

SERVICE MANUAL

AUDIO VIDEO CENTER

SANSUI AV-C10



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.

•SPECIFICATIONS

Video section

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/1 kohms

Frequency response

VCR-B, VCR-C, VDP → VCR-A OUTPUT

..... 20 Hz ~ 100 kHz -2 dB

VCR-A, VCR-B, VCR-C, VDP → AUDIO OUTPUT

..... 20 Hz ~ 100 kHz -2 dB

VHF OUT signal (For NTSC)

..... 3 ch or 4 ch

UHF OUT signal (For PAL or SECAM)

..... 30 ~ 39 ch (adjustable)

Audio section

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz,
with no more than 0.5% total harmonic distortion
15 watts per channel into 8 ohms

Load impedance..... 8 to 16 ohms

Input sensitivity/Impedance

AUDIO INPUT 200 mV/47 kohms

Signal-to-noise ratio

AUDIO INPUT → AUDIO OUTPUT

..... Better than 70 dB

Frequency response

AUDIO INPUT → SPEAKERS OUTPUT

..... 20 Hz ~ 100 kHz -3 dB

Output level/Impedance.... 150 mV/1 kohms

Maximum output level 2V

Total harmonic distortion

AUDIO INPUT → AUDIO OUTPUT

..... Less than 0.02% at 1 kHz

Equalizer frequency 100 Hz, 300 Hz, 1 kHz,

3 kHz, 10 kHz

Level variation range..... ±12 dB

Others

Power requirements 120/220/240V

50/60 Hz

For U.S.A. and Canada

..... 120V (60 Hz)

Power consumption 70 watts Rated

100 watts Maximum

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

76 mm (3")H

259 mm (10-1/4")D

Weight 4.5 kg (9.9 lbs) net

5.5 kg (12.1 lbs) packed

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

* Due to local laws and regulations, this unit sold in some areas are not equipped with variable voltage selectors

Sansui

SANSUI ELECTRIC CO., LTD.

CAUTION

1. The symbols, UL, CSA, SA, BS, UK, EU, AS and XX (EXPORT) 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 (EXPORT) Standard Version.
 - NON MARK Common Parts.

2. The symbols, NTSC, PAL and SECAM on the parts list and the schematic diagram are abbreviations of color TV format following respectively.
 - NTSC..... **N**ational **T**elevision **S**tandards **C**ommittee.
 - PAL..... **P**hase **A**lternating by **L**ine.
 - SECAM..... **S**equential **C**ouleur a **M**emoire.

3. 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.

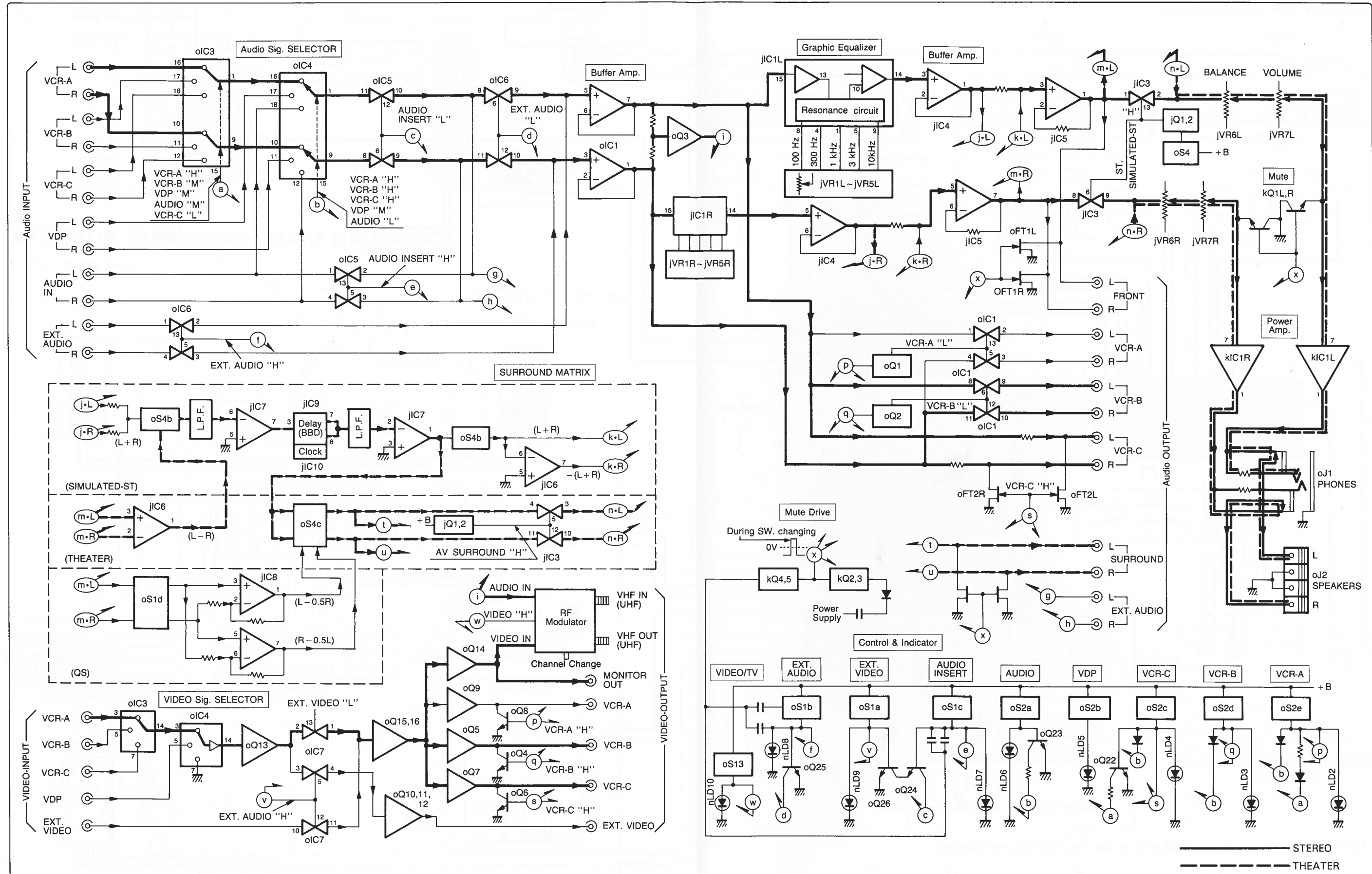
4. Since some of capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors & resistors, which was issued on February 1983.

