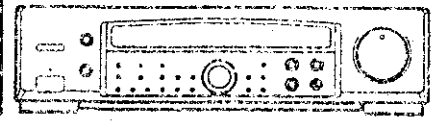
SERV. 7063

PIONEER
The Art of Entertainment

Service Manual



ORDER NO.
ARP2637

STEREO TUNER CONTROL AMPLIFIER

CX-J510
CX-J410
CX-J310

CX-J510, CX-J410 AND CX-J310 HAVE THE FOLLOWING:

Type	Model			Power Requirement	Remarks
	CX-J510	CX-J410	CX-J310		
WE	○	○	○	AC 220-240V	
WB	○	○	○		
WEWZI	○	○	○		

- **This manual is applicable to WE and WB types.**
- **For the following: CX-J510/WB; CX-J410/WB; CX-J310/WE AND WB, refer to page 65.**
- **For the following: CX-J510/WEWZI; CX-J410/WEWZI; CX-J310/WEWZI, refer to the service manual ARP2639 for CX-J510, CX-J410 and CX-J310.**
- **This product is a system(s) component.**
  This product does not function properly when independent; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.
  This product's instructions are contained within the operating instructions manual of the related system component(s).
  The manual is packed with those component(s).
  This product's accessories etc. are packed with its related component(s).

CONTENTS

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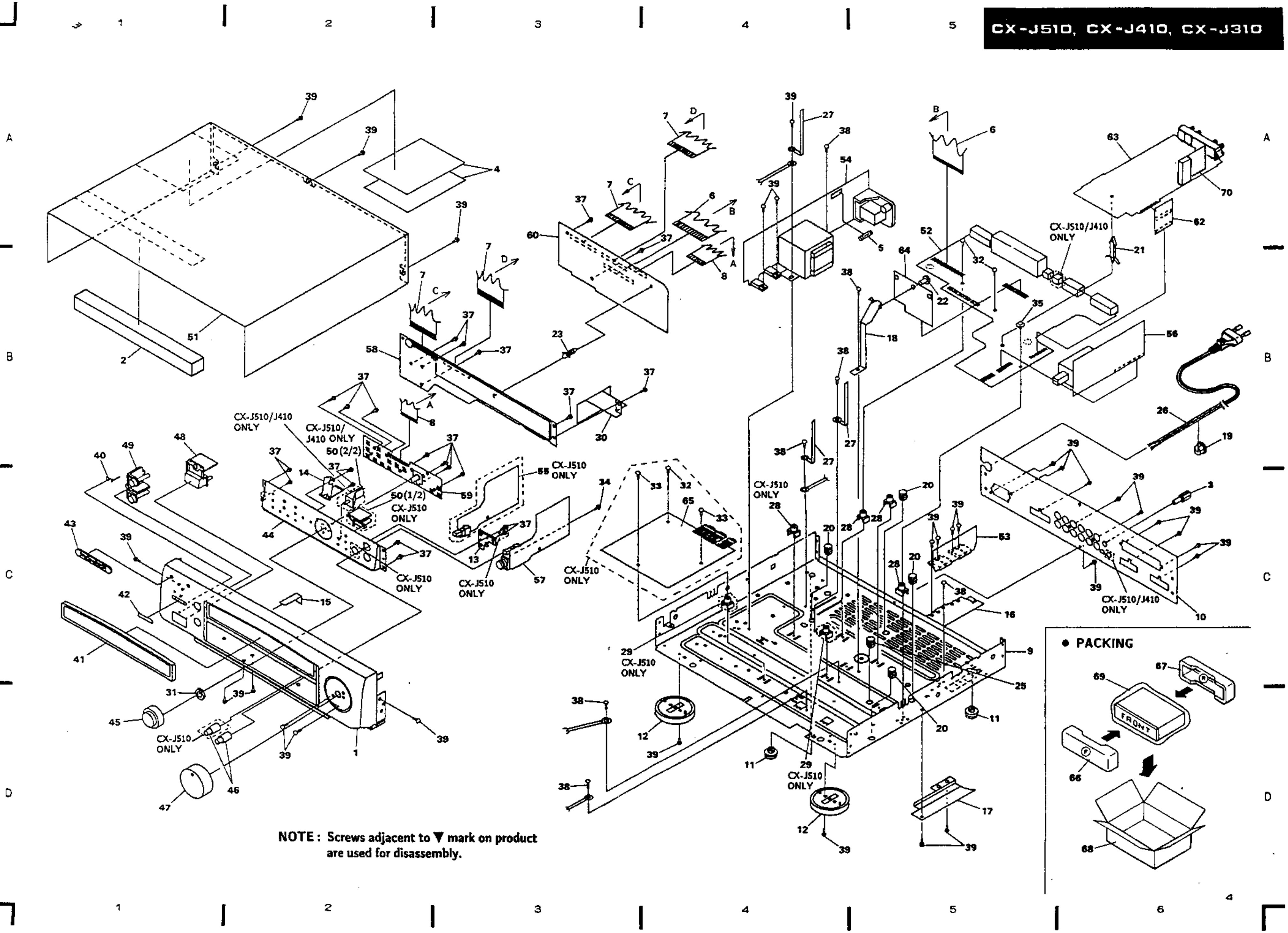
FO DEC. 1992 Printed in Japan

1. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

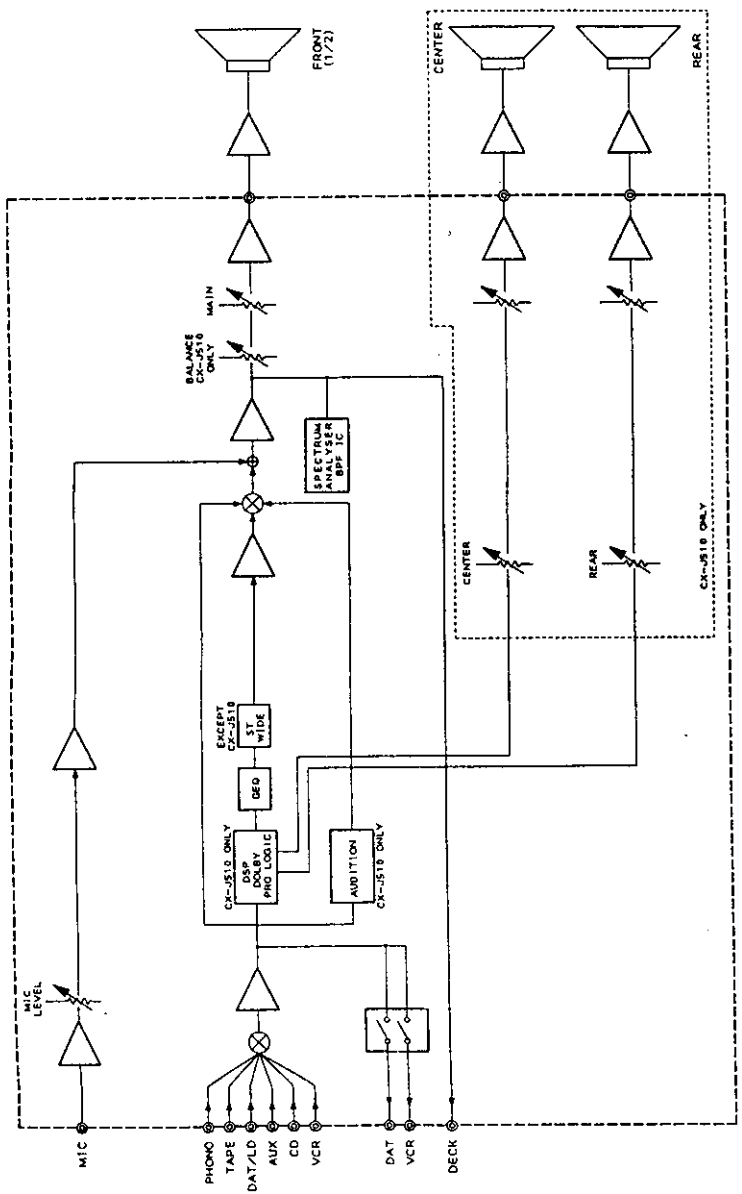
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Mark	No.	Description	Parts No.
	1	FRONT PANEL(PLS)(CX−J410)	AMB2051
	1	FRONT PANEL(PLS)(CX−J510)	AMB2052
NSP	2	CUSHION	AEC1488
NSP	3	TERMINAL SCREW	AKE−031
	4	BARRIER(PS)	AEC1487
⚠	5	FUSE (FU2,T2A/250V)	AEK−511
NSP	6	J1 FLEXIBLE CABLE	ADD1112
NSP	7	J3,J4 FLEXIBLE CABLE	ADD1113
NSP	8	J2 FLEXIBLE CABLE	ADD1114
NSP	9	CHASSIS(MTL)	ANA1193
NSP	10	REAR PANEL(MTL)(CX−J410)	ANC1967
NSP	10	REAR PANEL(MTL)(CX−J510)	ANC1963
	11	LEG ASSY(S)	AMR1937
	12	FOOT ASSY(ABS)	RXA1448
NSP	13	MIC HOLDER(MTL)	ANG1728
NSP	14	PLATE (MTL)	ANG1729
NSP	15	PCB HOLDER(MTL)	ANG1730
NSP	16	COVER (MTL)	ANG1731
NSP	17	SCREW COVER(MTL)	ANG1792
NSP	18	PCB HOLDER(MTL)	ANG1795
	19	STRAIN RELIEF	AEC−882
NSP	20	PCB SUPPORT	AEC1010
NSP	21	PCB SPACER	AEC1100
	22	NYLON RIVET	AEC1160
NSP	23	PCB SUPPORT	AEC1215
	24	.....	
NSP	25	PCB SUPPORT	AEC1461
⚠	26	AC POWER CORD	ADG1049
	27	BINDER	AEP−215
NSP	28	PCB MOLD	AMR1525
NSP	29	PCB MOLD	AMR2115
NSP	30	SHIELD COVER	ANK1219
	31	NUT	NK90FUC
	32	SCREW	ABA1018
	33	SCREW(CX−J510 ONLY)	ABA1024
	34	SCREW (STEEL)	ABA1095
	35	SCREW	ABA1100
	36	.....	
	37	SCREW	BPZ26P080FMC
	38	SCREW	BBZ30P060FZK
	39	SCREW	BBZ30P080FZK
	40	LENS(POWER IND)	AAK2343
	41	DISPLAY PANEL(PLS)	AAK2434
	42	REMOTE CONTROL FILTER(PLS)	AAK2376
NSP	43	NAME PLATE(PLASTIC)	AAM1047
	44	SUB PANEL ASSY(CX−J410)	AMR2476
	44	SUB PANEL ASSY(CX−J510)	AMR2474
	45	JOG KNOB(PLS)	AAB1313
	46	MIC KNOB(PLSS)	AAB1314
	47	VOL KNOB(PLS)	AAB1322
	48	POWER BUTTON(PLS)	AAD2406
	49	FUNCTION BUTTON(PLS)	AAD2407
	50	AUDITION BUTTON(PLS)	AAD2342
	51	BONNET(MTL)	ANE1382
◉	52	MAIN ASSY(CX−J410)	AWZ4431
◉	52	MAIN ASSY(CX−J510)	AWZ4429
◉	53	REGULATOR ASSY	AWZ4438
◉	54	SUB TRANS ASSY	AWZ4443
NSP	55	BALANCE ASSY (CX−J510 ONLY)	AWZ4446
◉	56	VOLUME ASSY(CX−J510)	AWZ4447
◉	56	VOLUME ASSY(CX−J410)	AWZ4449
◉	57	MIC ASSY(CX−J510)	AWZ4452
◉	57	MIC ASSY(CX−J410)	AWZ4453
◉	58	FL ASSY	AWZ4746
NSP	59	KEY ASSY(CX−J410)	AWZ4456
NSP	59	KEY ASSY(CX−J510)	AWZ4747
◉	60	U.COM ASSY(CX−J510)	AWZ4460
◉	60	U.COM ASSY(CX−J410)	AWZ4462
NSP	62	CONNECT ASSY	AWZ4547
	63	TUNER ASSY	AWE1261
	64	EQ ASSY	AWF1009
	65	DSP ASSY(CX−J510 ONLY)	AWX1058
	66	FRONT PAD	AHA1579
	67	REAR PAD	AHA1580
	68	PACKING CASE(PAP)(CX−J510)	AHD2484
	68	PACKING CASE(PAP)(CX−J410)	AHD2482
	69	PACKING SHEET	AHG1017
	70	F.E. MODULE ASSY	AXQ1002



NOTE : Screws adjacent to ▼ mark on product are used for disassembly.

2. BLOCK DIAGRAM



3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

Note: (Type 3)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   mV : Signal voltage at FM 1kHz, 100% MOD.
   : DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇨ mA or ⇦ mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ➡ : Signal route.
   - ⊘ : Adjusting point.
   - ▼ (Red) : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

FL ASSY

S1101 : FUNCTION
S1102 : POWER STANDBY/ON
S1103 : EFFECT ON/OFF

KEY ASSY

S1111 : SET
S1112 : WAKE UP
S1113 : REC
S1114 : CLOCK ADJ
S1115 : LOCAL/DX
S1116 : MEMORY SCAN
S1117 : STATION MEMORY
S1118 : TUNING +
S1119 : TUNING −
S1120 : FREQ/ST
S1121 : BAND
S1132 : GEQ ON/OFF
S1133 : SFC MODE
S1134 : GEQ FREQ ←
S1135 : GEQ FREQ →
S1136 : DOLBY MODE
S1137 : CENTER MODE
S1138 : AUDITION
S1141 : SOUND JOG.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	Q504 or E	Transistor
Q215	Q215	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	C513	Capacitor (Polarity)
C518	C518	Capacitor (Non-polarity)

Others

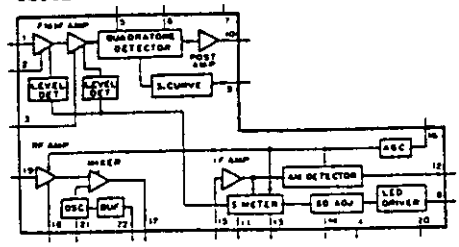
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊖ (double circles) shows negative terminal.
4. The diode terminal marked with ○ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

OUTPUT LEVEL

650mV

IC902 LA1265S

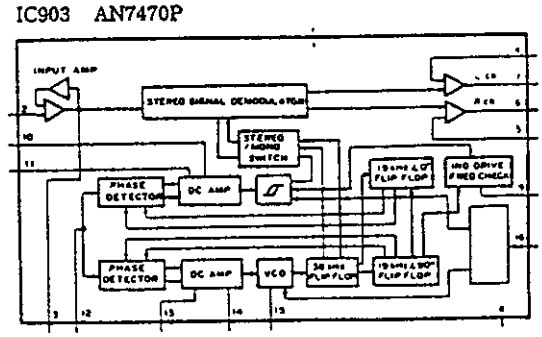


IC902 LA1265S

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	2.3	10	2.8	17	0
2	2.3	11	1.5		12.0(AM)
3	2.3	12	1.5	18	0
4	0	13	1.4(MAX)		2.0(AM)
5	12.0	14	1.4(MAX)	19	0
6	12.0		0(AM)		2.0(AM)
7	12.0	15	2.3	20	3.8
8	0(T)		1.1(AM)	21	3.8
	5.1(D)	16	1.4	22	2.8
9	3.8				1.5(AM)

Note : (T) TUNE IND. ON
(D) TUNE IND. OFF

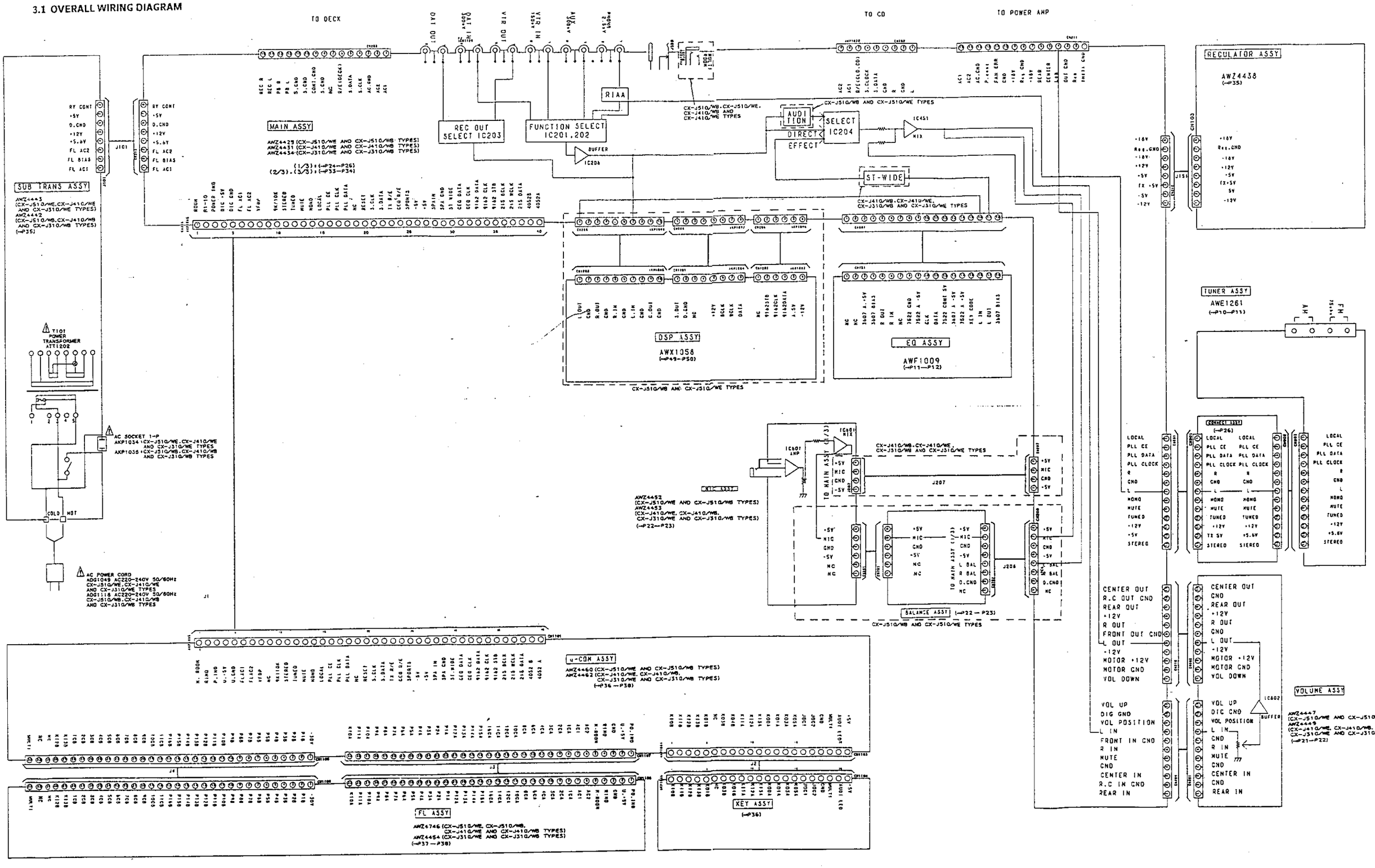
IC903 AN7470P



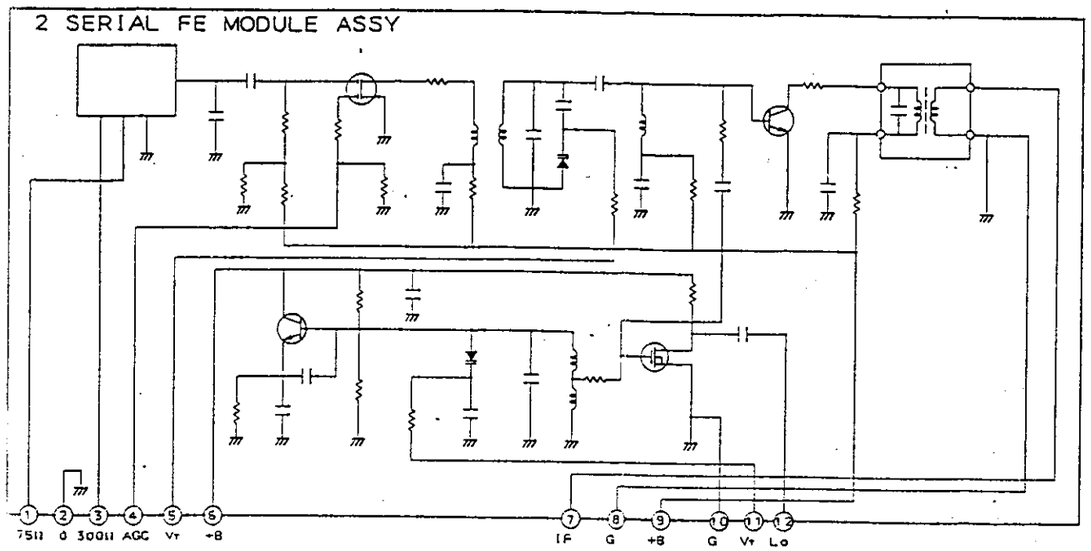
IC903 AN7470P

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.8	16	0
3	6.1		(STEREO)		11.4
4	8.9	10	2.6		(AM)
5	8.9	11	2.6		4.0
6	3.9	12	2.6		(MONO)
7	3.9	13	2.6		
8	0	14	2.6		

