

SERVICE MANUAL

AUDIO VIDEO STEREO RECEIVER

SANSUI S-X1130/X1100

(Silver & Black Model)



CAUTION

1. Parts identified by the Δ symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

Sansui

SANSUI ELECTRIC CO., LTD.

•SPECIFICATIONS

Audio section

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.005% total harmonic distortion.

130 watts per channel into 8 ohms

Load impedance..... 8 ohms

Total harmonic distortion

from POWER AMP IN..... less than 0.005% at or below rated min. RMS power output

Frequency response (at 1 watt)

from POWER AMP IN..... 5 to 180,000 Hz, +0 dB, -3.0 dB

RIAA curve deviation (PHONO MM, 20 Hz to 20 kHz)

..... +0.2 dB, -0.2 dB

Input sensitivity and impedance(at 1 kHz)

PHONO (MC)..... 250 μ V/100 ohms

PHONO (MM)..... 2.5 mV/47 kohms

TAPE PLAY, AUX/DA..... 150 mV/47 kohms

VIDEO AUDIO IN..... 150 mV/47 kohms (S-X1100)

MIC..... 2.5 mV/10 kohms

Output level (at 1 kHz)

TAPE REC..... 150 mV into 47 kohms

PREAMP OUT..... 1,000 mV in to 47 kohms

Signal to noise ratio (short-circuit, A-network)

PHONO (MC)..... 65 dB

PHONO (MM)..... 85 dB

TAPE PLAY, AUX/DA..... 95 dB (S-X1130)

TAPE PLAY, AUX/DA..... 90 dB (S-X1100)

VIDEO AUDIO IN..... 90 dB (S-X1100)

Video section (S-X1130 only)

VIDEO INPUT sensitivity (Impedance)..... 1.0 Vp-p/75 ohms

VIDEO OUTPUT level/Impedance..... 1.0 Vp-p/75 ohms

AUDIO INPUT sensitivity (Impedance)..... -6 dBs/47 kohms

AUDIO OUTPUT level/Impedance..... -6 dBs/47 kohms

VHF OUT signal..... 3 ch or 4 ch (NTSC)

FM section

Tuning range..... 88 to 108 MHz

Usable sensitivity

Mono..... 10.3 dBf/Stereo..... 19 dBf

50 dB quieting sensitivity

Mono..... 14 dBf/Stereo..... 37 dBf

Signal to noise ratio (at 65 dBf)

Mono..... 80 dB/Stereo..... 76 dB

Distortion (at 65 dBf WIDE)

Mono..... less than 0.03% at 1,000 Hz (S-X1130)

Stereo..... less than 0.05% at 1,000 Hz (S-X1130)

Mono..... less than 0.1% at 1,000 Hz (S-X1100)

Stereo..... less than 0.15% at 1,000 Hz (S-X1100)

Alternate channel selectivity (at 400 kHz)

NARROW..... 60 dB

Capture ratio..... 1.0 dB

Spurious response ratio..... 90 dB

IF response ratio..... 90 dB

Stereo separation..... 45 dB at 1,000 Hz

Frequency response..... 30 to 15,000 Hz, +0.2 dB, -0.5 dB

Antenna input impedance..... 300 ohms balanced
75 ohms unbalanced

AM section

Tuning range..... 530 to 1,600 kHz

Usable sensitivity

Mono..... 49 dB/m

Selectivity..... 30 dB

Signal to noise ratio

Mono..... 50 dB

Distortion (at 30% Modulation, 80 dB/m)/Mono... less than 0.5%

Others

Power requirements

Power voltage..... 120, 220, 240 V, (50/60 Hz)

For U.S.A. and Canada..... 120 V (60 Hz)

<S-X1130>

Power consumption..... 450 watts 530 VA Rated

Dimensions..... 430 mm (16-15/16") W

161 mm (6-3/8") H

421 mm (16-5/8") D

Weight..... 16.3 kg (35.9 lbs.) net

18.0 kg (39.7 lbs.) packed

<S-X1100>

Power consumption..... 370 watts 430 VA Rated

Dimensions..... 430 mm (16-15/16") W

161 mm (6-3/8") H

421 mm (16-5/8") D

Weight..... 14.7 kg (32.4 lbs.) net

16.4 kg (36.2 lbs.) packed

* Design and specifications subject to changes without notice for improvements.

CAUTION

1. The symbols, UL, CSA, SA, BS, UK, EU, AS and XX on the parts list and the schematic diagram mean followings respectively.

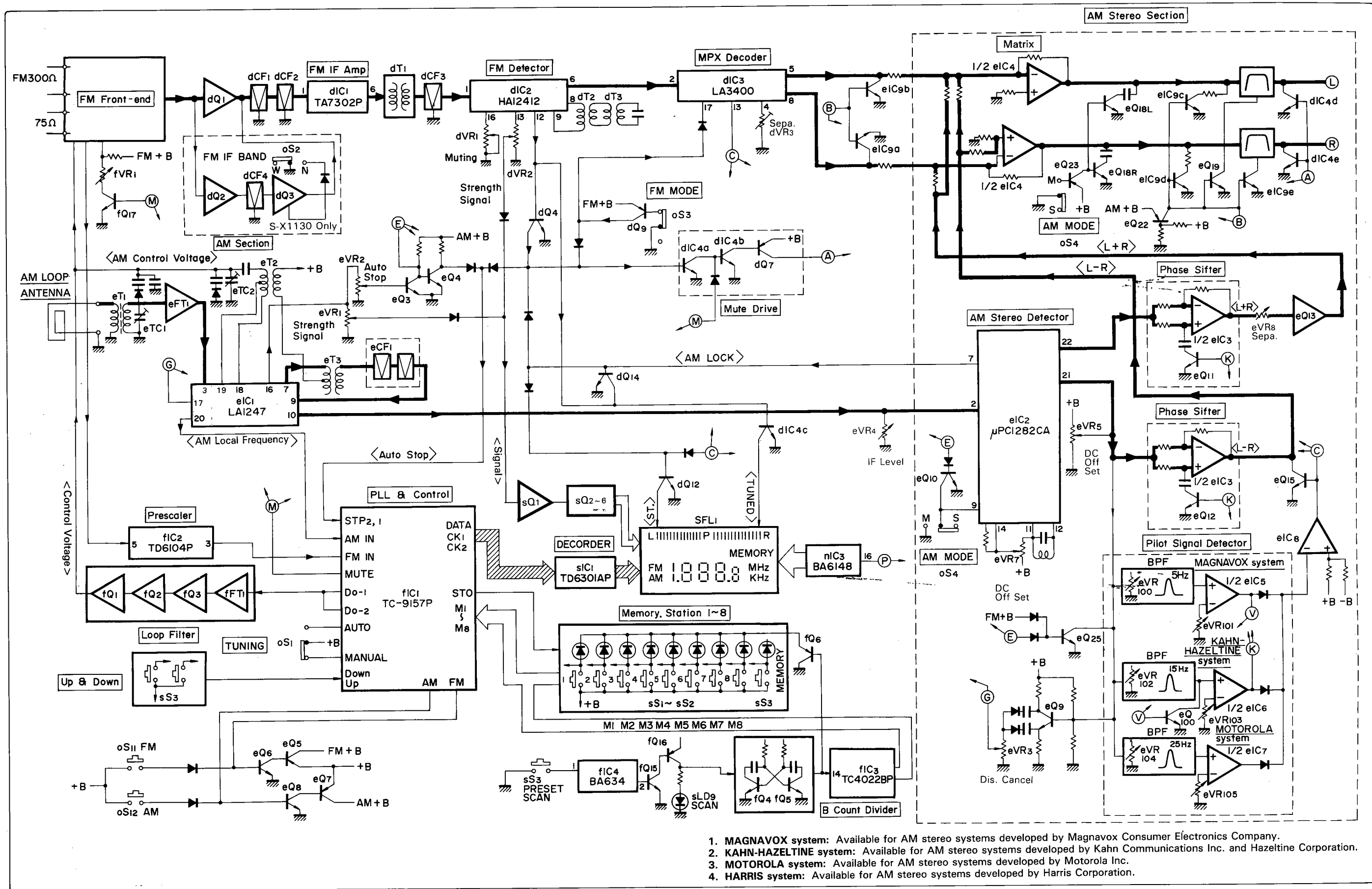
UL..... Manufactured for U.S.A market.
(Underwriters Laboratories approved model.)
CSA Manufactured for Canadian market.
SA..... Manufactured for South African market.
BS, UK Manufactured for United Kingdom market.
EU Manufactured for European market.
AS..... Manufactured for Australian market.
XX..... Standard Version.
NON MARK Common Parts.

2. Some printed circuit boards are not supplied as the assembled. To separate these in this service manual, the stock No's are not indicated at the ends of the board names. However, the individual parts on the circuit boards are provided by orders.
3. Since some of capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors & resistors, which was issued on February 1983.
4. Abbreviations in this service manual are as follows.

•Abbreviations List

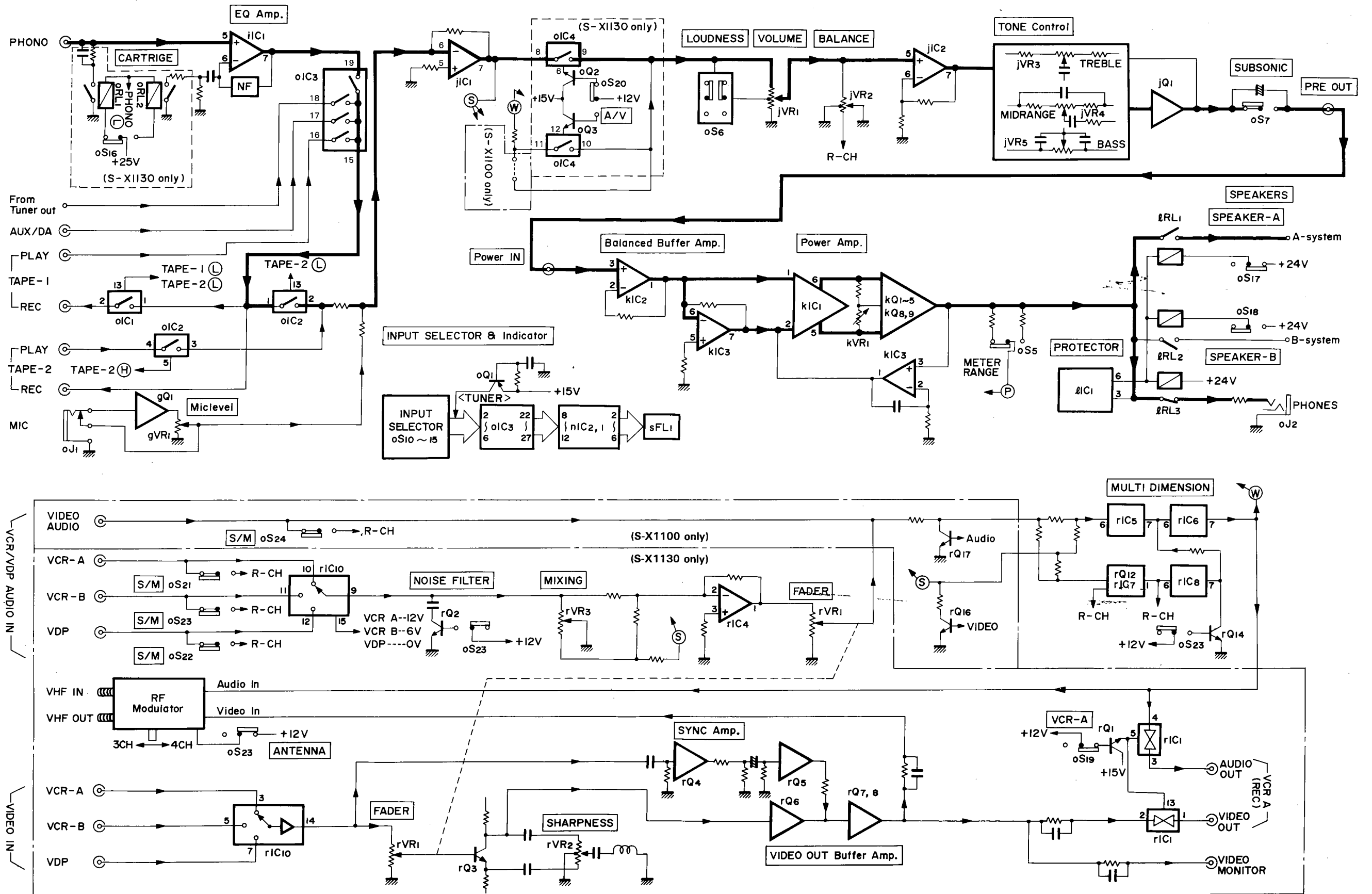
C.R.	: Carbon Resistor	E.B.L.	: Low Leak Bi-Polar
S.R.	: Solid Resistor		Electrolytic Capacitor
Ce.R.	: Cement Resistor	Ta.C.	: Tantalum Capacitor
M.R.	: Metal Film Resistor	F.C.	: Film Capacitor
F.R.	: Fusing Resistor	M.P.	: Metalized Paper Capacitor
N.I.R.	: Non-Inflammable Resistor	P.C.	: Polystyrene Capacitor
A.R.	: Array Resistor	G.C.	: Gimmic Capacitor
C.C.	: Ceramic Capacitor	A.C.	: Array Capacitor
C.T.	: Ceramic Capacitor, Temperature Compensation	V.R.	: Variable Resistor
E.C.	: Electrolytic Capacitor	S.V.R.	: Semi Variable Resistor
E.L.	: Low Leak Electrolytic Capacitor	SW.	: Switch
E.B.	: Bi-Polar Electrolytic Capacitor	Chip R.	: Chip Resistor
		Chip C.	: Chip Capacitor

1. BLOCK DIAGRAM 1-1. Tuner Section



1. **MAGNAVOX system:** Available for AM stereo systems developed by Magnavox Consumer Electronics Company.
2. **KAHN-HAZELTINE system:** Available for AM stereo systems developed by Kahn Communications Inc. and Hazeltine Corporation.
3. **MOTOROLA system:** Available for AM stereo systems developed by Motorola Inc.
4. **HARRIS system:** Available for AM stereo systems developed by Harris Corporation.

2. Audio & Video Section



ADJUSTMENTS

1) FM Adjustment (See Parts Location F-4741 on Page 12)

- Note: 1. SELECTOR..... FM
 2. FM MUTING/MODE..... OFF/MONO
 3. FM IF BAND..... WIDE (S-X1130 only)

Fig. 2-1

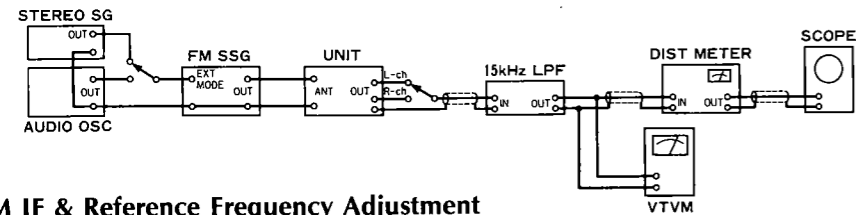
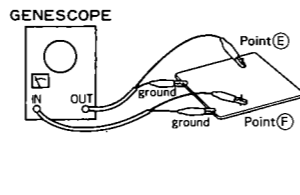


Fig. 2-2



2) AM IF & Reference Frequency Adjustment

- Note: 1. Before adjusting, Set fVR_1 center position.

SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
	FROM	TO				
Reference Frequency Adj.	No Input	—	Between Point (A) (Pin 24 of fIC_1) & Earth Freq. counter (F-4742)	fTC_1 (F-4742)	25 kHz	•Short between Point (B) & Point (C) (Pin 36 & 42 of fIC_1) (F-4742)
IF Coil Adj.	98MHz ANT Input 20dBf (14.8dB), 1kHz (100% MOD.), FM SSG	ANT terminal 300Ω	Between Point (D) (Pin 13 of dIC_2) & Earth DC Volt Meter	IFT Coil (Front-end) & dT_1 (F-4741)	Max. DC Volt	
Discriminator Coil Adj. in case of using Genescope	1 No Input	—	Between TP_1 & TP_2 (near dIC_2) DC Volt Meter	dT_2 (F-4741)	DC 0V ± 30mV	•Repeat procedures as stated in subject 1 & 2. •Confirm that lock Indicator turns ON
	2 Output 80dB, Genescope	Point (E) (dR_{11})	Between Point (F) ($jW48$) & Earth	dT_3, dT_1 (F-4741)	Steep linearity of S curve. Make symmetrical S curve.	
Discriminator Coil Adj. in case of using Dist meter	1 No Input	—	Between TP_1 & TP_2 (near dIC_2) DC Volt Meter	dT_2 (F-4741)	DC 0V ± 30mV	•Repeat procedures as stated in subject 1 & 2. •Since the dT_1 has already adjusted, perform only a fine adjustment in this procedure. •Confirm that lock indicator turns ON
	2 98MHz ANT Input 65dBf (59.8dB), 1kHz (100% MOD.), FM SSG	ANT terminal 300Ω	•REC OUT L-CH or R-CH VTVM & SCOPE	dT_3, dT_1 (F-4741)	Min. THD	
Signal Level Adj.	98MHz ANT Input 65dBf (59.8dB), 1kHz (100% MOD.), FM SSG	Same as above	•Signal Ind. (sFL1)	dVR_2 (F-4741)	5 indicator light up.	

ADJUSTMENT FOR FM

There are two kinds in indication of FM SSG output attenuator with marking of 75Ω open open indication

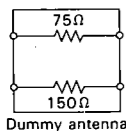
..... load indication type.

..... load indication type.

..... output level in this FM adjustment are described as open indication type.

..... FM signal, a dummy antenna circuit as Fig. 2-3 must be connected between FM SSG output and ANT terminal (300Ω) of the unit.

Fig. 2-3



Dummy antenna

- The following table shows relations among FM SG attenuator indication (dB), available power ratio (dBf) and antenna terminal voltage (dB/μV) in each indication type.

	FM SG Attenuator Indication	Available Power Ratio	Antenna Terminal Voltage
Open indication type	0 dB 66 dB	-0.8 dBf 65.2 dBf	-6 dB/μV 60 dB/μV
Load or close indication type	0 dB 60 dB	5.2 dBf 65.2 dBf	0 dB/μV 60 dB/μV

2) FM STEREO Adjustment

1. FM MODE.....AUTO

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	Auto Stop Level Adj.	98MHz ANT Input 35dBf (29.8dB) 1kHz (100% MOD.), FM SSG	ANT Terminal 300Ω	Digital display	dVR_1 (F-4741)	Tune the tuner to 98MHz by using the automatic search tuning operation.	•Perform the automatic search tuning operation by depressing the TUNING button.
2.	Separation Adj. (WIDE band)	98MHz ANT Input 65 dBf (59.8dB), FM SSG, Pilot 19 kHz (9% MOD.) R MODE 1kHz+Pilot (100% MOD.), STEREO SG.	Same as above	TAPE-2 REC L-CH VTVM & SCOPE	dVR_3 (F-4741)	Indication on VTVM min. (Separation max.)	