5. Abbreviations in this service manual are as follows.

•Abbreviations List

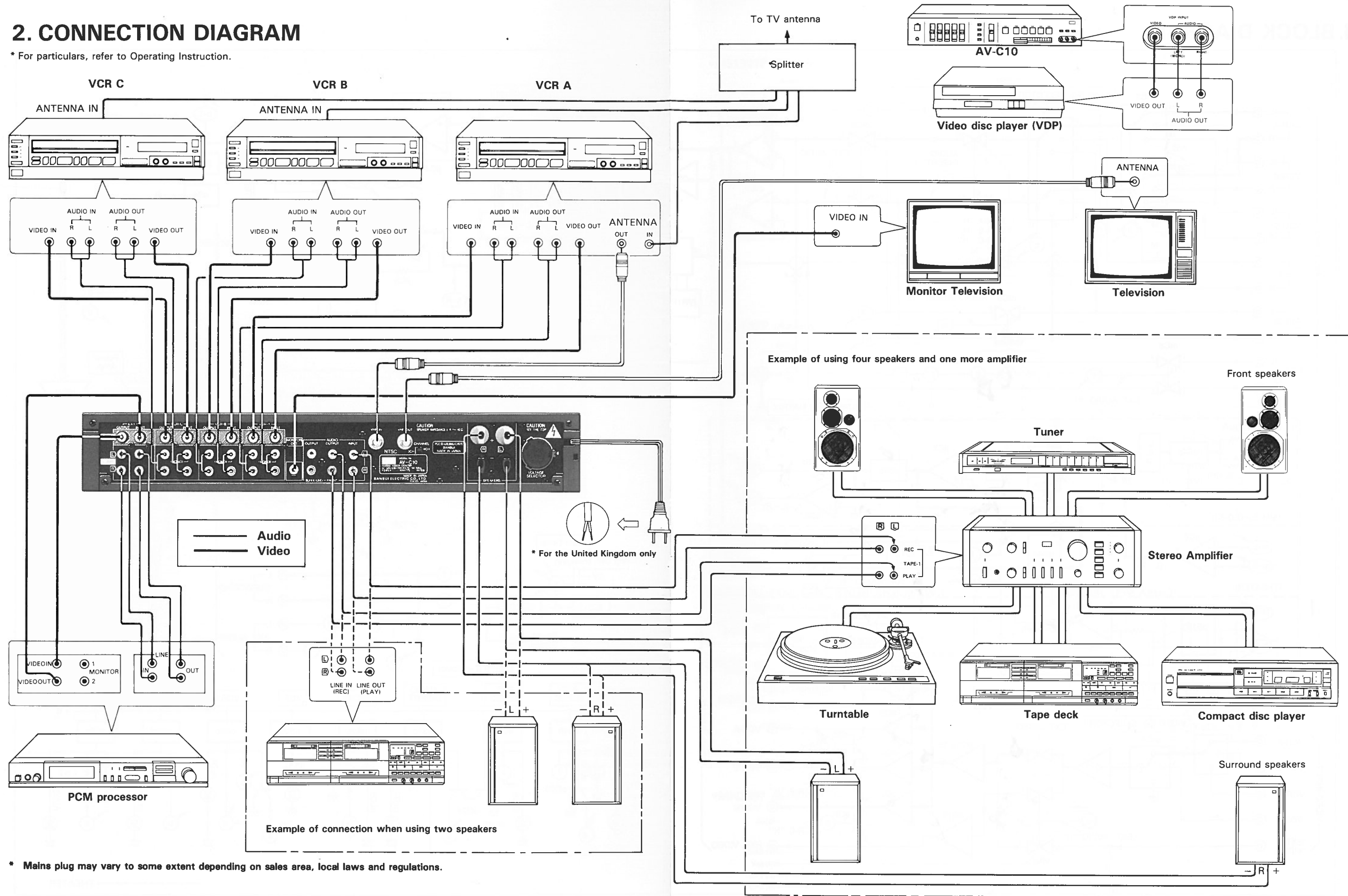
C.R. : Carbon Resistor	E.B.L. : Low Leak Bi-Polar
S.R. : Solid Resistor	Electrolytic Capacitor
Ce.R. : Cement Resistor	Ta.C. : Tantalum Capacitor
M.R. : Metal Film Resistor	F.C. : Film Capacitor
F.R. : Fusing Resistor	M.P. : Metalized Paper Capacitor
N.I.R. : Non-Inflammable Resistor	P.C. : Polystyrene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

1. BLOCK DIAGRAM



2. CONNECTION DIAGRAM

* For particulars, refer to Operating Instruction.

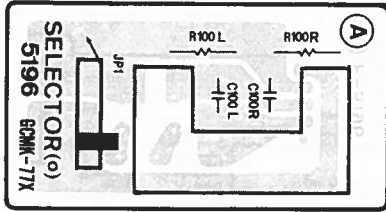


* Mains plug may vary to some extent depending on sales area, local laws and regulations.

3. PARTS LOCATION & PARTS LIST

3-1. F-5196 Speaker Terminal Board

Component Side

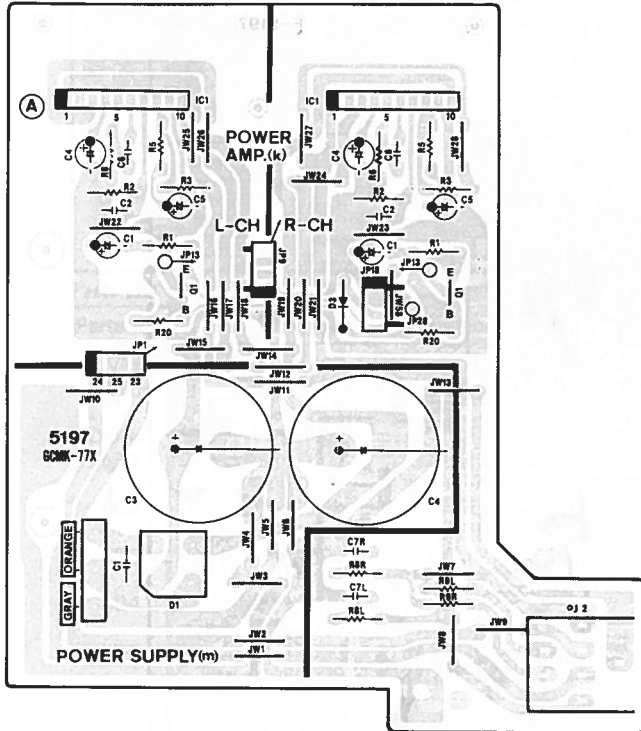


Parts List

Parts No.	Stock No.	Description
oJ2	48345400	Speaker Terminal

3-2. F-5197 Power Amp. Board (Stock No. 00946401 = NTSC, Stock No. 00948701 = PAL, Stock No. 00949905 = SECAM)