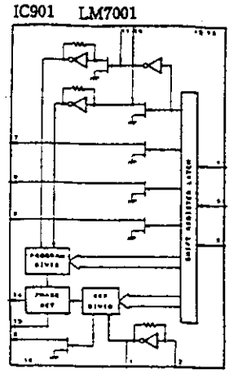
3.1 OVERALL WIRING DIAGRAM



2 TUNER ASSY, EQ ASSY



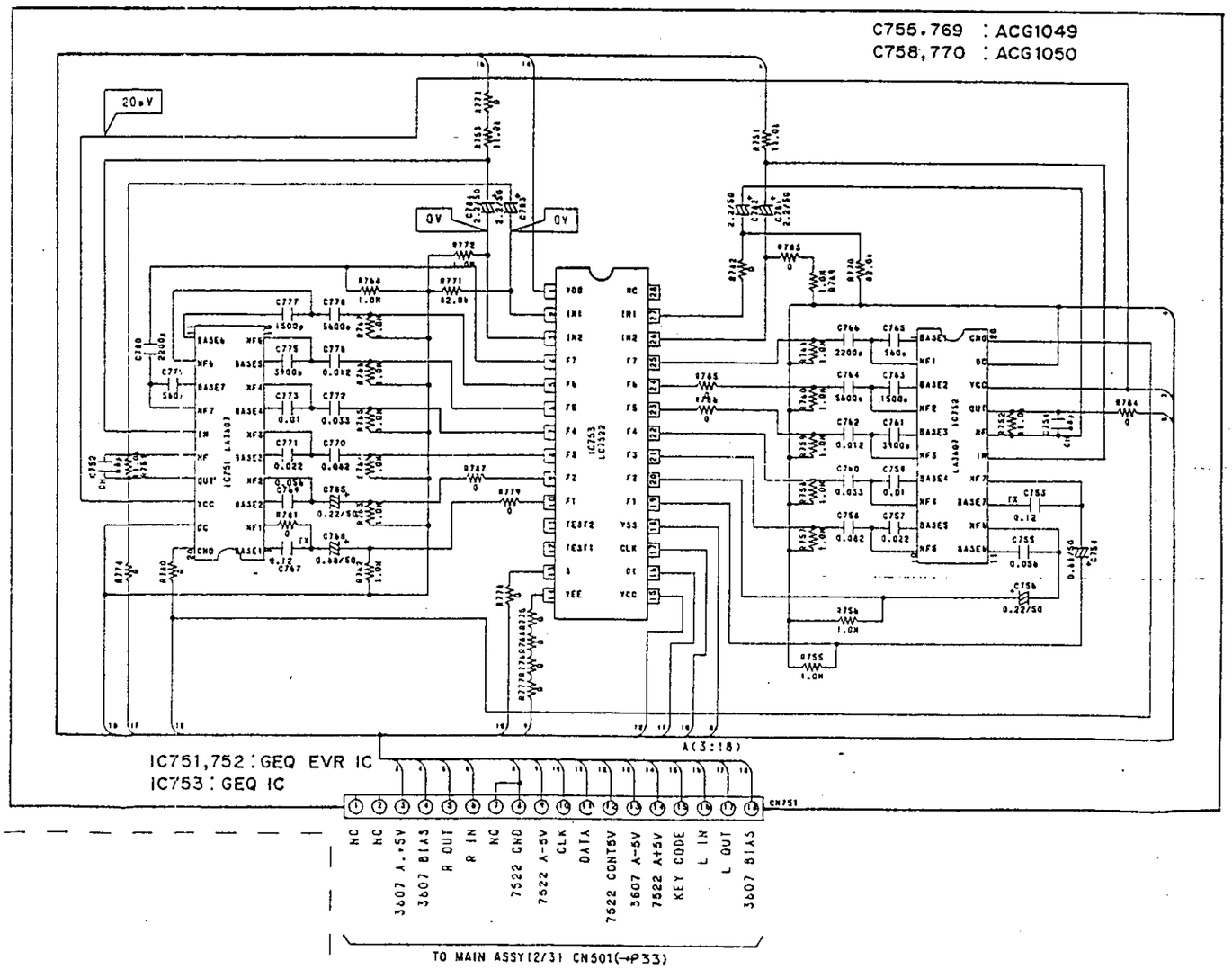
IC901 LM7001



IC901 LM7001

Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 (AM : 1.7)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6		14	0.7
7		15	
8	0	16	0

EQ ASSY (AWF1009)



TUNER ASSY (AWE1261)

—————:FM & FM/AM SIGNAL
— — — —:AM SIGNAL

Q908: LOCAL ON/OFF
Q909: BUFFER
Q907: MW ON/OFF
Q905: F.E ON/OFF
IC902: FM/AM IF DET.
VR901: TU IND ADJ.
VR902: TU IND ADJ.
VR903: VCO ADJ.
Q911: AMP
IC903: FM MPX
Q912,913: MUTE
L907: CENTER ADJ.
Q901,902: DC AMP
IC901: PLL
Q910: RIPPLE FILTER
Q914: MUTE SWITCH
D908 - 912: HSS104 - 02

S-METER
VCO
VREF
T-METER

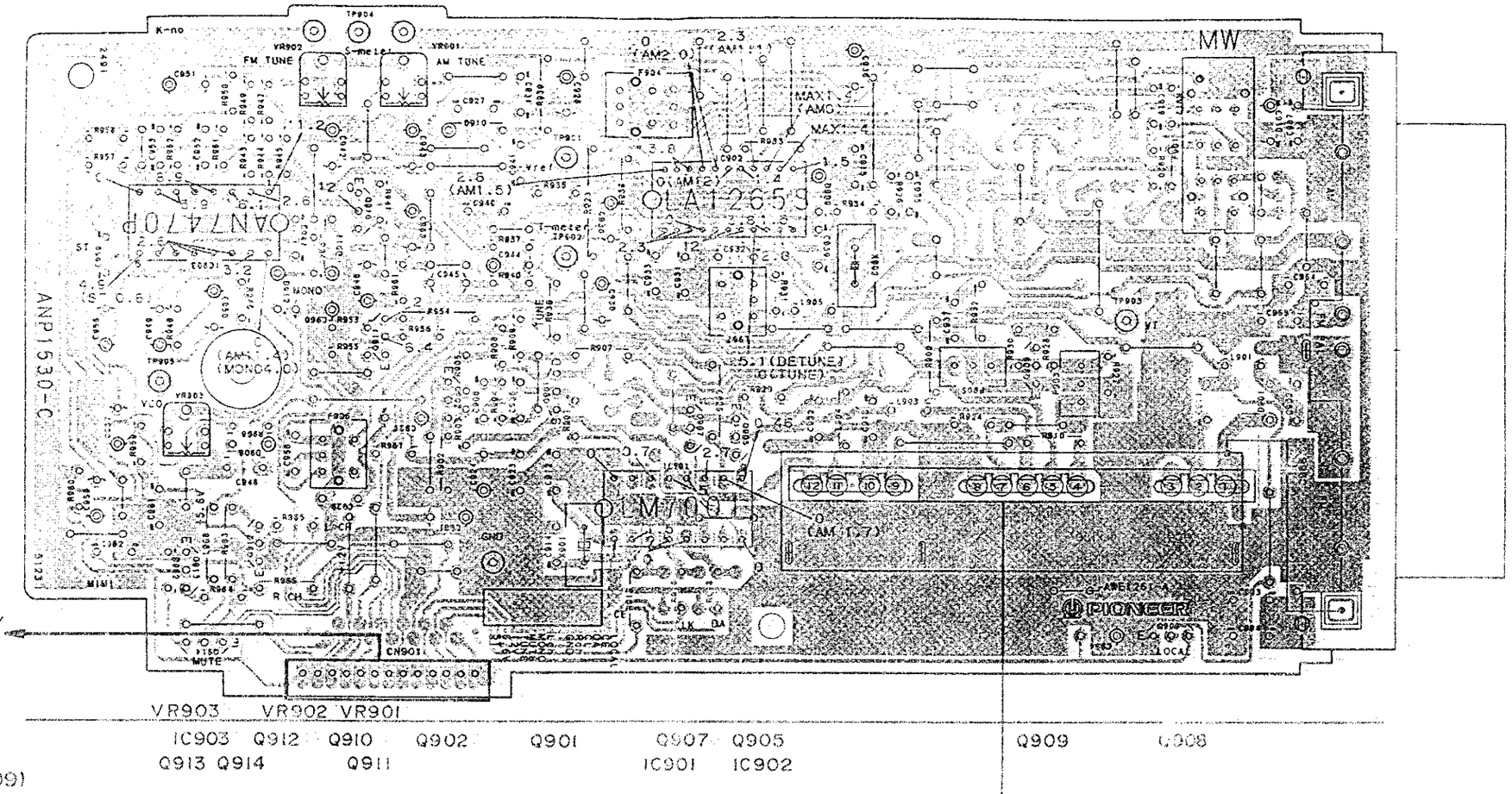
FM F. E. AXQ1002
AXA1010
AXA1011

FM 75ohm
FM 75ohm (PAL)
AM
VT

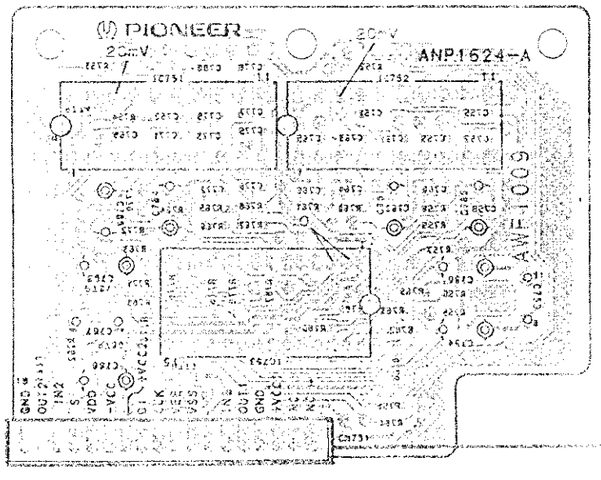
LOCAL
PLL CE
PLL DATA
PLL CLOCK
R
GND
L
MONO
MUTE
TUNED
+12V
+5.6V
STEREO

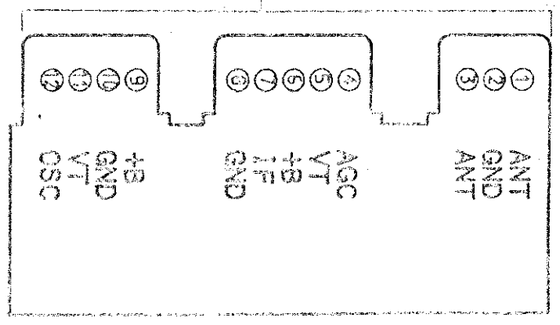
TO CONNECT ASSY CN902 (→P26)
PLL(1:3)

TUNER ASSY (AWE1261)

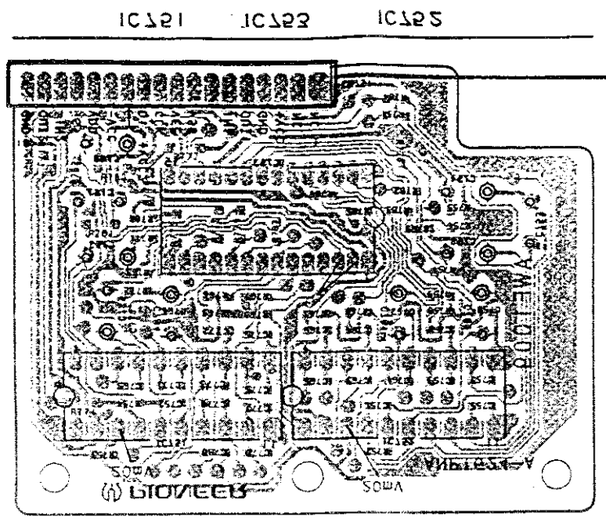


EQ ASSY (AWF1009)

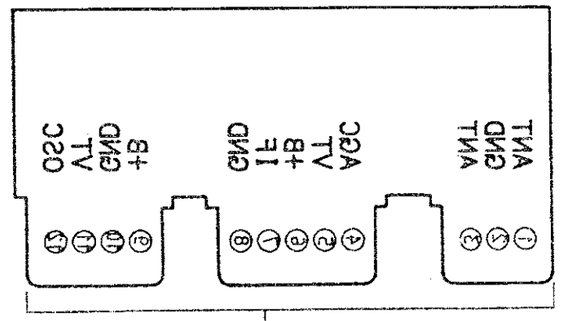




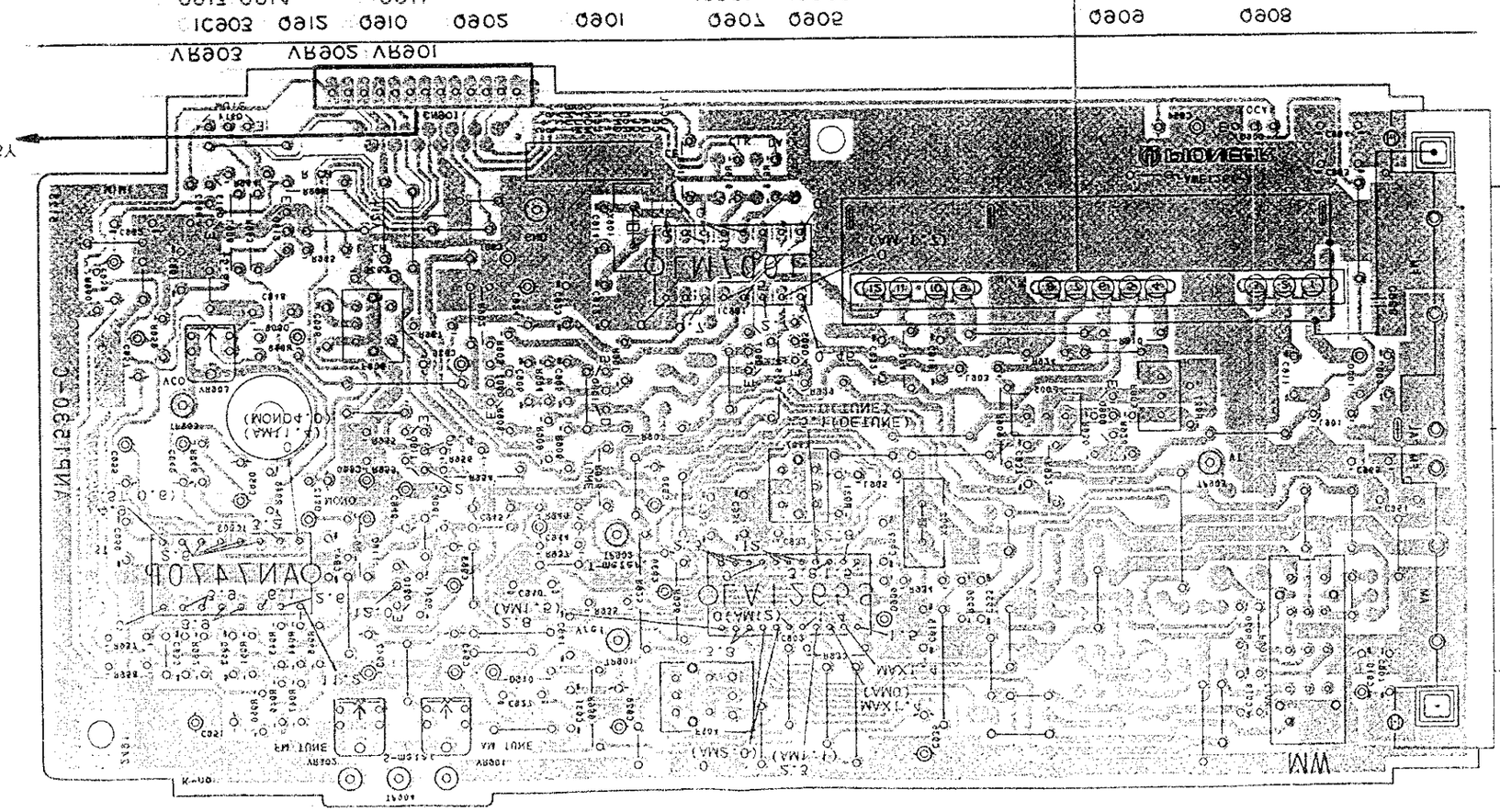
FE MODULE ASSEMBLY (AXQ1002)



EQ ASSY (AWF1009)

