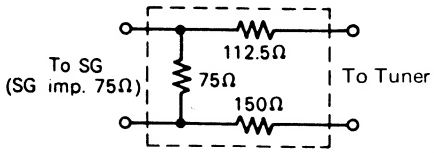
VR301
Ⓐ-Ⓑ , Ⓓ-Ⓔ: Position stéréo arrêt
Ⓑ Ⓓ : Position stéréo en marche (éclairage du voyant indicateur)
Ⓒ : Point de réglage du circuit pilote

Fig. 2



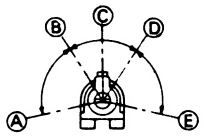
FILTRE PASSE-BAS
(fc = 15 kHz ~19 kHz)

Fig. 3



300Ω FM Dummy Antenna

Fig. 4 (Abb. 4)



VR301

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

Fig. 5 (Abb. 5)

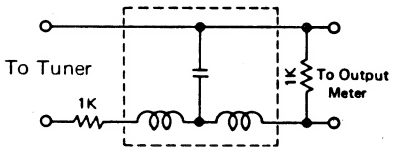


Fig. 6 (Abb. 6)

■ ALIGNMENT POINTS

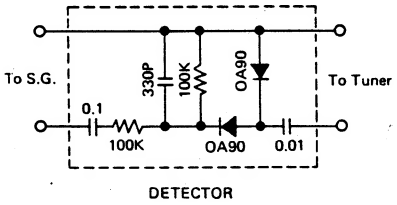
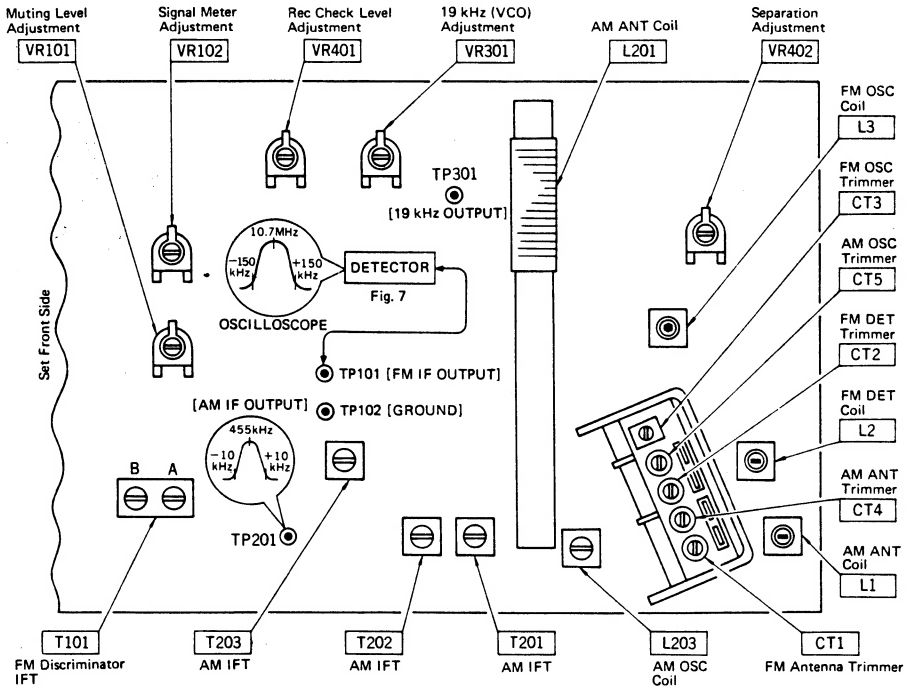
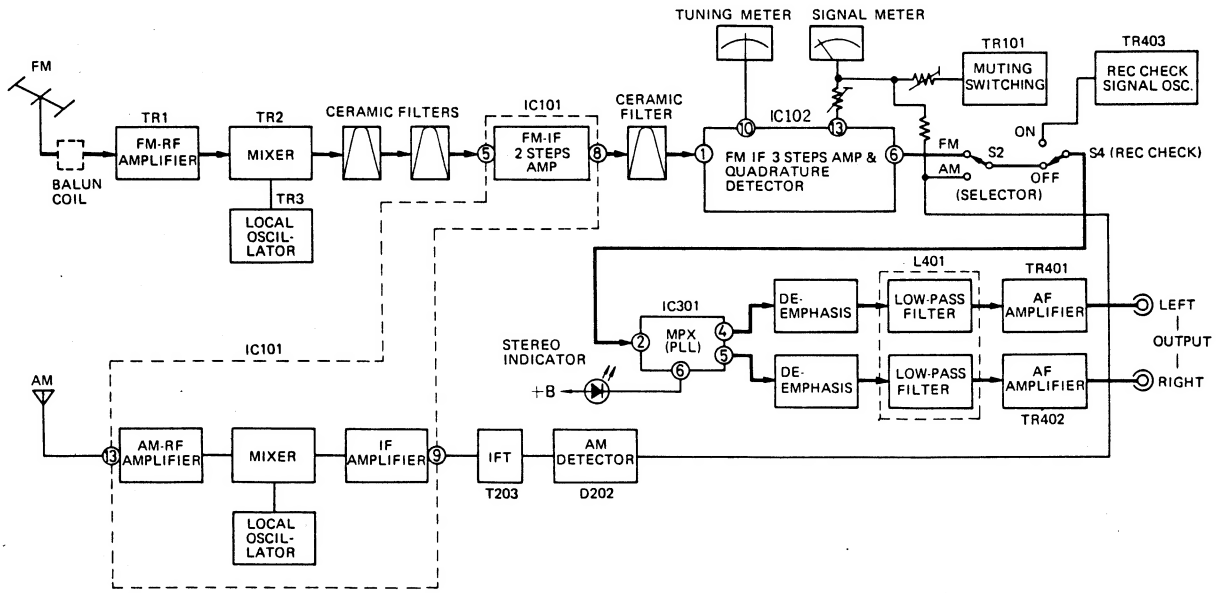