2-2. AM Adjustment (See Parts Location F-4741 on Page 12)

Fig. 2-4

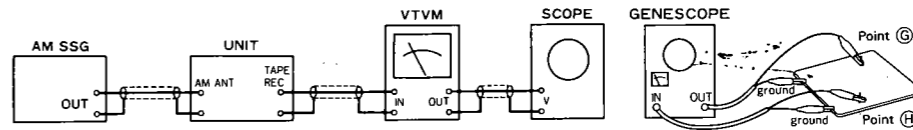


Fig. 2-5

- Note: 1. SELECTOR.....AM
 S.V.R. set position
 • eVR_3fully clockwise
 • eVR_4fully counter clockwise

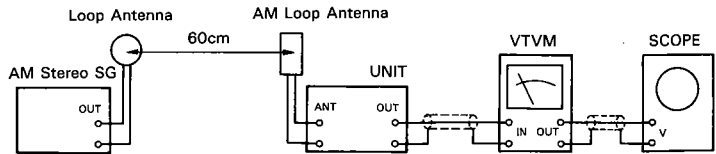
1) AM IF Adjustment & Tuning Adjustment

- Note: 1. Connect AM loop antenna to AM antenna terminal

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	IF Coil Adj.	Genescope Output 60dB	Point (G) (eR_{19}) (F-4741)	Between Point (H) ($jW1$) & Earth (F-4741)	eT_3 (F-4741)	Max, Waveform	
2.	522kHz (or 520kHz) Tuning Adj.	No Input	—	Between Point (I) (eR_5) & Earth (F-4741) DC Volt Meter	eT_2 (F-4741)	1.3V ± 0.1V	•Repeat procedures as stated in subject 2 & 3.
3.	1602kHz (or 1610kHz) Tuning Adj.	No Input	—	Same as above	eTC_2 (F-4741)	20V ± 0.5V	
4.	603kHz (or 600kHz) RF Adj.	603kHz (or 600kHz) ANT Input 30dB 400Hz (30% MOD.), AM SSG	ANT terminal	TAPE-2 REC L-CH or R-CH VTVM & SCOPE	eT_1 (F-4741)	Max. Output	
5.	1404kHz (or 1400kHz) RF Adj.	1404kHz (or 1400kHz) ANT Input 30dB 400Hz (30% MOD.), AM SSG	Same as above	Same as above	eTC_1 (F-4741)	Max Output	
6.	Signal Level Adj.	999kHz (or 1000kHz) ANT Input 68dB 400Hz (30% MOD.), AM SSG	Same as above	Signal Ind. (sFL1)	eVR_1 (F-4741)	5 Indicator light up.	
7.	Auto Stop Level	999kHz (or 1000kHz) ANT Input 65dB 400Hz (30% MOD.), AM SSG	Same as above	Digital Display (sFL1)	eVR_2 (F-4741)	Tune the tuner to 999 (or 1000kHz) kHz by using the automatic search tuning operation.	

2) AM STEREO Adjustment (See Parts Location F-4741 on Page 12 & F-4740 on Page 11)

- Note:** 1. MODE..... STEREO **Fig. 2-6**
 2. This adjustment needs AM Stereo SG.
 3. Setting of AM Stereo SG
 •MODE Frequency 400Hz
 •Main Channel MODE..... 30%



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS	
		FROM	TO					
1.	Off set Adj.	1	No Input	Between TP6 (Pin 11 of eIC2) & TP8 (Pin 13 of eIC2) DC Volt Meter	eVR5 (F-4741)	DC 0mV ± 10mV	SELECTOR.....FM, this step only.	
		2	1000kHz 80 dB R=L MODE AM STEREO SG	ANT terminal	Same as above	eT5 (F-4741)	DC 100mV ± 10mV	< MOTOROLA system >
		3	Same as above	Same as above	Between TP5 (Pin 21 on eIC2) & Earth. DC Volt Meter	eVR7 (F-4741)	Mini indicator on VTVM	
2.	25Hz Filter Adj. & Stereo Ind. Level Adj.	1	1000kHz ANT Input 80 dB L MODE Pilot 25Hz 2.5% AM Stereo SG	Between Point ① (eR123) & Earth (F-4740) SCOPE	*eVR104 F-4740	Max. 25Hz Signal level	< MOTOROLA system > •SYSTEM SELECT (AM Stereo SG)C-QUAM	
		2	Same as above	Same as above	Between Point ② (Pin 7 of eIC7) & Earth (F-4740) DC Volt Meter	eVR105 F-4740	High level (DC1.4V) comes out	
3.	5Hz Filter Adj. & Stereo Ind. Level Adj.	1	1000kHz ANT Input 80dB L MODE Pilot 5Hz 2.0 radian AM Stereo SG	Between Point ③ (eR107) & Earth (F-4740) SCOPE	*eVR100 F-4740	Max. 5Hz Signal level	< MAGNAVOX system > •SYSTEM SELECT (AM Stereo SG)AM-PM	
		2	Same as above	Same as above	Between Point ④ (Pin 7 of eIC5) & Earth (F-4740) DC Volt Meter	eVR101 F-4740	High level (DC1.4V) comes out	
4.	15Hz Filter Adj. & Stereo Ind. Level Adj.	1	1000kHz ANT Input 80 dB L MODE Pilot 15Hz 3° AM Stereo SG	Between Point ⑤ (eR114) & Earth (F-4740) SCOPE	*eVR102 F-4740	Max. 15Hz Signal level	< KAHN-HAZELTINE system > •SYSTEM SELECT (AM Stereo SG)1SB	
		2	Same as above	Same as above	Between Point ⑥ (Pin 7 of eIC6) & Earth (F-4740) DC Volt Meter	eVR103 F-4740	High level (DC1.4V) comes out	
5.	Separation Adj.	Same as above	Same as above	TAPE-2 REC R-CH VTVM & Scope	eVR8 (F-4741)	Mini Indication on VTVM		

*Note: Be careful not revolve over eVR100, eVR102, eVR104, or it will dispatch.

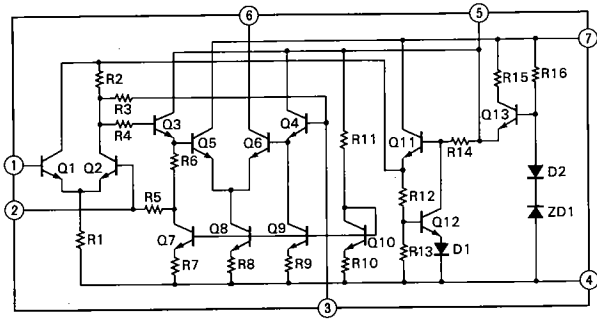
2-3. Driver Circuit Adjustment (See Top View on Page 20)

- Note:** 1. Room Temperature 18°C ~ 28°C
 2. Master Volume Minimum
 3. For this adjustment, run the unit for more than 2 minutes after the power is switched ON.

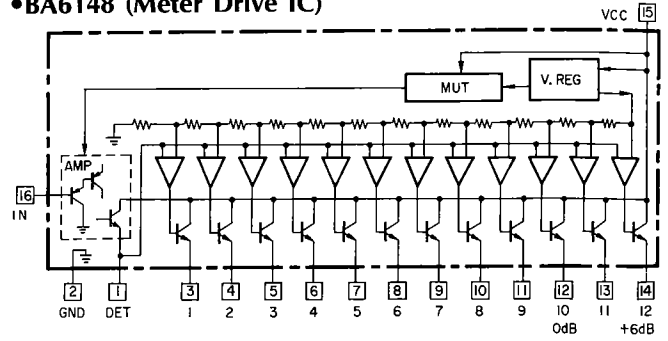
STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	Bias Current Adj. L-CH	Between emitter terminals of kQ8L and kQ9L (TP1) (F-4745) DC Volt Meter	kVR1L (F-4745)	DC 3.5mV ± 1.5mV	•Before turning ON power switch, turn kVR1L, R counterclockwise. •This bias current value into voltage by ohms law.
2.	Bias Current Adj. R-CH	Between emitter terminals of kQ8R and kQ9R (TP2) (F-4745) DC Volt Meter	kVR1R (F-4745)		

3. TERMINAL FUNCTION & INTERIOR BLOCK DIAGRAM OF IC

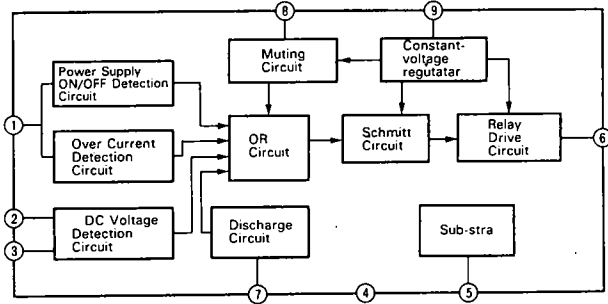
•TA7302P (FM IF Amp. IC)



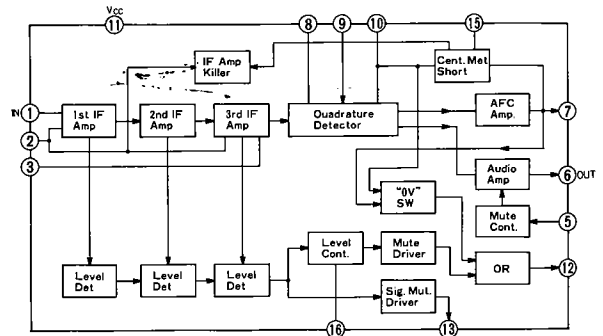
•BA6148 (Meter Drive IC)



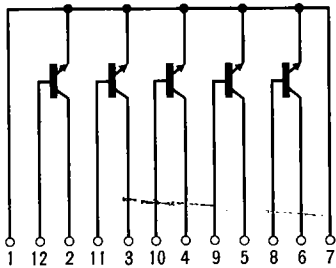
•TA7317P (Protector IC)



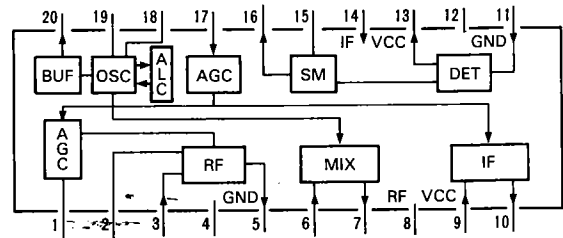
•HA12412 (FM Detector IC)



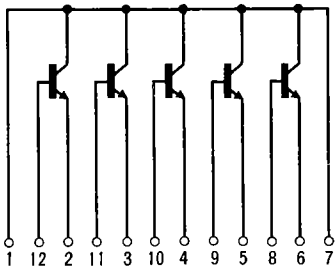
•TA78/DT5C144E (TR Array)



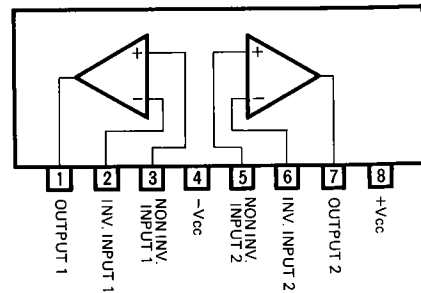
•LA1247 (AM Tuner IC)



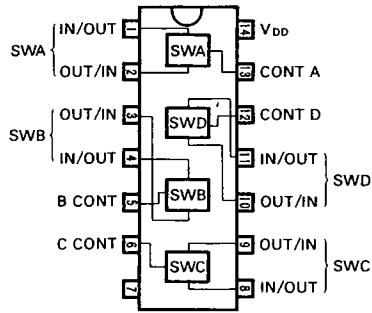
•TA76 (TR Array)



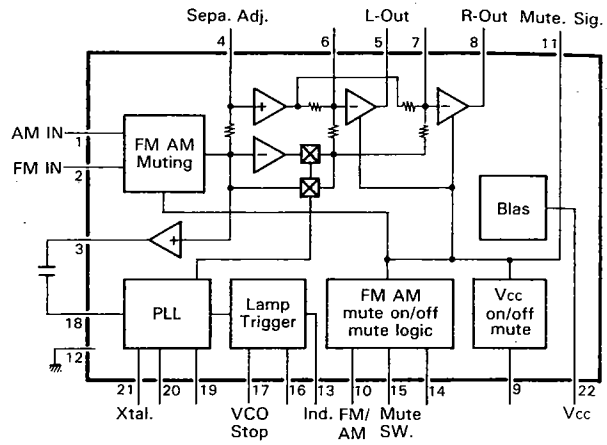
•M5218L, M5220L (Audio Pre IC)



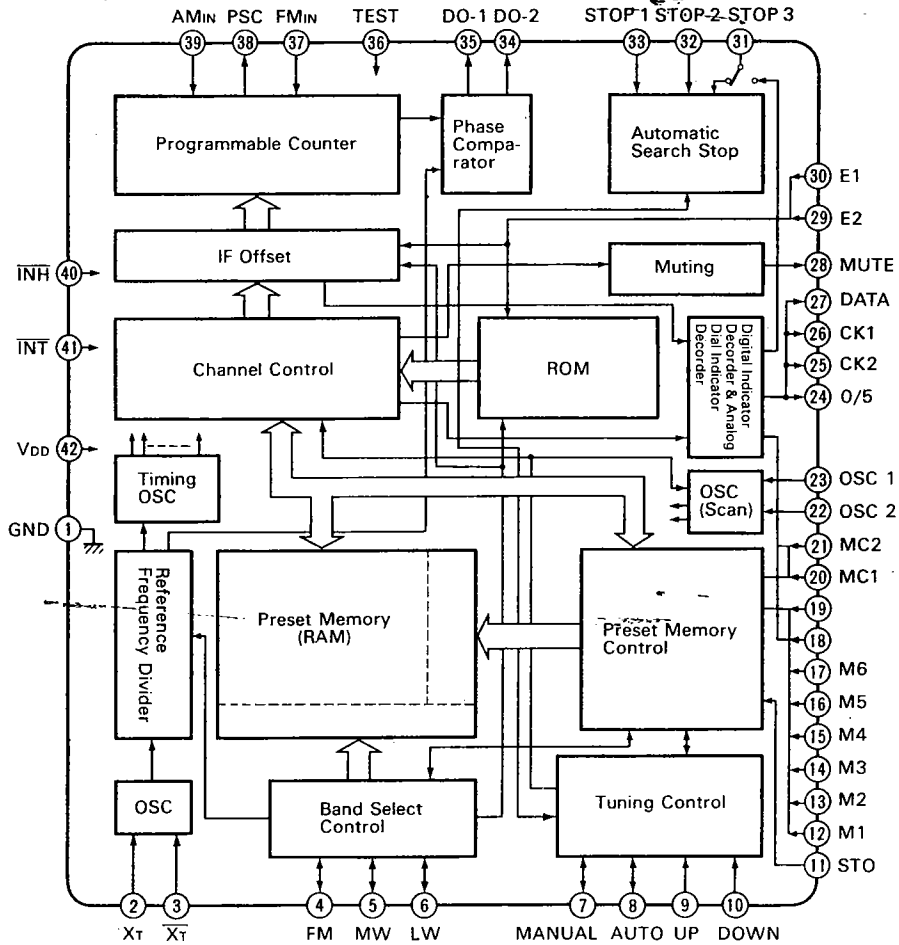
•LC4966 (Quad Bi-lateral Switch IC)



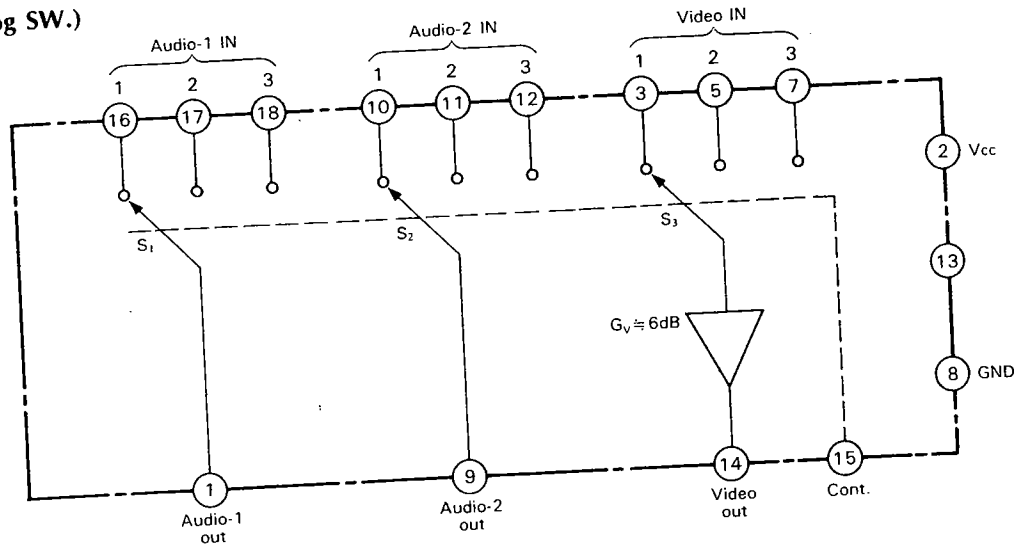
•LA3400 (MPX IC)



•TC9157P (PLL & Control IC)

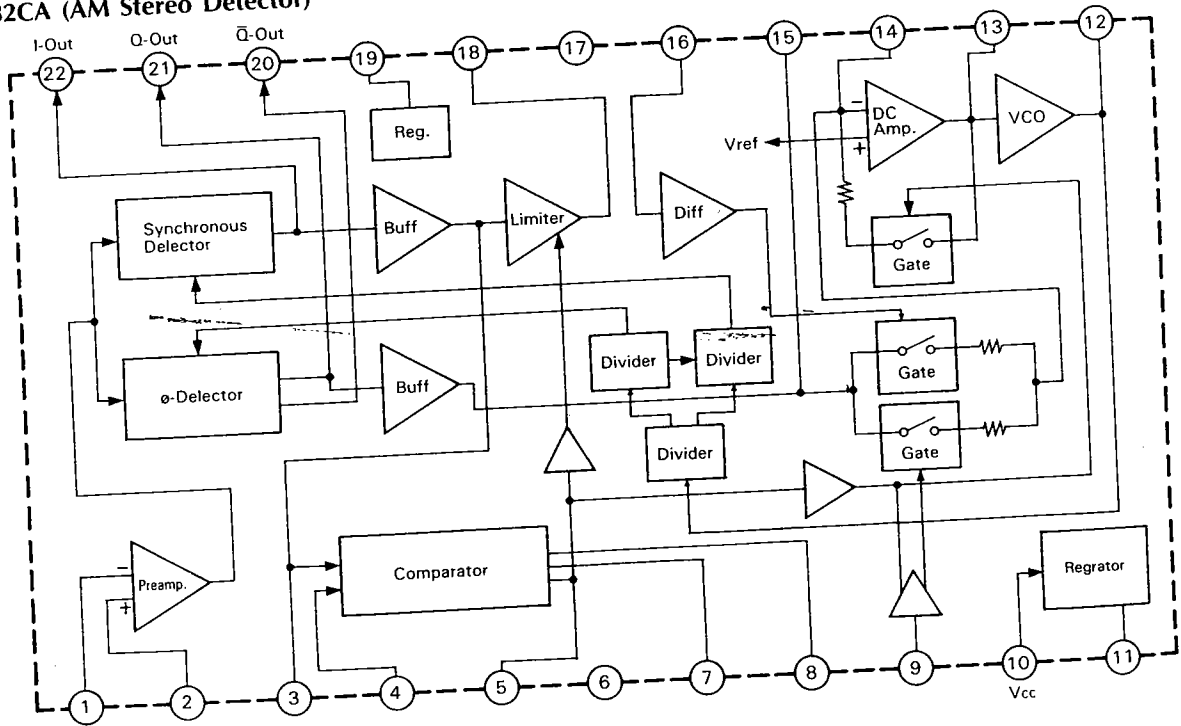


•M51321P (Analog SW.)