Component Side

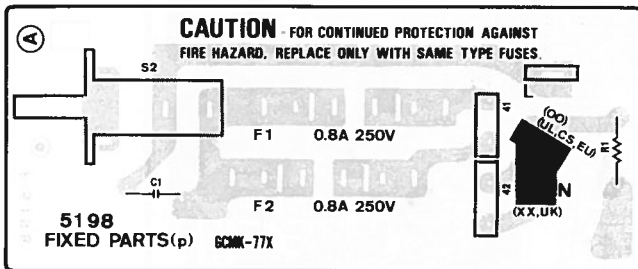


Parts List

Parts No.	Stock No.	Description
• Transistor		
kQ1	46367101	2SC2603
or	46367301	2SC2458
• IC		
kIC1	46542100	μPC1188H
kC7	46283700	0.047μF 50V F.C.
• Diode		
Δ mD1	48310700	DBA20C-K15
Δ	or 48310800	DBA20E-K15
Δ kR8	46227800	10Ω 1/2W N.I.R.
Δ kR9	46229400	220Ω 1/2W N.I.R.
mC1	08680400	0.01μF 500V C.C.
mC3	46363300	3900μF 42V E.C.
mC4	46363300	3900μF 42V E.C.
oJ1	24306200	Jack, PHONES

3-3. F-5198 POWER SW. Board

Component Side

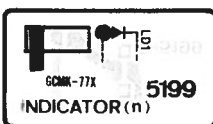


Parts List

Parts No.	Stock No.	Description
Δ pC1	46425800	0.01μF 400V C.C.
Δ pF1	48266500	Fuse 0.8A 250V (XX)
Δ	48266600	Fuse 1A 250V (UL,CSA)
Δ	07184400	Fuse 0.5A 250V (EU,BS)
Δ pF2	48266500	Fuse 0.8A 250V (XX)
Δ pS2	46413900	Push SW., (XX,UL,EU,BS)
Δ	48065200	Push SW., (CSA)

3-4. F-5199 POWER Indicator Board

Component Side

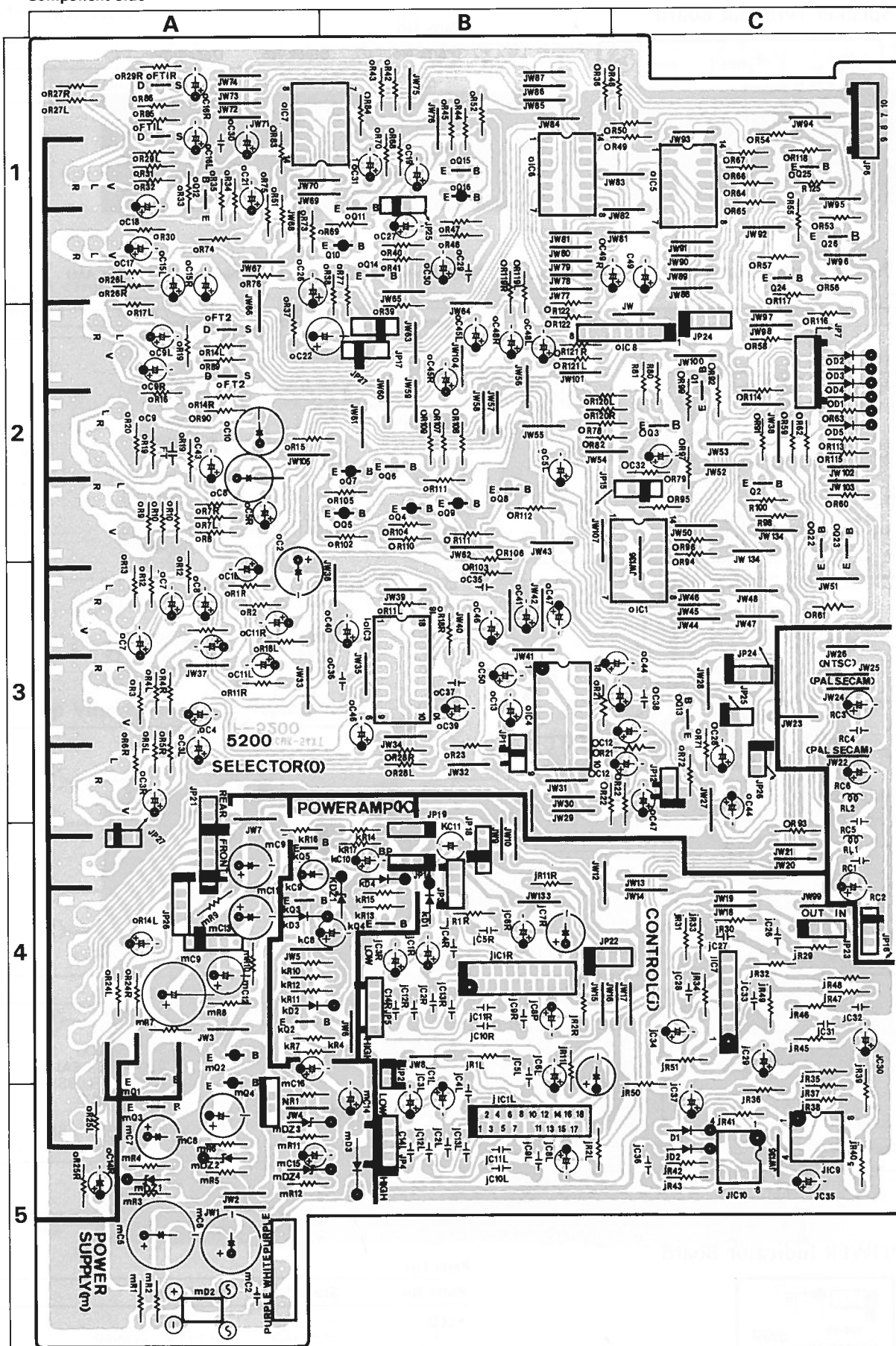


Parts List

Parts No.	Stock No.	Description
• LED		
nLD1	48272600	SEL2213C, POWER

3-5. F-5200 Main Board (Stock No. 00945901 = NTSC, Stock No. 00948201 = PAL, Stock No. 00949405 = SECAM)