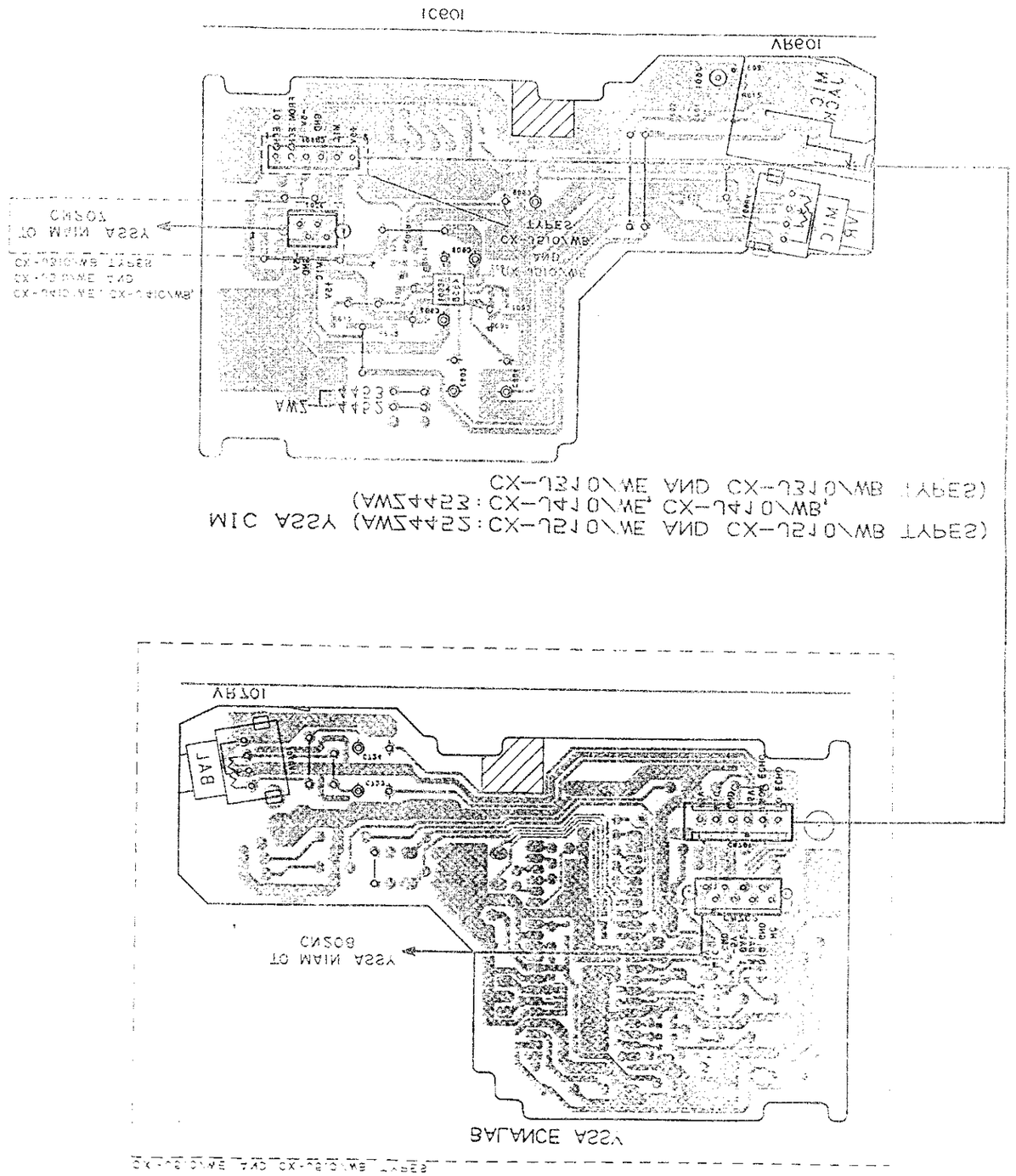


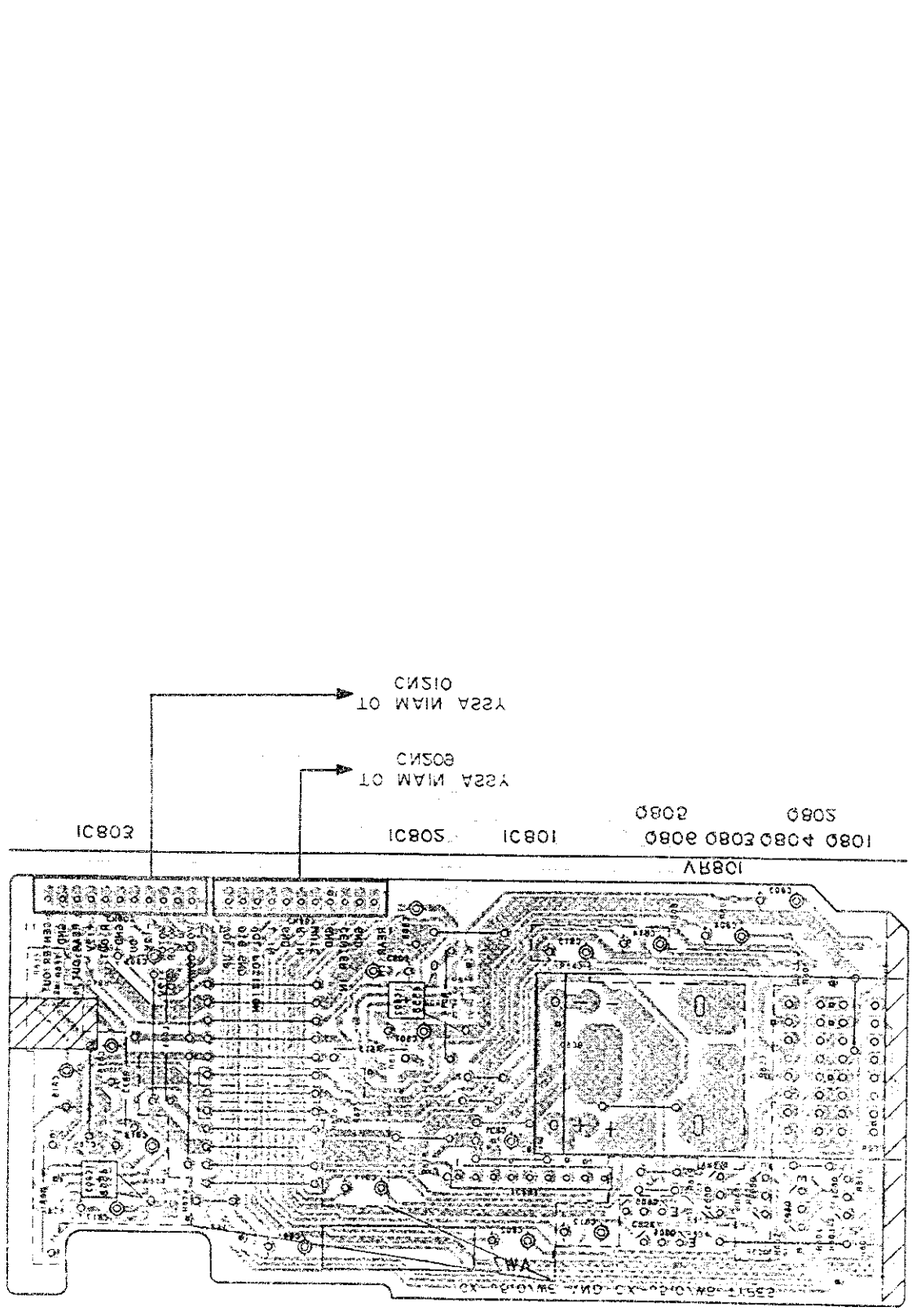
FE MODULE ASSEMBLY
(AXD1005)



TUNER ASSY (AWE1581)

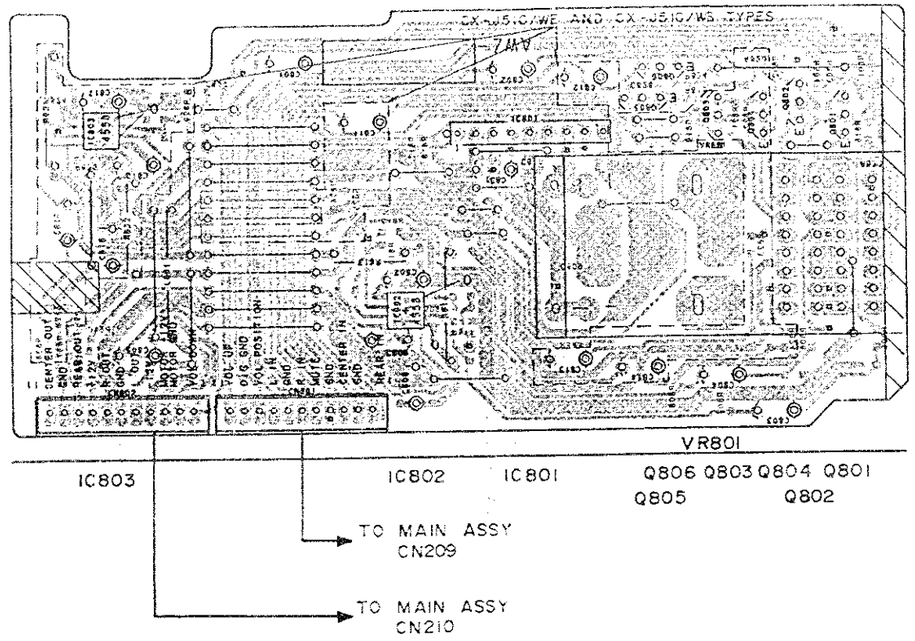
This P.C.B. connection diagram is viewed from the foil side.


MIC
MAIN
BAT
TO MAIN ASSY
CN503
BALANCE ASSY

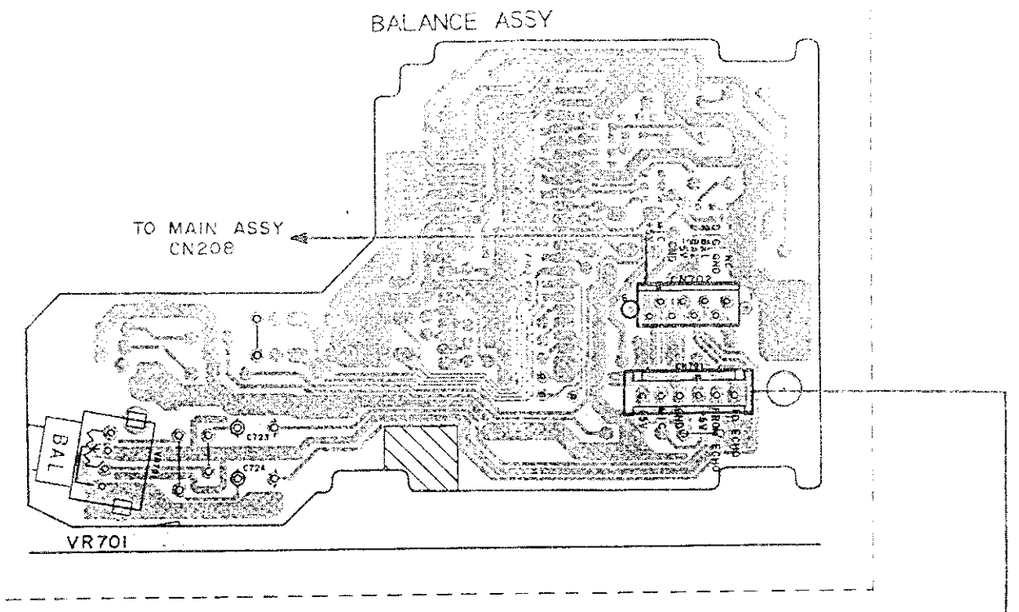

TO MAIN ASSY
CN510
TO MAIN ASSY
CN508
IC803
IC801
IC802
IC804
IC805
IC806
IC807
IC808
IC809
IC810
IC811
IC812
IC813
IC814
IC815
IC816
IC817
IC818
IC819
IC820
IC821
IC822
IC823
IC824
IC825
IC826
IC827
IC828
IC829
IC830
IC831
IC832
IC833
IC834
IC835
IC836
IC837
IC838
IC839
IC840
IC841
IC842
IC843

3.3 VOLUME ASSY, MIC ASSY, BALANCE ASSY

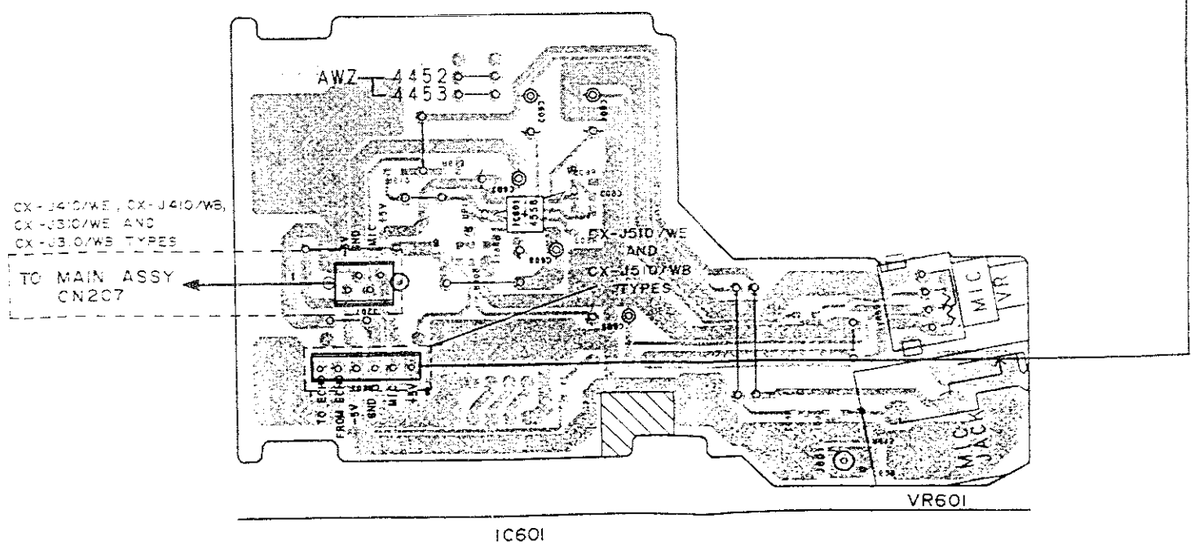
VOLUME ASSY (AWZ4447 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4449 : CX-J410/WE, CX-J410/WB,
CX-J310/WE AND CX-J310/WB TYPES)



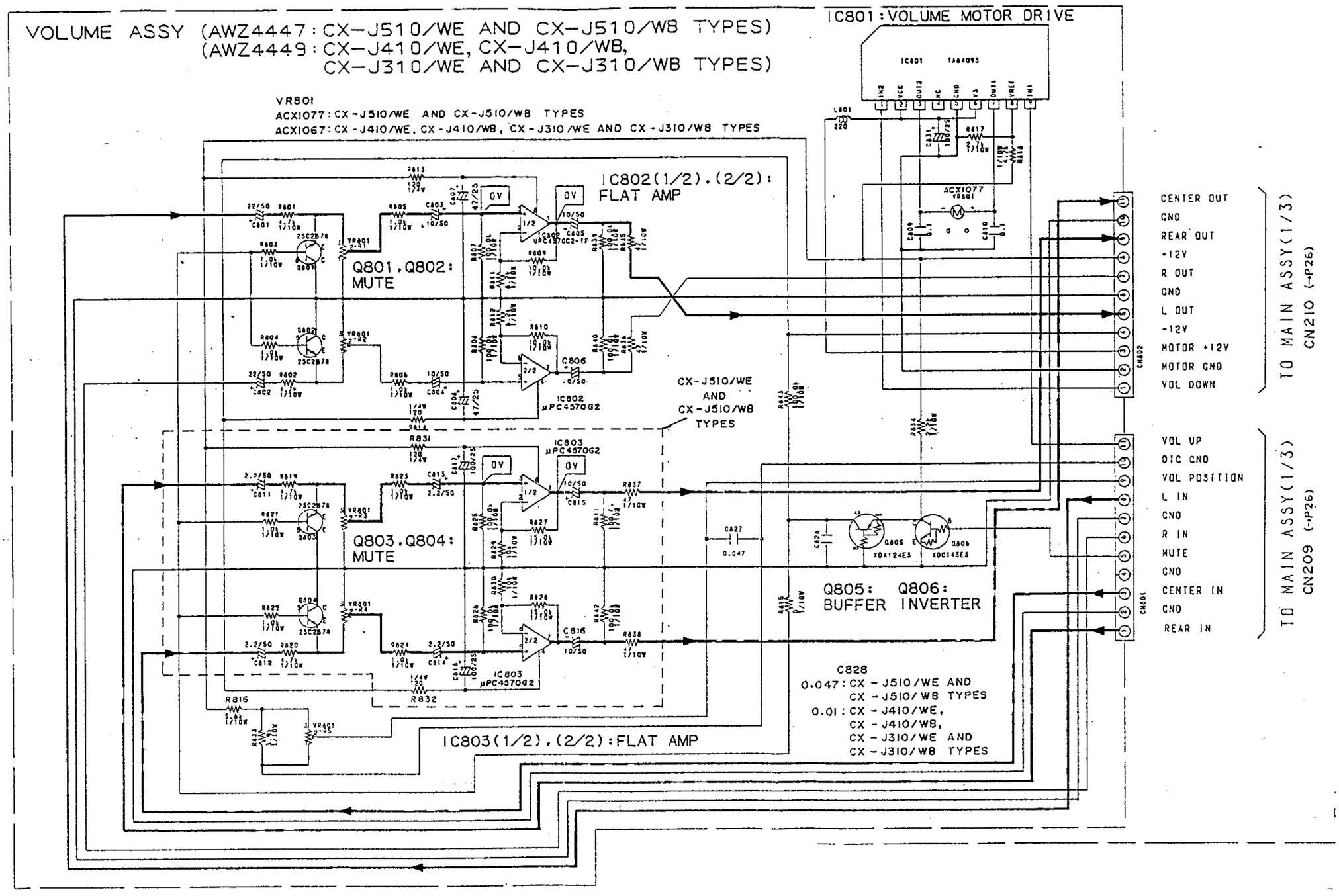
CX-J510/WE AND CX-J510/WB TYPES



MIC ASSY (AWZ4452 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4453 : CX-J410/WE, CX-J410/WB,
CX-J310/WE AND CX-J310/WB TYPES)