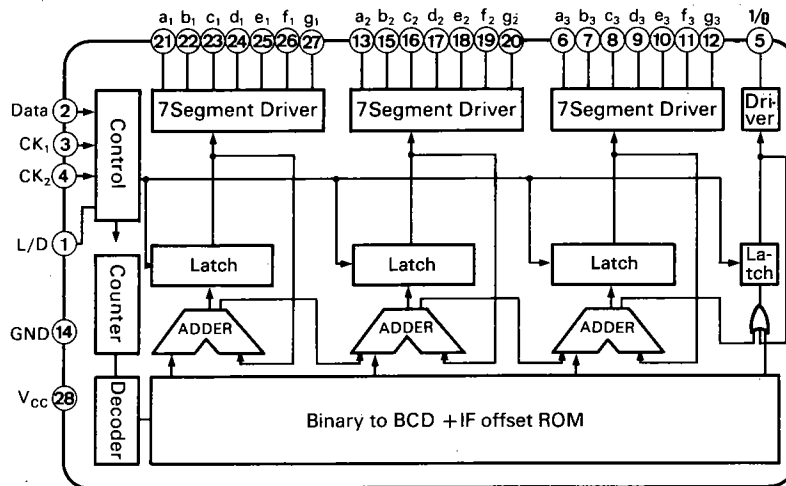


SW.NC Cont. Volt (15)	S_1	S_2	S_3
Vcc (12V)	1	1	1
OPEN(6V)	2	2	2
GND (0V)	3	3	3

• μ PC1282CA (AM Stereo Detector)



•TD6301AP (7-Segment Decoder IC)

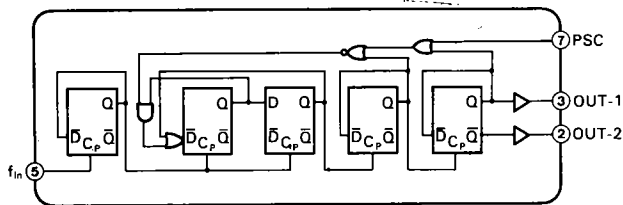


•Terminal Function of LSI-TD6301P

Pin No.	Pin Name	Description of Function and Operation
1	L/D	Terminal to input a signal for switching the output conditions. The output conditions are switched in accordance with the indicator display (LED, FL, LCD).
2	Data	Terminal to input the received frequency data. The data are inputted in series from the system controller TC9140.
3, 4	CK ₁ , CK ₂	Terminals to input a timing signal for controlling the input of the received frequency data. The timing signal is transferred together with the data from the system controller TC9140.
5	1/0	Terminal to output a signals for driving the 7-segment display. A digit representing 100MHz in FM receiving and 1000 kHz in AM receiving is displayed. Only one pin is provided because the output is 1 or 0 in FM and AM, respectively.

Pin No.	Pin Name	Description of Function and Operation
6~12	a ₃ ~g ₃	Terminal to output a signal for driving the 7-segment display. A digit representing 10 MHz in FM receiving and 100 kHz in AM receiving is displayed.
13, 15~20	a ₂ ~g ₂	Terminals to output a signal for driving the 7-segment display. A digit representing 1 MHz in FM receiving and 10 kHz in AM receiving is displayed.
21~27	a ₁ ~g ₁	Terminal to output a signal for driving the 7-segment display. A digit representing 100 kHz in FM receiving and 1 kHz in AM receiving is displayed.
14, 28	Vcc, GND	Power supply terminal

•TD6104P (Prescaler IC)



•Terminal Function of LSI-TD6104

Pin No.	Pin Name	Description of Function and Operation
2	OUT-2	Terminal to output an inversed signal of terminal OUT-1. An additional resistor is necessary because of an open-emitter circuit. This terminal is kept open in the ordinary state.
3	OUT-1	Terminal to output a signal obtained by dividing the input signal from the division frequency output terminal fin into 1/30 or 1/32. * Output level: 0.5(V) minimum.

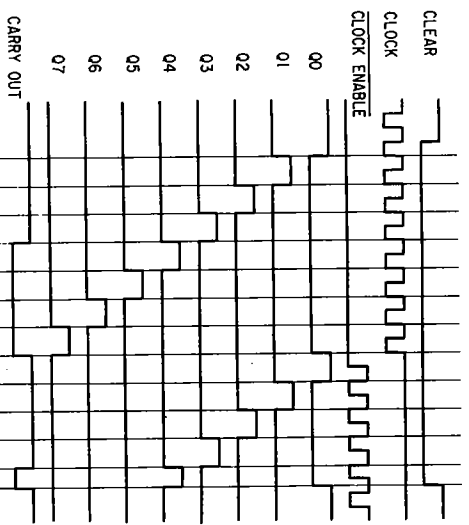
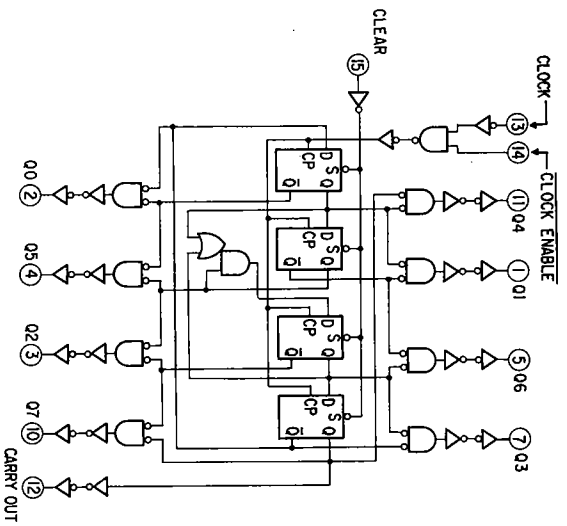
Pin No.	Pin Name	Description of Function and Operation
5	fin	Terminal to input a signal from the FM local oscillator. * Frequency range: 60~140 MHz * Input level: 75~300 mVrms
6	C	Terminal to connect a pass-condenser for the bias circuit. A condenser of 2200 pF is connected between this terminal and ground.
7	PSC	Terminal to switch the frequency division ratio. Vpsc ≥ 2(V): 1/32 Vpsc ≤ 1(V): 1/30
1	Vcc	Power supply terminal Vcc = 5V Icc = TYP 5mA, MAX 10mA
4	GND	Ground

•Terminal Function of LSI-TC9157P

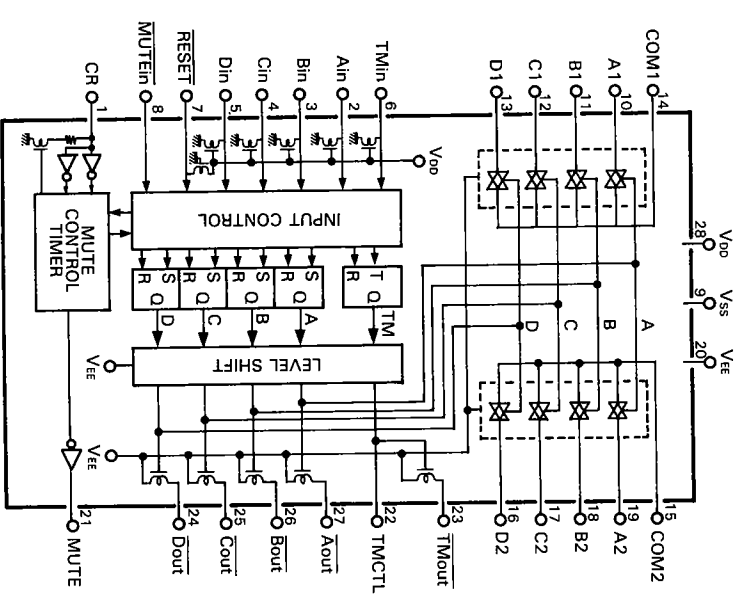
Pin No.	Pin Name	Functions
2,3	X _T X _T	Terminals to connect a quartz oscillator for generating a reference frequency.
4 5 6	FM MW LW	Terminals to input a signal for switching FM/MW/LW band.
7 8	MANU- AL AUTO	Terminal to input a signal for switching the manual operation to automatic search operation or vice versa in the UP/DOWN tuning mode. "H": Automatic, "L": Manual
9 10	UP DOWN	Terminals to input a signal from the tuning key. * In manual operation: When the key is kept depressed for 0.3 sec or more in one-step/one-push step feeding, the operation changes to fast forwarding; when the key is released, the operation stops at the next stop. In this case, even if there is a station on the way, the station is neglected. * In automatic search operation: When the key is depressed once, the automatic search operation starts and stops automatically after having selected the desired station.
11	STO	Terminal to input a signal for storing data in the preset memory unit. Input/output terminal in which a LED driver is provided. * When depressing the STO key, the STO lamp comes on. Next, when any desired memory No. key is depressed, the data on receiving frequency is written into the memory unit and the STO lamp goes off. * When the STO key is depressed and the memory No. key is not depressed, the frequency data is released automatically.
12 17	M1 M6	Terminals to input a signal for designating memory address. Input/output terminals in which a LED driver is provided. * Terminals M ₁ to M ₆ designate the addresses of FM memory unit in FM receiving and the addresses of AM memory unit in AM receiving. * When depressing the STO key and any desired station key of M ₁ to M ₆ , the data is written into the memory unit. * When depressing any desired station key of M ₁ to M ₆ , the data is read out.
22	OSC 2	Terminal to connect a condenser and resistor for the oscillator for determining the speed of AM automatic search operation.
23	OSC 1	Terminal to connect a condenser and resistor for the oscillator for determining the speed of FM automatic search operation.
24 25 26 27	O/5 CK2 CK1 DATA	Terminals to output the data for displaying the received frequency digitally and a timing signal. The data fed to the driver TD6301P for displaying a static frequency and the timing signal are outputted once only when the frequency is updated in such case as when the power supply is tuned on, the UP/DOWN key is depressed, the automatic scanning operation is made, the data are read out of the memory unit, or FM/AM is switched. In the ordinary receiving state, this terminal is fixed to a "L" level. * O/5: For displaying 50 kHz during FM receiving in Europe. * Data: Binary coded frequency data and receiving band. * CK-1, CK-2: Initialize and transfer clock signals.
28	MUTE	Terminal to output the muting signal. The terminal is kept in "L" level in ordinary state, and in "H" level in muting.

Pin No.	Pin Name	Functions															
29 30	E2 E1	Terminals to input a signal for selecting destinations of Japan, USA, and Europe. <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>E₁</th> <th>E₂</th> <th>Mode</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>Japan</td> </tr> <tr> <td>1</td> <td>0</td> <td>Europe</td> </tr> <tr> <td>0</td> <td>1</td> <td>USA (MW 9kHz)</td> </tr> <tr> <td>1</td> <td>1</td> <td>USA (MW 10kHz)</td> </tr> </tbody> </table> * Inputs of terminals E ₁ and E ₂ are read and latched in INH=L state and in FM/AM switching.	E ₁	E ₂	Mode	0	0	Japan	1	0	Europe	0	1	USA (MW 9kHz)	1	1	USA (MW 10kHz)
E ₁	E ₂	Mode															
0	0	Japan															
1	0	Europe															
0	1	USA (MW 9kHz)															
1	1	USA (MW 10kHz)															
31	STOP 3	When a IF450 kHz signal is applied to this terminal during automatic search operation, the scanning operation stops.															
32	STOP 2	Terminal to input a signal for performing the automatic search stop. When a "H" level signal is applied to STOP 1 and this terminal during automatic search operation, the scanning operation stops.															
33	STOP 1	Terminal to input a signal for slowing the speed of scanning operation. When a "H" level signal is applied to this terminal during automatic search operation, the speed of scanning operation halves.															
34 35	D ₀₋₂ D ₀₋₁	Terminals to output a signal from a phase comparator. These terminals can be used for FM and AM, separately, since the same signal is outputted from the terminals D ₀₋₁ and D ₀₋₂ at the same time.															
36	TEST	Terminal to input a signal of test mode. Test mode in "H" level.															
37	FM _{IN}	Terminal to input a signal from the FM programmable counter. An amplifier is provided in the input.															
38	PSC	Terminal to output a signal for controlling the Prescaler IC of TD6104P.															
39	AM _{IN}	Terminal to input a signal from the AM programmable counter. An amplifier is provided in the input.															
40	INH	Terminal to input a signal of inhibit. Ordinary operation in "H" level; inhibit operation in "L" level.															
41	INT	Terminal to input an initialize signal. This terminal changes to H level in the ordinary operation and to L level in the initialize operation.															
42 1	V _{DD} GND	Power supply terminals. 5V ± 0.5V.															

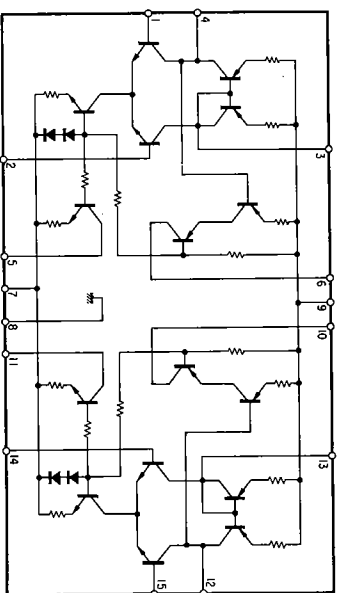
CA022BP (8 Count Divider IC)



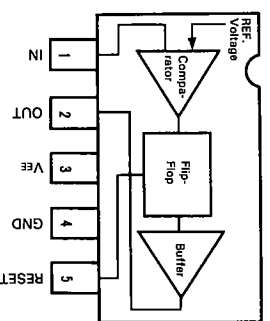
C7817 (Analog SW.)



•STK3122-3/3152-3 (Differential Amp. IC)



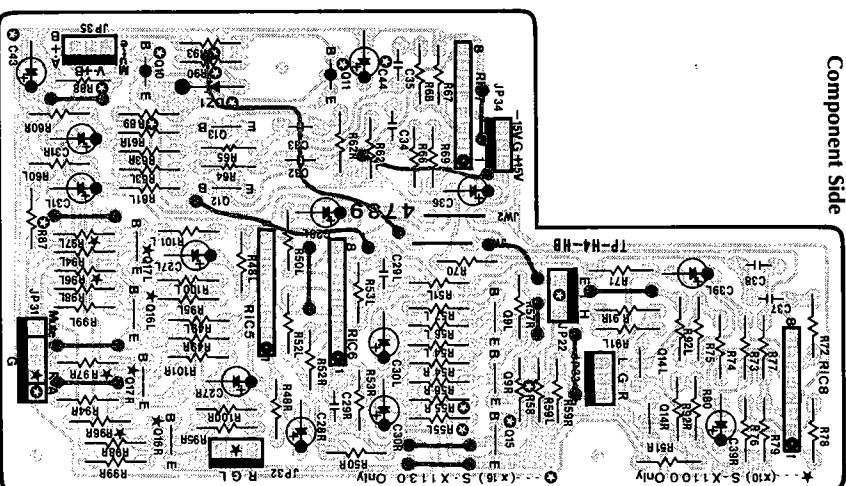
•BA634 (FLIP-FLOP)



4. PARTS LOCATION & PARTS LIST

4-1. F-4739 Multidimension Circuit Board
(Stock No. 00856001 = S-X1130) (Stock No. 00856201 = S-X1100)

Component Side



Parts No.	Stock No.	Description
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•Transistor

FO9	46540801	2SC2878
FO10	46367001	2SA1115
	OR 46367201	2SA1048
	OR 48058601	2SA933S
FO11	46367001	2SA1115
	OR 46367201	2SA1048
	OR 48058601	2SA933S
FO12	46367101	2SC2603
	OR 46367301	2SC2458
	OR 48058801	2SC1740S
FO13	46367101	2SC2603
	OR 46367301	2SC2458
	OR 48058801	2SC1740S
FO14	46367101	2SC2603
	OR 46367301	2SC2458
	OR 48058801	2SC1740S
FO15	46540801	2SC2878 (S-X1130)
	OR 46367101	2SC2603 (S-X1110)
	OR 46367301	2SC2458 (S-X1100)
FO17	46367101	2SC2603 (S-X1100)
	OR 48058801	2SC1740S (S-X1100)

•IC

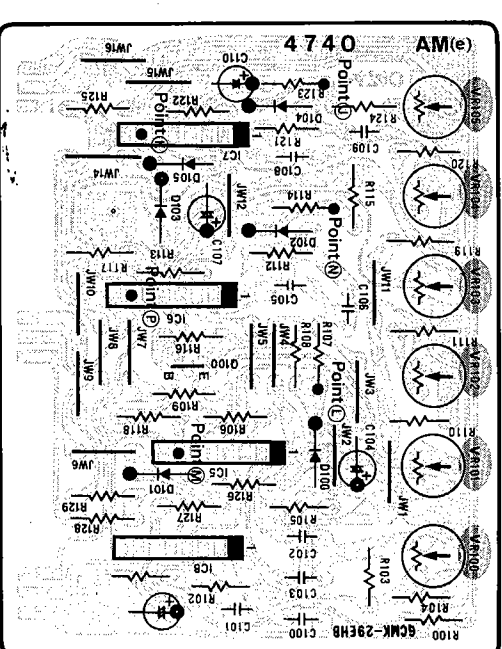
IC5	46078900	M5218L
IC6	46078900	M5218L
IC7	46078900	M5218L
IC8	46078900	M5218L

•Zener Diode

FDZ1	46111200	05Z5.1-Y
FC32	46695000	8200PF 50V F.C.
FC33	46695400	0.012µF 50V F.C.
FC34	46697200	0.068µF 50V F.C.
FC35	46697200	0.068µF 50V F.C.
FC37	46697200	0.068µF 50V F.C.
FC38	46697200	0.068µF 50V F.C.