Component Side



Parts List <F-5200>

Parts No.	Stock No.	Description
•FET		
jFT1	03703001 or 03703002	2SK117-Y 2SK117-GR
•IC		
jIC1	48002400	BA3812L
jIC7	46078900	M5218L
jIC9	46221500	MN3007
jIC10	46080300	MN3101
•Diode		
jD1	03117600 or 46086000	1S2473T77 1S1588TP-3
jD2	03111600 or 03111800	1S2473 1S1588
jD4	03111600 or 03111800	1S2473 1S1588
jC2	46282800	8200pF 50V F.C.
jC3	48103400	1μF 50V E.B.
jC4	46696200	0.027μF 50V F.C.
jC10	46695200	0.01μF 50V F.C.
jC12	46696400	0.033μF 50V F.C.
jC13	46693800	2700pF 50V F.C.
jC14	46281700	0.1μF 50V F.C.
jC26	46283300	0.022μF 50V F.C.
jC27	46282000	1500pF 50V F.C.
jC28	46281800	1000pF 50V F.C.
jC31	46694900	7500pF 50V F.C.
jC32	46282000	1500pF 50V F.C.
jC33	46281800	1000pF 50V F.C.
•Transistor		
kQ2	46367101 or 46367301	2SC2603 2SC2458
kQ3	46367101 or 46367301	2SC2603 2SC2458
kQ4	46367101 or 46367301	2SC2603 2SC2458
kQ5	46367201	2SA1048
•Diode		
kD1	03117600 or 46086000	1S2473T77 1S1588TP-3
kD2	03117600 or 46086000	1S2473T77 1S1588TP-3
kD3	03117600 or 46086000	1S2473T77 1S1588TP-3
kD4	03117600 or 46086000	1S2473T77 1S1588TP-3
•Zener Diode		
kDZ1	46113300	05Z10-Y
kC9	48103500	2.2μF 50V E.B.
kC10	48103600	3.3μF 50V E.B.
kC11	48103400	1μF 50V E.B.
•Transistor		
ΔmQ1	03083901 or 46546701 or 48369801	2SD313AL 2SD880 2SC1826
ΔmQ2	03032301 or 48150701 or 48369701	2SB507V11AL 2SB834 2SA768
mQ3	46367101 or 46367301	2SC2603 2SC2458
mQ4	46367001 or 46367201	2SA1115 2SA1048
•Diode		
ΔmD2	46273600	DBB10-B
ΔmD3	03117700	10E-2

Parts No.	Stock No.	Description
•Zener Diode		
mDZ1	46114200 or 46114300 46114200 or 46114300	05Z13-Y 05Z13-Z 05Z13-Y 05Z13-Z
mDZ2	46114500 or 46114600	05Z15-Y 05Z15-Z
mDZ3	46114500 or 46114600	05Z15-Y 05Z15-Z
mDZ4	46114500 or 46114600	05Z15-Y 05Z15-Z
ΔmR1	46227000	2.2Ω 1/2W N.I.R.
ΔmR2	46227000	2.2Ω 1/2W N.I.R.
ΔmR7	46227000	2.2Ω 1/2W N.I.R.
ΔmR8	46227000	2.2Ω 1/2W N.I.R.
ΔmR9	46227900	12Ω 1/2W N.I.R.
ΔmR10	46229300	180Ω 1/2W N.I.R.
mC2	08680400	0.01μF 500V C.C.
•Transistor		
oQ1	46367101 or 46367301	2SC2603 2SC2458
oQ2	46367101 or 46367301	2SC2603 2SC2458
oQ3	46367101 or 46367301	2SC2603 2SC2458
oQ4	46540801	2SC2878
oQ5	46367201	2SA1048
oQ6	46540801	2SC2878
oQ7	46367201	2SA1048
oQ8	46540801	2SC2878
oQ9	46367201	2SA1048
oQ10	46367201	2SA1048
oQ11	46367101 or 46367301	2SC2603 2SC2458
oQ12	46367101 or 46367301	2SC2603 2SC2458
oQ13	46367101 or 46367301	2SC2603 2SC2458
oQ14	46367101 or 46367301	2SC2603 2SC2458
oQ15	46367101 or 46367301	2SC2603 2SC2458
oQ16	46367201	2SA1048
oQ22	46367101 or 46367301	2SC2603 2SC2458
oQ23	46367101 or 46367301	2SC2603 2SC2458
oQ24	46367101 or 46367301	2SC2603 2SC2458
oQ25	46367101 or 46367301	2SC2603 2SC2458
oQ26	46367101 or 46367301	2SC2603 2SC2458
•FET		
oFT1	46643601 or 46643602	2SK117-Y 2SK117-GR
oFT2	46643601 or 46643602	2SK117-Y 2SK117-GR
•IC		
oIC1	46421000 or 46632500	μPD4066BC M4066BP
oIC3	48337600	M51327P
oIC4	48056700	M51321P
oIC5	46421000	μPD4066BC
oIC6	46421000	μPD4066BC
oIC7	07224800 or 46632500	TC4066BP M4066BP
oIC8	46078900	M5218L
•Diode		
oD1	03117600 or 46086000	1S2473T77 1S1588TP-3

Parts List <F-5200>

Parts No.	Stock No.	Description
oD2	03117600 or 46086000	1S2473T77 1S1588TP-3
oD3	03117600 or 46086000	1S2473T77 1S1588TP-3
oD4	03117600 or 46086000	1S2473T77 1S1588TP-3
oD5	03117600 or 46086000	1S2473T77 1S1588TP-3
oJ3	48307500	3P Terminal, VCR-A INPUT
oJ4	48354700	3P Terminal, VCR-A OUTPUT

Parts No.	Stock No.	Description
oJ5	48307500	3P Terminal, VCR-B INPUT
oJ6	48354700	3P Terminal, VCR-B OUTPUT
oJ7	48307500	3P Terminal, VCR-C INPUT
oJ8	48354700	3P Terminal, VCR-C OUTPUT
oJ9	48310000	3P Terminal, EXT INPUT
oJ10	48310000	3P Terminal, EXT OUTPUT
oJ11	48307400	6P Terminal, AUDIO
oJ12	48198000	1P Terminal, MONITOR OUT
rL1	46205100	Inductor 100μH
rL2	46205100	Inductor 100μH (PAL, SECAM)

3-6. F-5201 Graphic Equalizer Volume Board

Component Side



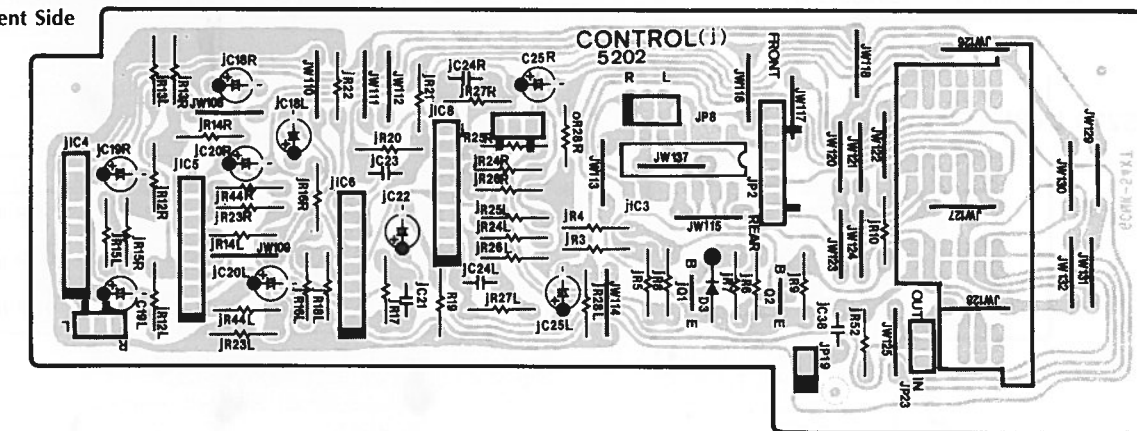
Parts List

Parts No.	Stock No.	Description
jVR1	48352400	100kΩ V.R., 100 Hz
jVR2	48352400	100kΩ V.R., 300 Hz
jVR3	48352400	100kΩ V.R., 1 kHz