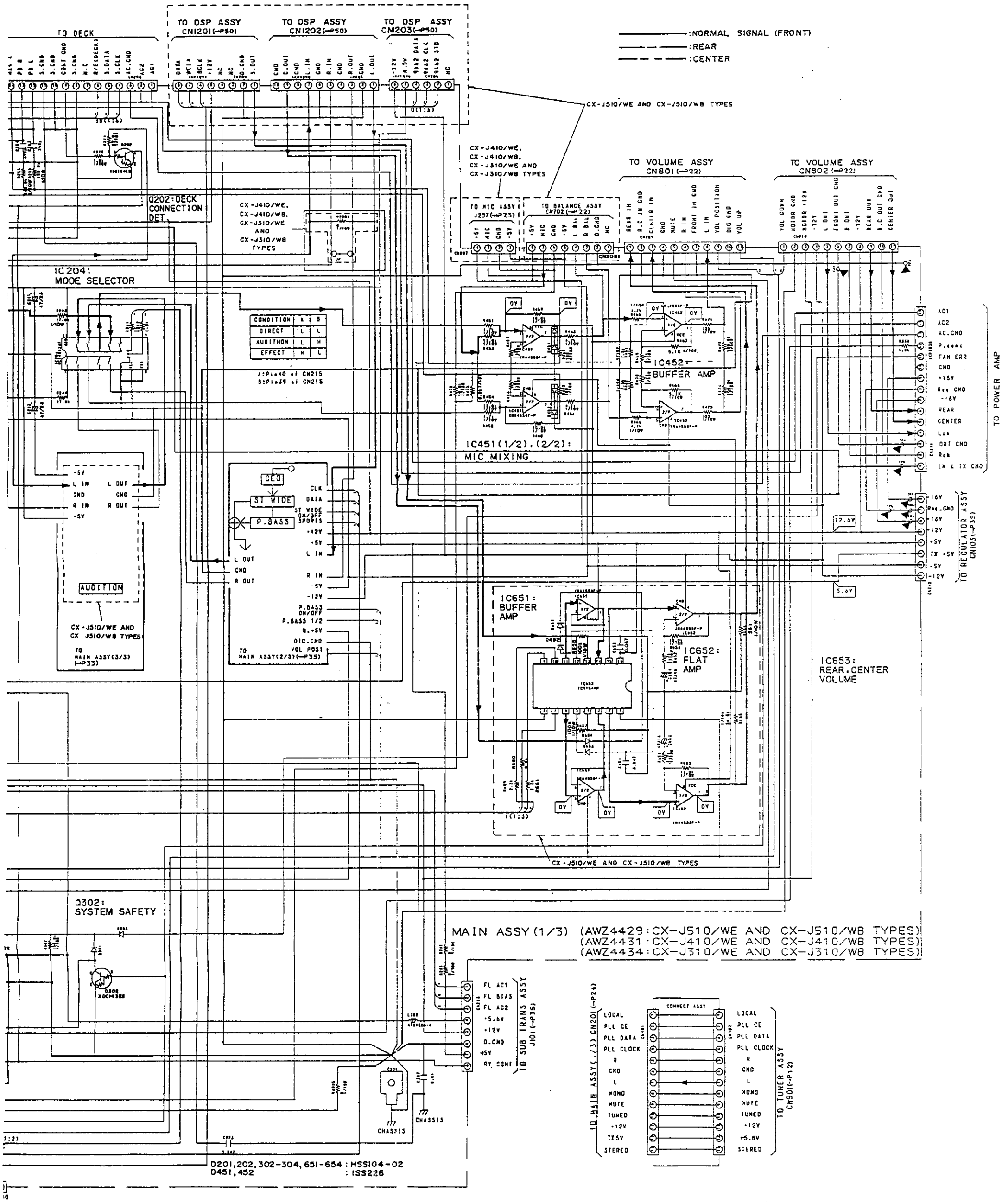


VOLUME ASSY (AWZ4447 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4449 : CX-J410/WE, CX-J410/WB, CX-J310/WE AND CX-J310/WB TYPES)

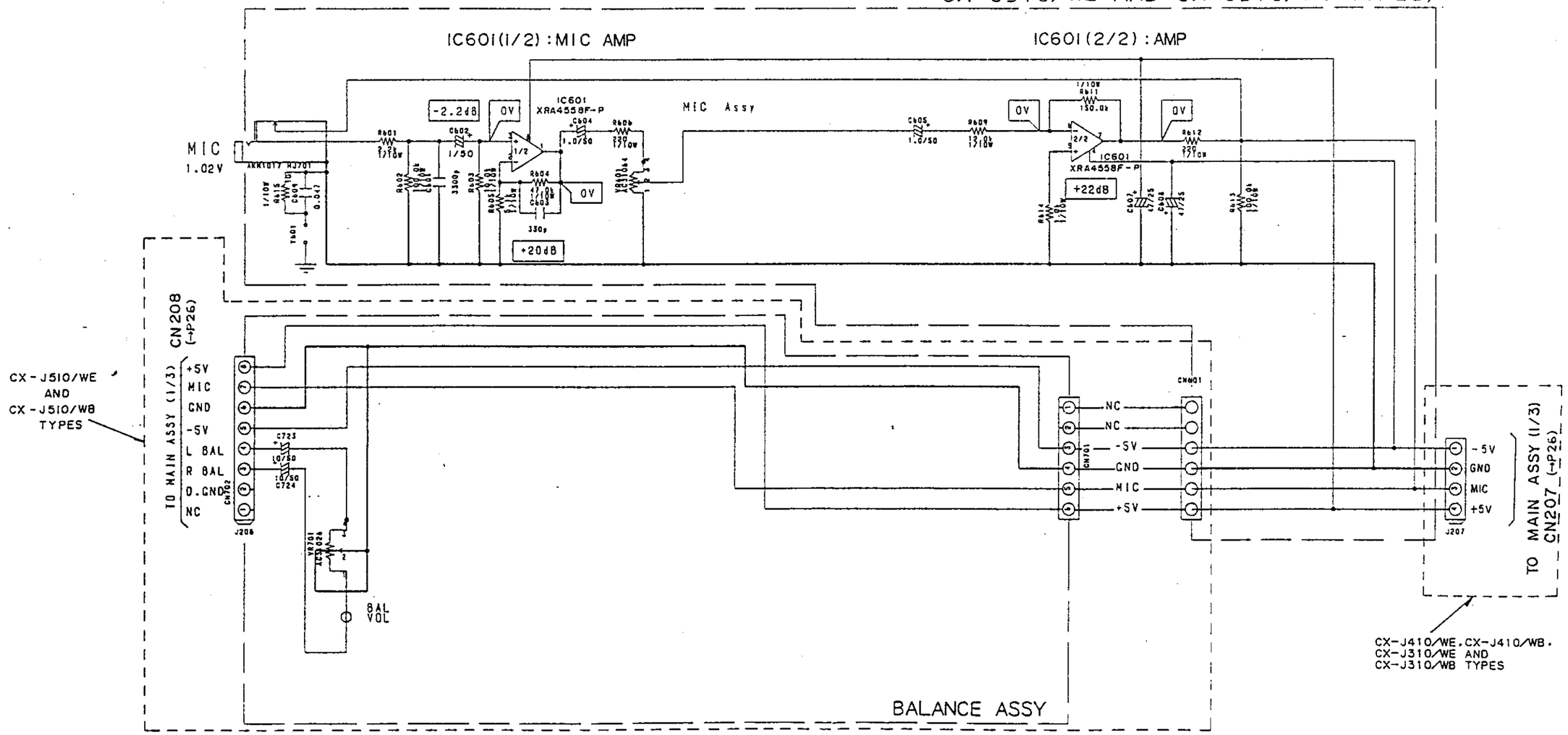


———————:NORMAL SIGNAL (FRONT)
———— — ————:REAR
— — — — — —:CENTER

3.4 MAIN ASSY (1/3), CONNECT ASSY


TO DECK
TO DSP ASSY CN1201(→P50)
TO DSP ASSY CN1202(→P50)
TO DSP ASSY CN1203(→P50)
:NORMAL SIGNAL (FRONT)
:REAR
:CENTER
CX-J510/WE AND CX-J510/WB TYPES
CX-J410/WE, CX-J410/WB, CX-J310/WE AND CX-J310/WB TYPES
TO VOLUME ASSY CN801 (→P22)
TO VOLUME ASSY CN802 (→P22)
TO MIC ASSY J207(→P23)
TO BALANCE ASSY CN702 (→P22)
Q202:DECK CONNECTION DET.
IC204: MODE SELECTOR
CONDITION | A | B
DIRECT | L | L
AUDITHON | L | H
EFFECT | H | L
A:Pin40 of CN215
B:Pin39 of CN215
IC451(1/2).(2/2): MIC MIXING
IC452: BUFFER AMP
IC651: BUFFER AMP
IC652: FLAT AMP
IC653: REAR.CENTER VOLUME
CEG
ST WIDE
P.BASS
AUDITION
TO MAIN ASSY(3/3) (→P33)
TO MAIN ASSY(2/3)(→P35)
TO POWER AMP
TO REGULATOR ASSY CN1031(→P35)
Q302: SYSTEM SAFETY
MAIN ASSY(1/3) (AWZ4429:CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4431:CX-J410/WE AND CX-J410/WB TYPES)
(AWZ4434:CX-J310/WE AND CX-J310/WB TYPES)
TO SUB TRANS ASSY J101(→P35)
CONNECT ASSY
TO MAIN ASSY(1/3) CN201(→P24)
TO TUNER ASSY CN901(→P12)
D201,202,302-304,651-654 : HSS104-02
D451,452 : ISS226

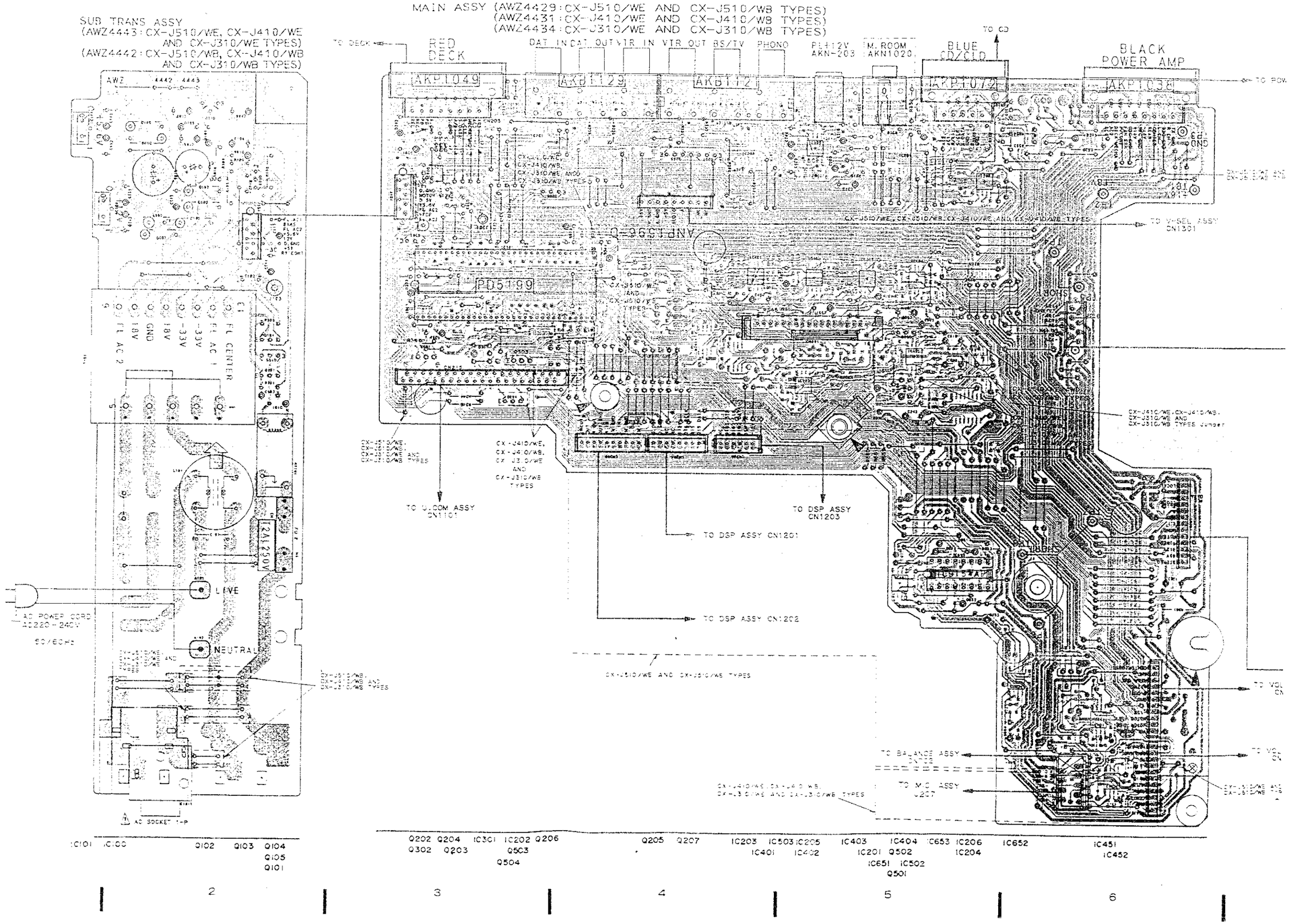
MIC ASSY (AWZ4452 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4453 : CX-J410/WE, CX-J410/WB,
CX-J310/WE AND CX-J310/WB TYPES)



4 5 6 7 8 9

SUB TRANS ASSY
(AWZ4443 : CX-J510/WE, CX-J410/WE AND CX-J310/WE TYPES)
(AWZ4442 : CX-J510/WB, CX-J410/WB AND CX-J310/WB TYPES)

MAIN ASSY (AWZ4429 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4431 : CX-J410/WE AND CX-J410/WB TYPES)
(AWZ4434 : CX-J310/WE AND CX-J310/WB TYPES)

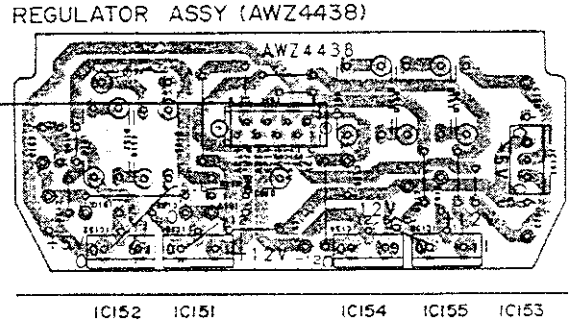


TO POWER AMP

CX-J510/WE AND
CX-J510/WE TYPES

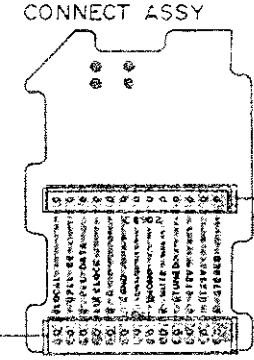
ASSY

REGULATOR ASSY (AWZ4438)