4-2. F-4740 AM Stereo Circuit Board
(Stock No. 00839901 = S-X1130) (Stock No. 00841601 = S-X1100)

Component Side



Parts No.	Stock No.	Description
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•Transistor

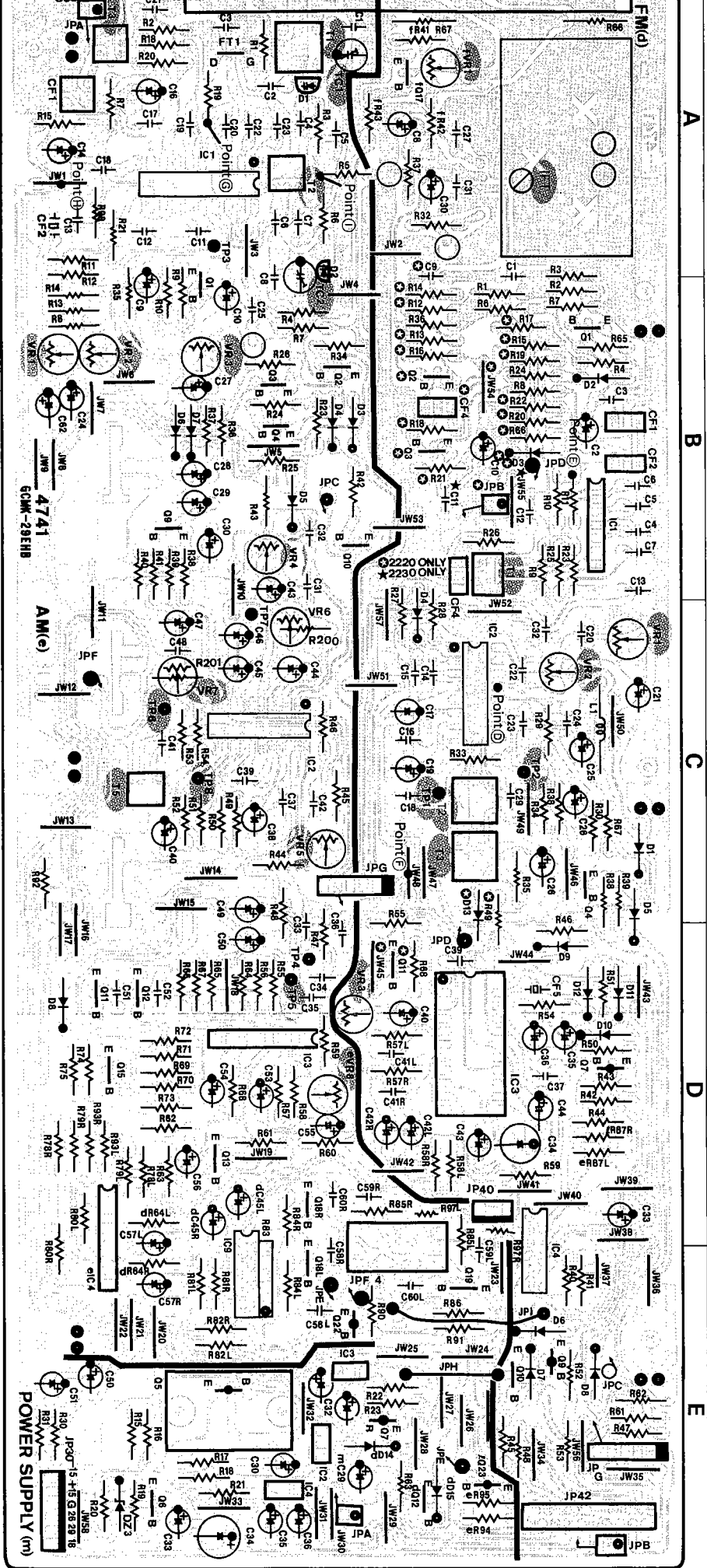
EQ100	46367101	2SC2603
	OR 46367301	2SC2458
	OR 48058801	ZSC1740S

•IC

aIC5	46078900	M5218L
aIC6	46078900	M5218L
aIC7	46078900	M5218L
aIC8	46078900	M5218L

•Diode

ED100	03117600	1S2473T77
	OR 46086000	1S1588TP-3
ED101	03117600	1S2473T77
	OR 46086000	1S1588TP-3
ED102	03117600	1S2473T77
	OR 46086000	1S1588TP-3
ED103	03117600	1S2473T77
	OR 46086000	1S1588TP-3
ED104	03117600	1S2473T77
	OR 46086000	1S1588TP-3
ED105	03117600	1S2473T77
	OR 46086000	1S1588TP-3
EC100	46704100	0.22µF 50V F.C.
EC101	46704100	0.22µF 50V F.C.
EC102	46286300	0.47µF 63V F.C.
EC103	46286300	0.47µF 63V F.C.
EC105	46704100	0.22µF 50V F.C.
EC106	46704100	0.22µF 50V F.C.
EC108	46703900	0.18µF 50V F.C.
EC109	46703900	0.18µF 50V F.C.
eVR100	10337100	22KΩ(B) S.V.R., Filter adj.
eVR101	10336700	4.7KΩ(B) S.V.R., Indicator Level adj.
eVR102	10336900	10KΩ(B) S.V.R., Filter adj.
eVR103	10336700	4.7KΩ(B) S.V.R., Indicator level adj.
eVR104	10336700	4.7KΩ S.V.R., Filter adj.
eVR105	10336700	4.7KΩ(B) S.V.R., Indicator Level adj.

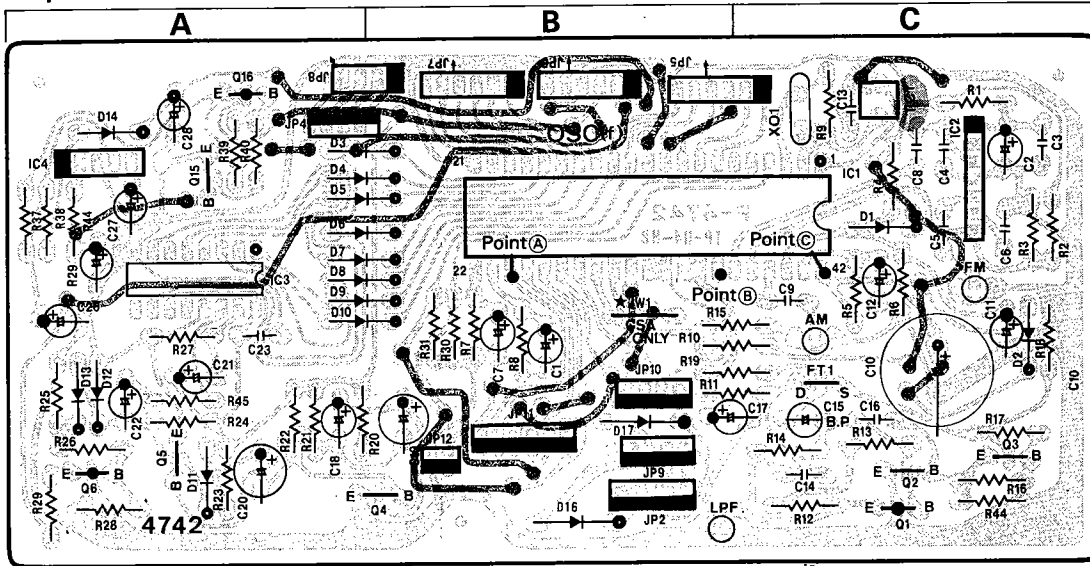


Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
48053300	FM Frontend Pack 641U11X	dcF5	49128400	Ceramic OSC Element KBR-457HS	dcC39	46696800	0.047µF 50V F.C.
46202901	2SC1674	•Diode			dcC41	46693000	1200µF 50V F.C.
or 46393201	2SC2786	DD1	03401700	Varistor MV103	dcF1	07248800	Ceramic Filter SFE10.7ML
or 46202901	2SC1674 (S-X1130)	DD2	03117600	1S2473T77	dcF2	07248800	Ceramic Filter SFE10.7ML
or 46393201	2SC2786 (S-X1130)	DD3	or 46086000	1S1588TP-3	dcF3	46202500	Ceramic Filter SFE10.7MS2 (RED)
46202901	2SC1674 (S-X1130)	DD4	or 46086000	1S1588TP-3 (S-X1130)	dcF4	48128200	Ceramic Filter SFE10.7ML (RED)
or 46393201	2SC2786 (S-X1130)	DD5	03117600	1S2473T77	dl1	07250300	Peaking Coil 2.2µH
or 46367301	2SC2603	DD6	or 46086000	1S1588TP-3	dt1	46369500	FM IF Coil
or 46367301	2SC2458	DD7	03117600	1S2473T77	dt2	46422500	FM RF Coil
or 48058801	2SC1740S	DD8	or 46086000	1S1588TP-3	dvR1	48119100	20KΩ S.V.R., Muting adi.
or 48058801	2SA11048	DD9	03117600	1S2473T77	dvR2	46633900	2.2KΩ S.V.R., FM Strength Signal
or 48058801	2SA933S	DD10	or 46086000	1S1588TP-3	dvR3	46635100	220KΩ S.V.R., VCO adi.
46719900	DTC124	DD11	03117600	1S2473T77	e01	25C2603	
or 48058801	2SC2603 (S-X1130)	DD12	or 46086000	1S1588TP-3	e02	25C2458	
or 46367301	2SC2458 (S-X1130)	DD13	03117600	1S2473T77	e03	25C1740S	
or 46367301	2SC2603	DD14	or 46086000	1S1588TP-3	e04	25C2603	
or 48058801	2SC2603	DD15	03117600	1S2473T77	e05	25C2458	
or 46078801	2SC2458	DD16	or 46086000	1S1588TP-3	e06	25C1740S	
or 48058801	2SC1740S		or 03111800	1S1588TP-3	e07	25C2603	
03605900	TAY302P				e08	25C2458	
07196000	HA12412				e09	25C1740S	
48064300	LA3400				e10	25C2603	
46502800	TAY8				e11	25C2458	

Parts No.	Stock No.	Description
e03	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e04	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e09	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e010	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e011	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e012	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e013	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e015	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e018	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e019	46367101	25C2603
	or 46367301	25C2458
	or 48058801	25C1740S
e022	07299601	2SA1115
	or 46078701	2SA1048
	or 48058501	2SA933S
e023	46367001	2SA1115
	or 46367201	2SA1048
	or 48058801	2SA933S

Parts No.	Stock No.	Description
•FET	46393000	2SK192A-Y
eFT1	or 46393001	2SK192A-GR
•IC	46724000	LA1247
eIC1	48128100	µPC1282CA
eIC2	46078900	M5218L
eIC3	46078900	M5218L
eIC4	46078900	M5218L
eIC9	46502800	TAY8
eD1	07197200	Voltage V.C. Diode KV1226
	or 46087800	Voltage V.C. Diode FCC66M
eD2	07197200	Voltage V.C. Diode KV1226
	or 46087800	Voltage V.C. Diode FCC66M
•Diode	03117600	1S2473T77
eD3	or 46086000	1S1588TP-3
	or 03117600	1S2473T77
eD4	or 46086000	1S1588TP-3
	or 03117600	1S2473T77
eD5	or 46086000	1S1588TP-3
	or 46421300	1N60PSP
eD6	or 46421300	1N60PSP
	or 46421600	1N60PSP
eD7	46421300	1N60PSP
	or 46421300	1N60PSP
eD8	03117600	1S2473T77
	or 46086000	1S1588TP-3
eR83	46722100	10KΩ x 5 1/8W A.R.
eC33	46693600	2200µF 50V F.C.
eC34	46694400	4700µF 50V F.C.
eC35	46694400	4700µF 50V F.C.
eC36	46693600	2200µF 50V F.C.

4-5. F-4742 PLL Synthesizer & Control Circuit Board (Stock No. 00840101 = S-X1130) (Stock No. 00841801 = S-X1100)
Component Side



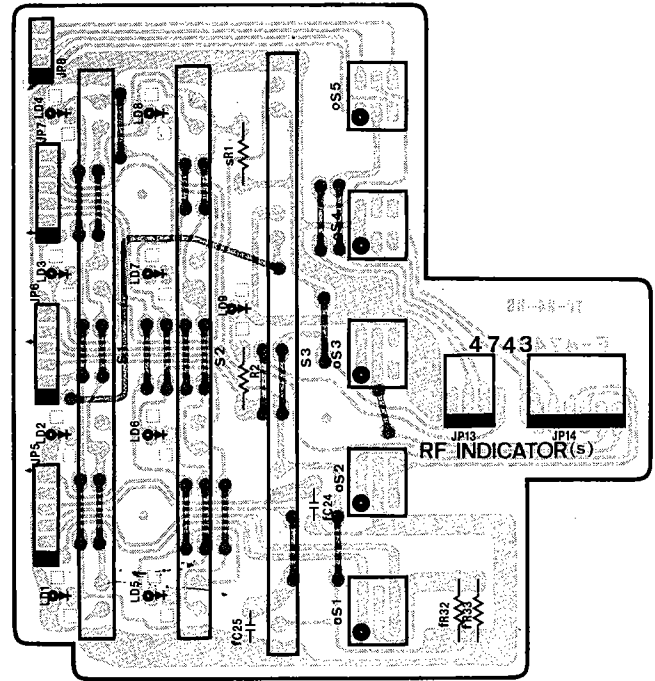
Parts List

Parts No.	Stock No.	Description
•Transistor		
fQ1	46367001	2SA1115
	or 46367201	2SA1048
	or 48058601	2SA933S
fQ2	46367101	2SC2603
	or 46367301	2SC2458
	or 48058801	2SC1740S
fQ3	46367101	2SC2603
	or 46367301	2SC2458
	or 48058801	2SC1740S
fQ4	46367101	2SC2603
	or 46367301	2SC2458
	or 48058801	2SC1740S
fQ5	46367101	2SC2603
	or 46367301	2SC2458
	or 48058801	2SC1740S
fQ6	46367001	2SA1115
	or 46367201	2SA1048
	or 48058601	2SA933S
fQ15	46719900	DTC124
fQ16	46367001	2SA1115
	or 46367201	2SA1048
	or 48058601	2SA933S
•FET		
eFT1	46643501	2SK163-K2
	or 46643502	2SK163-L1
	or 46643601	2SK117-Y
	or 46643602	2SK117-GR
•IC		
fIC1	46397400	TC9157P
	or 48128000	TC9157AP
fIC2	07225000	TD6104P
fIC3	46530000	TC4022BP
fIC4	46273100	BA634
fXO1	07237701	Quartz Element HC-18/U

Parts No.	Stock No.	Description
•Diode		
fD1	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD2	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD3	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD4	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD5	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD6	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD7	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD8	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD9	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD10	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD11	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD12	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD13	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD14	03117600	1S2473T77
	or 46086000	1S1588TP-3
fD16	03117700	10E-2
fD17	03117700	10E-2
fC10	46725600	3900µF 6.3V E.L.
fC15	48103400	1µF 50V E.B.
fTC1	46437700	Trimmer Capacitor 50pF

Parts List <F-4741>

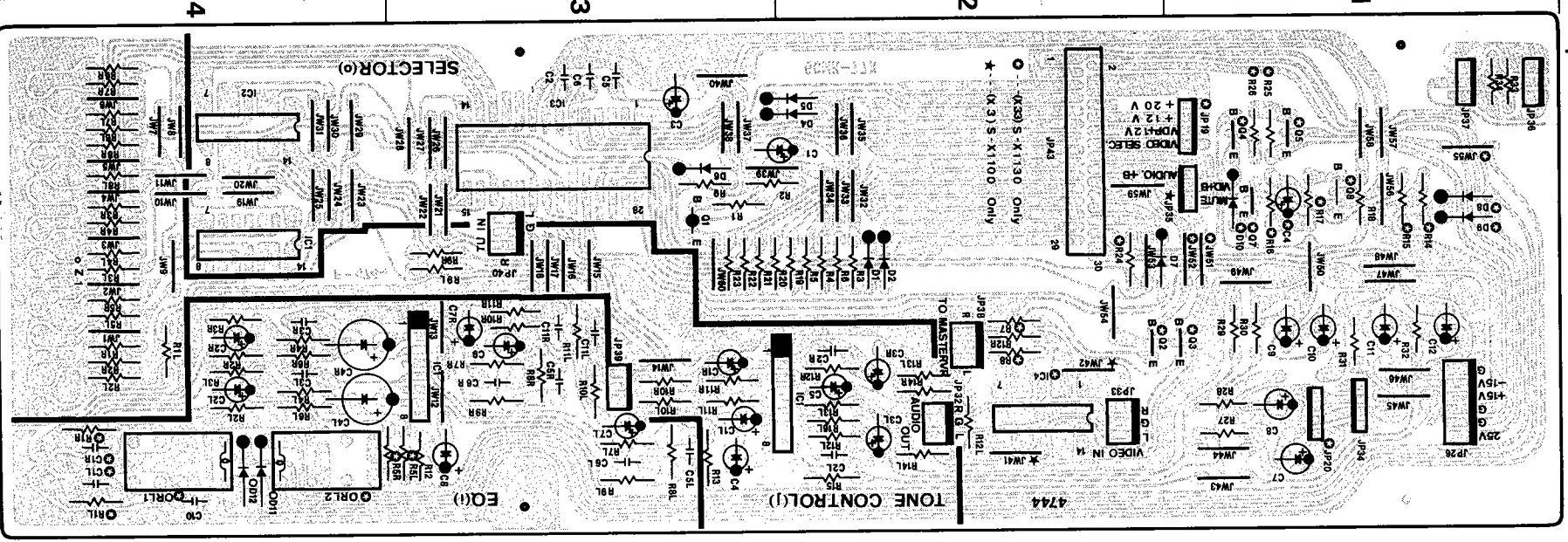
Parts No.	Stock No.	Description
eC37	46693600	2200pF 50V F.C.
eC39	46694000	3300pF 50V F.C.
eC48	46696000	0.022 μ F 50V F.C.
eC51	46694200	3900pF 50V F.C.
eC52	46696600	0.039 μ F 50V F.C.
eC58	46702900	0.068 μ F 50V F.C.
eC59	46694200	3900pF 50V F.C.
eC60	46694400	4700pF 50V F.C.
eTC1	46437500	Trimmer Capacitor 30pF
eTC2	46437500	Trimmer Capacitor 30pF
eCF1	48129100	Ceramic Filter SFG450C
eCF2	46578100	Ceramic Filter BFU-450C10N
eT4	46266900	Low Pass Filter 19/38 kHz
eT1	46724200	AM ANT Coil
eT2	46724100	AM OSC Coil
eT5	46917900	AM RF Coil
eT3	46724300	AM IF Coil
eVR1	46634700	47k Ω S.V.R., AM Strength Signal adj.
eVR2	46634700	47k Ω S.V.R., AM Stop Level adj.
eVR3	46634000	3.3k Ω S.V.R., AGC adj.
eVR4	46633500	470 Ω S.V.R., Phase Sifte adj.
eVR5	48119300	100k Ω S.V.R., DC Off Set adj.
eVR7	48118900	5k Ω S.V.R., VCO Off Set adj.
eVR8	46634300	10k Ω S.V.R., Separation adj.
•Transistor		
fQ17	46367101	2SC2603
	or 46367301	2SC2458
	or 48058801	2SC1740S
•Diode		
fD18	03117600	1S2473T77
	or 46086000	1S1588TP-3
fVR1	46634500	22k Ω S.V.R., FM Auto Stop Level adj.
•Transistor		
Δ mQ5	03032301	2SB507V11AL
Δ mQ6	46367101	2SC2603
	or 46367301	2SC2458
	or 48058801	2SC1740S
mQ7	46367001	2SA1115
	or 46367201	2SA1048
	or 48058601	2SA933S
•IC		
Δ mIC2	48129000	M5236L
Δ mIC3	46499800	L78N09
Δ mIC4	48065900	M5278L56
•Zener Diode		
Δ mDZ4	46116000	05Z24-Y
Δ mR15	46229000	100 Ω 1/2W N.I.R.
Δ mR16	46229000	100 Ω 1/2W N.I.R.
Δ mR20	46230600	2.2k Ω 1/2W N.I.R.
Δ mR21	46229400	220 Ω 1/2W N.I.R.
oS8	48127100	Slide SW., AM STEP (XX)
oZ2	46725100	Antenna Terminal