Parts No.	Stock No.	Description
jVR4	48352400	100kΩ V.R., 3 kHz
jVR5	48352400	100kΩ V.R., 10 kHz

3-7. F-5202 Surround Matrix Amp. Board (Stock No. 00946101 = NTSC, Stock No. 00948401 = PAL, Stock No. 00949605 = SECAM)

Component Side



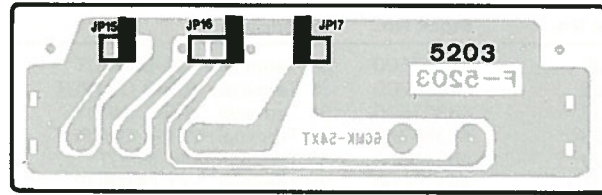
Parts List

Parts No.	Stock No.	Description
•Transistor		
jQ1	46367101 or 46367301	2SC2603 2SC2458
jQ2	46367101 or 46367301	2SC2603 2SC2458
•IC		
jIC3	48056800	LC4966
jIC4	46078900	M5218L

Parts No.	Stock No.	Description
jIC5	46078900	M5218L
jIC6	46078900	M5218L
jIC8	46078900	M5218L
•Diode		
jD3	03117600 or 46086000	1S2473T77 1S1588TP-3
oS4	48352900	Push SW., MODE

3-8. F-5203 Modulator Board

Component Side

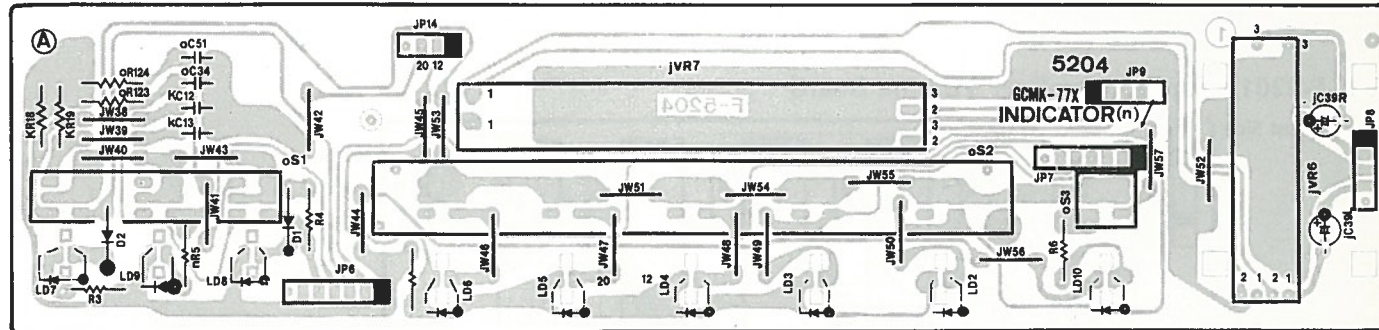


Parts List

Parts No.	Stock No.	Description
rZ1	48312800	RF Modulator (NTSC)
	48313000	RF Modulator (G-PAL)
	48352100	RF Modulator (SECAM)
	48352200	RF Modulator (I-PAL)

3-9. F-5204 SELECTOR SW. & Indicator Board

Component Side



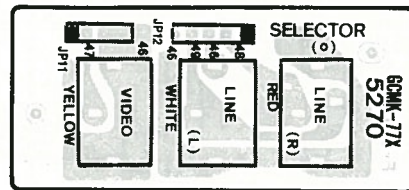
Parts List

Parts No.	Stock No.	Description
jVR6	48352300	250kΩ V.R., BALANCE
jVR7	48352500	150kΩ V.R., VOLUME
•Diode		
nD1	03117600	1S2473T77
	or 46086000	1S1588TP-3
nD2	03117600	1S2473T77
	or 46086000	1S1588TP-3
nD3	03117600	1S2473T77
	or 46086000	1S1588TP-3
nD4	03117600	1S2473T77
	or 46086000	1S1588TP-3
nD5	03117600	1S2473T77
	or 46086000	1S1588TP-3

Parts No.	Stock No.	Description
•LED		
nLD2	48076100	SEL2413E, VCR-A
nLD3	48076100	SEL2413E, VCR-B
nLD4	48076100	SEL2413E, VCR-C
nLD5	48076100	SEL2413E, VDP
nLD6	48076100	SEL2413E, AUDIO
nLD7	46470300	SEL2410E, AUDIO INSERT
nLD8	46470300	SEL2410E, EXT PRO. AUDIO
nLD9	46470300	SEL2410E, EXT VIDEO
nLD10	48272600	SEL2213C, VIDEO
oS1	48352700	Push SW., EXT PROCESSOR
oS2	48352600	Push SW., SELECTOR/DUB.
oS3	48313700	Push SW., VIDEO/TV

3-10. F-5270 INPUT Terminal Board

Component Side

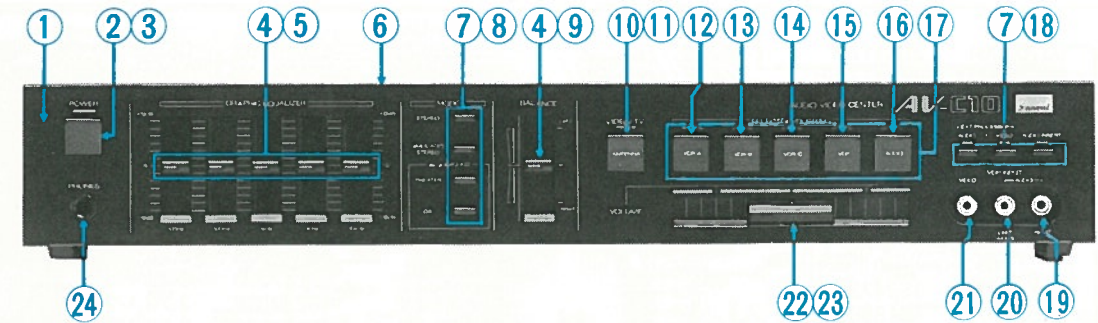


Parts List

Parts No.	Stock No.	Description
	48345300	1P Terminal, VDP INPUT (AUDIO LEFT)
	48345700	1P Terminal, VDP INPUT (AUDIO RIGHT)
	48354600	1P Terminal, VDP INPUT (VIDEO)