IC152 IC151 IC154 IC155 IC153

CONNECT ASSY



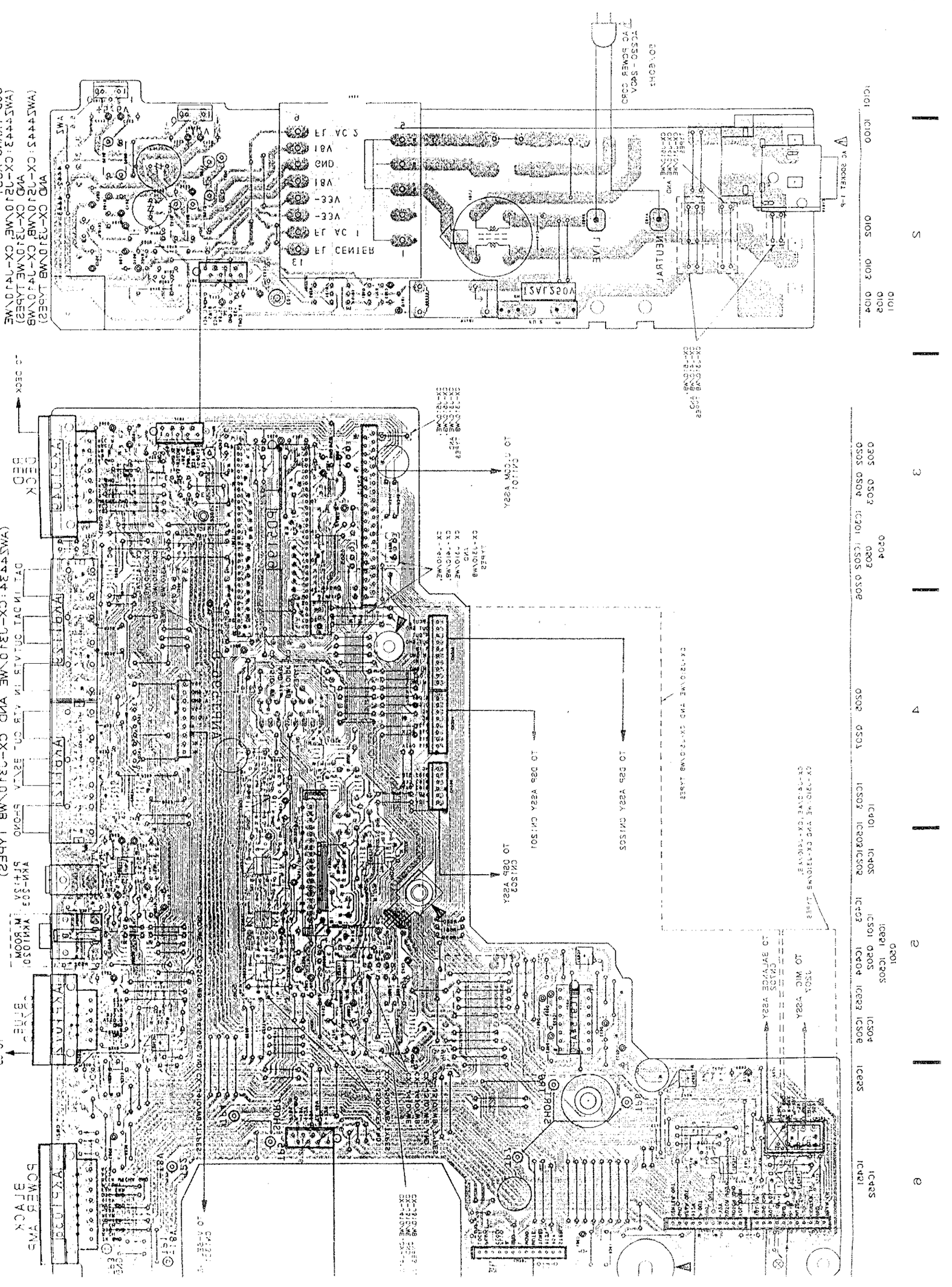
TO TUNER ASSY
CN901

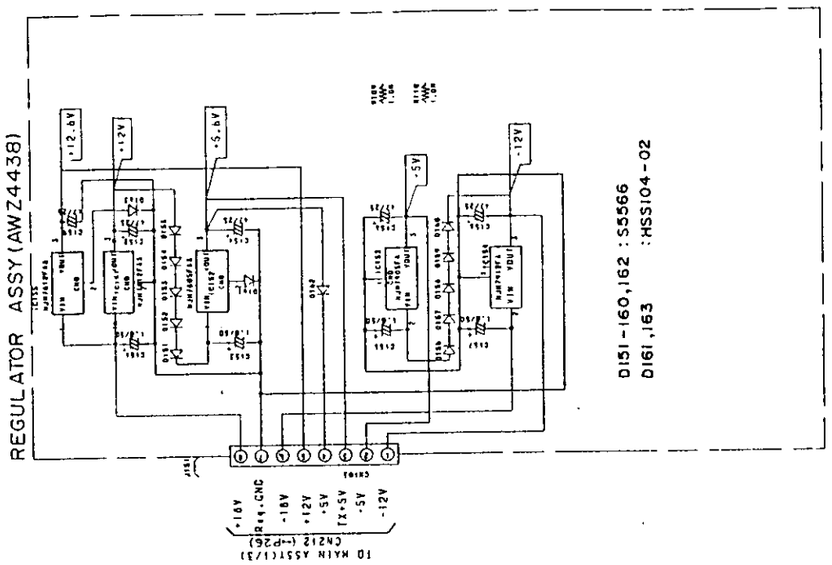
TO VOLUME ASSY
CN802

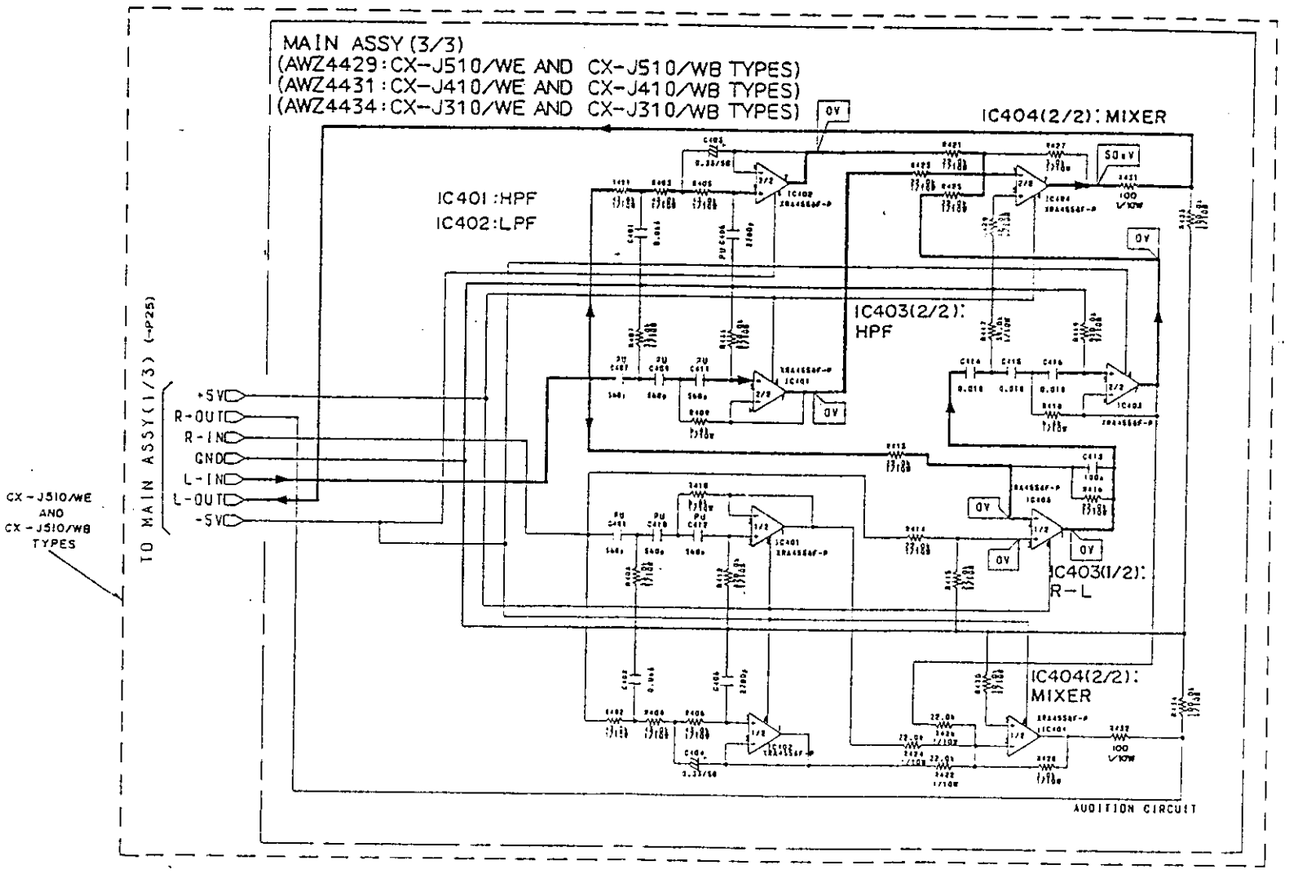
TO VOLUME ASSY
CN801

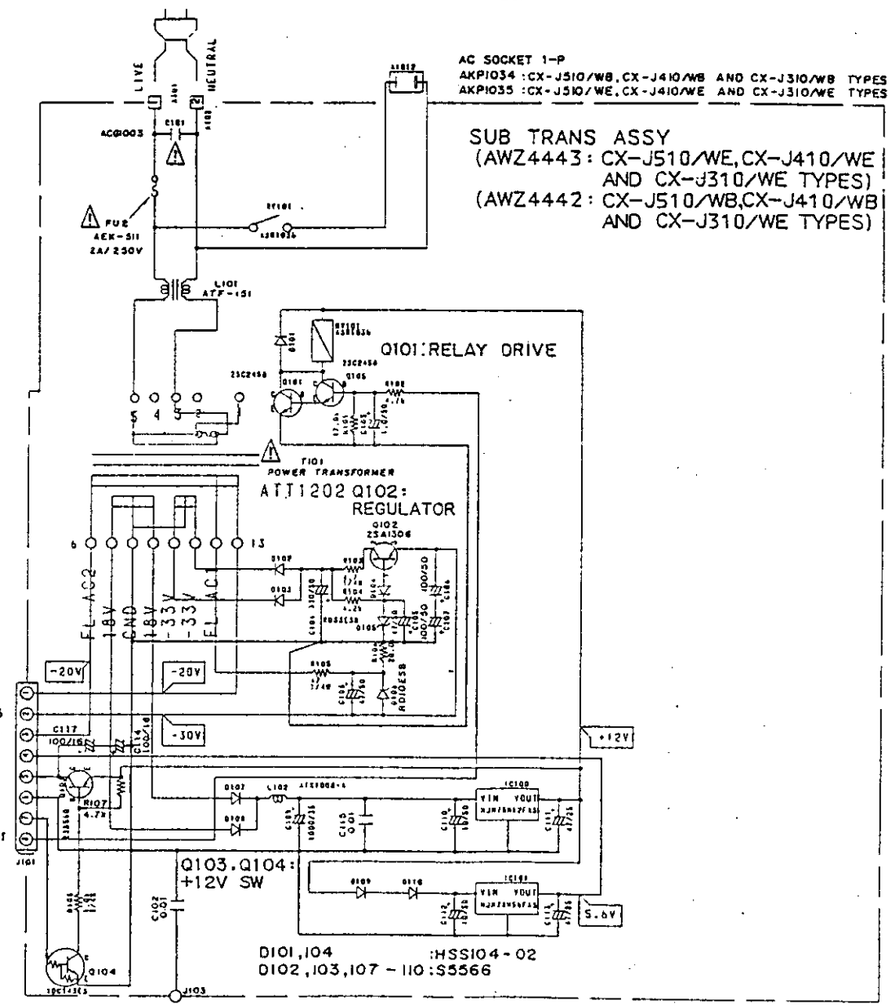
CX-J510/WE AND
CX-J510/WE TYPES

This P.C.B. connection diagram is viewed from the

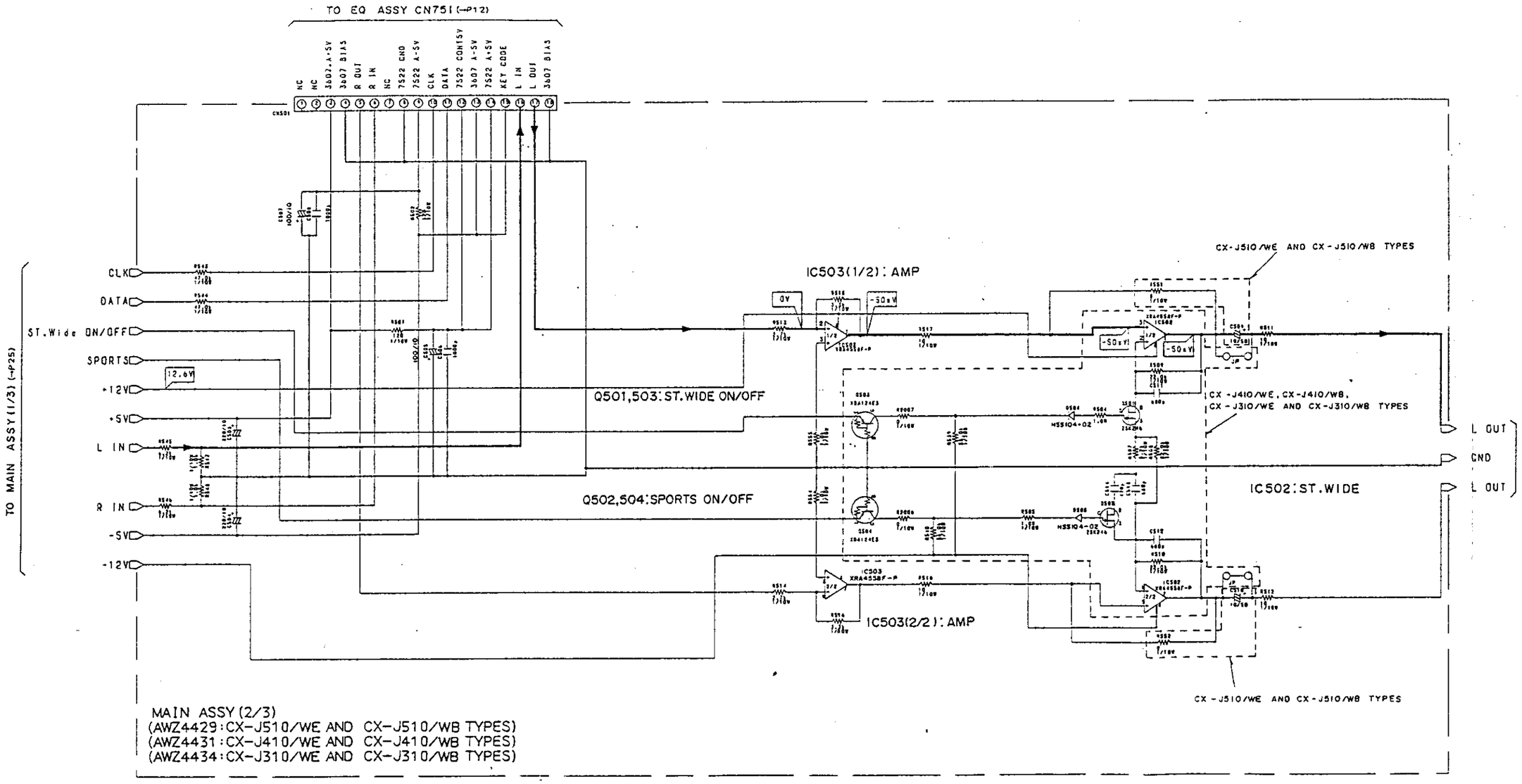

MAIN ASSY (AWZ4429 : CX-J510/WE AND CX-J510/WB TYPE5)
(AWZ4431 : CX-J470/WE AND CX-J470/WB TYPE5)
(AWZ4434 : CX-J310/WE AND CX-J310/WB TYPE5)
SUB TRANS ASSY (AWZ4423 : CX-J510/WE, CX-J470/WE AND CX-J310/WE TYPE5)
(AWZ4422 : CX-J510/WB, CX-J470/WB AND CX-J310/WB TYPE5)
POWER AMP
BLACK
RED
CN1202
CN1203
CN1204
CN1205
CN1206
CN1207
CN1208
CN1209
CN1210
CN1211
CN1212
CN1213
CN1214
CN1215
CN1216
CN1217
CN1218
CN1219
CN1220
CN1221
CN1222
CN1223
CN1224
CN1225
CN1226
CN1227
CN1228
CN1229
CN1230
CN1231
CN1232
CN1233
CN1234
CN1235
CN1236
CN1237
CN1238
CN1239
CN1240
CN1241


REGULATOR ASSY (AWZ4438)
+12.6V
+12V
+5.6V
-5V
-12V
D151-160,162 : S5566
D161,163 : HSS104-02
TO MAIN ASSY(1/3) (CN212 (-P26))
+16V
R44.GND
-16V
+12V
-5V
TX+5V
-5V
-12V


MAIN ASSY (3/3)
(AWZ4429 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4431 : CX-J410/WE AND CX-J410/WB TYPES)
(AWZ4434 : CX-J310/WE AND CX-J310/WB TYPES)
IC404(2/2) : MIXER
IC401 : HPF
IC402 : LPF
IC403(2/2) : HPF
IC403(1/2) : R-L
IC404(2/2) : MIXER
AUDITION CIRCUIT
TO MAIN ASSY(1/3) (-P25)
+5V
R-OUT
R-IN
GND
L-IN
L-OUT
-5V
CX-J510/WE AND CX-J510/WB TYPES


AC POWER CORD
ADG1049 AC220 - 240V 50/60Hz
(CX-J510/WE, CX-J410/WE AND CX-J310/WE TYPES)
ADG1118 AC220-240V 50/60Hz
(CX-J510/WB, CX-J410/WB AND CX-J310/WB TYPES)
LIVE
NEUTRAL
AC SOCKET 1-P
AKP1034 : CX-J510/WB, CX-J410/WB AND CX-J310/WB TYPES
AKP1035 : CX-J510/WE, CX-J410/WE AND CX-J310/WE TYPES
SUB TRANS ASSY
(AWZ4443 : CX-J510/WE, CX-J410/WE AND CX-J310/WE TYPES)
(AWZ4442 : CX-J510/WB, CX-J410/WB AND CX-J310/WE TYPES)
FUSE
Q101 : RELAY DRIVE
T101 POWER TRANSFORMER
ATT1202 Q102 : REGULATOR
Q103, Q104 : +12V SW
D101, 104 : HSS104-02
D102, 103, 107 - 110 : S5566
TO MAIN ASSY(1/3) (CN215 (-P26))
FL AC1
FL BIAS
FL AC2
+5.6V
+12V
D.GND
+5V
RY CONT

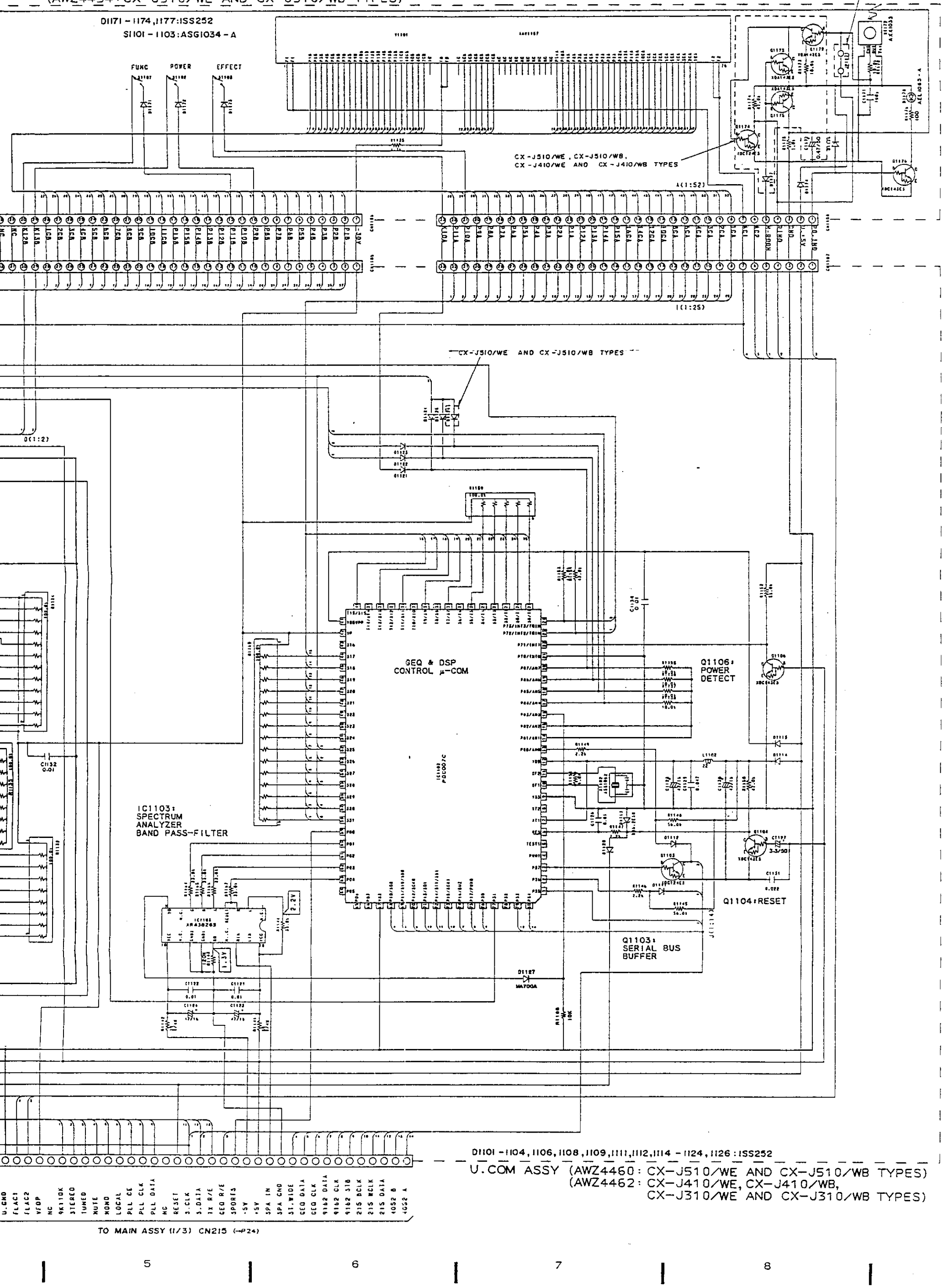
3.5 MAIN ASSY (2/3)(3/3), REGULATOR ASSY, SUB TRANS ASSY



———:NORMAL SIGNAL (FRONT)

3.6 FL ASSY, KEY ASSY, U.COM ASSY

ASSY (AWZ4746 : CX-J510/WE, CX-J510/WB, CX-J410/WE AND CX-J410/WB TYPES)
(AWZ4454 : CX-J310/WE AND CX-J310/WB TYPES)



U.COM ASSY (AWZ4460 : CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4462 : CX-J410/WE, CX-J410/WB, CX-J310/WE AND CX-J310/WB TYPES)

CX-J510, CX-J410, CX-J31

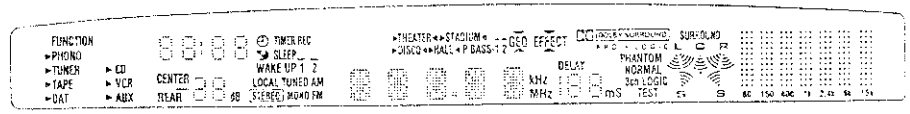
ANODE CONNECTION

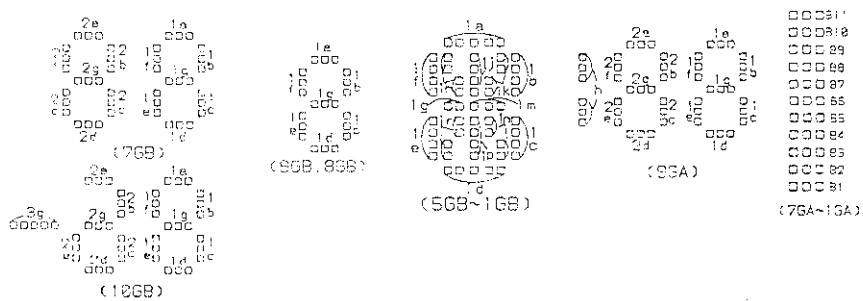
	10GA	9GA	8GA	7GA	6GA	5GA	4GA	3GA	2GA	1GA
P1A	S13	2g	S1	B1	B1	B1	B1	B1	B1	B1
P2A	S12	2f	S6	B2	B2	B2	B2	B2	B2	B2
P3A	P.BASS-12	2b	S7	B3	B3	B3	B3	B3	B3	B3
P4A	S15	2a	C	B4	B4	B4	B4	B4	B4	B4
P5A	S20	1b,1e	3ch LOGIC	B5	B5	B5	B5	B5	B5	B5
P6A	S15	1a,1f 1c,1d	NORMAL	B6	B6	B6	B6	B6	B6	B6
P7A	S11	1g	PHANTOM	B7	B7	B7	B7	B7	B7	B7
P8A	- (1)	DELAY mS	-	B8	B8	B8	B8	B8	B8	B8
P9A	- (2)	S9	S2	B9	B9	B9	B9	B9	B9	B9
P10A	GEO	EFFECT	SURROUND	B10	B10	B10	B10	B10	B10	B10
P11A	S10	-	TEST	B11	B11	B11	B11	B11	B11	B11
P12A	S14	h	S8	-	-	-	-	-	-	-
P13A	S19	2d	S4	-	-	-	-	-	-	-
P14A	S17	2e	S3	-	-	-	-	-	-	-
P15A	S16	2c	S5	63	150	400	1k	2.4k	6k	15k