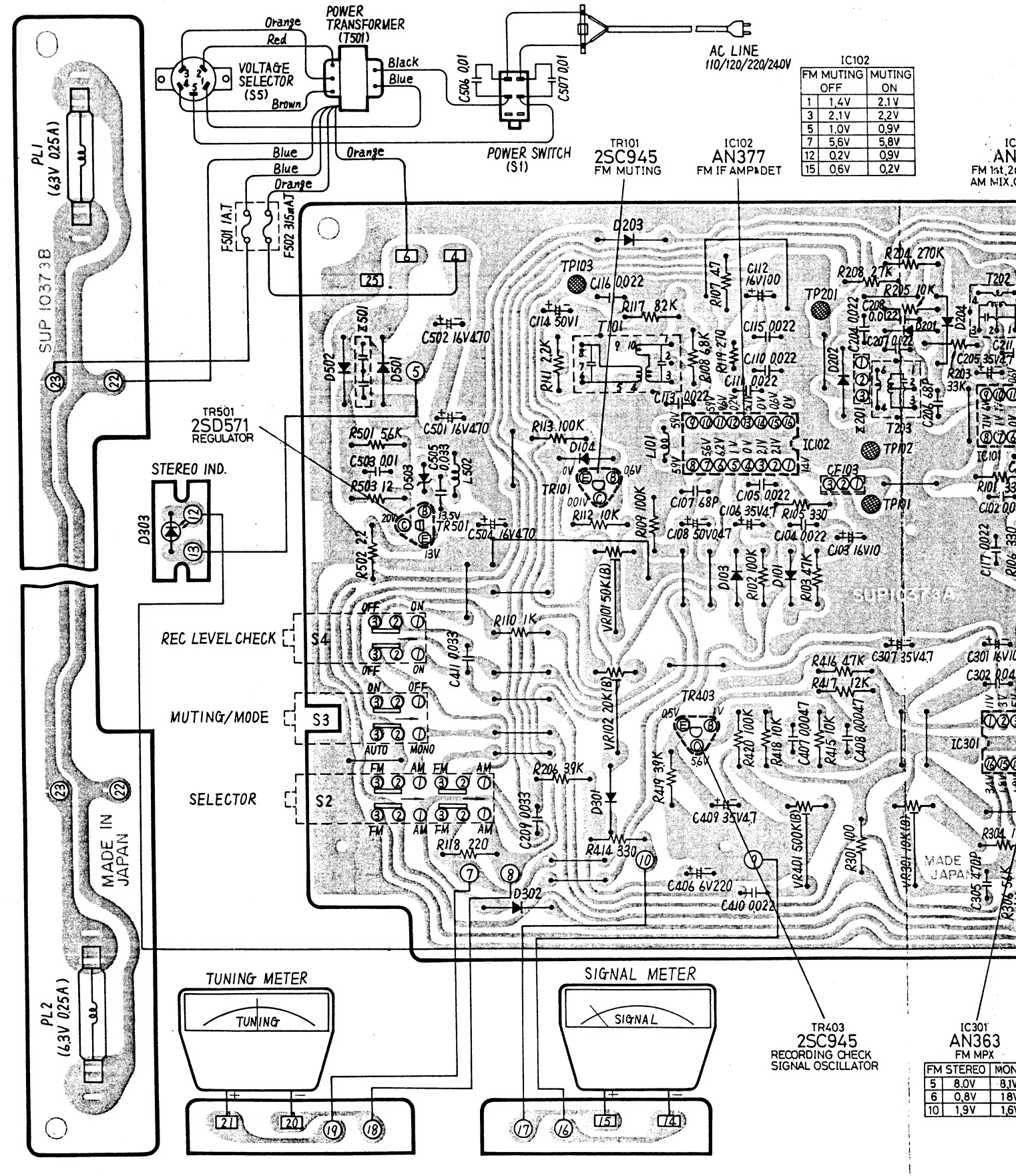
Fig. 7



■ BLOCK DIAGRAM



Printed Circuit Board

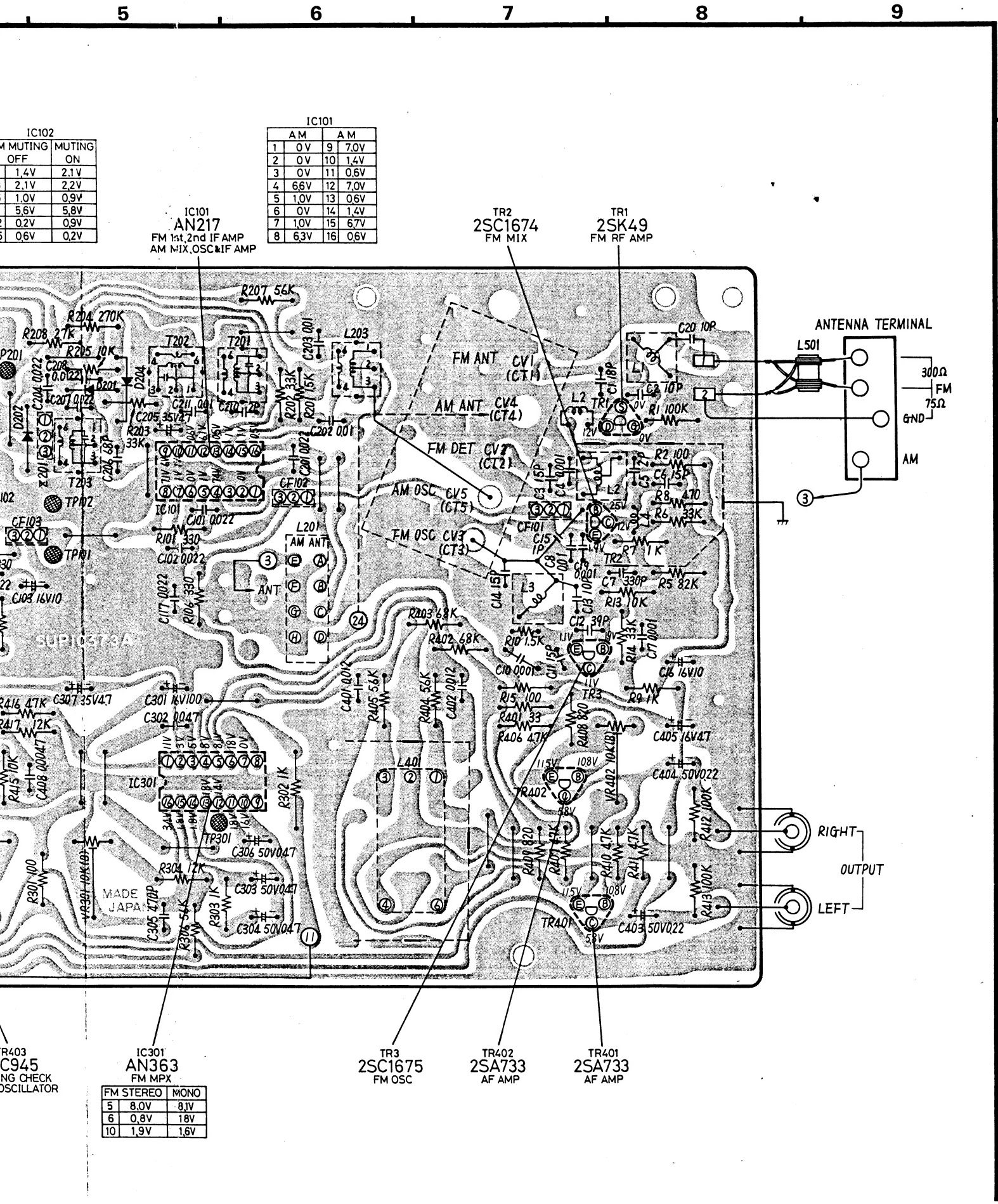


IC102

FM MUTING	OFF	MUTING ON
1	1.4V	2.1V
3	2.1V	2.2V
5	1.0V	0.9V
7	5.6V	5.8V
12	0.2V	0.9V
15	0.6V	0.2V

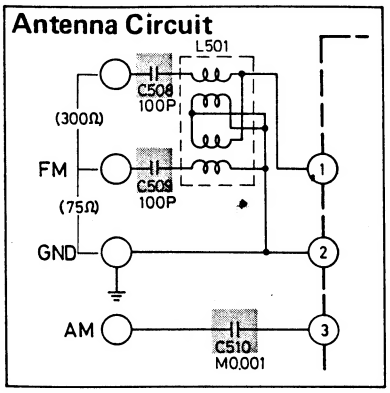
IC301 AN363 FM MPX

FM STEREO	MON
5 8.0V	8.1V
6 0.8V	1.8V
10 1.9V	1.6V


5
6
7
8
9
IC102
M MUTING OFF
MUTING ON
1,4V 2,1V
2,1V 2,2V
1,0V 0,9V
5,6V 5,8V
0,2V 0,9V
0,6V 0,2V
IC101
AM AM
1 0V 9 7,0V
2 0V 10 1,4V
3 0V 11 0,6V
4 6,6V 12 7,0V
5 1,0V 13 0,6V
6 0V 14 1,4V
7 1,0V 15 6,7V
8 6,3V 16 0,6V
IC101
AN217
FM 1st,2nd IF AMP
AM MIX,OSC&IF AMP
TR2
2SC1674
FM MIX
TR1
2SK49
FM RF AMP
ANTENNA TERMINAL
L501
300Ω FM
75Ω
GND
AM
FM ANT CV1 (CT1)
AM ANT CV4 (CT4)
FM DET CV2 (CT2)
AM OSC CV5 (CT5)
FM OSC CV3 (CT3)
AM ANT
ANT
RIGHT
OUTPUT
LEFT
MADE JAPAN
IC301
AN363
FM MPX
FM STEREO MONO
5 8,0V 8,1V
6 0,8V 1,8V
10 1,9V 1,6V
TR3
2SC1675
FM OSC
TR402
2SA733
AF AMP
TR401
2SA733
AF AMP

Schematic Diagram ... Model ST-7300

Only set for Australia [XAL]



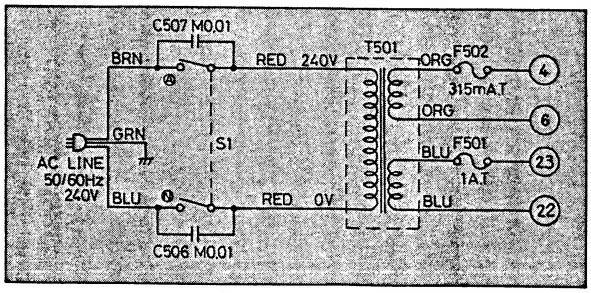
Notes:

1. S1: Power source switch in "OFF" position.
2. S2: Band selector switch in "FM" position.
   ① AM ⟷ ③ FM
3. S3: Muting/FM mode switch in "ON/FM AUTO" position.
   ① OFF/FM MONO ⟷ ③ ON/FM AUTO
4. S4: Recording level check switch in "OFF" position.
   ① ON ⟷ ③ OFF
5. S5: Voltage selector switch in "240V" position.
   ① 110V ⟷ ② 120V ⟷ ③ 220V ⟷ ④ 240V
6. 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.
   ▭ FM monaural signal reception
   ( ) AM signal reception
   < > FM stereo signal reception
   ⌐ ¬ FM muting circuit operation position
7. This schematic diagram may be modified at any time with the development of new technology.