4-4. F-4743 UP, DOWN SW. & Preset Memory
Component Side
Circuit Board

Parts List

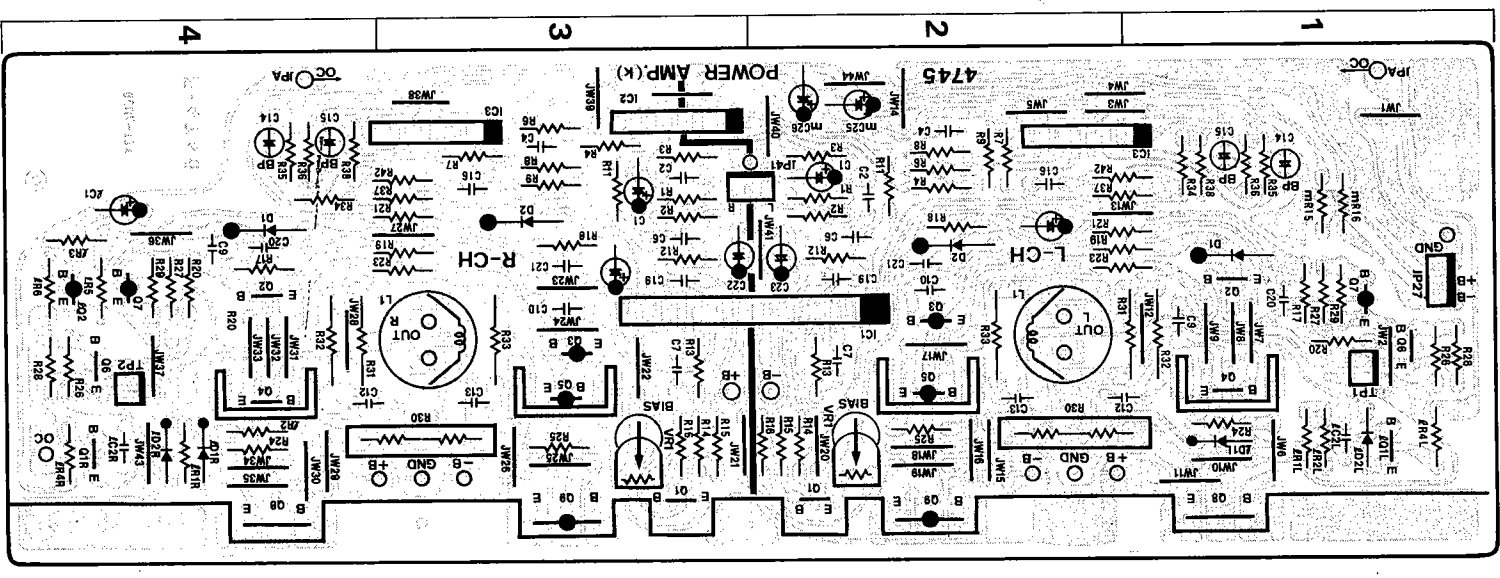
Parts No.	Stock No.	Description
oS1	46556400	Push SW., TUNING MODE
oS2	46556400	Push SW., FM IF BAND (S-X1130)
oS3	46556400	Push SW., MODE (FM)
oS4	46556400	Push SW., MODE (AM)
oS5	46556400	Push SW., METER RANGE
•LED		
sLD1	46176900	TLS-123
	or 46470200	SEL2210S
sLD2	46176900	TLS-123
	or 46470200	SEL2210S
sLD3	46176900	TLS-123
	or 46470200	SEL2210S
sLD4	46176900	TLS-123
	or 46470200	SEL2210S
sLD5	46176900	TLS-123
	or 46470200	SEL2210S
sLD6	46176900	TLS-123
	or 46470200	SEL2210S
sLD7	46176900	TLS-123
	or 46470200	SEL2210S
sLD8	46176900	TLS-123
	or 46470200	SEL2210S
sLD9	46176900	TLS-123
	or 46470200	SEL2210S
sS1	48128900	Push SW., FM/AM PRESET STATION
sS2	48128900	Push SW., FM/AM PRESET STATION
sS3	48128800	Push SW., TUNING, PRESET SCAN, MEMORY

6. F-4744 Input Selector Circuit Board (Stock No. 00840301 = S-X1130) (Stock No. 00842001 = S-X1100)



Parts No.	Stock No.	Description
•IC		
IC1	46288800	M5220L
IC5	46697000	0.056µF 50V F.C.
IC6	46695700	0.016µF 50V F.C.
IC11	46693800	2700pF 50V F.C.
•IC		
IC1	42768800	M5220L
•Transistor		
001	46367001	2SA1115
	46367201	2SA1048
	48058601	2SA933S
002	46719900	DTC124 (S-X1130)
003	46719900	DTC124 (S-X1130)
007	46367001	2SA1115 (S-X1130)
	46367201	2SA1048 (S-X1130)
008	46367101	2SA933S (S-X1130)
	46367301	2SC2458 (S-X1130)
	48058801	2SC1740S (S-X1130)
009	46367201	2SA1115 (S-X1130)
	46367701	2SA1048 (S-X1130)
	48058601	2SA933S (S-X1130)
	46540801	2SC2878 (S-X1130)
•Diode		
OD1	03117600	1S2473T77
	46086000	1S1588TP-3
OD2	03117600	1S2473T77
	46086000	1S1588TP-3
OD4	03117600	1S2473T77
	46086000	1S1588TP-3
OD5	03117600	1S2473T77
	46086000	1S1588TP-3
OD6	03117600	1S2473T77
	46086000	1S1588TP-3
OD8	03117600	1S2473T77 (S-X1130)
	46086000	1S1588TP-3 (S-X1130)
OD9	03117600	1S2473T77 (S-X1130)
	46086000	1S1588TP-3 (S-X1130)
OD10	03117600	1S2473T77 (S-X1130)
	46086000	1S1588TP-3 (S-X1130)
•Zener Diode		
ORL1	48004500	RELAY (S-X1130)
ORL2	48004500	RELAY (S-X1130)
OZ1	46363900	6P-Terminal, PHONO, AUX/IDA, TAPE-1, TAPE-2
•Zener Diode		
RDZ1	46111200	05Z5, 1-Y (S-X1100)

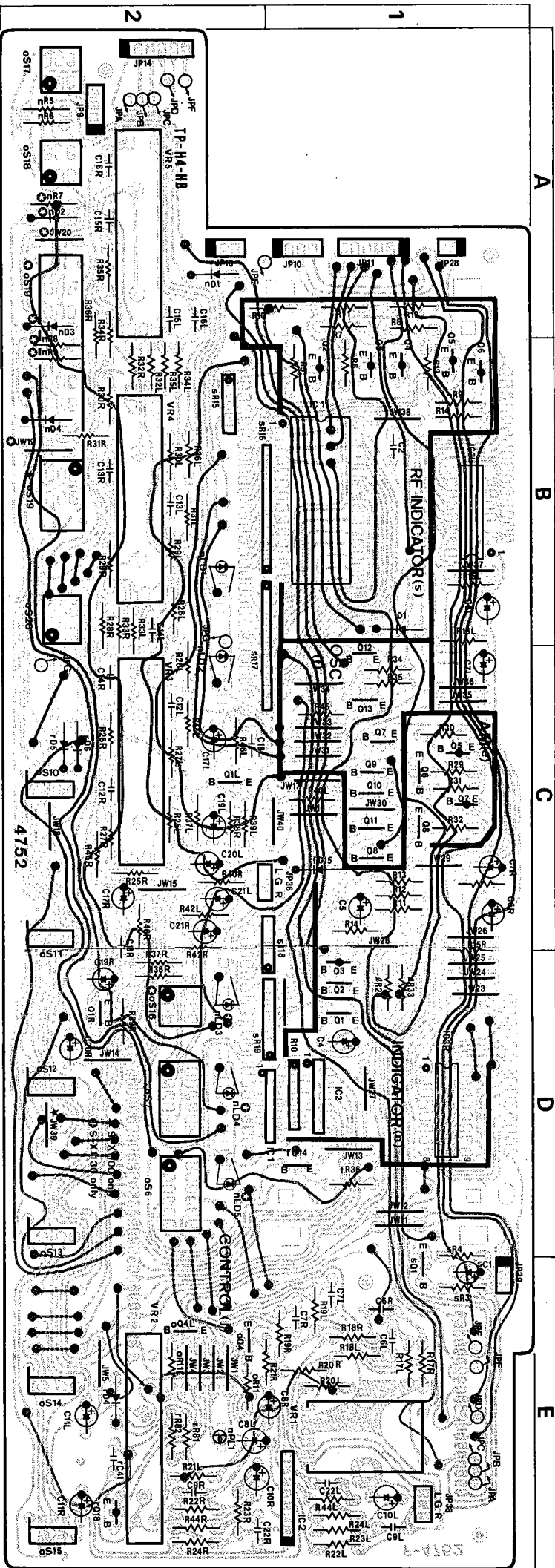
4-7. F-4745 Power Amp. Circuit Board (Stock No. 00840401 = S-X1130) (Stock No. 00842101 = S-X1100)



Parts No.	Stock No.	Description
•Transistor		
ΔK01	03059501	2SC945
	03068301	2SC2320
	07194801	2SC1815
K02	46728301	2SC2705
	46728201	2SA1145
K03	46728901	2SC3298
K04	46728901	2SC2592
	48170001	2SC2591 (S-X1100)
K05	46728801	2SA1306
	48169901	2SA1112
	48158801	2SA1111 (S-X1100)
K06	46127701	2SC2909
K07	46127601	2SA1207 (R)
ΔK08	07246901	2SC2774 (S-X1130)
	07246801	2SC2773 (S-X1100)
ΔK09	07246701	2SA1170 (S-X1130)
	07246601	2SA1169 (S-X1100)
•IC		
ΔKIC1	48127000	STK3152-3 (S-X1130)
	48126900	STK3122-3 (S-X1100)
ΔKIC2	46078900	M5218L
KIC3	46078900	M5218L
•Diode		
KD1	03117700	10E-2
KD2	03117700	10E-2
ΔKR17	46229700	390Ω 1/2W N.I.R.
ΔKR18	46229700	390Ω 1/2W N.I.R.
ΔKR24	46227400	4.7Ω 1/2W N.I.R.
ΔKR25	46227400	4.7Ω 1/2W N.I.R.
ΔKR26	46229500	270Ω 1/2W N.I.R.
ΔKR27	46229500	270Ω 1/2W N.I.R.
ΔKR28	46228900	82Ω 1/2W N.I.R.
ΔKR29	46228900	82Ω 1/2W N.I.R.
ΔKR30	46637800	0.33Ω x 2 7W Ce.R.
ΔKR31	46623100	10Ω 2W N.I.R.
ΔKR32	46623100	10Ω 2W N.I.R.
ΔKR33	46623100	10Ω 2W N.I.R.
ΔMR40	46229000	100Ω 1/2W N.I.R.
ΔMR41	46229000	100Ω 1/2W N.I.R.
KC7	46693200	1500 pF 50V F.C.
KC12	46696800	0.047µF 50V F.C.
KC13	46696800	0.047µF 50V F.C.
KC14	48103500	2.2µF 50V E.B.
KC15	48103700	4.7µF 50V E.B.
KC20	46692800	1000pF 50V F.C.
KC21	46692800	1000pF 50V F.C.
KL1	46027200	Inductor 1µH
KVR1	07241000	1kΩ(B) S.V.R., Bias adj.
•Transistor		
IO1	46127701	2SC2909
IO2	46127601	2SA1207
•Diode		
ID1	03117600	1S2473T77
	46086000	1S1588TP-3
ID2	03117600	1S2473T77
	46086000	1S1588TP-3
IC2	46696000	0.022µF 50V F.C.

4752 Control Amp. & Display Circuit Board (Stock No. 00841101 = S-X1130) (Stock No. 00842801 = S-X1100)

Component Side

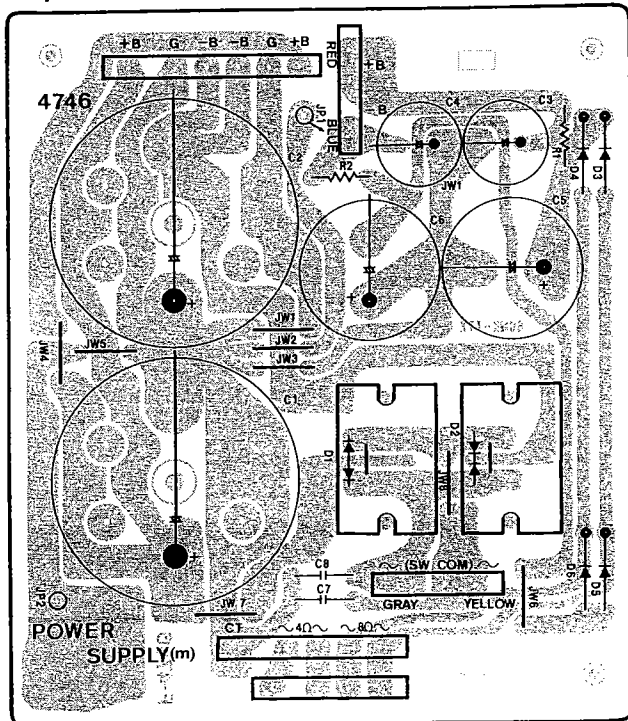


Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
46367001	2SA1115		46367001	2SC2878		46367001	2SA1115
46367101	2SC2603		46566300	Push SW., LOUDNESS		46367201	2SA1048
46367301	2SC2458		46566300	Push SW., SUBSONIC		46367201	2SA933S
48058801	2SC1740S	•Transistor	46366700	Push SW., PHONO		46367201	2SA1115
46367001	2SA1115	•Transistor	46396700	Push SW., FM		46367201	2SA933S
46367101	2SC2603	n01	46396700	Push SW., AM		46367201	2SA1115
46367301	2SC2458	n02	46396700	Push SW., AUX/DA		46367201	2SA1048
48058801	2SC1740S	n03	46396700	Push SW., TAPE-1		46367201	2SA1115
46719900	DTC124		46396700	Push SW., TAPE-2		46367201	2SA1048
46719900	DTC124		46566400	Push SW., CARTRIDGE		46410100	2SA933S
46719900	DTC124		46566400	Push SW., SPEAKER-A	•IC		
46719900	DTC124		46566400	Push SW., SPEAKER-B	sic1		
46719900	DTC124		48127400	Push SW., VIDEO SELECTOR			
46719900	DTC124		46566400	Push SW., MULTIDIMENSION			
46719900	DTC124		46566400	Push SW., VIDEO MONITOR			
03117600	1S2473T77				•Diode		
46086000	1S1588TP-3	nd1	03117600	1S2473T77	sd1	03117600	1S2473T77
			46086000	1S1588TP-3	sd1	46086000	1S1588TP-3
46078900	M5218L	•LED					
46696000	0.022 μ F 50V F.C.	nLD1	03117600	1S2473T77		46341300	3.3k Ω x 4 1/8W A.R.
46693400	1800PF 50V F.C.	nLD2	46086000	1S1588TP-3		46353000	10k Ω x 10 1/8W A.R.
46694000	3300PF 50V F.C.	nLD3	03117600	1S2473T77		46353000	10k Ω x 10 1/8W A.R.
46695200	0.01 μ F 50V F.C.	nLD4	46086000	1S1588TP-3		46341900	10k Ω x 4 1/8W A.R.
46695600	0.015 μ F 50V F.C.	nLD5	03117600	1S2473T77		46341900	10k Ω x 4 1/8W A.R.
46695600	0.015 μ F 50V F.C.	nLD6	46086000	1S1588TP-3		46345000	3.3k Ω x 6 1/8W A.R.
48139800	150k Ω /B V.R., VOLUME	nR10					
48139800	250k Ω /W V.R., BALANCE	nR10					
48140000	100k Ω /B V.R., TREBLE	nPL1	46722100	10k Ω x 5 1/8W A.R.			
			48176000	Pilot Lamp 8V 0.2A			

4-9. F-4746 Power Supply Circuit Board

(Stock No. 00840401 = S-X1130) (Stock No. 00842201 = S-X1100)

Component Side



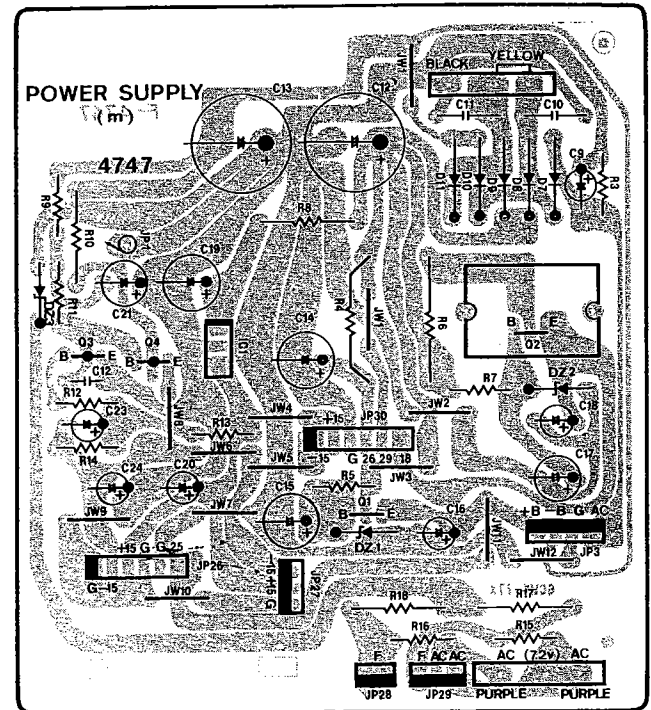
Parts List

Parts No.	Stock No.	Description
•Diode		
△ mD1	48159900	CTM-22S
△ mD2	48159800	CTM-22R
△ mD3	03117700	10E-2
△ mD4	03117700	10E-2
△ mD5	03117700	10E-2
△ mD6	03117700	10E-2
•Resistor		
△ mR1	46228600	47Ω 1/2W N.I.R.
△ mR2	46228600	47Ω 1/2W N.I.R.
•Capacitor		
mC1	46223000	10000μF 80V E.L. (S-X1130)
	46223200	10000μF 71V E.L. (S-X1100)
mC2	46223000	10000μF 80V E.L. (S-X1130)
	46223200	10000μF 71V E.L. (S-X1100)
mC5	48148600	1000μF 80V E.L.
mC6	48148600	1000μF 80V E.L.
mC7	08680400	0.01μF 500V C.C.
mC8	08680400	0.01μF 500V C.C.

4-10. F-4747 Power Supply Circuit Board

(Stock No. 00840701 = S-X1130) (Stock No. 00842301 = S-X1100)

Component Side

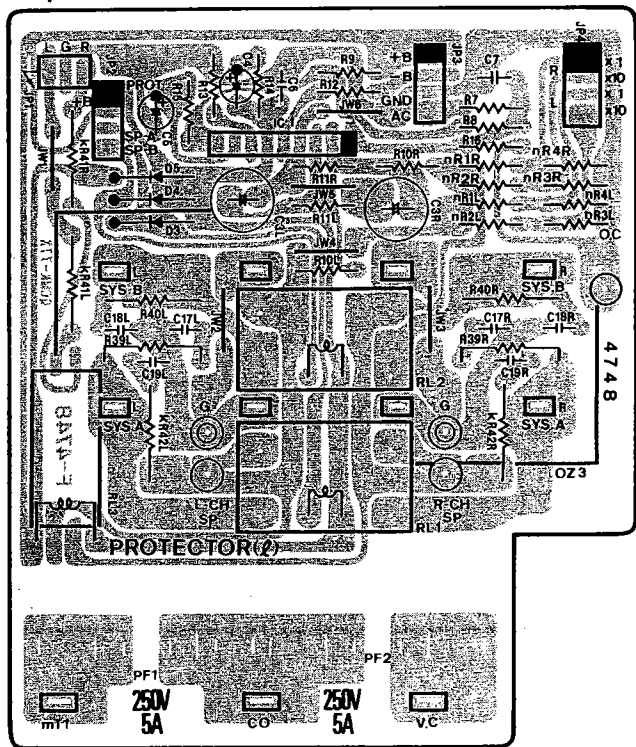


Parts List

Parts No.	Stock No.	Description
•Transistor		
△ mQ1	03084801	2SD358
△ mQ2	03083901	2SD313AL
△	or 46546701	2SD880
△ mQ3	46367001	2SA1115
△	or 46367201	2SA1048
△	or 48058601	2SA933S
△ mQ4	03033101	2SB528
•IC		
△ mIC1	46361600	L78N15
•Diode		
△ mD7	03117700	10E-2
△ mD8	03117700	10E-2
△ mD9	03117700	10E-2
△ mD10	03117700	10E-2
△ mD11	03117700	10E-2
•Zener Diode		
mDZ1	46116100	05Z24-Z
mDZ2	46115400	05Z20-Y
mDZ3	46108800	05Z2.4-X
•Resistor		
△ mR4	46908300	27Ω 3W N.I.R.
△ mR5	46229800	470Ω 1/2W N.I.R.
△ mR6	46908000	15Ω 3W N.I.R.
△ mR7	46230400	1.5k 1/2W N.I.R.
△ mR8	46248900	47Ω 1W N.I.R.
△ mR9	46230200	1k 1/2W N.I.R.
△ mR10	46249100	68Ω 1W N.I.R.
△ mR26	46622900	6.8Ω 2W N.I.R.
△ mR27	46622900	6.8Ω 2W N.I.R.