ANODE CONNECTION

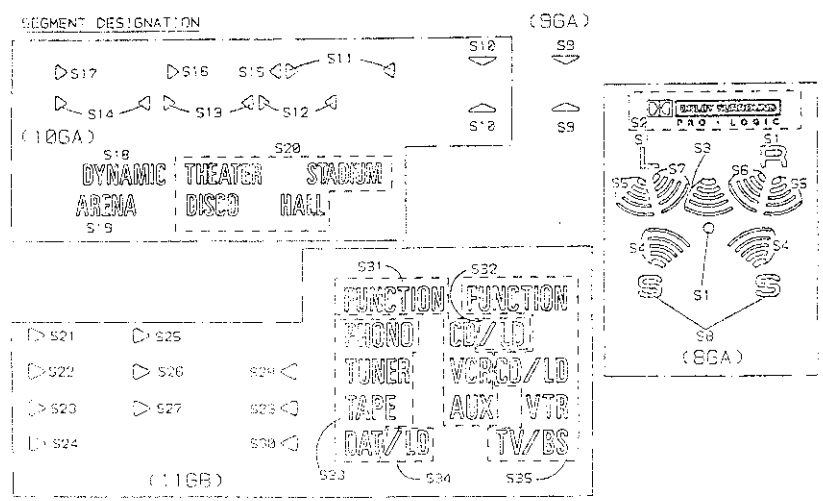
	11GB	10GB	9GB	8GB	7GB	6GB	5GB	4GB	3GB	2GB	1GB
P1B	S26	1a	1a	1a	1a	-	1a	1a	1a	1a	1a
P2B	S32	REAR	-	-	2a	TUNED	1j	1j	1j	1j	1j
P3B	S31	CENTER	-	-	-	REC	1h	1h	1h	1h	1h
P4B	S21		-	-	2b	MONO	1k	1k	1k	1k	1k
P5B	S25	1b	1b	1b	1b	- (1)	1b	1b	1b	1b	1b
P6B	S29	1f	1f	1f	1f	SLEEP	1f	1f	1f	1f	1f
P7B	S23	-	-	-	2c	AM	1m	1m	1m	1m	1m
P8B	S28	1g	1g	1g	1g	TIMER	1g	1g	1g	1g	1g
P9B	S22	1c	1c	1c	1c	- (2)	1c	1c	1c	1c	1c
P10B	S30	1e	1e	1e	1e	STEREO	1e	1e	1e	1e	1e
P11B	S24	2e	-	-	2f	-	1l	1r	1r	1r	1r
P12B	S27	2b	-	-	2d	FM	1n	1n	1n	1n	1n
P13B	S31	2f	-	-	2e	-	1p	1p	1p	1n	1p
P14B	S24	-	-	-	2g	-	-	-	-	-	kHz
P15B	S24	1d	1d	1d	1d	LOCAL	1d	1d	1d	1d	1d
P16B	-	1g	-	-	-	WAKE UP 1 2	-	-	-	-	MHz

● CXW 115 / (V 1101) Display Segments

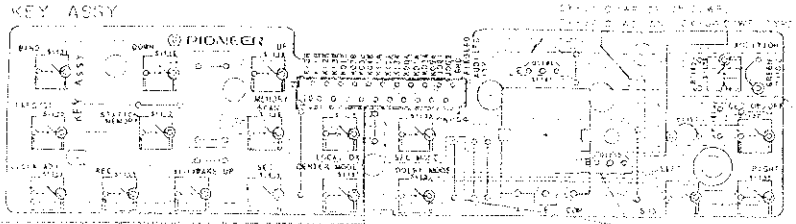




SEGMENT DESIGNATION

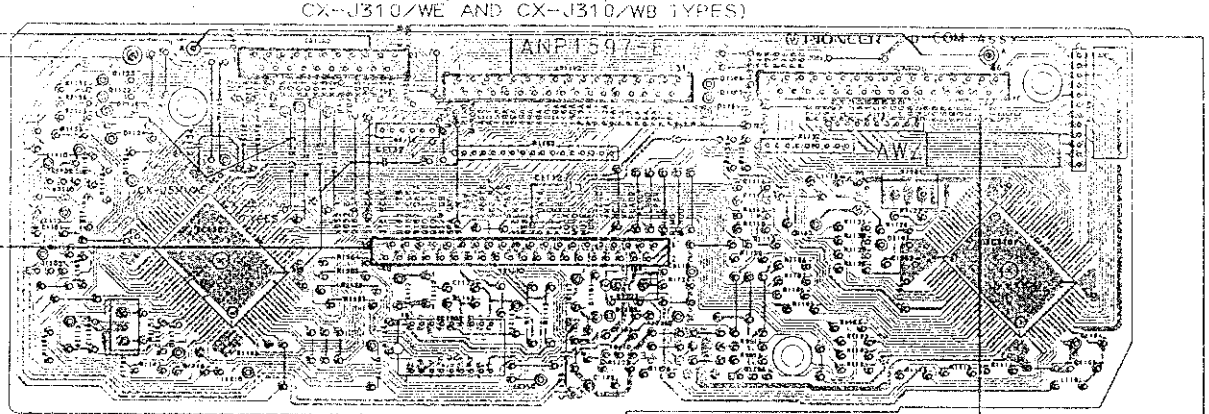


KEY ASSY



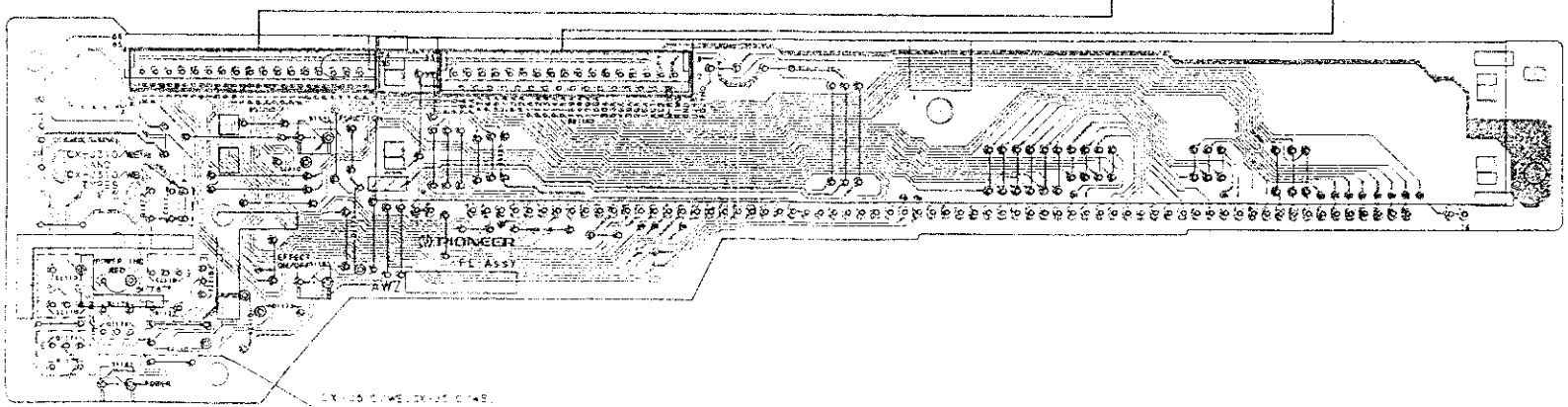
Q1181 Q1182

U.COM ASSY (AWZ4460: CX-J510/WE AND CX-J510/WB TYPES)
(AWZ4462: CX-J410/WE, CX-J410/WB,
CX-J310/WE AND CX-J310/WB TYPES)



Q1104 Q1103 IC1102 Q1106 IC1103 Q1101 Q1105 Q1102 IC1101

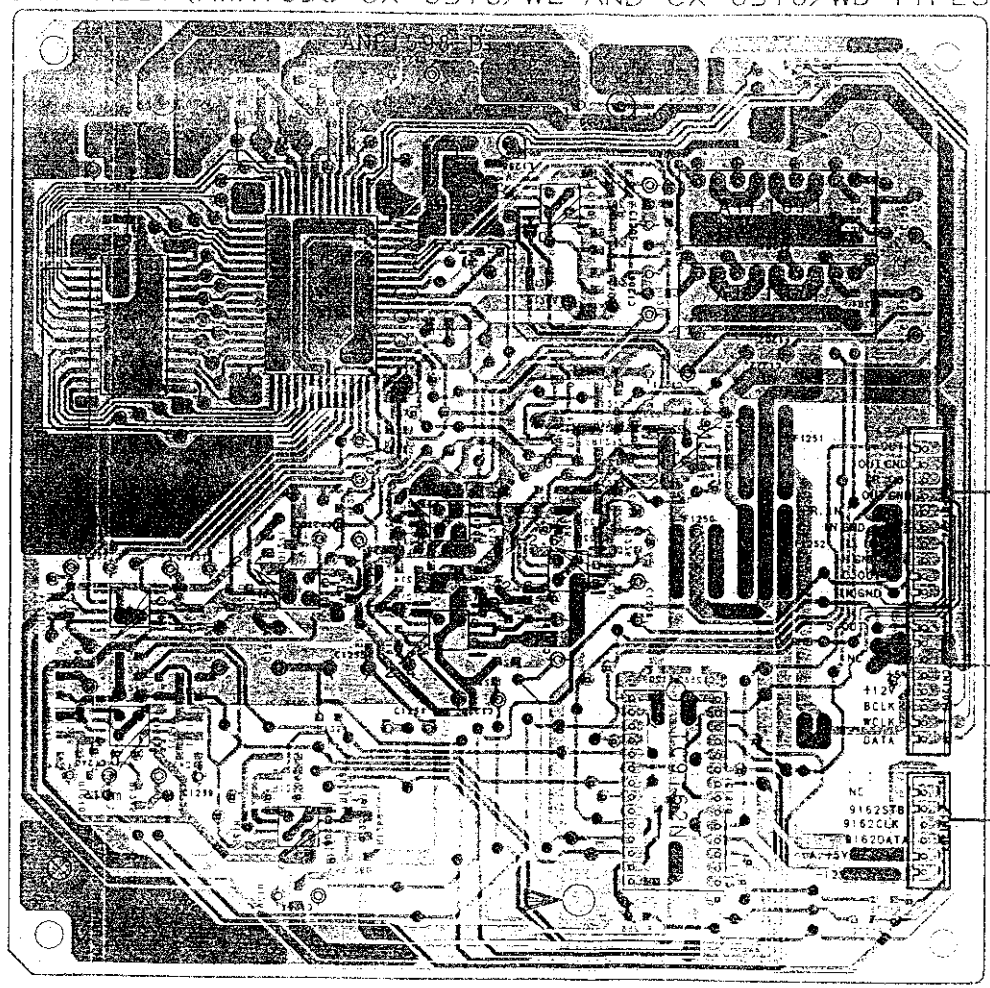
FL ASSY (AWZ4746: CX-J510/WE, CX-J510/WB CX-J410/WE AND CX-J410/WB TYPES)
(AWZ4454: CX-J310/WE AND CX-J310/WB TYPES)



Q1175 Q1176 Q1172 Q1173
Q1174

3.7 DSP ASSY

DSP ASSY (AWX1058 : CX-J510/WE AND CX-J510/WB TYPES)



IC1251	IC1250	IC1202	IC1201	IC1204
IC1206	IC1209	IC1203	IC1205	IC1210
IC1207	IC1208			

This P.C.B. connection diagram is viewed from the foil side.

IC151 IC280 IC202 IC201 IC204
IC206 IC209 IC203 IC205 IC210
IC207 IC208

4. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10¹ → 561	.....	*RD1/8PM[5][6][1]J*
47kΩ → 47 × 10³ → 473	.....	*RD1/4PS[4][7][3]J*
0.5Ω → 0R5	.....	*RN2H[0][R][5]K*
1Ω → 010	.....	*RS1P[0][1][0]K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ→ 562 × 10¹ →5621	.....	*RN1/4PC[5][6][2][1]F*

Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES			
	TUNER ASSY		AWE1261
	EQ ASSY		AWF1009
	DSP ASSY(CX−J510 only)		AWX1058
◉	MAIN ASSY(CX−J510)		AWZ4429
◉	MAIN ASSY(CX−J410)		AWZ4431
◉	REGULATOR ASSY		AWZ4438
◉	SUB TRANS ASSY		AWZ4443
NSP	BALANCE ASSY(CX−J510 only)		AWZ4446
◉	VOLUME ASSY(CX−J510)		AWZ4447
◉	VOLUME ASSY(CX−J410)		AWZ4449
◉	MIC ASSY(CX−J510)		AWZ4452
◉	MIC ASSY(CX−J410)		AWZ4453
NSP	CONNECT ASSY		AWZ4547
◉	U.COM ASSY(CX−J510)		AWZ4460
◉	U.COM ASSY(CX−J410)		AWZ4462
◉	FL ASSY		AWZ4746
NSP	KEY ASSY(CX−J510)		AWZ4747
NSP	KEY ASSY(CX−J410)		AWZ4456
TUNER ASSY			
SEMICONDUCTORS			
	IC903		AN7470P
	IC902		LA1265S
	IC901		LM7001
	Q914		2SA1048
	Q902		2SC1740SLN
	Q910−Q913		2SC2458
	Q909		2SC2668
	Q901		2SK246
	Q908		RN1203
	Q905,Q907 RN2201		
	D901		1SV156
	D908−D912		HSS104−02

Mark	No.	Description	Parts No.
COILS, FILTERS			
	L907		ATE−079
	L904		LAU010K
	L901		LAU2R2K
	L903		LAU2R2K
	L905		LAU2R2K
	L908		LAU2R2K
	F905		ATF−107
	F903		ATF−119
	F904		ATF1042
	F906		ATF1088
CAPACITORS			
	C948	(470P/50V)	ACE1039
	C912,C914		CCDCH150J50
	C968		CCDSL101J50
	C939		CCDSL271J50
	C927		CCDSL470J50
	C945		CEANP2R2M50
	C938		CEAS010M50
	C944,C954,C960		CEAS0R1M50
	C949		CEAS1R5M50
	C942,C957,C958,C963		CEAS2R2M50
	C901,C926,C930		CEAS330M16
	C950		CEAS3R3M50
	C924,C928,C943,C951		CEAS470M10
	C946		CEAS470M25
	C936		CEAS4R7M50
	C955		CEASR22M50
	C905		CFTXA103J50
	C906		CFTXA224J50
	C952,C953,C956		CKDYB122K50
	C940		CKDYB222K50
	C961,C962		CKDYB272K50
	C902		CKDYF102Z50
	C915,C919,C922,C932−C935, C937		CKDYF223Z50
	C941,C947		CKDYF473Z50

Mark	No.	Description	Parts No.
	C903,C910,C964		CKPUYB101K50
	C904,C907,C965		CKPUYB102K50
	C911,C916,C925,C929		CKPUYF103Z25
	C923,C931,C959		CKPUYF223Z25
RESISTORS			
	VR903	(4.7K)	ACP1042
	VR901	(10K)	ACP1043
	VR902	(22K)	ACP1044
	R934,R965,R966		RD1/8PM101J
	R908,R913,R916,R918,R938, R948		RD1/8PM102J
	R901,R920,R967,R968		RD1/8PM103J
	R912,R942		RD1/8PM104J
	R905		RD1/8PM122J
	R909,R955		RD1/8PM152J
	R910,R946		RD1/8PM153J
	R907,R929		RD1/8PM221J
	R937,R956		RD1/8PM222J
	R906,R962		RD1/8PM223J
	R954		RD1/8PM224J
	R936,R940,R944,R945		RD1/8PM273J
	R924,R932		RD1/8PM331J
	R957,R958		RD1/8PM332J
	R939		RD1/8PM333J
	R927,R963,R964		RD1/8PM391J
	R959−R961		RD1/8PM392J
	R943		RD1/8PM433J
	R923,R928		RD1/8PM471J
	R933,R951−R953		RD1/8PM473J
	R902,R903		RD1/8PM561J
	R904		RD1/8PM562J
	R926,R930,R935		RD1/8PM682J
	R947		RD1/8PM683J
	R949,R950		RD1/8PM752J
	R941		RD1/8PM821J
	R931		RD1/8PM822J
OTHERS			
	X901	(7.200MHz)	ASS1042
	X902		ATF1027
	ANTENNA TERMINAL(4P)		AKA1010
	AM RF TUNING BLOCK		AXX1011
	F.E. MODULE ASSY		AXQ1002

Note:
F.E. MODULE assembly has no service part.