4. OTHER PARTS

4-1. Front View

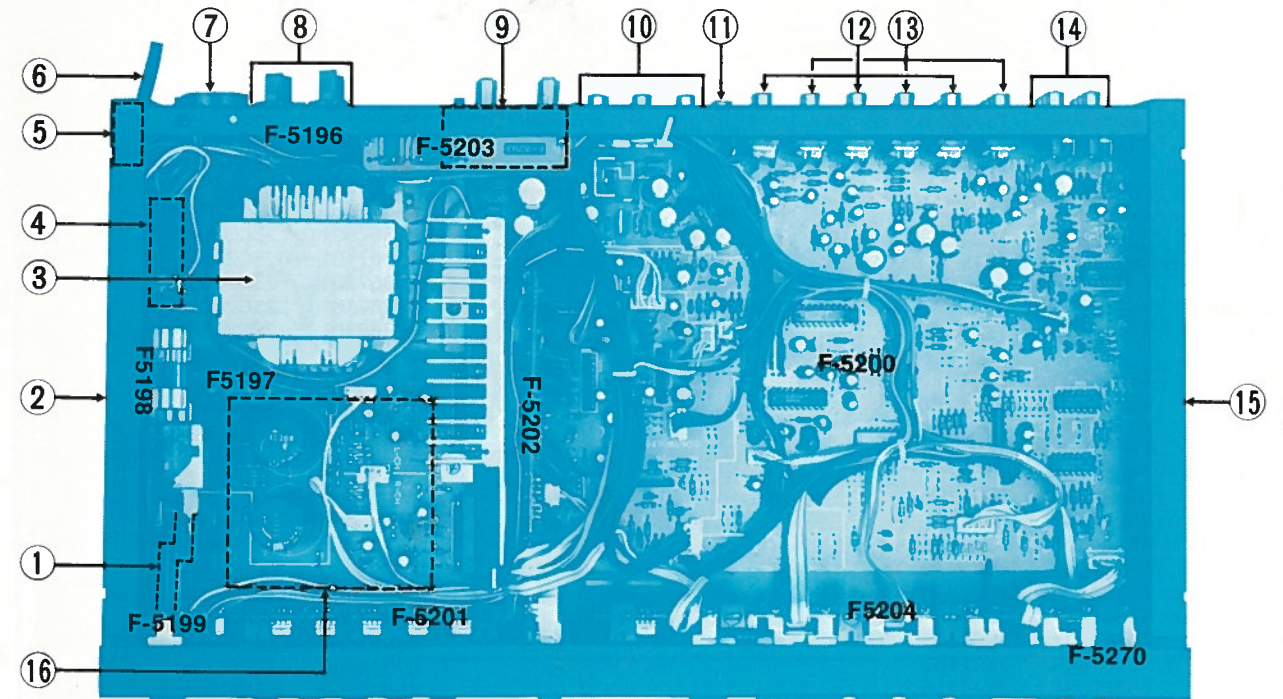


Parts List < Front View >

Parts No.	Stock No.	Description
1	27076610	Front Panel Ass'y
2	27044500	Knob, POWER
3	46413900	Push SW., POWER (XX,UL,EU,BS)
	48065200	Push SW., POWER (CSA)
4	27075100	Knob, GRAPHIC EQ. BALANCE
5	48352400	100kΩ Slide VR., GRAPHIC EQ.
6	27087100	Bonnet
7	27078400	Knob, MODE-EXT
8	48352900	Push SW., MODE
9	48352300	250kΩ V.R., BALANCE
10	27068700	Knob, ANTENNA
11	48313700	Push SW., ANTENNA
12	27068600	Knob, VCR-A
13	27068500	Knob, VCR-B

Parts No.	Stock No.	Description
14	27068400	Knob, VCR-C
15	27068300	Knob, VDP
16	27068200	Knob, AUDIO
17	48352600	Push SW., SELECTOR/DUBBING
18	48352700	Push SW., EXT. PROCESSOR-AUDIO INSERT
19	48345700	1P Terminal, VDP INPUT AUDIO (RIGHT) Red
20	48345300	1P Terminal, VDP INPUT AUDIO (LEFT) White
21	48354600	1P Terminal, VDP VIDEO
22	27075200	Knob, VOLUME
23	48352500	150kΩ V.R., VOLUME
24	24306200	Jack, PHONES

4-2. Top View



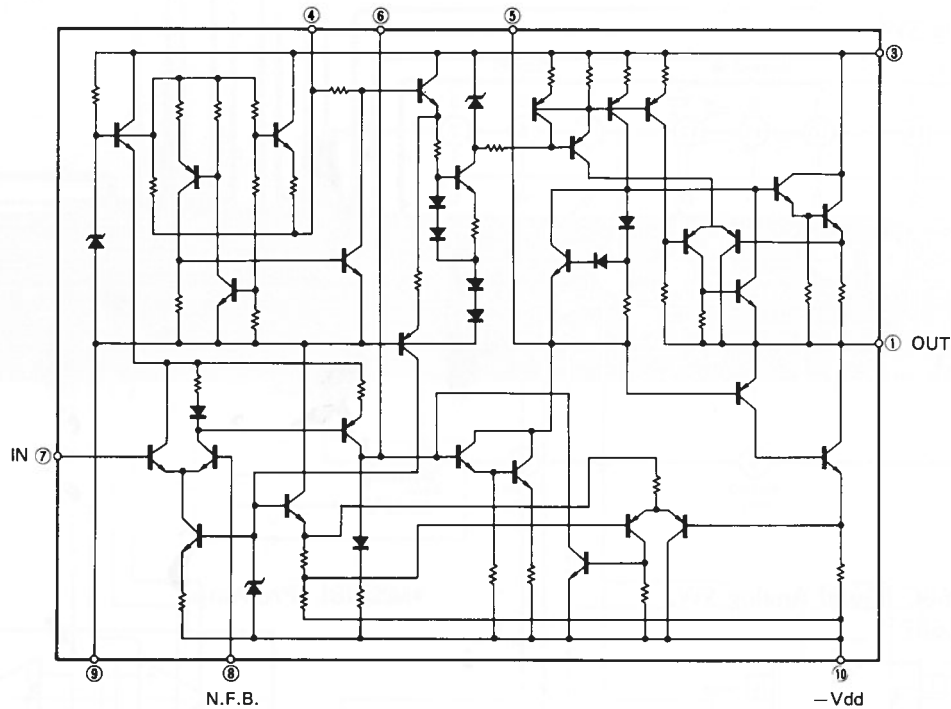
Parts List <Top View>

Parts No.	Stock No.	Description
1	47809700	Joint Shaft, POWER SW.
2	47847100	Left Side Panel Ass'y (XX,CSA,EU,BS)
△ 3	47684900 15021909	Left Side Panel Ass'y (UL) Power Transformer with Voltage Selector Socket (XX)
△ 4	15021902	Power Transformer (UL,CSA)
△ 5	15021905	Power Transformer (EU,BS)
△ 6	27134100	Barrier (EU,BS)
△ 7	47157300	AC Cord Cover
△ 8	38005700	Power Supply Cord (XX,CSA)
△ 9	46407700	Power Supply Cord (UL)
△ 10	38004500	Power Supply Cord (EU)
△ 11	38004300	Power Supply Cord (BS)
△ 12	48175200	Plug of Voltage Selector (XX)