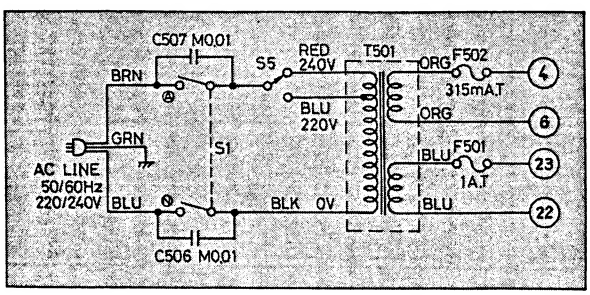
IMPORTANT SAFETY NOTICE

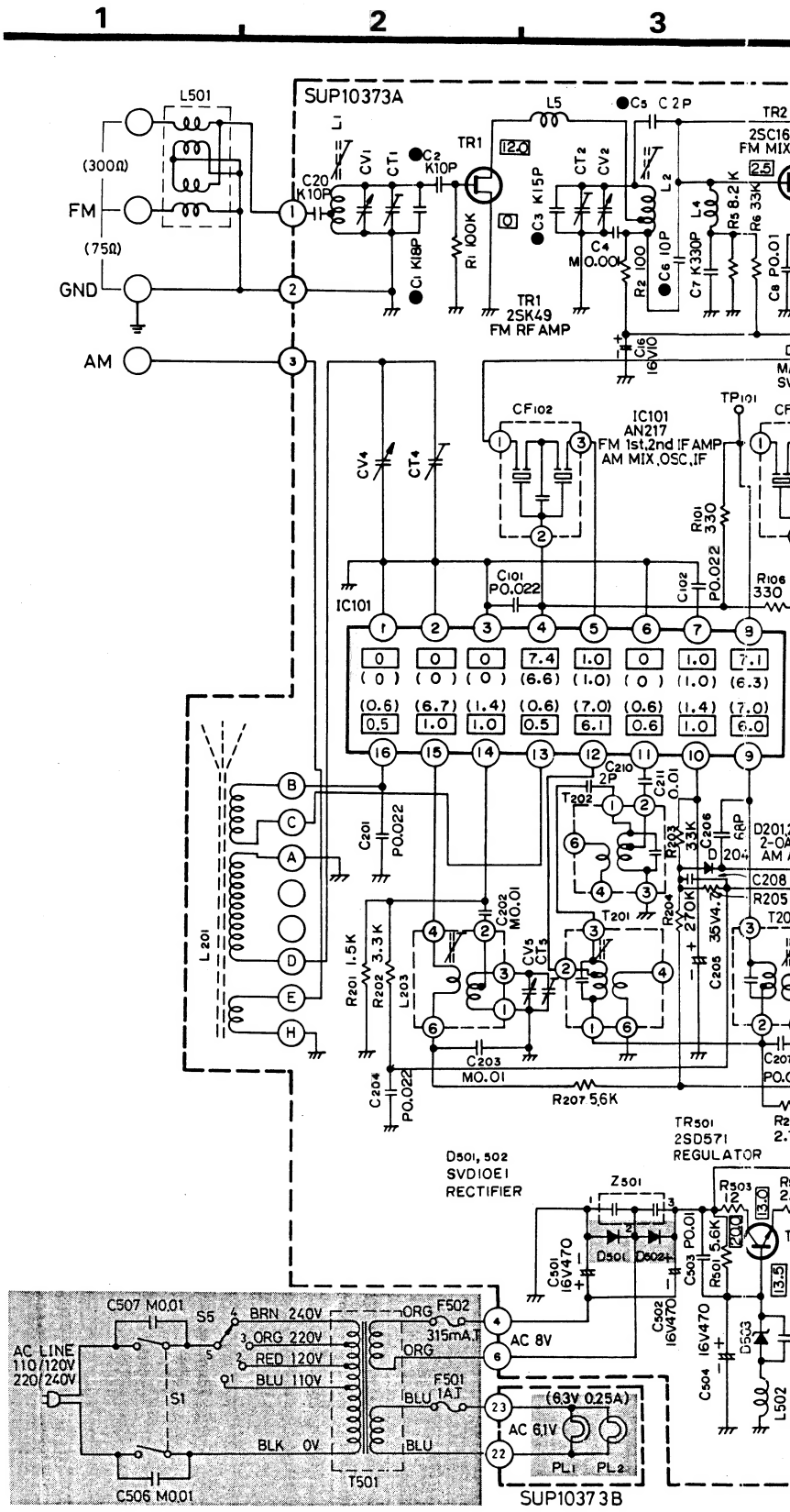
THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY. WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTUR'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Power Source ..... only set for Australia [XAL]

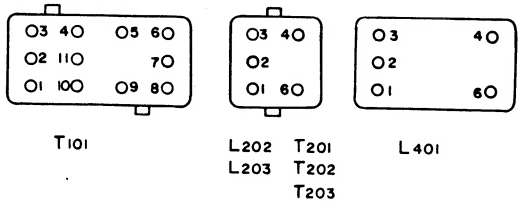


Power Source ..... only set for England [XE]

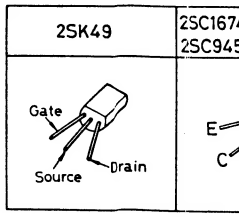


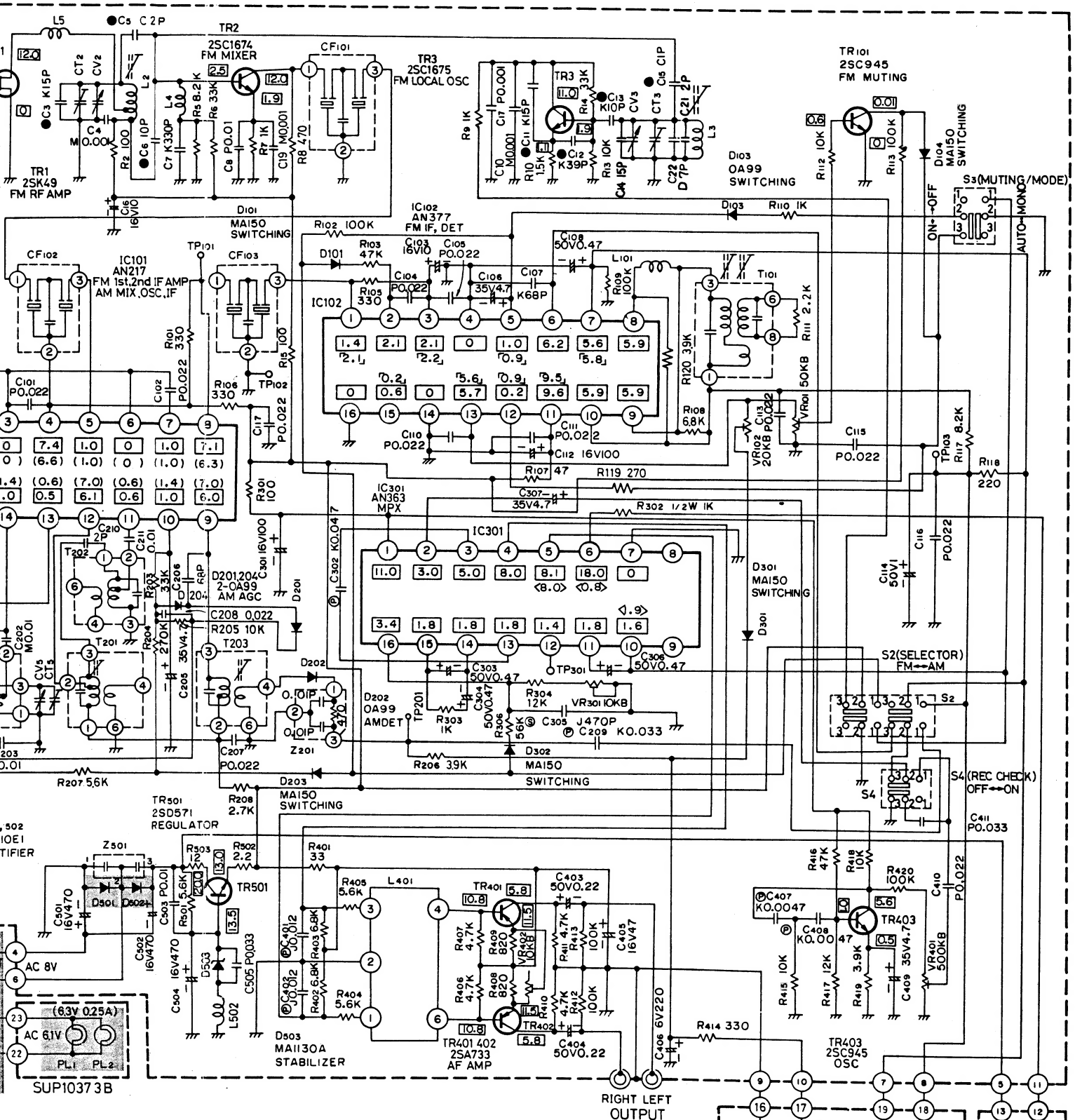


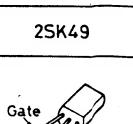
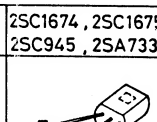
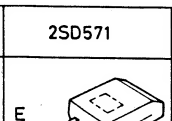
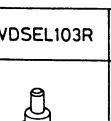
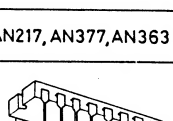
BOTTOM VIEW