4-11. F-4748 Protector Circuit Board

Component Side (Stock No. 00840701 = S-X1130-XX/00840703 = S-X1130-CSA) (Stock No. 00842401 = S-X1100-XX/00842403 = S-X1100-CSA)

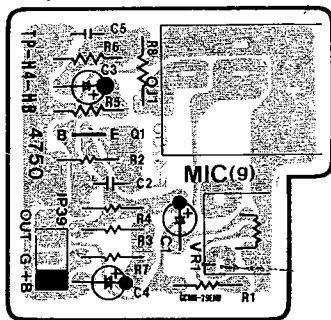


Parts List

Parts No.	Stock No.	Description
KR39	46623100	10Ω 2W N.I.R.
KR40	46623100	10Ω 2W N.I.R.
KC17	46696800	0.047μF 50V F.C.
KC18	46696800	0.047μF 50V F.C.
•IC		
△ IC1	46207600	TA7317P
•Diode		
ID3	03117700	10E-2
ID4	03117700	10E-2
ID5	03117700	10E-2
△ KR39	46623100	10Ω 2W N.I.R.
△ KR40	46623100	10Ω 2W N.I.R.
△ KR41	46249700	220Ω 1W N.I.R.
IC3	48104200	220μF 6.3V E.B.
IRL1	07198400	Relay
IRL2	07198400	Relay
IRL3	11504300 or 11504301	Relay Relay LA2A-24B
oZ3	07203600	8P-Terminal, SPEAKERS
△ pF1	07189100	Fuse 5.0A 250V (S-X1130-XX)
△ pF2	07188900	Fuse 3.5A 250V (S-X1100-XX)
△ pF2	07189500	Fuse 10A 250V (S-X1130-CSA)
△ pF2	07189300	Fuse 7A 250V (S-X1100-CSA)

4-12. F-4750 Mic Amp. Circuit Board

Component Side

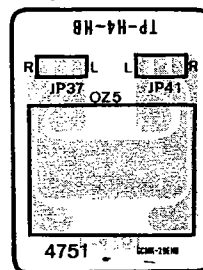


Parts List

Parts No.	Stock No.	Description
•Transistor		
gQ1	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
gC6	46688700	4700pF 50V F.C.
gVR1	48140100	20kΩ(A) V.R., MIC LEVEL
oJ1	46289100	Jack, MIC

4-13. F-4751 PRE OUT-POWER IN Terminal Board

Component Side

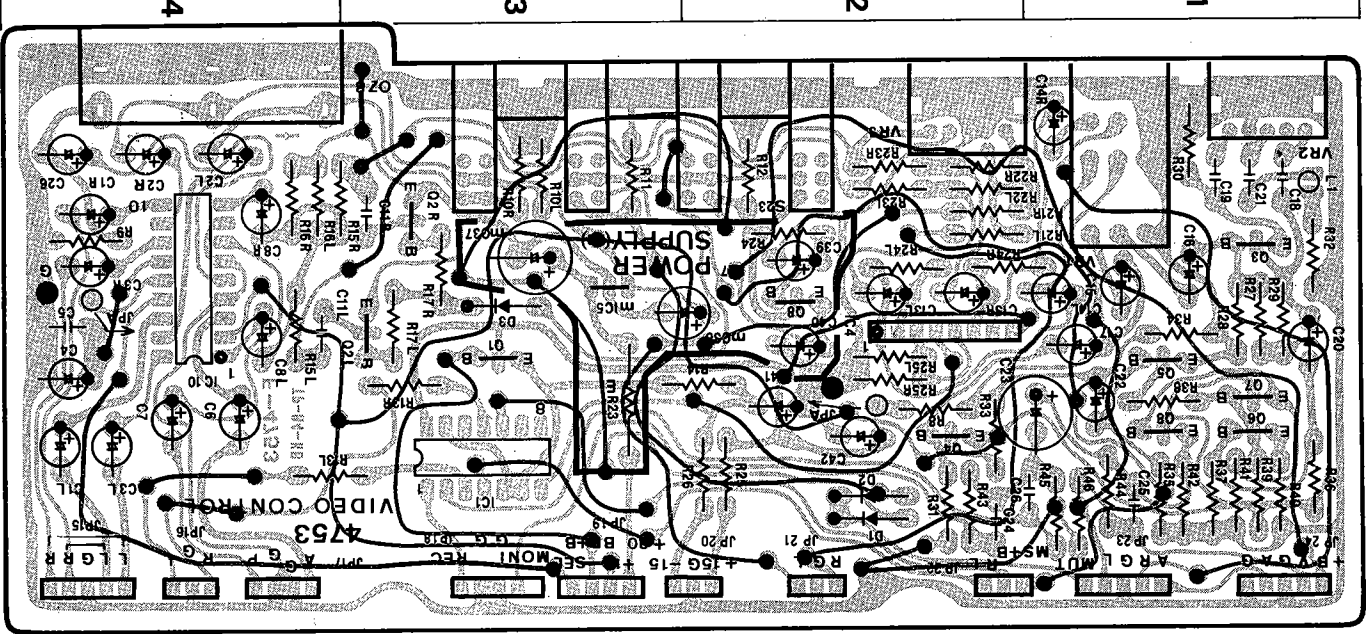


Parts List

Parts No.	Stock No.	Description
oZ5	48072600	4P-Terminal, PREOUT-POWER IN

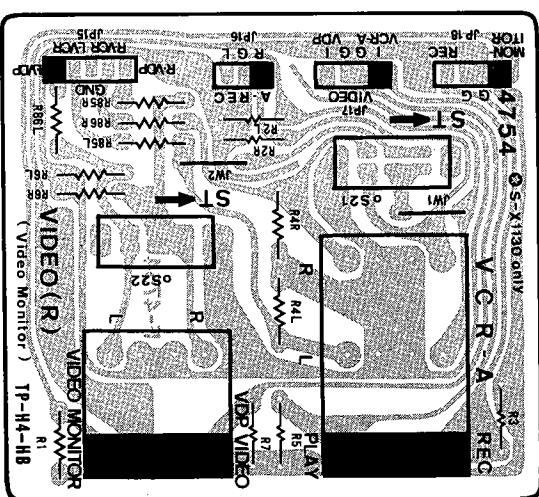
14. F-4753 Video Circuit Board <S-X1130 only> (Stock No. 00841201)

Component Side



4-15. F-4754 VCR-A & VDP Terminal Board <S-X1130 only>

Component Side



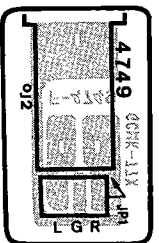
Parts List

Parts No.	Stock No.	Description
• Transistor		
MO8	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
• IC		
IC5	46361500	L78N12
OS23	48128700	Push SW., ANTENNA, MULTIDIMENSION, NOISE FILTER, MODE
OZ8	48072500	3P-Terminal, VCR-B
• Transistor		
FO1	46719900	DTC124
FO2	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
FO3	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
FO4	46367001 or 46367201 or 48058801	2SA1115 2SA1048 2SA933S
FO5	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
FO6	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
FO7	46367101 or 48058801 or 46367301	2SC2603 2SC2458 2SC2458
FO8	46367101 or 46367301 or 48058801	2SC2603 2SC2458 2SC1740S
• IC		
IC1	48058800	LC4966
IC4	46078900	M5218L
IC10	48056700	M51321P
• Diode		
FD1	03117600	1S2473T77
FD2	or 46086000 03117600	1S1588TP-3 1S2473T77
FD3	or 46086000 03117600	1S1588TP-3 1S2473T77
FD7	03117600 or 46086000	1S1588TP-3 1S2473T77
FD8	03117600 or 46086000	1S1588TP-3 1S1588TP-3
FC11	46696400	0.033µF 50V F.C.
FC17	48102800	0.1µF 50V E.B.
FC18	46696000	0.022µF 50V F.C.
FC19	46696000	0.022µF 50V F.C.
FL1	46167400	Inductor 47µH
VR1	48127300	100K(Ω) + 1K(Ω) V.R., FADER
VR2	48127200	2K(Ω) V.R., SHARPNESS
VR3	48128600	50K(Ω) V.R., SOUND MIXING

4-16. F-4755 VIDEO AUDIO PLAY Terminal Board <S-X1100 only>

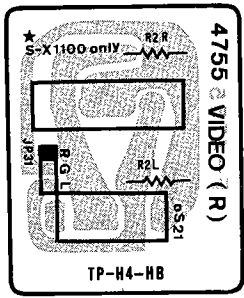
4-17. F-4749 PHONES Jack Board

Component Side



Parts List

Parts No.	Stock No.	Description
OS21	46630800	Slide SW., VCR-A MODE
OS22	46630800	Slide SW., VDP MODE
OZ6	48127700	6P-Terminal, VCR-A
OZ7	48127600	4P-Terminal, VDP, MONITOR OUT



Parts List

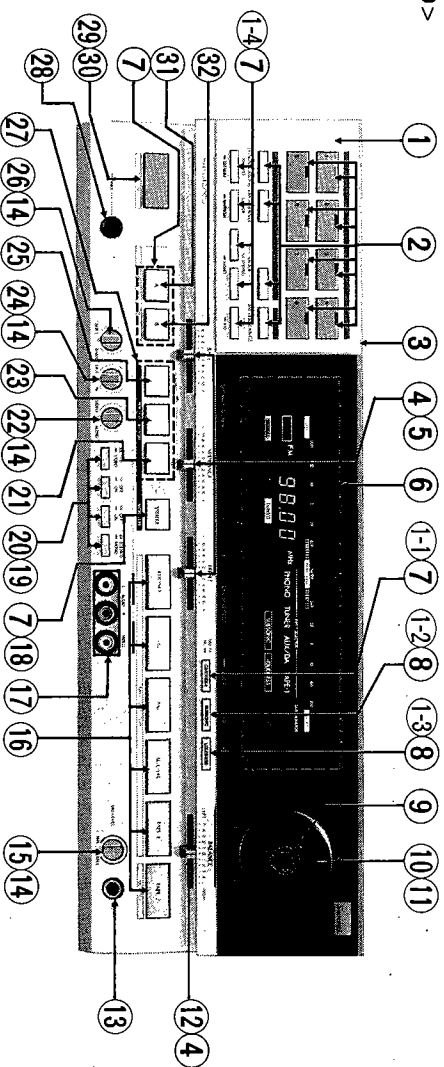
Parts No.	Stock No.	Description
OS24	46630800	Slide SW., VIDEO AUDIO PLAY MODE
OZ8	48127500	2P-Terminal, VIDEO AUDIO PLAY

Parts List

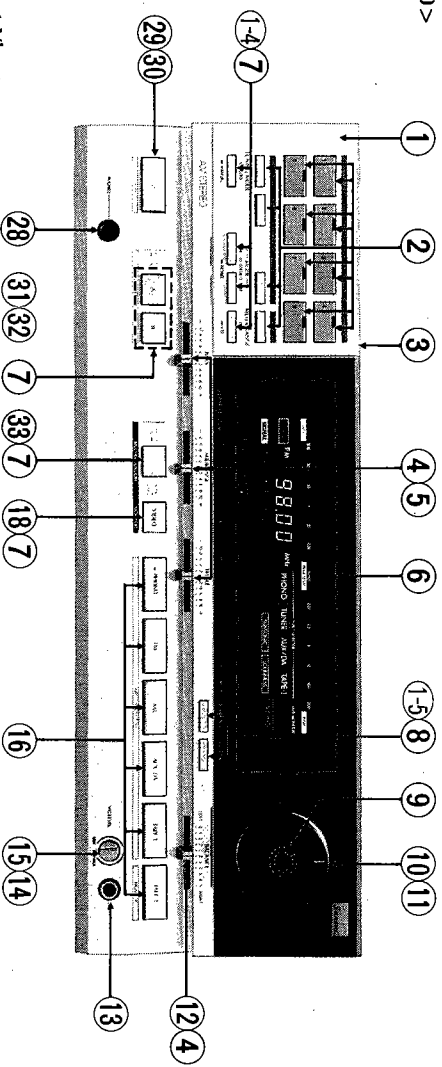
Parts No.	Stock No.	Description
OJ2	46289200	Jack, PHONES

OTHER PARTS

Front View



<X1100>



<Front View>

Stock No. Description

Parts No. Stock No. Description

46556400	Push SW., FM/AM PRESET STATION, TUNING, PRESET SCAN, MEMORY	46289200	Jack, PHONES
48140000	100KΩ Slide V.R., BASS, MID RANGE, TREBLE	46612900	Push SW., POWER
48068500	FL. Display Tube, CP5194GLR		
46556400	Push SW., CARTRIDGE, VIDEO, MODE, METER RANGE, TUNING MODE, FM IF BAND, SPEAKER SYSTEM		
46556300	Push SW., SUBSONIC, LOUDNESS		
47287800	FS. Holder		
47680100	Knob, VOLUME		
48139800	150KΩ (B) V.R., VOLUME		
48139900	250KΩ (B) Slide V.R., BALANCE		
46289100	Jack, MIC		
48140100	20KΩ (A) V.R., MIC LEVEL		
46396700	Push SW., PHONO, FM, AM, AUX/DA, TAPE-1, TAPE-2		
48072500	3P-Terminal, VCR-B (S-X1130 only)		
48128700	Push SW., ANTENNA, MULTI-DIMENSION, NOISE FILTER, MODE (S-X1130 only)		
48128600	50KΩ (B) V.R., SOUND MIXING		
48127300	(S-X1130 only)		
48127200	100KΩ (B) + 1KΩ (B) V.R., FADER (S-X1130 only)		
48127200	2KΩ (B) V.R., SHARPNESS (S-X1130 only)		
48127400	Push SW., VIDEO SELECTOR (S-X1130 only)		

28	46289200	Jack, PHONES
Δ 30	46612900	Push SW., POWER
<Silver Model>		
1	47693900	Front Panel Ass'y (S-X1130)
1-1	47694100	Front Panel Ass'y (S-X1100)
1-1	47681100	Knob, CARTRIDGE (S-X130 only)
1-2	47681200	Knob, SUBSONIC (S-X1130 only)
1-3	47681300	Knob, LOUDNESS (S-X1130 only)
1-4	47680700	Knob, TUNING MODE, FM IF BAND, MODE, METER RANGE
1-5	47681500	Knob, SUBSONIC, LOUDNESS (S-X1100 only)
3	47748700	Bonnet
4	47683500	Knob, BASS, MID RANGE, TREBLE, BALANCE
14	47683700	FADER, SHARPNESS
18	47689100	Knob, VIDEO
19	47680500	Knob, ANTENNA, MULTIDIMENSION, MODE NOISE FILTER (S-X1130 only)
21	47682100	Knob, VDP (S-X1130 only)
23	47682000	Knob, VCR-B (S-X1130 only)
25	47681900	Knob, VCR-A (S-X1130 only)
29	47680300	Knob, POWER
31	47688900	Knob, SPEAKER-A
32	47689000	Knob, SPEAKER-B
33	47689300	Knob, MULTIDIMENSIONS (S-X1100 only)
<Black Model>		
1	47693800	Front Panel Ass'y (S-X1130)
	47694000	Front Panel Ass'y (S-X1100)

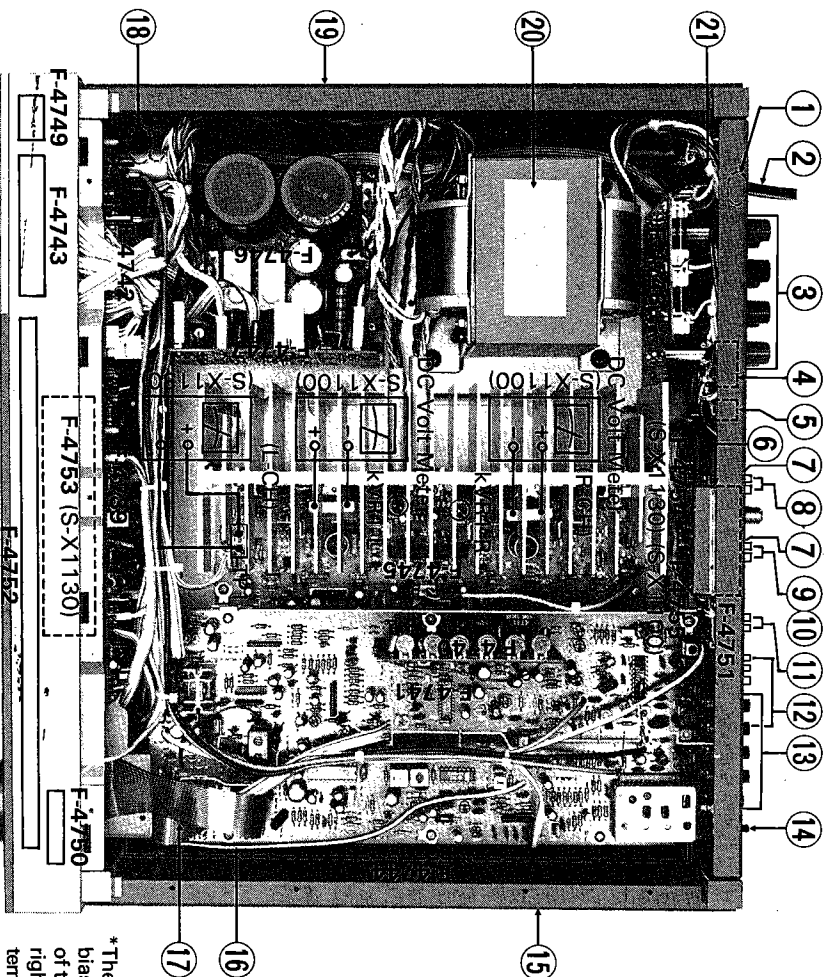
Parts List <Front View>

Parts No.	Stock No.	Description
1-1	47680800	Knob, CARTRIDGE (S-X1130 only)
1-2	47680900	Knob, SUBSONIC (S-X1130 only)
1-3	47681000	Knob, LOUDNESS (S-X1130 only)
1-4	47680600	Knob, TUNING MODE, FM IF BAND, MODE METER RANGE
1-5	47681400	Knob, SUBSONIC, LOUDNESS (S-X1100 only)
3	47650600	Bonnet
4	47683400	Knob, BASS, MID RANGE, TREBLE, BALANCE
14	47683600	Knob, MIC LEVEL, SOUND MIXING, FADER SHARPNESS