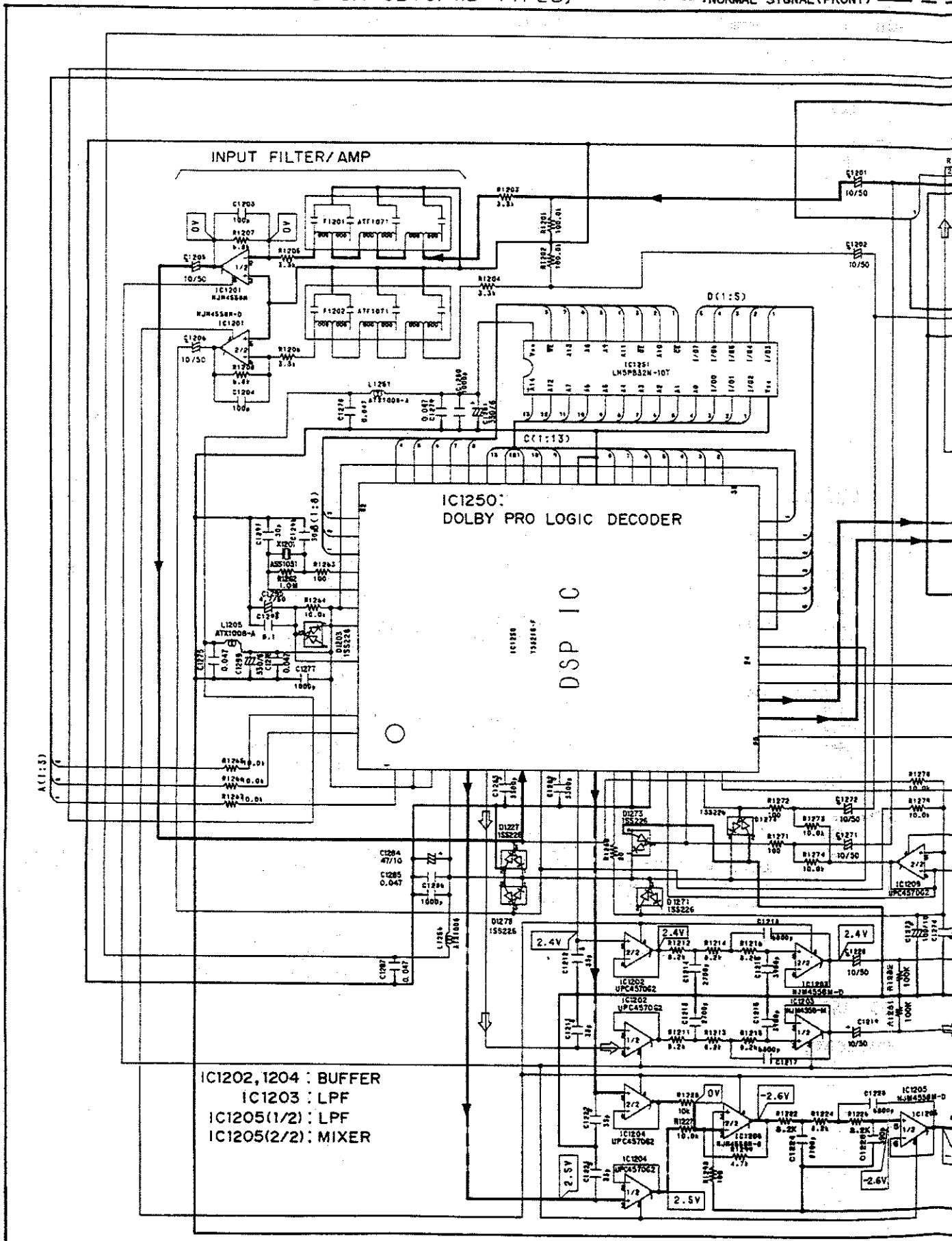
Mark	No.	Description	Parts No.
	C754,C768		CEJAR68M50
	C753,C767		CFTXA124J50
	C759,C773		CKSQYB103K50
	C762,C776		CKSQYB123K50
	C763,C777		CKSQYB152K50
	C766,C780		CKSQYB222K50
	C757,C771		CKSQYB223K50
	C760,C772		CKSQYB333K50
	C761,C775		CKSQYB392K50
	C765,C779		CKSQYB561K50
	C764,C778		CKSQYB562K50
RESISTORS			
	R773−R781		RS1/8S000J
	Other Resistors		RS1/10S□□□J
DSP ASSY (CX−J510 ONLY)			
SEMICONDUCTORS			
	IC1251		LH5P832N−10T
	IC1201,IC1203,IC1205, IC1207,IC1208		NJM4558M−D
	IC1210		TC9162N
	IC1202,IC1204,IC1206, IC1209		UPC4570G2
	IC1250		YSS215−F
	D1203,D1271,D1273,D1274, D1277,D1278		1SS226
COILS, FILTERS			
	L1250,L1251,L1256		ATX1008
	F1250−F1252		ATF1011
	F1201,F1202		ATF1071
CAPACITORS			
	C1203,C1204,C1233,C1234, C1237,C1238,C1252,C1256		CCSQCH101J50
	C1296,C1297		CCSQCH300J50
	C1207,C1211,C1212, C1221,C1222		CCSQCH330J50
	C1226		CCSQCH391J50
	C1255		CEANP2R2M50
	C1201,C1202,C1205,C1206, C1219,C1220,C1231,C1232, C1251,C1271,C1272		CEAS100M50
	C1273		CEAS101M10
	C1208,C1235,C1236, C1239,C1240,C1253,C1257		CEAS220M25
	C1281,C1299		CEAS331M6
	C1284		CEAS470M10
	C1295		CEAS4R7M50
	C1254		CFTXA274J50
	C1277,C1280,C1286		CKSQYB102K50
	C1213,C1214,C1224		CKSQYB272K50
	C1282,C1283		CKSQYB332K50
	C1215,C1216		CKSQYB392K50
	C1275,C1276,C1278,C1279, C1285,C1287		CKSQYB473K50
	C1217,C1218,C1228		CKSQYB682K50
	C1209,C1258		CKSQYF103Z50

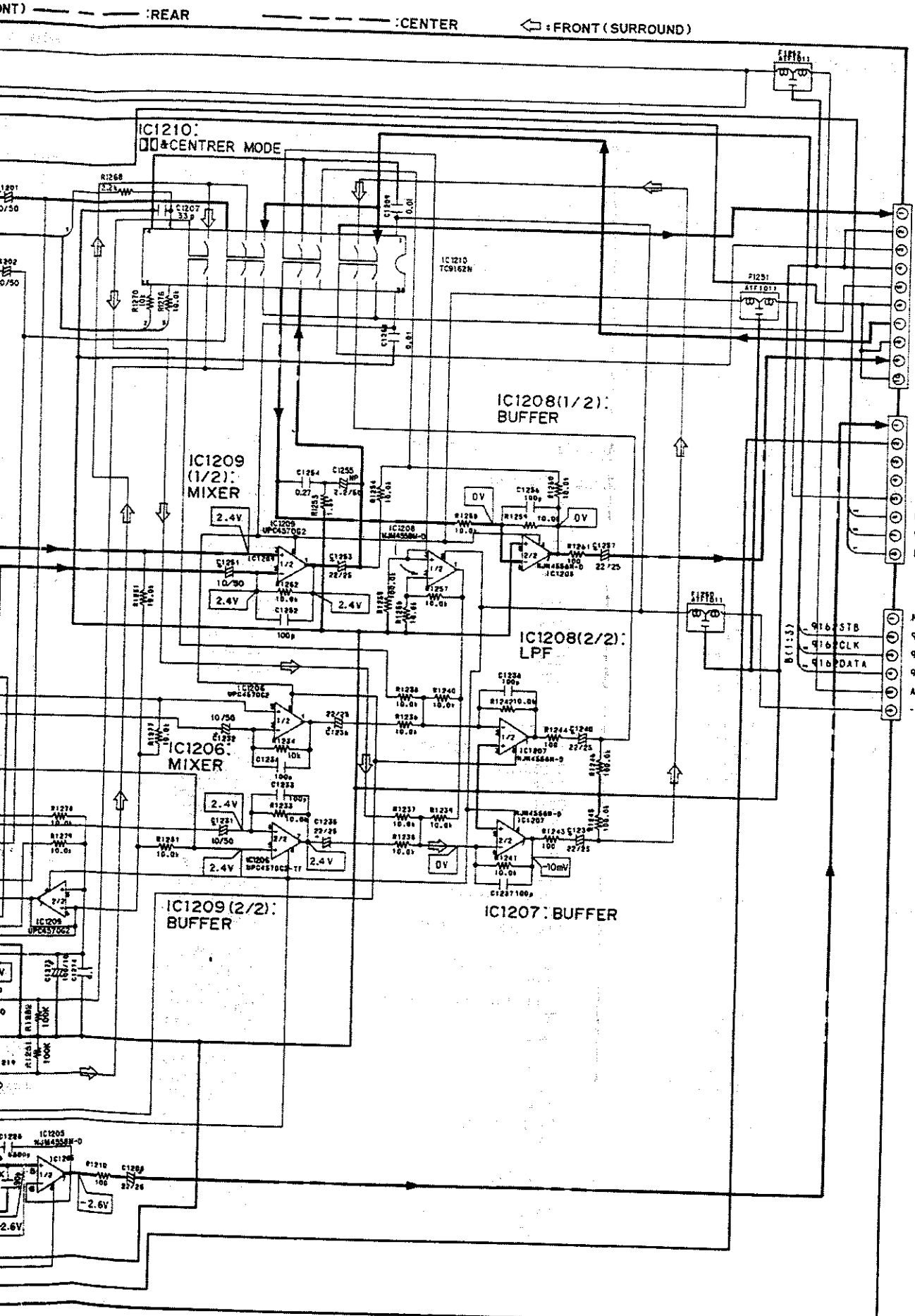
Mark	No.	Description	Parts No.
	C1274,C1298		CKSQYF104Z50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	X1201	(11.2MHz)	ASS1031
	CN1203	PLUG(6P)	AKM1083
	CN1201	PLUG(8P)	AKM1084
	CN1202	PLUG(10P)	AKM1085
MAIN ASSY			
SEMICONDUCTORS			
	IC201,IC202,IC204		MC14052BF
	IC203		MC14066BF
	IC301		PD5198A
	IC653	(CX−J510 only)	TC9154AP
	IC205		UPC4570G2
	IC206,IC451,IC452,IC503		XRA4558F−P
	IC401−IC404,IC651,IC652	(CX−J510 only)	XRA4558F−P
	IC502	(CX−J410 only)	XRA4558F−P
	Q206		2SA1048
	Q203		2SC2458
	Q501,Q502	(CX−J410 only)	2SK246
	Q204,Q205,Q207		XDA124ES
	Q503,Q504	(CX−J410 only)	XDA124ES
	Q201,Q202		XDC124ES
	Q302		XDC143ES
	D451,D452		1SS226
	D201,D202,D302−D304		HSS104−02
	D504,D505	(CX−J410 only)	HSS104−02
	D651−D654	(CX−J510 only)	HSS104−02
	D301		RD6.2ESB
COILS, FILTERS			
	L302		ATX1008
	L301		LAU220K
CAPACITORS			
	C413	(CX−J510 only)	CCSQSL101J50
	C247,C248,C253,C254		CCSQSL391J50
	C308		CEAS100M50
	C509,C510	(CX−J510 only)	CEAS100M50
	C505,C507		CEAS101M10
	C503,C504		CEAS221M10
	C361		CEAS221M16
	C203,C204		CEAS3R3M50
	C209,C210		CEAS470M10
	C653,C654	(CX−J510 only)	CEAS470M16
	C304		CEAS470M25
	C403,C404	(CX−J510 only)	CEASR33M50
	C241,C242,C271,C272		CEXA470M25
	C249,C250,C506,C508		CKSQYB102K50
	C309		CKSQYB122K50
	C205,C206		CKSQYB152K50
	C414−C416	(CX−J510 only)	CKSQYB183K50
	C405,C406	(CX−J510 only)	CKSQYB272K50
	C514	(CX−J410 only)	CKSQYB471K50
	C407−C412	(CX−J510 only)	CKSQYB561K50

Mark	No.	Description	Parts No.
	C207,C208		CKSQYB562K50
	C511−C513	(CX−J410 only)	CKSQYB681K50
	C307		CKSQYF103Z50
	C273,C301−C303,C305,C306		CKSQYF473Z50
	C651,C652	(CX−J510 only)	CKSQYF473Z50
	C401,C402	(CX−J510 only)	CKSQYF683Z50
RESISTORS			
	R351−R354,R361		RD1/4PMFL100J
	R261,R262,R338		RD1/8PM102J
	R249,R250		RD1/8PM123J
	R257,R258,R342−R346		RD1/8PM222J
	R659−R661	(CX−J510 only)	RD1/8PM222J
	R244		RD1/8PM273J
	R231,R232		RD1/8PM331J
	R235,R236		RD1/8PM331J
	R247,R248		RD1/8PM470J
	R543,R544		RD1/8PM473J
	R546		RD1/8PM622J
	R215,R216		RD1/8PM820J
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN202	SOCKET(9P)	AKP1072
	CN215	SOCKET(40P)	AKP1085
	CN206	SOCKET(6P)	(CX−J510 only) AKP1096
	CN204	SOCKET(8P)	(CX−J510 only) AKP1097
	CN205	SOCKET(10P)	(CX−J510 only) AKP1098
	CN207	CONNECTOR(4P)	(CX−J410 only) KPE4
	CN208	CONNECTOR(8P)	(CX−J510 only) KPE8
	X301	(4.00MHz)	ASS1025
		PIN JACK(6P)	AKB1121
		PIN JACK(6P)	AKB1129
		JACK	AKN−203
		JACK	AKN1020
		SOCKET(15P)	AKP1038
		SOCKET(15P)	AKP1049
REGULATOR ASSY			
SEMICONDUCTORS			
	IC152		NJM7805FAS
	IC151,IC155		NJM7812FAS
	IC153		NJM7905FA
	IC154		NJM7912FA
	D151−D160,D162		S5566
	D161,D163		HSS104−02
CAPACITORS			
	C151,C153,C155,C157		CEHAQ010M50
	C152,C154,C156,C158,C159		CEHAQ470M25
RESISTORS			
	R109,R110		RD1/8PM105J
SUB TRANS ASSY			
SEMICONDUCTORS			
	IC100		NJM78M12FAS
	IC101		NJM78M56FAS
	Q102		2SA1306
	Q103		2SB560

DSP ASSY
(AWX1058 : CX-J510/WE AND CX-J510/WB TYPES)

——— : NORMAL SIGNAL (FRONT) — — —




:REAR
:CENTER
:FRONT (SURROUND)
IC1210:
&CENTRER MODE
IC1210
TC9162N
IC1208(1/2):
BUFFER
IC1209
(1/2):
MIXER
IC1208(2/2):
LPF
IC1206:
MIXER
IC1209(2/2):
BUFFER
IC1207: BUFFER
L.OUT
GND
R.OUT
GND
R.IN
GND
L.IN
GND
C.OUT
GND
TO MAIN ASSY(1/3)
CN205 (-P25)
S.OUT
D.GND
NC
D.5V
+12V
BCLK
WCLK
DATA
TO MAIN ASSY(1/3)
CN204 (-P25)
NC
9162STB
9162CLK
9162DATA
A.5V
-12V
TO MAIN ASSY(1/3)
CN206 (-P25)
B(1:3)
9162STB
9162CLK
9162DATA

Mark	No.	Description	Parts No.
	Q101,Q105		2SC2458
	Q104		XDC143ES
	D101,D104		HSS104-02
	D106		RD10ESB
	D105		RD33ESB
	D102,D103,D107-D110		S5566
RELAY			
	RY101		ASR1036
COILS, FILTERS			
	L101		ATF-151
	L102		ATX1008
⚠	T101		ATT1202
CAPACITORS			
⚠	C101	(0.01/AC400V)	ACG1003
	C103		CEAS010M50
	C112		CEAS100M50
	C114,C117		CEAS101M16
	C106,C107		CEAS101M50
	C109		CEAS102M35
	C104		CEAS331M50
	C113		CEAS470M25
	C105,C108		CEAS470M50
	C110		CEHAQ100M50
	C111		CEHAQ470M25
	C102,C116		CKCYF103Z50
RESISTORS			
	R108		RD1/4PM102J
	R105		RD1/4PM470J
	R106		RD1/8PM203J
	R102,R107		RD1/8PM472J
	R101		RD1/8PM473J
	R104		RD1/8PM622J
	R103		RFA1/4PS4R7J
OTHERS			
⚠		AC SOCKET 1-P	AKP1034

BALANCE ASSY (CX-J510 ONLY)

Mark	No.	Description	Parts No.
CAPACITORS			
	C723,C724		CEAS100M50
RESISTORS			
	VR701	(100K-X1)	ACS1026

VOLUME ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC801		TA8409S
	IC802		UPC4570G2
	IC803	(CX-J510 only)	UPC4570G2
	Q801,Q802		2SC2878
	Q803,Q804	(CX-J510 only)	2SC2878
	Q805		XDA124ES
	Q806		XDC143ES
COILS, FILTERS			
	L801		LAU221K
CAPACITORS			
	C803-C806		CEAS100M50
	C815,C816	(CX-J510 only)	CEAS100M50
	C817,C818	(CX-J510 only)	CEAS101M25
	C831		CEAS101M25
	C801,C802		CEAS220M50
	C811-C814	(CX-J510 only)	CEAS2R2M50
	C807,C808		CEXA470M25
	C828	(CX-J410)	CKSQYB103K50
	C809,C810		CKSQYF104Z50
	C827		CKSQYF473Z50
	C828	(CX-J510)	CKSQYF473Z50
RESISTORS			
	VR801	(100K-X4)(CX-J510)	ACX1077
	VR801	(CX-J410)	ACX1067
	R813,R814		RD1/4PM121J
	R831,R832	(CX-J510 only)	RD1/4PM121J
		Other Resistors	RS1/10S□□□J

MIC ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC601		XRA4558F-P
CAPACITORS			
	C603		CCSQSL331J50
	C604,C605		CEAS010M50
	C602		CEAS100M50
	C607,C608		CEAS470M25
	C601		CKSQYB332K50
	C609		CKSQYF473Z50
RESISTORS			
	VR601	(10K-B)	ACS1064
		Other Resistors	RS1/10S□□□J
OTHERS			
		MIC JACK	AKN1017

CONNECT ASSY

CONNECT assembly has no service part.

U.COM ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1102		PDC007C
	IC1101		PDG089B
	IC1103		XRA3826S
	Q1101		2SC2458
	Q1103		XDC124ES
	Q1102,Q1104-Q1106		XDC143ES
	D1101-D1104,D1106, D1108,D1109,D1111,D1112, D1114-D1116,D1118,D1120-1124		1SS252
	D1117,D1119,D1126	(CX-J510 only)	1SS252
	D1127		MA700A
	D1105,D1113		RD6.2ESB
COILS, FILTERS			
	L1101,L1102		LAU220K
CAPACITORS			
	C1106		ACH1135
	C1103		CCMSL101J50
	C1101		CEAS010M50
	C1107		CEAS100M50
	C1127		CEAS3R3M50
	C1104		CEAS470M16
	C1123,C1124,C1128,C1130		CEAS470M16
	C1133		CEAS4R7M50
	C1102		CEJA2R2M50
	C1109,C1122,C1126		CKCYF102Z50
	C1110		CKCYF223Z50
	C1112		CKDYB102K50
	C1121,C1132,C1134		CKDYF103Z50
	C1131		CKDYX223M25
	C1105,C1108,C1129		CKDYX473M25
RESISTORS			
	R1134		RA11T104J
	R1160		RA15T104J
	R1159		RA5T104J
	R1132,R1133		RA8T104J
	R1141,R1142		RD1/4PM390J
	R1124		RD1/8PM101J
	R1101-R1108		RD1/8PM102J
	R1121,R1123,R1128-R1131, R1155-R1158,R1168		RD1/8PM103J
	R1122		RD1/8PM104J
	R1127,R1151		RD1/8PM105J
	R1143		RD1/8PM124J
	R1109-R1111,R1126,R1136, R1146,R1147,R1149		RD1/8PM222J
	R1144,R1164-R1167		RD1/8PM333J
	R1115-R1120,R1125,R1150, R1153,R1154		RD1/8PM473J
	R1112-R1114,R1145,R1148, R1152		RD1/8PM563J
OTHERS			
	X1101	(8.00MHz)	ASS1015
	X1102	(12MHz)	ASS1062
	CN1103	SOCKET(21P)	AKP1084
	CN1101	SOCKET(40P)	AKP1085
	CN1105,CN1107	SOCKET(33P)	AKP1104

FL ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	Q1172,Q1173,Q1175		XDA143ES
	Q1174		XDC124ES
	Q1176		XDC143ES
	D1171-D1174,D1177		1SS252
	D1178		AEL1065
SWITCHES			
	S1101-S1103		ASG1034
CAPACITORS			
	C1171		CCCSL101J50
	C1172		CEASR47M50
RESISTORS			
	R1176		RD1/8PM101J
	R1172,R1173		RD1/8PM103J
	R1135		RD1/8PM432J
	R1174		RD1/8PM473J
OTHERS			
		REMOTE RECEIVER UNIT	AXX1033
	CN1106,CN1108	SOCKET(33P L)	AKP1108
	V1101	FL TUBE	AAV1157

KEY ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	Q1181		XDC143ES
	Q1182	(CX-J510 only)	XDC143ES
	D1181		AEL1128
	D1182	(CX-J510 only)	AEL1128
SWITCHES			
	S1111-S1121		ASG1034
	S1132-S1135		ASG1034
	S1136-S1138	(CX-J510 only)	ASG1034
	S1141		ASX1015
RESISTORS			
	R1181		RD1/8PM221J
	R1182	(CX-J510 only)	RD1/8PM221J
OTHERS			
	CN1104	SOCKET(21P L)	AKP1086

5. HOW TO CHECK THE PRODUCT INDEPENDENTLY

Use the following procedure to check the basic operations of this product standing alone.