T101 L202 T201 L401
L203 T202
T203

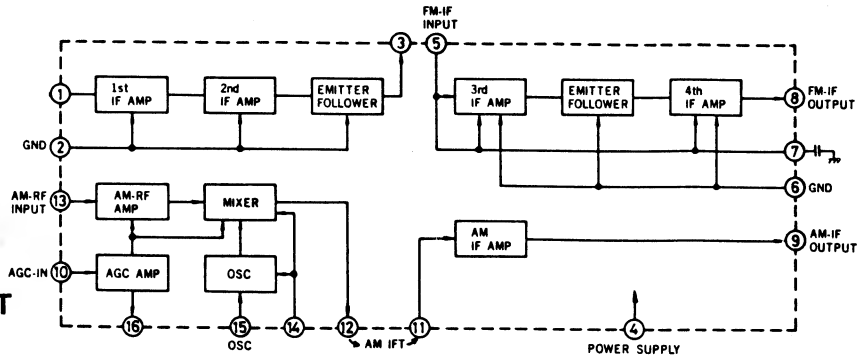




2SK49	2SC1674, 2SC1675 2SC945, 2SA733	2SD571	SVDSEL103R	AN217, AN377, AN363
				

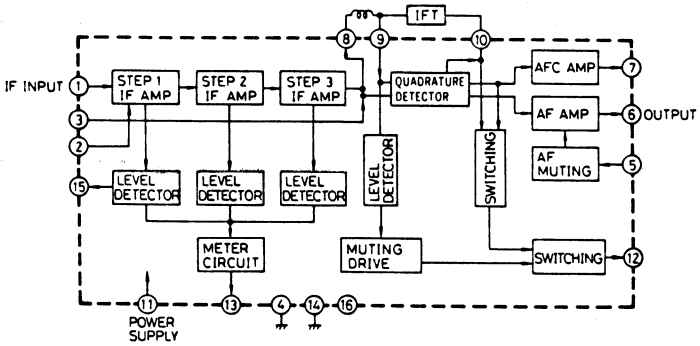
■ BLOCK DIAGRAMS OF INTEGRATED CIRCUITS

IC 101 (AN217)
FM 2 STEPS IF AMPLIFIER
& AM CONVERTER CIRCUIT

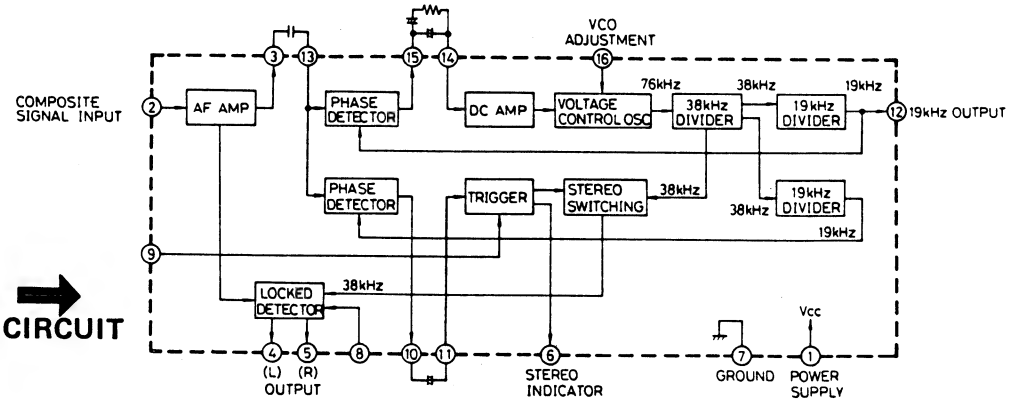


IC102 (AN377)
FM IF AMPLIFIER & DETECTOR
CIRCUIT

RCA
CA3189E



IC301 (AN363)
PLL FM MULTIPLEX CIRCUIT



■ TO REMOVE CABINET

(1) Remove four (4) cabinet-mounting screws (side) Nos. 1~4, as shown in fig. 8.
(2) Remove metal fitting of cabinet from holes A and B of front panel in arrow direction ①, as shown in fig. 8.
(3) Remove cabinet from chassis in arrow direction ②, as shown in fig. 8.
(4) To reassemble, reverse above procedure.

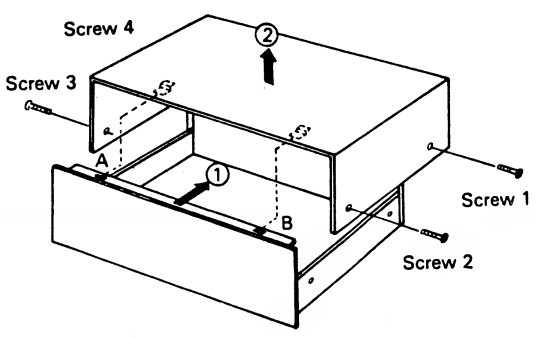


Fig. 8

■ REPLACEMENT PARTS LIST

Important Safety Notice
Components identified by shaded area have special characteristics important for safety. When replacing any of these

Remarks | Per | Part Name & Description | Part No. | Part No.

■ REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

NOTE: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.

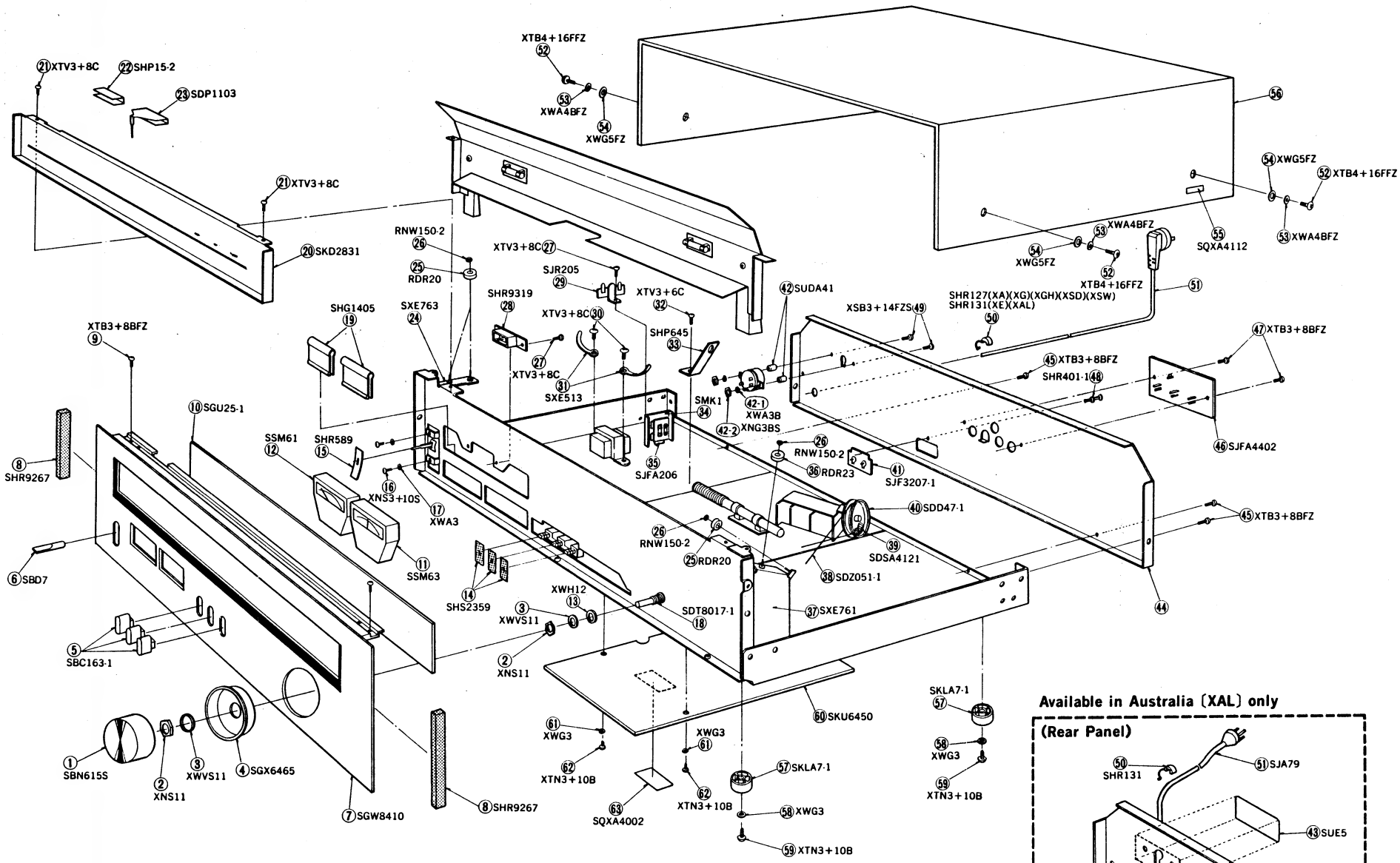
Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
INTEGRATED CIRCUITS					
IC101	AN217-BB	IC, FM IF Amplifier & AM Converter	1		
IC102	AN377	IC, FM IF Amplifier & Detector	1		
IC301	AN363A	IC, PLL FM Multiplex	1		
TRANSISTORS					
TR1	2SK49-H2	Transistor, FM RF Amplifier [FET]	1		
TR2	2SC1674-M	Transistor, FM Mixer	1		
TR3	2SC1675-L1	Transistor, FM Local OSC	1		
TR101, 403	**2SC945-R**	Transistor, FM Muting & Rec. Level Signal OSC (Use in ranks P, Q or R)	2		
TR401, 402	2SA733-P1	Transistor, AF Amplifier	2		
TR501	2SD571-L	Transistor, Regulator	1		
DIODES					
D101, 104, 203, 301, 302	MA150	Diode, Switching	5		
D103, 202	OA99	Diode, Switching & AM Detector	2		
D201, 204	2-OA99	Diode, AM AGC	2		
D303	SVDSEL103R	Light Emitting Diode, Stereo Indicator	1		
D501, 502	SVD10E1	Rectifier	2		
D503	MA1130A	Zener Diode, Stabilizer (13V)	1		
COILS and TRANSFORMERS					
L1, 2	SLD4P9	Coil, FM Antenna & FM Collector (TR1)	2		
L3	SLO4P31	Coil, FM Oscillator	1		○
L4	ELQ5A9	Coil, Choke	1		
L5	RLQY25S5	Coil, Choke	1		
L101	SLQX180-1	Coil, Choke	1		
L201	SLF2D41	Ferrite Antenna Coil, AM	1		○
L203	SLO2C3-P	Coil, AM Oscillator	1		
L401	SLMA1Z3-K	Low Pass Filter	1		
L501	SLAA4W1-3	Coil, Balun	1		
L502	SLQX250-1	Coil, Choke	1		
T101	SLI4D513	IFT, FM Discriminator	1		○
T201, 202	RLI2C257	IFT, AM 1st & 2nd	2		
T203	RLI2C450	IFT, AM 3rd	1		
T501	SLT5K55-1	Power Transformer (Except set for [XE] & [XAL])	1		○
T501 [XE] only	SLT5K63-1	Power Transformer	1		○
T501 [XAL] only	SLT5K71	Power Transformer	1		○
CERAMIC FILTERS					
CF101	SVFE107MS8A	Ceramic Filter, Red, 10.7MHz	each 1		
	SVFE107MS8B	Ceramic Filter, Blue, 10.67MHz			
	SVFE107MS8C	Ceramic Filter, Orange, 10.73MHz			
	SVFE107MS8D	Ceramic Filter, Black, 10.64MHz			
	SVFE107MS8E	Ceramic Filter, White, 10.76MHz			