Parts No. Stock No. Description

18	47688800	Knob, VIDEO
19	47680400	Knob, ANTENNA, MULTIDIMENSION, MODE, NOISE FILTER (S-X1130 only)
21	47681800	Knob, VDP (S-X1130 only)
23	47681700	Knob, VCR-B (S-X1130 only)
25	47681600	Knob, VCR-A (S-X1130 only)
29	47680200	Knob, POWER
31	47688600	Knob, SPEAKER-A
32	47688700	Knob, SPEAKER-B
33	47689200	Knob, MULTIDIMENSION (S-X1100 only)

5-2. Top View



Parts List <Top View>

Parts No.	Stock No.	Description
1	39104900	Strain Relief (S-X1130/ S-X1100-CSA)
2	39106000	Strain Relief (S-X1100-XX)
3	38004900	Power Supply Cord (S-X1130)
4	38004700	Power Supply Cord (S-X1100-XX)
5	46321000	Power Supply Cord (S-X100-CSA)
6	07203600	8P-Terminal, SPEAKERS
7	48062100	Slide SW., VOLTAGE SELECTOR (XX)
8	46739400	Slide SW., SPEAKER IMPEDANCE SELECTOR (XX)
9	46736600	Slide SW., SPEAKER IMPEDANCE SELECTOR (CSA)
10	48120200	VHF RF Modulator (S-X1130 only)
	36630800	Slide SW., VCR-A MODE, VDP MODE, VIDEO AUDIO MODE
	48127600	4P-Terminal, VDP VIDEO OUT (S-X1130 only)
	48127700	6P-Terminal, VCR-A (S-X130 only)
	48127500	2P-Terminal, VIDEO AUDIO PLAY (S-X1100 only)

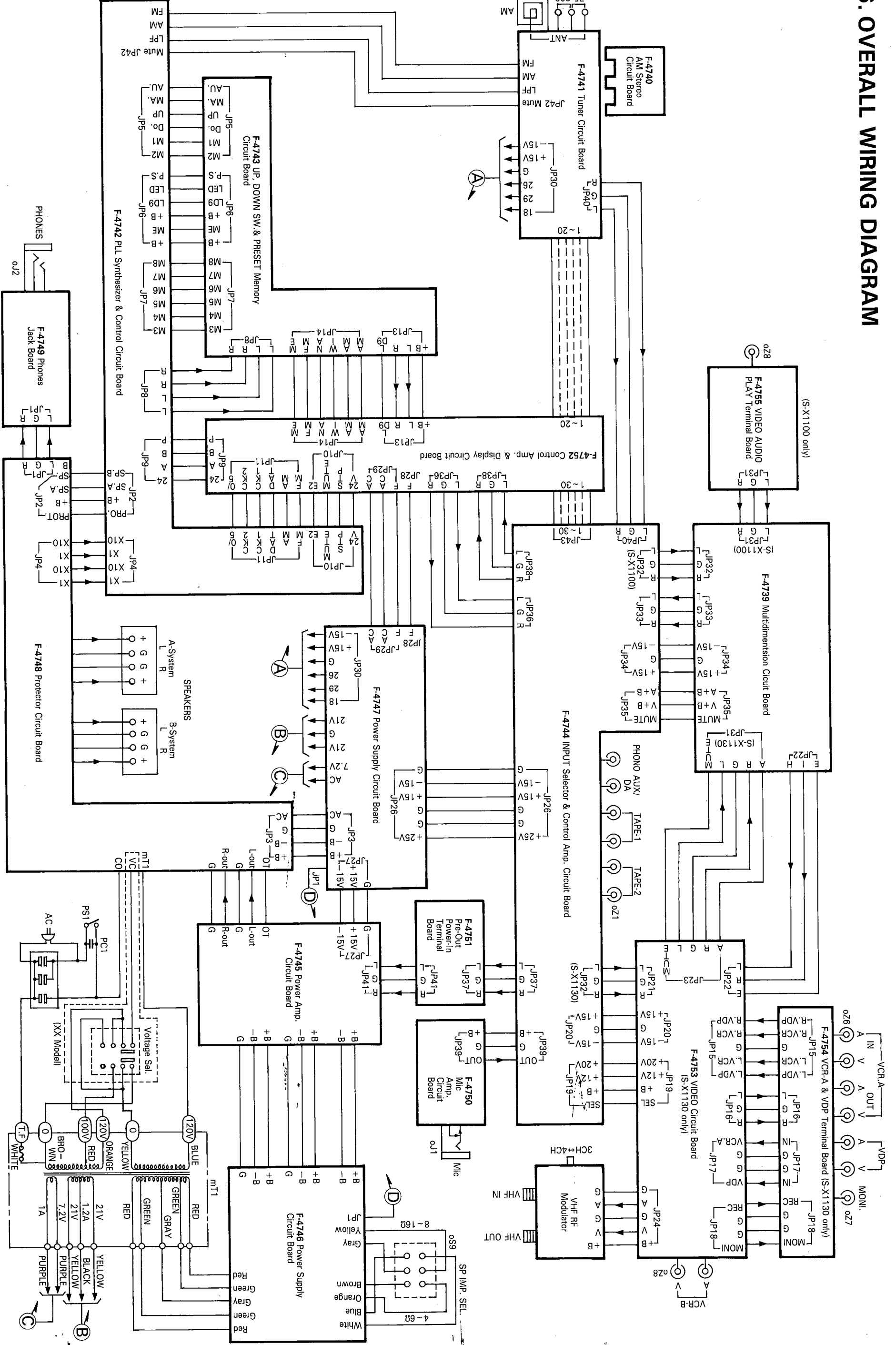
Parts No. Stock No. Description

11	48072600	4P-Terminal, PRE OUT-POWER IN
12	46363900	6P-Terminal, PHONO, AUX/DA, TAPE-1, TAPE-2
13	46725100	ANTENNA Terminal
14	22301510	GND Terminal
15	47748500	Side Panel R Ass'y (Silver Model)
16	47674100	Side Panel R Ass'y (Black Model)
17	07475700	30P-Film Parallel Cable (F-4744-F-4752)
18	07475600	20P-Film Parallel Cable (F-4741-F-4752)
19	46425800	0.01μF 400V C.C.
20	47748600	0.01μF 400V C.C.
21	47748600	Side Panel L Ass'y (Silver Model)
	47674200	Side Panel L Ass'y (Black Model)
	15018701	Power Transformer (S-X1130-XX)
	15018703	Power Transformer (S-X1130-CSA)
	15018801	Power Transformer (S-X1100-XX)
	15018803	Power Transformer (S-X1100-CSA)
	46730400	AC OUTLETS

*The measure output of bias current adjustment of the model "S-X1130" right channel is "TP2" terminal at F-4745 board.

5. OVERALL WIRING DIAGRAM

S-X1130/X1100 S-X1130/X1100



7-1. EQ Amp. & Control Amp. Section

* Design and specifications subject to change without notice for improvement.
* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

SYMBOL OF FUNCTION

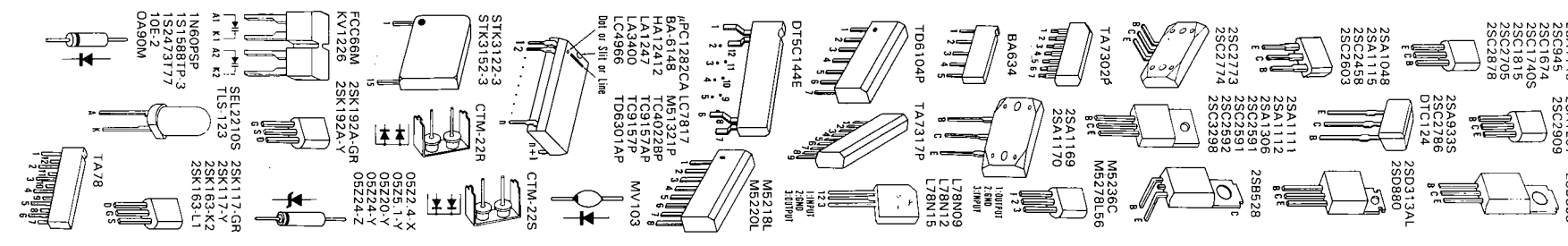
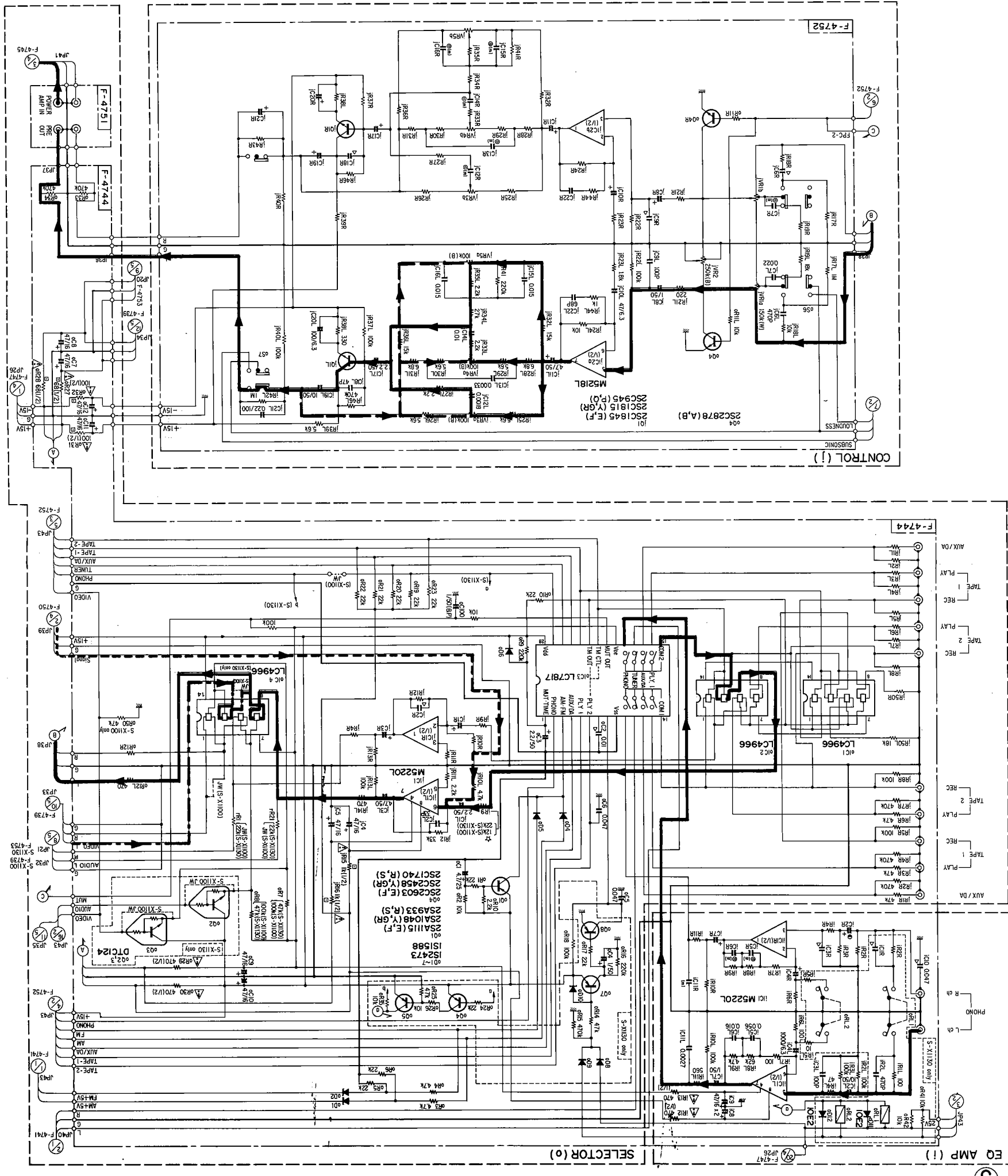
- (d) FM
- (e) AM
- (f) OSC
- (g) MIC
- (h) EQ
- (i) CONTROL
- (j) POWER AMP
- (k) PROTECTOR
- (l) POWER SUPPLY
- (m) INDICATOR
- (n) SELECTOR
- (o) FIXED PARTS
- (p) RE INDICATOR

RESISTORS

- △ Ceramic
- (BP) Bi-Polar Electrolytic
- (M) Mylar
- (P) Polyester
- Non-Inductable
- Cement Resistor
- Lead-Leak Electrolytic
- Jumper Wire

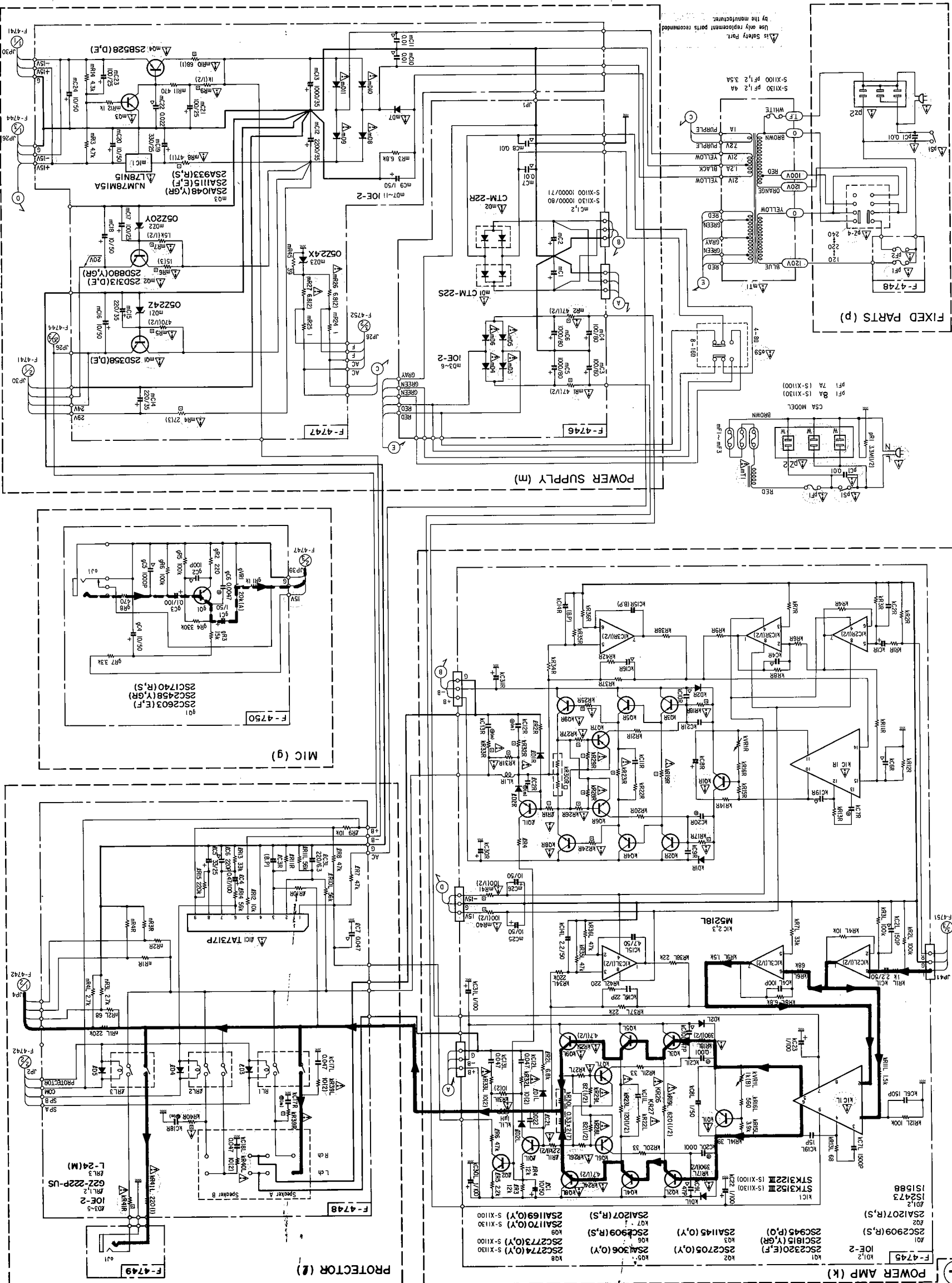
CAPACITORS

- △ Tolerance Unless Otherwise Noted, K: K \pm 10%, M: M \pm 20%
- Are in pF, Unless Otherwise Noted, P: pF
- Electrolytic Capacitor (BP/Volt(V))
- △ Each D.C. Voltage shows the nominal value in volts of no input signal.
- △ is Safety Part.
- Use only replacement parts recommended by the manufacturer.