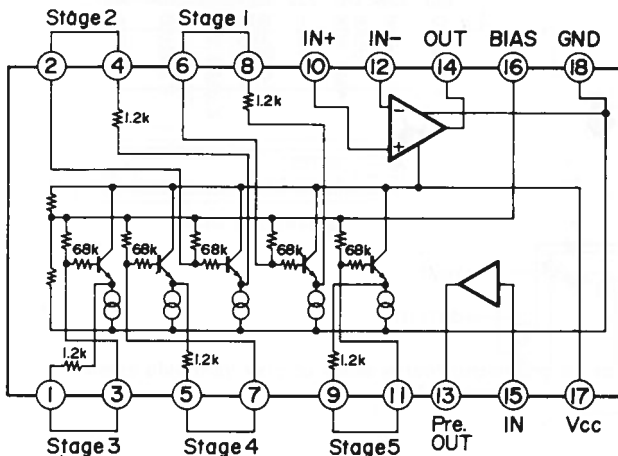
Parts No.	Stock No.	Description
△ 13	07204700	Slide SW., Voltage Sel. (EU)
14	48345400	4P Terminal, SPEAKERS
15	48312900	RF Modulator (NTSC)
16	48313000	RF Modulator (G-PAL)
17	48352100	RF Modulator (SECAM)
18	48352200	RF Modulator (I-PAL)
19	48307400	6P Terminal, AUDIO
20	48198000	1P Terminal, MONITOR
21	48307500	3P Terminal, VCR-A·B·C INPUT
22	48354700	3P Terminal, VCR-A·B·C OUTPUT
23	48310000	3P Terminal, EXT INPUT·OUTPUT
24	47893400	Right Side Panel Ass'y (XX,CSA,EU,BS)
25	47685010	Right Side Panel Ass'y (UL)
26	27085800	Insulated Sheet

5. INTERIOR BLOCK DIAGRAM OF IC

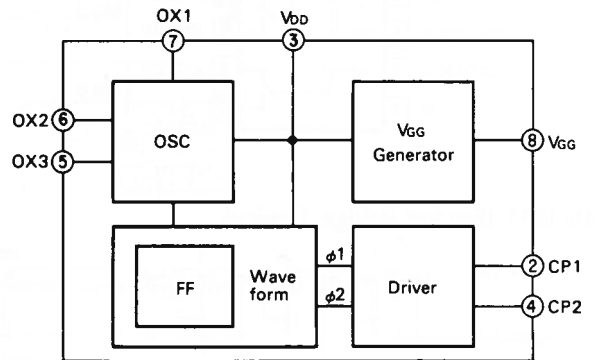
•μPC1188H (Power Amp.)



•BA3812L (G. Equalizer)

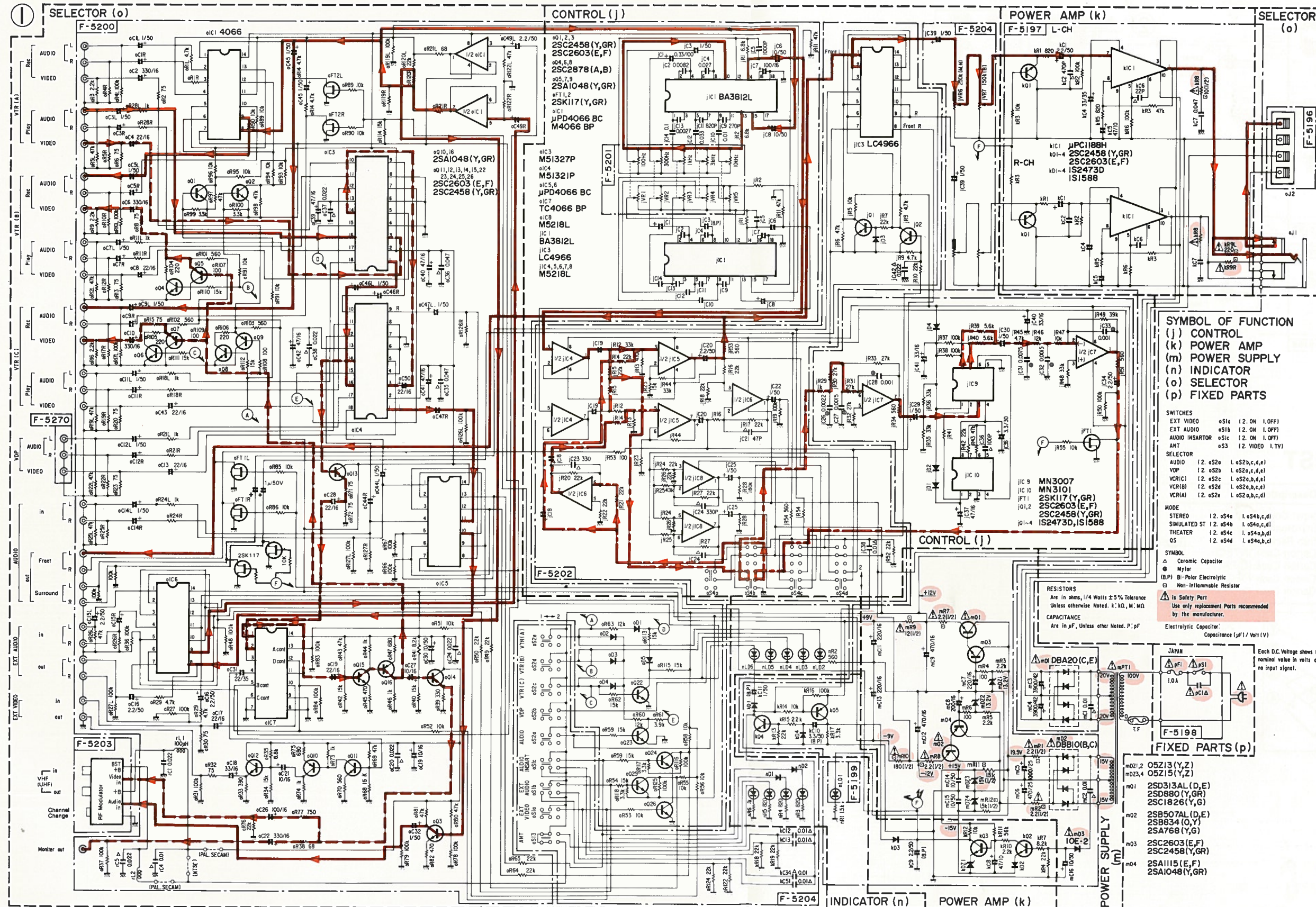


•MN3101 (BBD Clock Driver)



6. SCHEMATIC DIAGRAM 6-1. Main 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
 (j) CONTROL
 (k) POWER AMP
 (m) POWER SUPPLY
 (n) INDICATOR
 (o) SELECTOR
 (p) FIXED PARTS