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
CF102, 103	SVFE107MA8A	Ceramic Filter, Red, 10.7MHz	each 2		
	SVFE107MA8B	Ceramic Filter, Blue, 10.67MHz			
	SVFE107MA8C	Ceramic Filter, Orange, 10.73MHz			
	SVFE107MA8D	Ceramic Filter, Black, 10.64MHz			
	SVFE107MA8E	Ceramic Filter, White, 10.76MHz			
	(Use pair ranks as same as CF101, 102 and 103)				
RESISTORS					
R 1	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1		
R 2	**ERD25TJ101**	Carbon, 100Ω, 1/4W, ± 5%	1		
R 5	**ERD25TJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%	1		
R 6	**ERD25TJ333**	Carbon, 33kΩ, 1/4W, ± 5%	1		
R 7	**ERD25TJ102**	Carbon, 1kΩ, 1/4W, ± 5%	1		
R 8	**ERD25TJ471**	Carbon, 470Ω, 1/4W, ± 5%	1		
R 9	**ERD25TJ102**	Carbon, 1kΩ, 1/4W, ± 5%	1		
R10	**ERD25TJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%	1		
R13	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1		
R14	**ERD25TJ333**	Carbon, 33kΩ, 1/4W, ± 5%	1		
R15	**ERD25TJ101**	Carbon, 100Ω, 1/4W, ± 5%	1		
R101	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1		
R102	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1		
R103	**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%	1		
R105	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1		
R106	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1		
R107	**ERD25TJ470**	Carbon, 47Ω, 1/4W, ± 5%	1		
R108	**ERD25TJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%	1		
R109	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1		
R110	**ERD25TJ102**	Carbon, 1kΩ, 1/4W, ± 5%	1		
R111	**ERD25TJ222**	Carbon, 2.2kΩ, 1/4W, ± 5%	1		
R112	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1		
R113	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1		
R117	**ERD25TJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%	1		
R118	**ERD25TJ221**	Carbon, 220Ω, 1/4W, ± 5%	1		
R119	**ERD25TJ271**	Carbon, 270Ω, 1/4W, ± 5%	1		
R120	**ERD25TJ392**	Carbon, 3.9kΩ, 1/4W, ± 5%	1		
R201	**ERD25TJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%	1		
R202	**ERD25TJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%	1		
R203	**ERD25TJ333**	Carbon, 33kΩ, 1/4W, ± 5%	1		
R204	**ERD25TJ274**	Carbon, 270kΩ, 1/4W, ± 5%	1		
R205	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1		
R206	**ERD25TJ392**	Carbon, 3.9kΩ, 1/4W, ± 5%	1		
R207	**ERD25TJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%	1		
R208	**ERD25TJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%	1		
R301	**ERD25TJ101**	Carbon, 100Ω, 1/4W, ± 5%	1		
R302	**ERD50TJ102**	Carbon, 1kΩ, 1/2W, ± 5%	1		
R303	**ERD25TJ102**	Carbon, 1kΩ, 1/4W, ± 5%	1		
R304	**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%	1		
R306	**ERD25TJ563**	Carbon, 56kΩ, 1/4W, ± 5%	1		
R401	**ERD25TJ330**	Carbon, 33Ω, 1/4W, ± 5%	1		
R402	**ERD25TJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%	1		
R403	**ERD25TJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%	1		
R404	**ERD25TJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%	1		

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R405	**ERD25TJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%	1	
R406	**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%	1	
R407	**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%	1	
R408	**ERD25TJ821**	Carbon, 820Ω, 1/4W, ± 5%	1	
R409	**ERD25TJ821**	Carbon, 820Ω, 1/4W, ± 5%	1	
R410	**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%	1	
R411	**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%	1	
R412	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R413	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R414	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1	
R415	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R416	**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%	1	
R417	**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%	1	
R418	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R419	**ERD25TJ392**	Carbon, 3.9kΩ, 1/4W, ± 5%	1	
R420	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R501	**ERD25TJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%	1	
R502	**ERD25TJ2R2**	Carbon, 2.2Ω, 1/4W, ± 5%	1	
R503	**ERD25TJ120**	Carbon, 12Ω, 1/4W, ± 5%	1	
VARIABLE RESISTORS				
VR101	**EVLS3AA00B54**	Muting Level Adjustment 50kΩ (B)	1	
VR102	**EVLS3AA00B24**	Signal Meter Adjustment 20kΩ (B)	1	
VR301	EVTS3MA00B14	PLL VCO Adjustment 10kΩ (B)	1	
VR401	**EVLS3AA00B55**	Recording Level Adjustment 500kΩ (B)	1	
VR402	**EVLS3AA00B14**	Separation Adjustment 10kΩ (B)	1	
CAPACITORS				
C 1	ECCD1H180KC	Ceramic, 18pF, 50V, ±10%	1	
C 2	ECCD1H100KC	Ceramic, 10pF, 50V, ±10%	1	
C 3	ECCD1H150KC	Ceramic, 15pF, 50V, ±10%	1	
C 4	ECKD1H102MD	Ceramic, 0.001μF, 50V, ±20%	1	
C 5	ECCD1H020CC	Ceramic, 2pF, 50V, ±0.25pF	1	
C 6	ECCD1H100KC	Ceramic, 10pF, 50V, ±10%	1	
C 7	ECCD1H331K	Ceramic, 330pF, 50V, ±10%	1	
C 8	ECKD1H103PF	Ceramic, 0.01μF, 50V, +100 −0%	1	
C10	ECKD1H102MD	Ceramic, 0.001μF, 50V, ±20%	1	
C11	ECCD1H150KC	Ceramic, 15pF, 50V, ±10%	1	
C12	ECCD1H390KC	Ceramic, 39pF, 50V, ±10%	1	
C13	ECCD1H100KC	Ceramic, 10pF, 50V, ±10%	1	
C14	ECCD1H150KR	Ceramic, 15pF, 50V, ±10%	1	
C15	ECCD1H010CC	Ceramic, 1pF, 50V, ±0.25pF	1	
C16	ECEA16V10	Electrolytic, 10μF, 16V	1	
C17	ECKD1H102PF	Ceramic, 0.001μF, 50V, +100 −0%	1	
C19	ECKD1H102MD	Ceramic, 0.001μF, 50V, ±20%	1	
C20	ECCD1H100KC	Ceramic, 10pF, 50V, ±10%	1	
C21	ECCD1H020CC	Ceramic, 2pF, 50V, ±0.25pF	1	
C22	ECCD1H070DC	Ceramic, 7pF, 50V, ±0.5pF	1	
C101	ECCD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C102	ECCD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C103	ECEA16V10	Electrolytic, 10μF, 16V	1	
C104	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C105	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C106	ECEA35V4R7	Electrolytic, 4.7μF, 35V	1	
C107	ECCD1H680KC	Ceramic, 68pF, 50V, ±10%	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C108	ECEA50VR47	Electrolytic, 0.47μF, 50V	1	
C110	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C111	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C112	**ECEA16V100V**	Electrolytic, 100μF, 16V	1	
C113	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C114	ECEA50V1	Electrolytic, 1μF, 50V	1	
C115	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C116	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C117	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C201	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C202	ECKD103MD	Ceramic, 0.01μF, 50V, ±20%	1	
C203	ECKD1H103MD	Ceramic, 0.01μF, 50V, ±20%	1	
C204	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C205	ECEA35V4R7	Electrolytic, 4.7μF, 35V	1	
C206	ECCD1H680KC	Ceramic, 68pF, 50V, ±10%	1	
C207	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C208	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C209	ECQM1H333KZ	Polyester, 0.033μF, 50V, ±10%	1	
C210	ECCD1H020CC	Ceramic, 2pF, 50V, ±0.25pF	1	
C211	ECKD1H103PF	Ceramic, 0.01μF, 50V, +100 −0%	1	
C301	**ECEA16V100V**	Electrolytic, 100μF, 16V	1	
C302	ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%	1	
C303	ECEA50VR47	Electrolytic, 0.47μF, 50V	1	
C304	ECEA50VR47	Electrolytic, 0.47μF, 50V	1	
C305	ECQS05471JZ	Styrol, 470pF, 50V, ± 5%	1	
C306	ECEA50MR47R	Electrolytic, 0.47μF, 50V	1	
C307	ECEA35V4R7	Electrolytic, 4.7μF, 35V	1	
C401	ECQM1H123JZ	Polyester, 0.012μF, 50V, ± 5%	1	
C402	ECQM1H123JZ	Polyester, 0.012μF, 50V, ± 5%	1	
C403	ECEA50MR22R	Electrolytic, 0.22μF, 50V	1	
C404	ECEA50MR22R	Electrolytic, 0.22μF, 50V	1	
C405	ECEA16V47	Electrolytic, 47μF, 16V	1	
C406	**ECEA6V220V**	Electrolytic, 220μF, 6.3V	1	
C407	ECQM1H472KZ	Polyester, 0.0047μF, 50V, ±10%	1	
C408	ECQM1H472KZ	Polyester, 0.0047μF, 50V, ±10%	1	
C409	ECEA35V4R7	Electrolytic, 4.7μF, 35V	1	
C410	ECKD1H223PF	Ceramic, 0.022μF, 50V, +100 −0%	1	
C411	ECKD1H333PF	Ceramic, 0.033μF, 50V, +100 −0%	1	
C501	**ECEA16V470V**	Electrolytic, 470μF, 16V	1	
C502	**ECEA16V470V**	Electrolytic, 470μF, 16V	1	
C503	ECKD1H103PF	Ceramic, 0.01μF, 50V, +100 −0%	1	
C504	**ECEA16V470V**	Electrolytic, 470μF, 16V	1	
C505	ECKD1H333PF	Ceramic, 0.033μF, 50V, +100 −0%	1	
C506	ECNC4A103M	Paper, 0.01μF, 450V,AC ±20%	1	
C507	ECNC4A103M	Paper, 0.01μF, 450V,AC ±20%	1	
C508[XAL]only	ECKDHS101MB	Ceramic, 100pF, 400V AC, ±20%	1	
C509[XAL]only	ECKDHS101MB	Ceramic, 100pF, 400V AC, ±20%	1	
C510[XAL]only	ECKDHS102MD	Ceramic, 0.001μF, 400V AC, ±20%	1	
VARIABLE CAPACITORS				
CV1~5 (CT1~5)	ECVC751K144	Tuning Capacitor w/Trimmer	1	
COMPONENT COMBINATIONS				
Z201	EXAF203Z471	Component Combination, AM Detector	1	
Z501	RXAF103P22HD	Component Combination, 0.01μF (X2)	1	