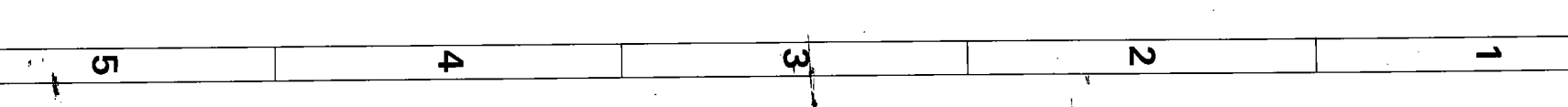


2. Power Amp., Power Supply Section

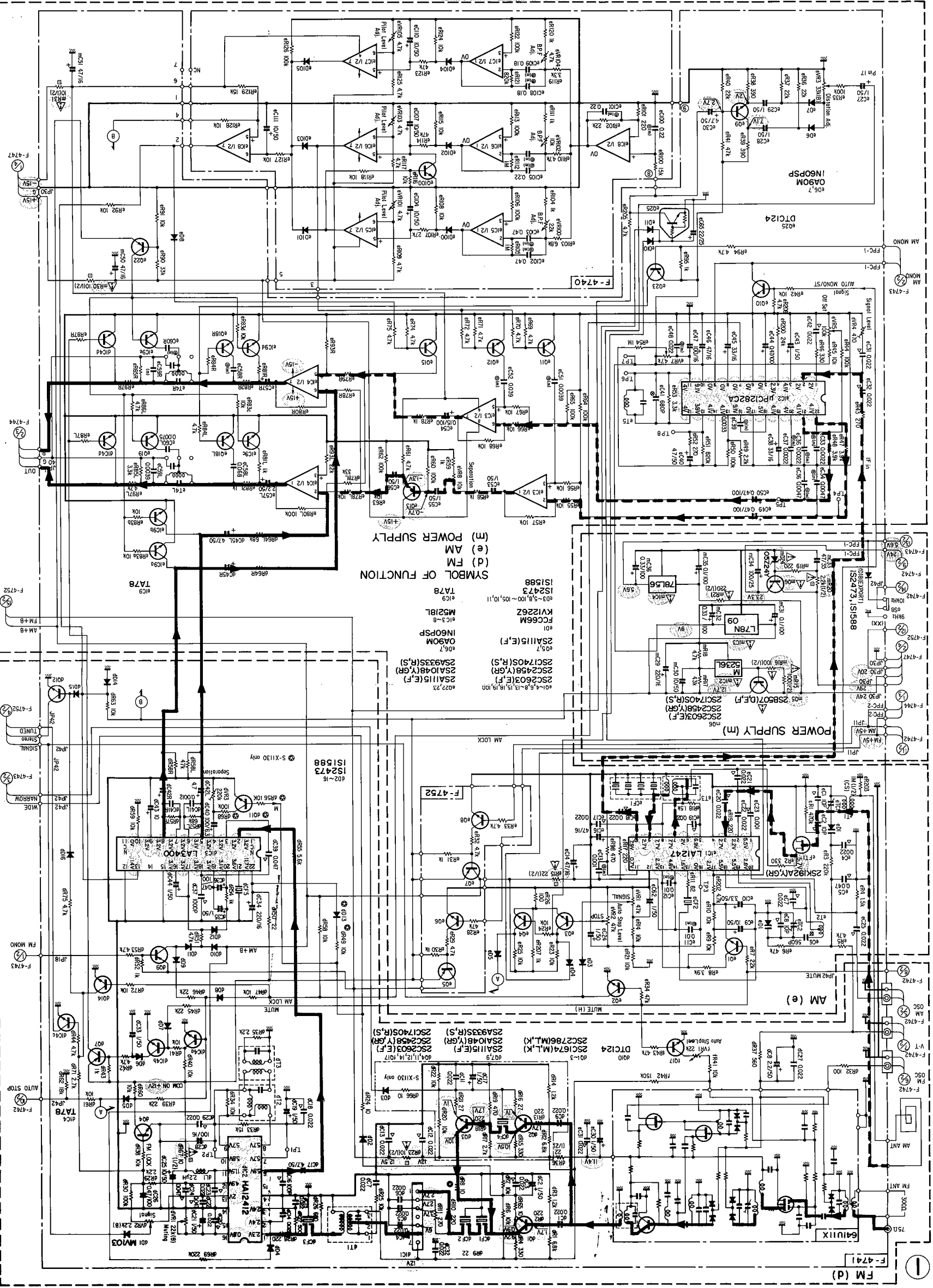
* Design and specifications subject to change without notice for improvement.
 * La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



2SA1145	2SC2909	2SC2603	2SC2774	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290
2SC1674	2SC1740S	2SC1815	2SC2705	2SC2878	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290
2SC2909	2SC2458	2SC2603	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290
2SC2774	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290
2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111
2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111
2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111
2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111
2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111
2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111	2SC2290	2SA1111

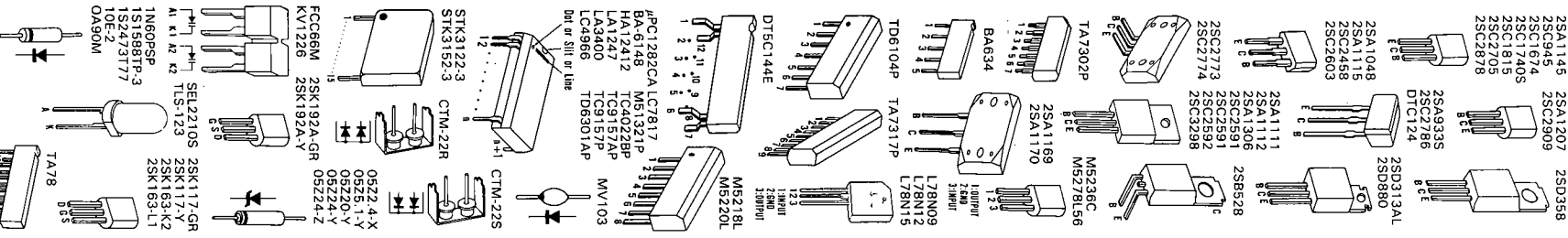


* Design and specifications subject to change without notice for improvement.
* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



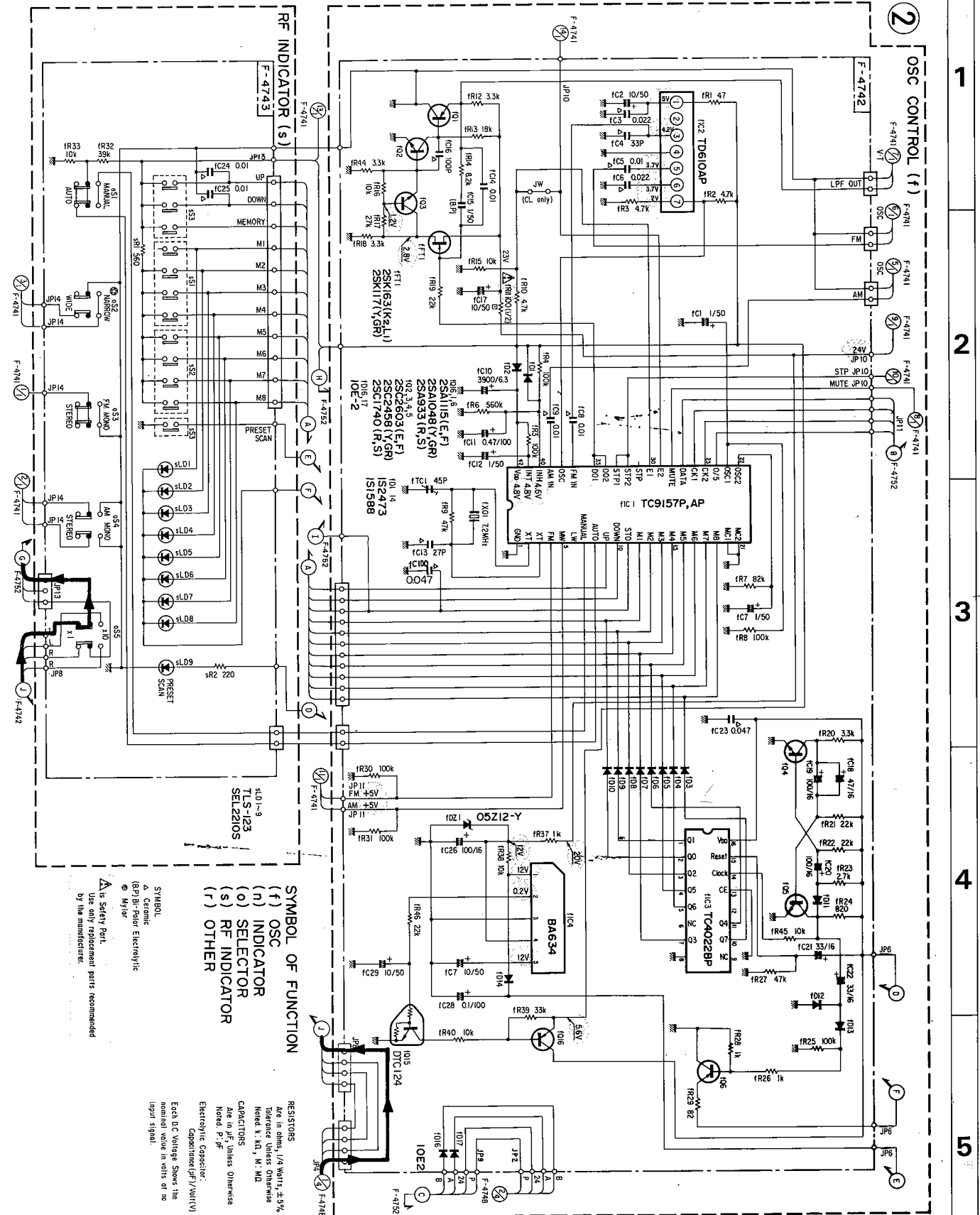
SYMBOL OF FUNCTION
(m) POWER SUPPLY
(e) AM
(d) FM

AM (e)
MUTE (H)
FM (D)



1 2 3 4 5

7-4. PLL Synthesizer & Control Section



SYMBOL OF FUNCTION

(f) OSC
(n) INDICATOR
(o) SELECTOR
(s) RF INDICATOR
(r) OTHER

SYMBOL
 ▲ Ceramic
 (BP) Bi-Polar Electrolytic
 ⊕ Mylar
 ▲ Safety Part.
 Use only replacement parts recommended by the manufacturer.

RESISTORS
 are in ohms, 1/4 Watts, ±5%
 Tolerance Unless Otherwise
 Noted. K, 10³; M, 10⁶

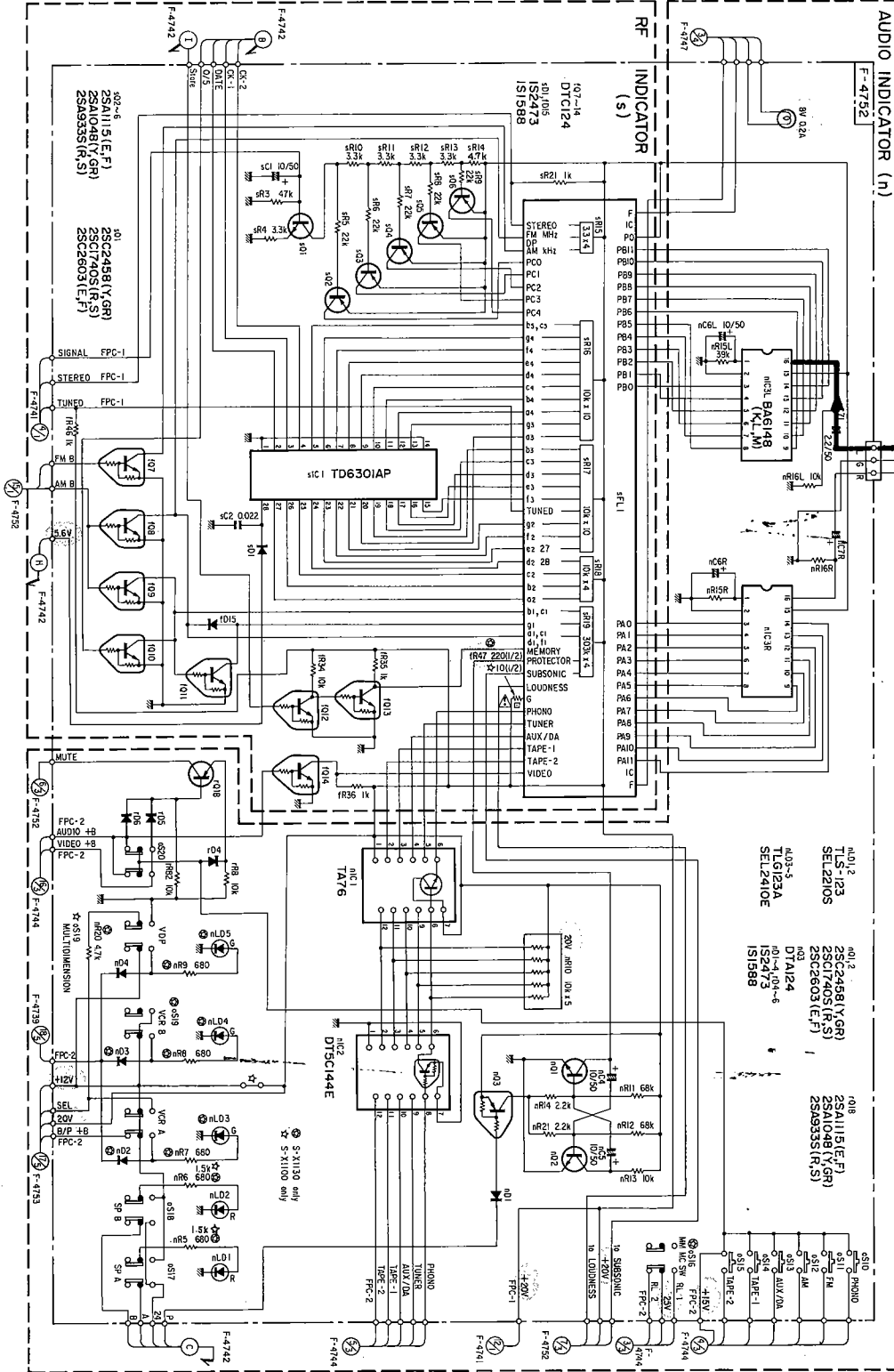
CAPACITORS
 are in pF, unless otherwise
 noted. P, pF
 Electrolytic Capacitor:
 Capacitance (µF) / Voltage (V)

Each DC Voltage Shows the
 nominal value in volts or mV
 input signal.

* Design and specifications subject to change without notice for improvement.
 * La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

7-5. Display Section

- Design and specifications subject to change without notice for improvement.
- La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
- Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



- 2SA1145
- 2SA1207
- 2SC945
- 2SC1674
- 2SC1740S
- 2SC1815
- 2SC2705
- 2SC2878
- 2SA9335
- 2SC2786
- DTC124
- 2SD313AL
- 2SD880
- 2SA1048
- 2SA1115
- 2SC2458
- 2SC2603
- 2SA1111
- 2SA1112
- 2SA1306
- 2SC2591
- 2SC2591
- 2SC2592
- 2SC3298
- 2SB528
- 2SC2773
- 2SC2774
- TA7302P
- M5236C
- M5278L56
- 2SA1169
- 2SA1170
- BA634
- 1-INPUT
- 2.5W
- 3-INPUT
- L78N09
- L78N12
- L78N15
- TA7317P
- 123
- 1-INPUT
- 2.5W
- 3-INPUT
- DT5C144E
- M5218L
- M5220L
- APC1282CA
- LC7817
- BA-6148
- M51321P
- HA12412
- TC4022BP
- LA1247
- TC9157AP
- LA3400
- TC9157P
- LC4966
- TD6301AP
- Dot or Slot or Line
- CTM-22S
- STK3122-3
- STK3152-3
- CTM-22R
- 05Z24-X
- 05Z25.1-Y
- 05Z20-Y
- 05Z24-Y
- 05Z24-Z
- FCC66M
- KV1226
- 2SK192A-GR
- 2SK192A-Y
- SEL2210S
- TLS-123
- 2SK117-GR
- 2SK117-Y
- 2SK163-K2
- 2SK163-L1
- 1N60PSP
- 1S1588TP-3
- 1S2473T77
- 10E-2
- OA90M
- TA78

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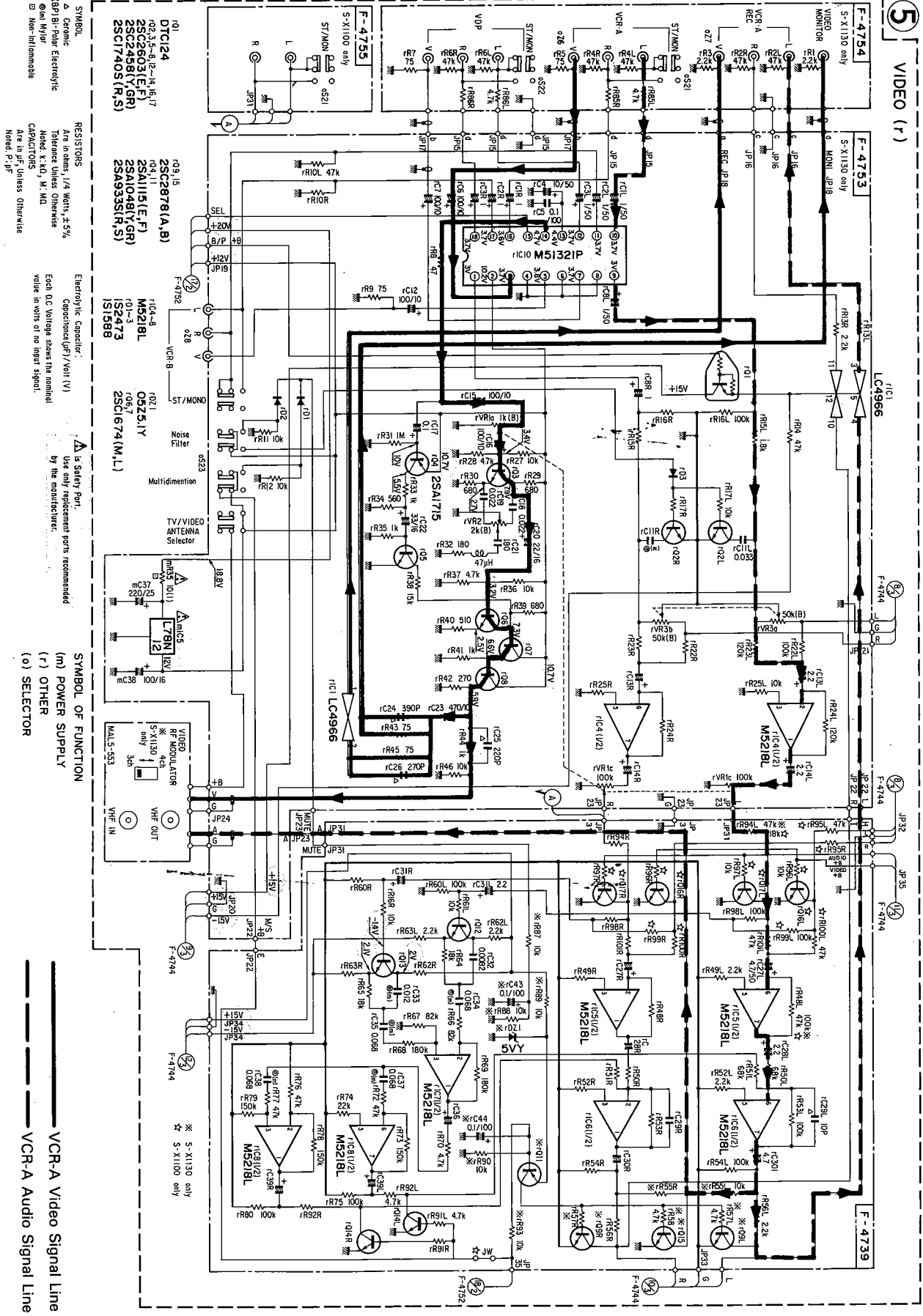
▲ is Safety Part.
Use only replacement parts recommended by the manufacturer.

Signal Line

A B C D

7-6. Video & Multidimension Section

*Design and specifications subject to change without notice for improvement.
 *La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 *Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



SYMBOL
 Δ Ceramic
 (BP) B-Polar Electrolytic
 ⊕ Non-Mylar
 ⊖ Non-Inflammable

RESISTORS
 Are in ohms, 1/4 Watts, ±5%
 Tolerance Unless Otherwise
 Noted, K, KΩ, M, MΩ

CAPACITORS
 Are in pF, Unless Otherwise
 Noted, P, pF

Electrolytic Capacitor:
 Capacitance(μF)/Volt (V)

Each DC Voltage shows the nominal
 value in volts of no input signal.

⚠ Is Safety Part.
 Use only replacement parts recommended
 by the manufacturer.

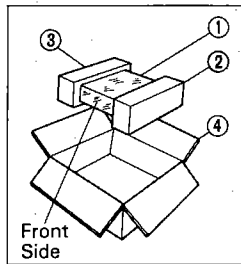
SYMBOL OF FUNCTION
 (m) POWER SUPPLY
 (r) OTHER
 (o) SELECTOR

— VCR-A Video Signal Line
 - - - VCR-A Audio Signal Line

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2
3
4
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8. PACKING LIST

Parts No.	Stock No.	Description
1	91167720	Vinyl Bag
2	47694800	Styrofoam Packing (Right)
3	47694700	Styrofoam Packing (Left)
4	47694300	Carton Case (S-X1130-Silver Model)
	47694200	Carton Case (S-X1130-Black Model)
	47694500	Carton Case (S-X1100-Silver Model)
	47694400	Carton Case (S-X1100-Black Model)



9. ACCESSORY LIST

Stock No.	Description
46051700	FM Antenna
46145700	AM Loop Antenna
07563000	Antenna Holder
48111100	VHF Antenna Cord with connector (S-X1130 only)
46961500	Operating Instruction (S-X1130)
46961600	Operating Instruction (S-X1100)

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SANSUI ELECTRONICS CORPORATION:

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