SWITCHES
 EXT VIDEO oS10 (2. ON L.OFF)
 EXT AUDIO oS18 (2. ON L.OFF)
 AUDIO INSARTOR oS1c (2. ON L.OFF)
 ANT oS3 (2. VIDEO 1.TVI)

SELECTOR
 AUDIO (2. oS2a L. oS2b,c,d)
 VCR (2. oS2b L. oS2c,d,e,f,g,h)
 VCR(I) (2. oS2c L. oS2d,e,f,g,h)
 VCR(II) (2. oS2d L. oS2e,f,g,h)
 VCR(III) (2. oS2e L. oS2f,g,h)
 MODE
 STEREO (2. oS4a L. oS4b,c,d)
 SIMULATED ST (2. oS4b L. oS4c,d)
 THEATER (2. oS4c L. oS4d,e,f)
 OS (2. oS4d L. oS4e,f,g,h)

RESISTORS
 Are in ohms, 1/4 Watts ±5% Tolerance
 Unless otherwise noted, K: kΩ, M: MΩ

CAPACITANCE
 Are in μF, Unless other noted, P: pF

SYMBOL
 Δ Ceramic Capacitor
 ○ Mylar
 (BP) Bi-Polar Electrolytic
 □ Non-Flammable Resistor
 ⚠ is Safety Part
 Use only replacement Parts recommended by the manufacturer.

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

Each D.C. Voltage shows the nominal value in volts at no input signal.

FIXED PARTS (p)

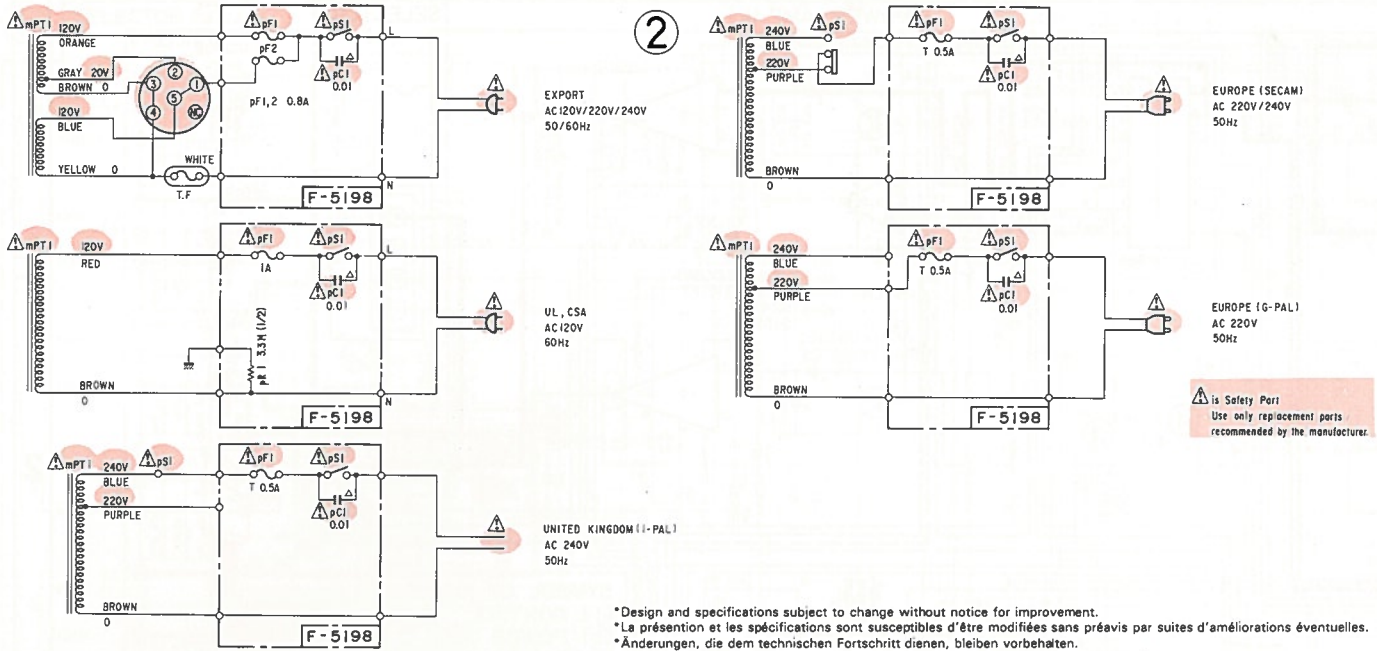
m01,2	OSZ13 (Y,Z)
m02,3,4	OSZ15 (Y,Z)
m01	2SD313AL (D,E)
	2SB880 (Y,G)
	2SC1826 (Y,G)
m02	2SB507AL (D,E)
	2SB834 (O,Y)
	2SA768 (Y,G)
m03	2SC2603 (E,F)
	2SC2458 (Y,G)
m04	2SA1115 (E,F)
	2SA1048 (Y,GR)

- 2SA1048
- 2SA1115
- 2SC2458
- 2SC2603
- 2SK-117-GR
- 2SK-117-Y
- 2SC2878
- 2SC1826
- 2SA768
- 2SB507V1 1AL
- 2SB834
- 2SD313AL
- 2SB880
- M5218L
- JPD4066BC
- LC4966
- M4066BP
- M51321P
- M51327P
- MN3007
- MN3101
- TC4066BP
- DBA20C
- DBA20E
- IS1588TP-3
- IS2473T77
- 10E-2
- OSZ10-Y
- OSZ13-Y
- OSZ13-Z
- OSZ15-Y
- OSZ15-Z

— AUDIO Signal Line (SELECTOR-VCR-A/MODE-STEREO)
 - - - Video Signal Line (SELECTOR-VCR-A)
 - - - SIMULATED STEREO

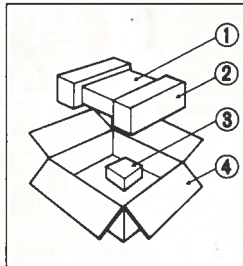
1
2
3
4
5

6-2. Power Supply Section



7. PACKING LIST

Parts No.	Stock No.	Description
1	47859300	Vinyl Cover
2	07827220	Styrofoam Packing
3	27158500	Sub Packing
4	27074100	Carton Case (NTSC)
	27074300	Carton Case (G-PAL)
	27074400	Carton Case (SECAM)
	27082000	Carton Case (I-PAL)



8. ACCESSORY LIST

Stock No.	Description
46989400	Operating Instruction (*E•F•S)
46991900	Operating Instruction (*G•I•Sw)
07193400	PJP Pin Plug Cord
48111100	Antenna Cord (NTSC)
48111200	Antenna Cord (PAL)
48111300	Antenna Cord (SECAM)

*** Note:**
E•F•S: English•French and Spanish Version
G•I•Sw: German•Italian and Swedish Version

Sansui

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