■ EXPLODED VIEWS



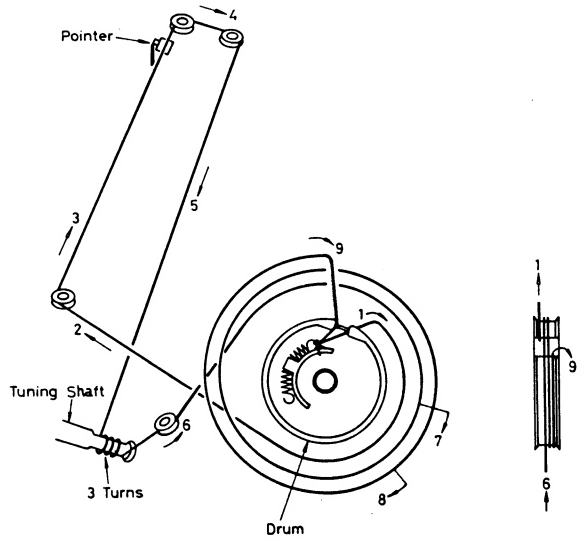
Available in Australia (XAL) only

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
		FUSES			
F501	XBA2C10TR0	Fuse, 1AT (250V) Power Source	1		
F502	XBA2C03TR0	Fuse, 315mAT (250V) Power Source	1		
		SWITCHES			
S1	SSL37S	Switch, Power	1		
S2, 3, 4	SSH323S	Switch, Selector	1		
S5	ESE372	Switch, Voltage Selector (Except Set for [XAL] & [XE])	1		
S5 [XE] only	ESE376	Switch, Voltage Selector	1		
		LAMPS			
PL1, 2	XAMR59P	Lamp, Dial Light (6.3V 0.25A)	2		
		CABINET and CHASSIS PARTS			
1	SBN615S	Knob, Tuning Control	1		
2	XNS11	Nut, Tuning Shaft	2		
3	XWVS11	Washer (Spring), Tuning Shaft	2		
4	SGX6465	Ornament, Tuning Knob	1		
5	SBC163-1	Button, Selector, Rec Level Check & Mode Switch	3		
6	SBD7	Knob, Power Switch	1		
7	SGW8410	Panel, Front	1		○
8	SHR9267	Shading Cloth	2		
9	XTB3+8BFZ	Screw, Front Panel M'tg	2		
10	SGU25-1	Glass Plate, Front Panel	1		
11	SSM63	Meter, Center Tuning	1		
12	SSM61	Meter, Signal	1		
13	XWH12	Washer, Tuning Shaft	1		
14	SHS2359	Shading Cloth	3		
15	SHR589	Bracket, Power Switch	1		
16	XNS3+10S	Screw, Power Switch M'tg	2		
17	XWA3	Washer (Spring), Power Switch	2		
18	SDT8017-1	Shaft, Tuning	1		*
19	SHG1405	Rubber Cushion, Meter	2		○
20	SKD2831	Scale, Dial	1		
21	XTV3+8C	Screw, Dial Scale M'tg	2		
22	SHP15-2	Paper, Pointer Slide	1		
23	SDP1103	Pointer, Dial	1		*
24	SXE763	Bracket, Dial Pulley Shaft Ass'y	1		○
25	RDR20	Pulley, Dial	3		
26	RNW150-2	Washer, Pulley Lock	4		
27	XTV3+8C	Screw, Terminal Strip M'tg	1		
28	SHR9319	Bracket, LED	1		○
29	SJR205	Terminal Strip	1		○
30	XTV3+8C	Screw, Lead Wier Clamp M'tg	2		
31	SXE513	Clamp, Lead Wier	2		
32	XTV3+6C	Screw, Ferrite Antenna Bracket M'tg	1		
33	SHP645	Bracket, Ferrite Antenna	1		○
34	SMK1	Bracket, Fuse Holder	1		*
35	SJFA206	Holder, Fuse	1		
36	RDR23	Pulley, Dial	1		
37	SXE761	Bracket, Dial Pulley Shaft Ass'y	1		○
38	SDZ051-1	Cord, Dial 78¾" (200cm)	1 roll		
39	SDSA4121	Spring, Dial Cord	1		
40	SDD47-1	Drum, Dial Cord	1		
41	SJF3207-1	Terminal Board, Outputs	1		
42	SUDA41	Spacer, Voltage Selector Switch	2		*
42-1	XWA3B	Washer (Spring), Voltage Selector Switch	2		
42-2	XNG3BS	Nut, Voltage Selector Switch	2		

Ref. No:	Part No.	Part Name & Description	Per Set		Remarks
43 [XAL] only	SUE5	Cover, Rear Panel Hole	1		
44	SGP550A	Rear Panel	1		○
44 [XSD, XSW] only	SGPT7300D	Rear Panel, SGP550A with Name Plate (SGT13510)	1		○
44 [XE] only	SGPT7300E	Rear Panel, SGP550-1A with Name Plate (SGT13530)	1		○
44 [XAL] only	SGPT7300L	Rear Panel, SGP550-1A with Name Plate (SGT13550)	1		○
45	XTB3+8BFZ	Screw, Rear Panel M'tg	4		
46	SJFA4402	Terminal Board, Antenna	1		
47	XTB3+8BFZ	Screw, Antenna Terminal Board M'tg	2		
48	SHR401-1	Latch, Outputs Terminal Board	1		
49	XSB3+14FZS	Screw, Voltage Selector Switch M'tg	2		
50	SHR127	Bushing, AC Cord (Except set for [XAL] & [XE])	1		
50 [XE, XAL] only	SHR131	Bushing, AC Cord	1		
51 [XA, XG]	SJA95	AC Cord, with Plug	1		
51 [XGH, XGF, XSD]	SJA81	AC Cord, with Plug	1		
51 [XSW]	SJA68	AC Cord, with Plug	1		
51 [XE]	SJA73	AC Cord	1		
51 [XAL]	SJA79	AC Cord, with Plug	1		
52	XTB4+16FFZ	Screw, Cabinet M'tg	4		
53	XWA4BFZ	Washer (Spring), Cabinet	4		
54	XWG5FZ	Washer, Cabinet Screw	4		
55	SQXA4112	Caution Label, Cabinet	1		
56	SKA9150W	Cabinet, Black Wooden (Except set for [XE])	1		○
56 [XE] only	SKA9170W	Cabinet, Brown Wooden	1		○
57	SKLA7-1	Foot, Set Bottom	4		
58	XWG3	Washer, Set Bottom Foot Screw	4		
59	XTN3+10B	Screw, Set Bottom Foot M'tg	4		
60	SKU6450	Bottom Board	1		*○
61	XWG3	Washer, Bottom Board Screw	2		
62	XTN3+10B	Screw, Bottom Board M'tg	2		
63	SQXA4002	Caution Label, Bottom Board	1		
		ACCESSORIES			
A1	SSA251	FM Feeder Antenna	1		
A2	SJP2129-5	Cord, Connection	1		
A3 [XA] only	SJP5213	Plug Adaptor, AC Power	1		
		PACKING PARTS			
P1	SPP495	Polyethylene Bag	1		
P2	SPS967	Pad, Left Side, Upper	1		
P3	SPS965	Pad, Left Side, Lower	1		
P4	SPS971	Pad, Right Side, Upper	1		
P5	SPS969	Pad, Right Side, Lower	1		
P6	SPG1005	Carton Box, (Except set for [XE] & [XGF])	1		○
P6 [XE] only	SPG1007	Carton Box	1		○
P6 [XGF] only	SPG1065	Carton Box	1		○
P7	SQF1493	Printed Matter (Except set for [XAL] & [XE])	1		○
P7 [XAL] only	SQF1495	Printed Matter	1		○
P7 [XE] only	SQF1499	Printed Matter	1		○

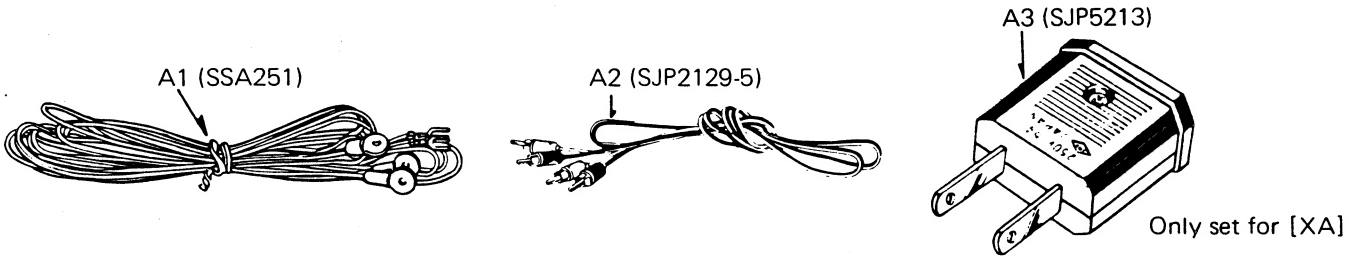
The model [XA] is available in Asia, Latin America, Middle East and Africa only.
The model [XAL] is available in Australia only.
The model [XG] is available in European only.
The model [XGH] is available in Holland only.
The model [XSD] is available in Scandinavia only.
The model [XSW] is available in Switzerland only.
The model [XE] is available in England only.
The model [XGF] is available in France only.

■ DIAL CORD INSTALLATION GUIDE

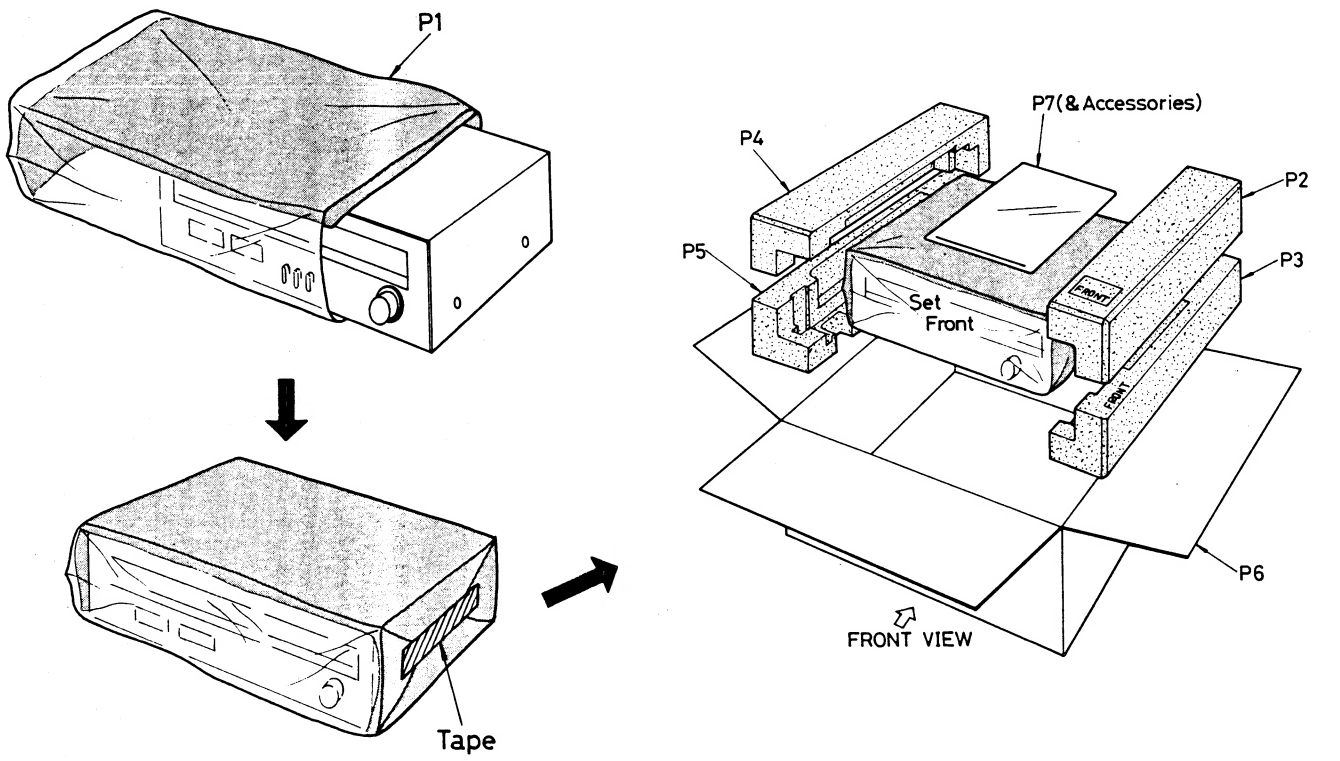


- For threading a fresh cord, proceed as follws.
  1. Prepare a fresh cord more than 200cm (78-3/8") in length.
  2. Bring the variable capacitor into a state where the drum is completely turned to the right (maximum capacity and lowest frequency for the variable capacitor).
  3. Direct the cord in the order from 1 to 9.
  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.

■ ACCESSORIES



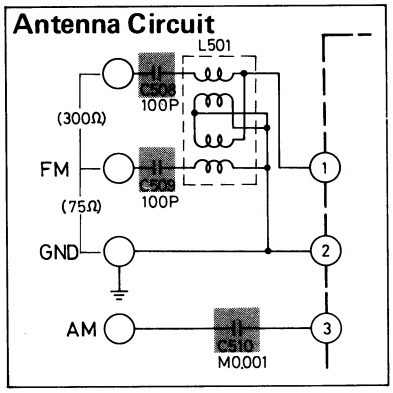
■ PACKINGS



Printed in Japan
7703-8000

Schematic Diagram ... Model ST-7300/ST-7300K

Only set for Australia [XAL]



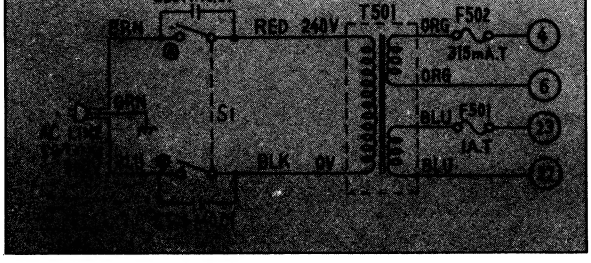
Notes:

1. S1: Power source switch in "OFF" position.
2. S2: Band selector switch in "FM" position.
   ① AM ⟷ ③ FM
3. S3: Muting/FM mode switch in "ON/FM AUTO" position.
   ① OFF/FM MONO ⟷ ③ ON/FM AUTO
4. S4: Recording level check switch in "OFF" position.
   ① ON ⟷ ③ OFF
5. S5: Voltage selector switch in "240V" position.
   ① 110V ⟷ ② 120V ⟷ ③ 220V ⟷ ④ 240V
6. 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.
   ▭ FM monaural signal reception
   ( ) AM signal reception
   < > FM stereo signal reception
   ⌜ ⌟ FM muting circuit operation position
7. This schematic diagram may be modified at any time with the development of new technology.

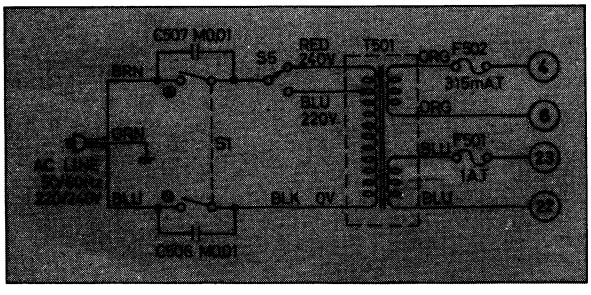
IMPORTANT SAFETY NOTICE

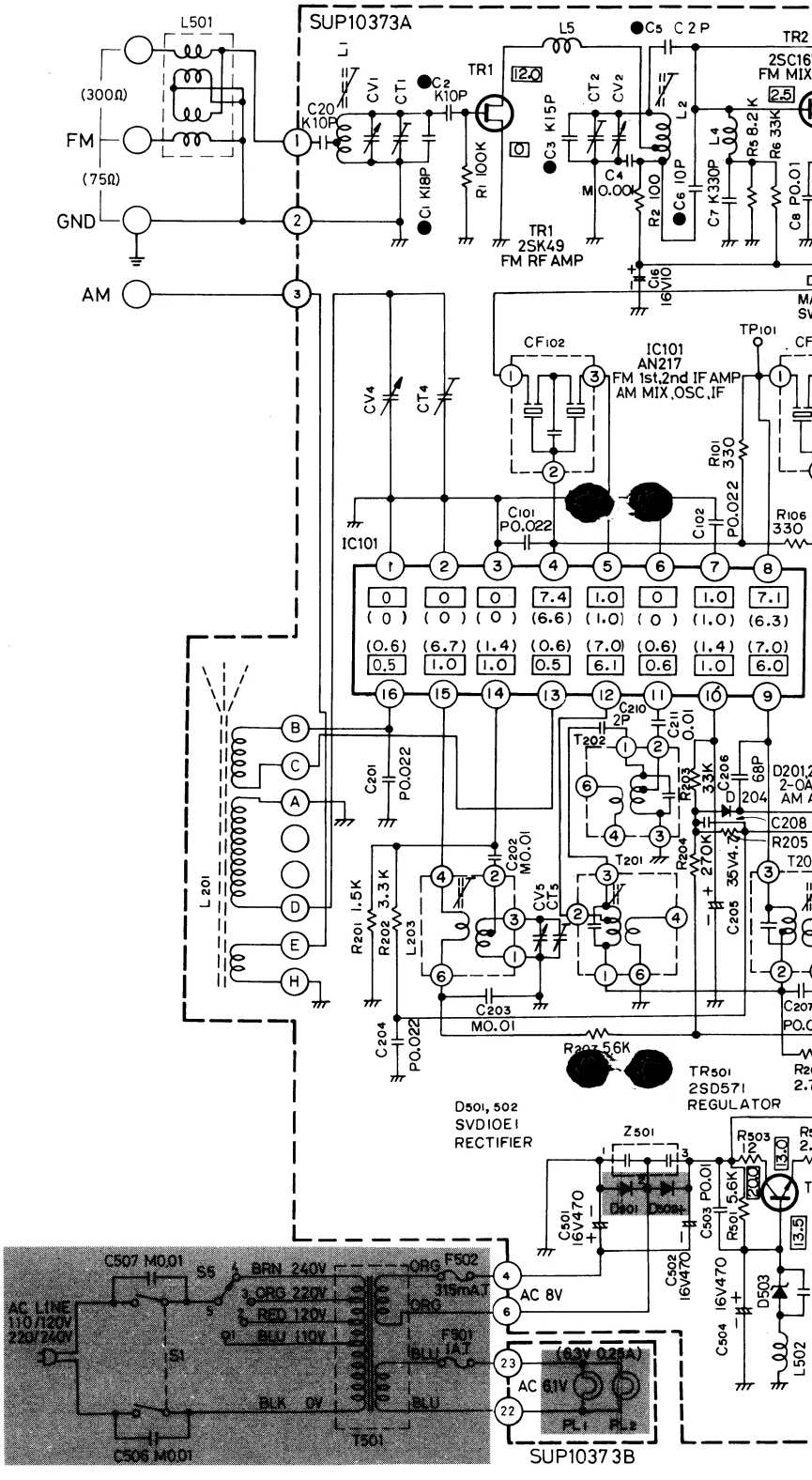
THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY. WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTUR'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Power Source . . . . . only set for Australia [XAL]

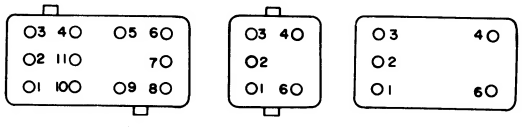


Power Source . . . . . only set for England [XE]

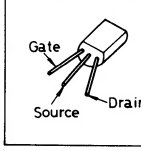




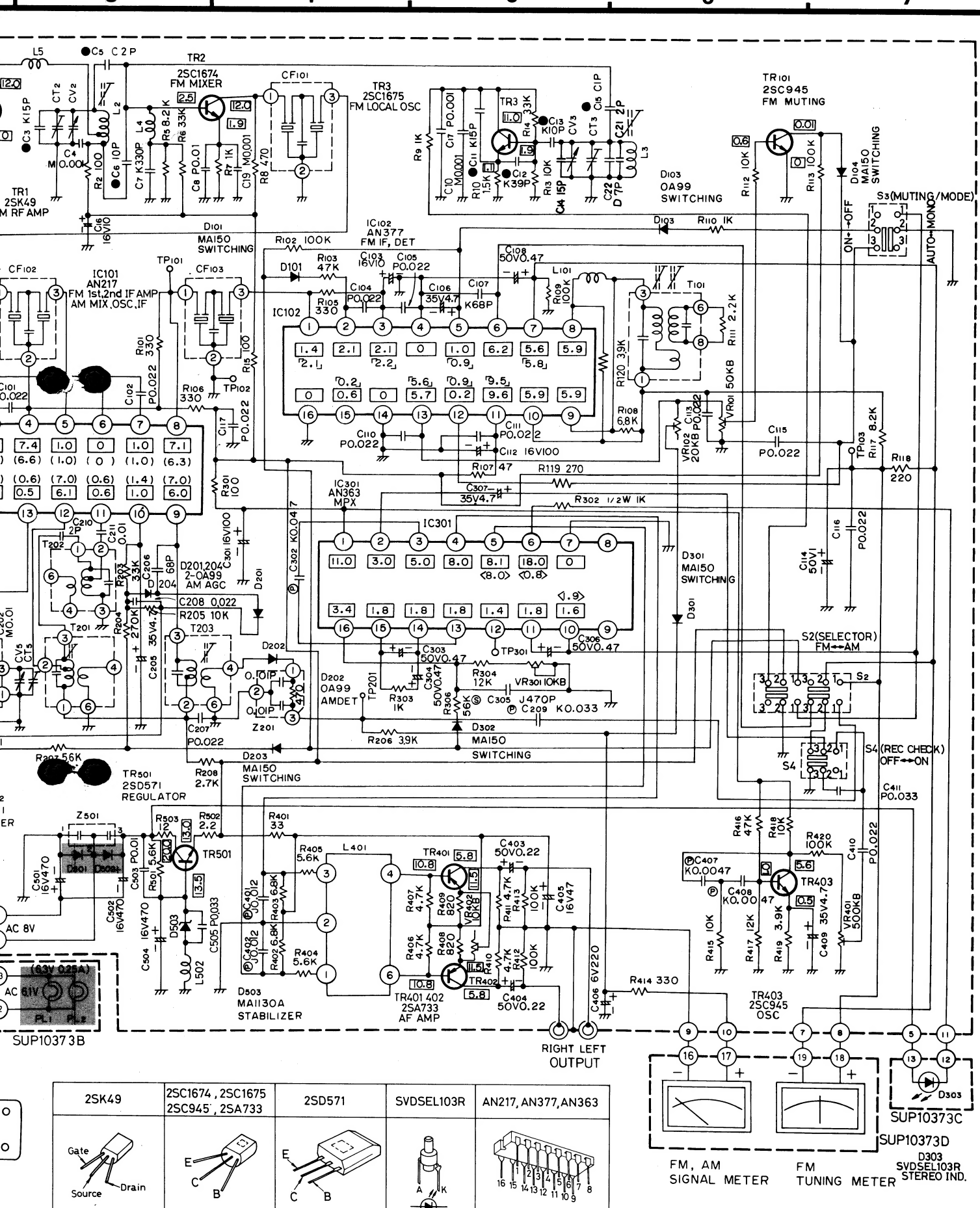
BOTTOM VIEW



T101 L202 T201 L203 T202 T203 L401

2SK49	2SC1674 2SC945
	

ST-7300K


3
4
5
6
7
A
B
C
D
E
F
TR1 2SK49 RF AMP
TR2 2SC1674 FM MIXER
TR3 2SC1675 FM LOCAL OSC
TR101 2SC945 FM MUTING
IC101 AN217 FM 1st,2nd IF AMP AM MIX,OSC,IF
IC102 AN377 FM IF, DET
IC301 AN363 MPX
D101 MA150 SWITCHING
D103 0A99 SWITCHING
D104 MA150 SWITCHING
D201,204 2-0A99 AM AGC
D202 0A99 AMDET
D203 MA150 SWITCHING
D301 MA150 SWITCHING
D302 MA150 SWITCHING
TR501 2SD571 REGULATOR
D503 MA130A STABILIZER
TR401 402 2SA733 AF AMP
TR403 2SC945 OSC
S2(SELECTOR) FM↔AM
S3(MUTING/MODE) ON↔OFF AUTO↔MONO
S4(REC CHECK) OFF↔ON
RIGHT LEFT OUTPUT
SUP10373B
SUP10373C
SUP10373D
FM, AM SIGNAL METER
FM TUNING METER
D303 SVDSEL103R STEREO IND.
2SK49
2SC1674 , 2SC1675 2SC945 , 2SA733
2SD571
SVDSEL103R
AN217, AN377, AN363
Gate
Source
Drain
E
C
B
A
K