1. Short the base of MAIN assembly Q201 and Q202 to the solder plating line according to the arrows on the board (to put the unit in the same state as when a CD player and a cassette deck are connected).

2. Supply +18V to TP1 of MAIN assembly and −18V to TP2 and connect TP3 to the ground for these power supplies. (This substitutes for the power supply fed from the power amp through CN211.)

3. Short MAIN assembly TP4−TP8 (to make the ground common).

4. Plug the power cord into a power socket.

Note 1: After the check is complete, be sure to undo the connections made in 1, 2 and 3 above.

Note 2: Make the final operations check on the product by connecting the specified components.

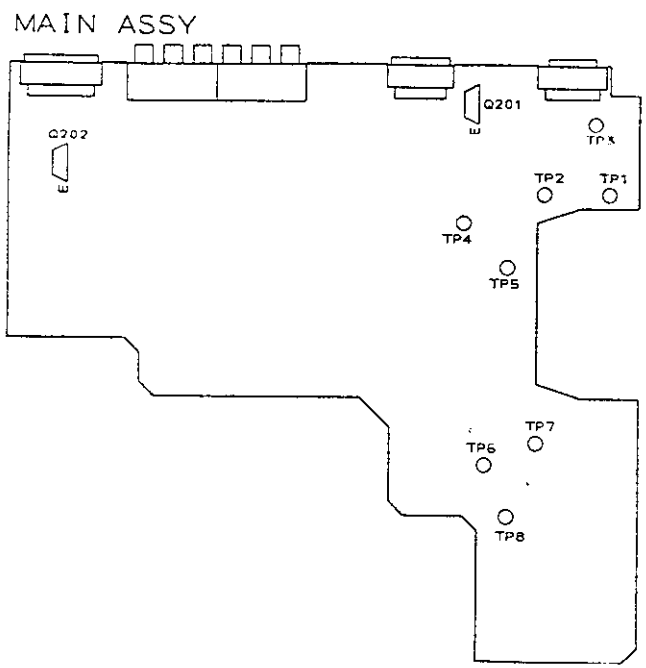


Fig. 5−1. Connection Locations

CX-J510, CX-J410, CX-J310

6. ADJUSTMENTS

- As to connections and points to be adjusted, refer to Fig. 1 and Fig. 2.

6.1 AM TUNER ADJUSTMENT

- Set the BAND selector to "AM".

Step No.	Adjustment Title	AM SG(400Hz, 30% modulation)		Reception Frequency Display	Adjustment	
		Frequency(kHz)	Level(dBμV/m)		Adjustment Location	Specifications
1	TUNED indicator sensitivity adjustment	999	55 (±5 dB)	999kHz	VR901	Adjust so that the indicator lights up.

6.2 FM TUNER ADJUSTMENT

- Set the BAND selector to "FM".
- Perform VCO adjustment two minutes or more after turning the power ON.

Note : Stereo modulation : Main 1 kHz L + R ± 68.25 kHz dev.
Pilot 19 kHz ± 6.75 kHz dev.

Step No.	Adjustment Title	FM SG(1kHz±75kHz dev.)		Reception Frequency Display	Adjustment	
		Frequency(MHz)	Level(dBμV)		Adjustment Location	Specifications
1	Detector coil T−meter adjustment	98.0	80	98.0MHz	L907	Adjust so that the DC voltage between TP901 and TP902 is ± 50mV.
2	VCO adjustment	98.0 (No modulation)	80	98.0MHz	VR903	Adjust so that the frequency between TP 905 and GND is 76 kHz ± 0.5kHz
3	TUNED indicator sensitivity adjustment	98.0	18 (± 3 dB)	98.0MHz	VR902	Adjust so that the indicator lights up.

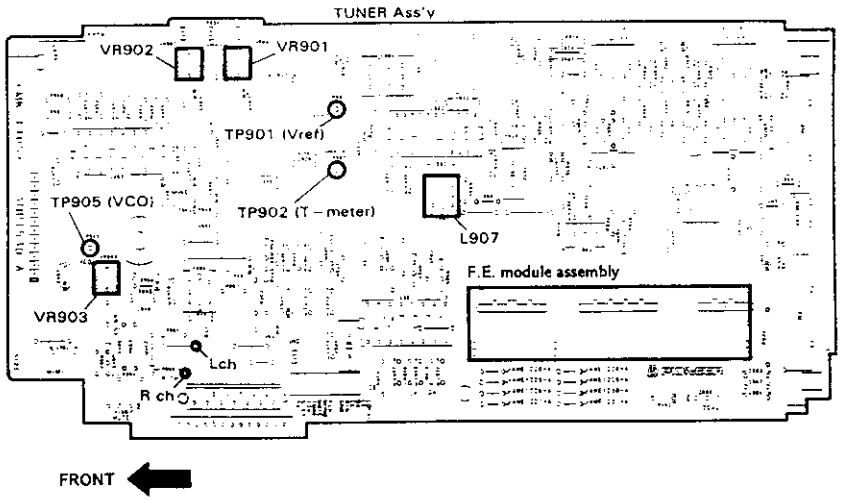


Fig. 1 Adjustment Points

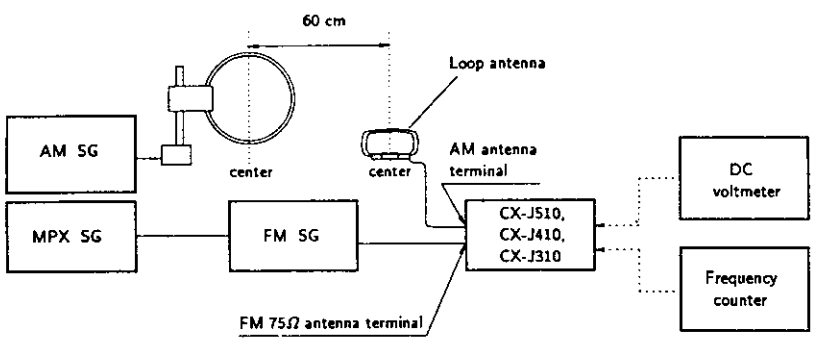


Fig. 2 Connection Diagram

7. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

■ PDC007C (IC1102)

• System Control μ – COM

Pin Function

Pin	Pin Name	I/O	Function
1	P35	I/O	System Bus request/enable
2	P36	I	System Bus system clock input
3	P37	O	System Bus data output
4	PWM1	O	Not used (Open)
5	TEST1	O	Not used (Open)
6	RESET	I	Reset input ACTIVE : L
7	XT1	I	Not used (GND)
8	XT2	O	Not used (Open)
9	VSS	–	GND
10	CF1	I	12 MHz Ceramic Oscillator connection
11	CF2	O	
12	VDD	–	+5.6 V power supply input
13	P80/AN0	I	System Bus data input
14	P81/AN1	O	Not used (GND)
15	P82/AN2	O	Not used (GND)
16	P83/AN3	I	Analog input for the Spectrum Analizer
17	P84/AN4	I	Key scan input (KI 0) ACTIVE: H
18	P85/AN5	I	Key scan input (KI 2)
19	P86/AN6	I	Key scan input (KI 1)
20	P87/AN7	I	Key scan input (KI 0)
21	P70/INT0	I	Not used (+5.6 V)
22	P71/INT1	I	AC pulse input
23	P72/INT2	I	Rotary pulse encoder A input
24	P73/INT3	I	Rotary pulse encoder B input
25	S0/T0	DP	FL display tube grid output (G1)
26	S1/T1	DP	FL display tube grid output (G2)
27	S2/T2	DP	FL display tube grid output (G3)
28	S3/T3	DP	FL display tube grid output (G4)
29	S4/T4	DP	Not used (Open)
30	S5/T5	DP	FL display tube grid output (G6)
31	S6/T6	DP	Not used (Open)
32	T7/S7	DP	FL display tube grid output (G8)
33	T8/S8	DP	Not used (Open)
34	T9/S9	DP	FL display tube grid output (G10)
35	T10/S10	DP	Not used (Open)
36	T11/S11	DP	FL display tube grid output (G12)
37	T12/S12	DP	Not used (Open)
38	T13/S13	DP	FL display tube grid output (G14)
39	T14/S14	DP	Not used (Open)
40	T15/S15	DP	FL display tube grid output (G16)

Pin	Pin Name	I/O	Function
41	VDDVPP	–	A/D reference voltage (+5.6 V)
42	VP	–	Minus power supply for FL tube
43	S16	DP	Not used (Open)
44	S17	DP	FL segment output (S15)
45	S18	DP	FL segment output (S14)
46	S19	DP	FL segment output (S13)
47	S20	DP	FL segment output (S12)
48	S21	DP	FL segment output (S1)
49	S22	DP	FL segment output (S2)
50	S23	DP	FL segment output (S3)
51	S24	DP	FL segment output (S4)
52	S25	DP	FL segment output (S5)/ Key scan output (KO0)
53	S26	DP	FL segment output (S6)/ Key scan output (KO1)
54	S27	DP	FL segment output (S7)/ Key scan output (KO2)
55	S28	DP	FL segment output (S8)/ Key scan output (KO3)
56	S29	DP	FL segment output (S9)/ Key scan output (KO4)
57	S30	DP	FL segment output (S10)/ Key scan output (KO5)
58	S31	DP	FL segment output (S11)/ Key scan output (KO6)
59	P00	O	Sports ON/OFF output (CX – J310,CX – J410,CX – J710 only)

I : CMOS input
O : CMOS output
DP : Pch Open drain output with pull down resistor

Pin	Pin Name	I/O	Function
60	P01	O	BA3826S C output
61	P02	O	BA3826S B output
62	P03	O	BA3826S A output
63	P04	O	BA3826S Reset output ACTIVE : H
64	P05	O	Not used (Open)
65	P06	O	
66	P07	O	
67	VSS	–	GND
68	P10/S00	O	ST. WIDE ON/$\overline{\text{OFF}}$ output (CX – J310, CX – J410, CX – J710 only)
69	P11/S10	O	STK301 Data output
70	P12/SCK0	O	STK301 Clock output
71	P13/S01	O	M66320 STB output (CX – J710 only)
			YSS215 CD output (CX – J510, CX – J910 only)
72	P14/S11	O	M66320 Data output (CX – J710 only)
			YSS215 WCK output (CX – J510, CX – J910 only)
73	P15/SCK1	O	M66320 Clock output (CX – J710 only)
			YSS215 BCK output (CX – J510, CX – J910 only)
74	P16/BUZ	O	TS9162 Data output
75	P17/PWM0	O	TC9162 Clock output
76	P30	O	TC9162 STB output
77	P31	O	Audition ON/$\overline{\text{OFF}}$ output
78	P32	O	Not used (Open)
79	P33	O	14052 B output
80	P34	O	14052 A output

I : CMOS input
O : CMOS output
DP : Pch Open drain output with pull down resistor

CX-J510, CX-J410, CX-J310

■ PDG089B (IC1101)

• System Control μ – COM

Pin Function

Pin	Pin Name	I/O	Function
1	PE3	I	Channel step (10/9 kHz) select input
2	PE4	I	$\overline{\text{STEREO}}$ signal input
3	PE5	I	$\overline{\text{TUNED}}$ signal input
4	PE6	O	TUNER MUTE output
5	PE7	O	FM MONO output
6	PB0	O	Not used (Open)
7	PB1	I	J/$\overline{\text{EX}}$ input
8	PB2	I	LW Exist/Not Exist input
9	PB3	O	Local and Narrow output
10	PB4	O	PLL CE output (LM7001)
11	PB5	O	PLL CLK output (LM7001)
12	PB6	O	AMP μcom reset output
13	PB7	O	PLL DATA output (LM7001)
14	PC0	I	System Bus CLK input
15	PC1	I/O	System Bus Data input/output
16	PC2	O	System Bus REQ output
		I	System Bus Enable input
17	PC3	I	Power ON/$\overline{\text{OFF}}$ input
18	PC4	I	Key scan input
19	PC5	I	
20	PC6	I	
21	PC7	I	
22	PA0	O	Not used (Open)
23	PA1	O	Function LED $\overline{\text{ON}}$/OFF
24	PA2	O	
25	PA3	O	
26	PA4	O	
27	PA5	O	
28	PA6	O	
29	PA7	O	
30	RST	I/O	Reset input
31	EXTAL	I	8MHz Ceramic Oscillator connection
32	XTAL	O	
33	Vss	–	GND
34	PD0	DP	Not used (Open)
35	PD1	DP	
36	PD2	DP	
37	PD3	DP	
38	PD4	DP	
39	PD5	DP	

Pin	Pin Name	I/O	Function
40	PD6	DP	Not used (Open)
41	PD7	DP	
42	S8	DP	Segment output
43	S9	DP	
44	S10	DP	
45	S11	DP	
46	S12	DP	
47	S13	DP	
48	S14	DP	
49	S15	DP	
50	S16	DP	Segment output / Key scan output
51	S17	DP	
52	S18	DP	
53	S19	DP	
54	S20	DP	
55	S21	DP	Segment output
56	S22	DP	
57	S23	DP	
58	T12	DP	Not used (Open)
59	T11	DP	
60	T10	DP	FL grid output (11G)
61	T9	DP	FL grid output (10G)
62	T8	DP	FL grid output (9G)
63	T7	DP	FL grid output (8G)
64	T6	DP	FL grid output (7G)
65	T5	DP	FL grid output (6G)
66	T4	DP	FL grid output (5G)
67	T3	DP	FL grid output (4G)
68	T2	DP	FL grid output (3G)
69	T1	DP	FL grid output (2G)
70	T0	DP	FL grid output (1G)
71	Vfdp	–	–30V FDP power supply input
72	Vdd	–	+5V power supply input
73	N.C.	–	Connect to Vdd
74	PG0	O	Not used (Open)
75	PG1	I	REC Time Counter Exist/Not Exist
76	PG2	I	HS/PS Destination select. (Refer to Note 1)
77	PG3	I	
78	PE0	I	AC input
79	PE1	I	JOG 2 input
80	PE2	I	JOG 1 input

Note 1 :

	Pin 77(PG3)	Pin 76(PG2)	Pin 7(PB1)
CX – J310, CX – J410	H	L	L
CX – J510	H	H	L
CX – J710, CX – J910	H	H	H

I : CMOS input
O : CMOS output
DP : Pch Open drain output with pull down resistor

■ PD5199A (IC301)

• System Control μ-COM

Pin Function

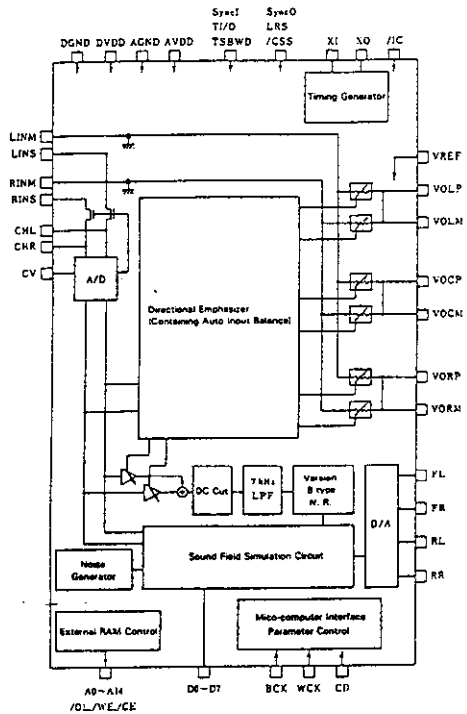
Pin	Pin Name	Function
1	Vcc	+5V power supply
2	Vref	
3	AVss	GND
4	P67/AN7 FUN Detect 1	Select FUN operation/Power off/ Normal operation from A/D input value.
5	P66/AN6 FUN Detect 2	
6	P65/AN5 Power Detect	Power off when 3 seconds keeps "H" after 500 ms from power on.
7	P64/AN4 FUN drive	FUN $\overline{ON}$/OFF
8	P63/AN3 VOLUME POS	A/D input for VR position detection.
9	P62/AN2 VOLUME DOWN	Motor VR down. ACTIVE : H
10	P61/AN1 VOLUME UP	Motor VR up. ACTIVE : H
11	P60/AN0 LINE MUTE	Line muting output ACTIVE : L
12	P57 REMOCON IN	SR signal input ACTIVE : L
13	P56	N.C.
14	P55 P.BASS1	P.BASS 1 $\overline{ON}$/OFF
15	P54 P.BASS2	P.BASS 2 $\overline{ON}$/OFF
16	P53 ST	Center/Rear volume control TC9154 ST
17	P52 CLK	Center/Rear volume control TC9154 CLK
18	P51 DATA	Center/Rear volume control TC9154 DATA
19	P50/SIN2	N.C.
20	P47/SRDV1 DECK	System bus Enable/Request (For DECK)
21	P46/SCLK1 CD	System bus Enable/Request (For CD)
22	P45/TxD TUNER	System bus Enable/Request (For TUNER)
23	P44/RxD GEQ	System bus Enable/Request (For GEQ)
24	P43/INT2 S.DATA	System bus Enable/Request (For S DATA)
25	P42/INT1	N.C.
26	CNVss	GND.
27	RESET	RESET input
28	P41/INT0 JOG1	For Center/Rear level.

Pin	Pin Name	Function
29	P40/INT4 JOG2	For Center/Rear level.
30	Xin	Oscillator 8 MHz
31	Xout	
32	Vss	GND
33	P27/DB7	Destination select
34	P26/DB6	
35	P25/DB5	
36	P24/DB4	N.C.
37	P23/DB3	
38	P22/DB2	
39	P21/DB1	
40	P20/DB0	
41	P17/AD15	N.C.
42	P16/AD14	
43	P15/AD13	
44	P14/AD12	
45	P13/AD11 V-SEL A	Video function control.
46	P12/AD10 V-SEL B.	
47	P11/AD9 REC MUTE	Video Rec out muting ACTIVE : H
48	P10/AD8 4052 INH	4052 INH Function control
49	P07/AD7 4052 B	4052 B Function control
50	P06/AD6 4052 A	4052 A Function control
51	P05/AD5	N.C.
52	P04/AD4	
53	P03/AD3	
54	P02/AD2	
55	P01/AD1	
56	P00/AD0	
57	P37/RD	
58	P36/WR LED P.BASS 2	P.BASS 2 LED display ACTIVE : H
59	P35/SYNC LED P.BASS 1	P.BASS 1 LED display ACTIVE : H
60	P43/ϕ HEADPHONE	HEADPHONE input ACTIVE : L
61	P33/RESET out RELAY D	Rear AMP speaker RY ACTIVE : L
62	P32/ONW RELAY A	Front AMP speaker RY ACTIVE : L
63	P31/DA1 POWER IND	POWER IND LED ACTIVE : L
64	P30/DA1 POWER RY	AC RY ACTIVE : H

■ YSS215-F (IC1250 : CX-J510 only)

• Dolby Pro-logic Decoder

• Block Diagram



• Pin Function

No.	Name	I/O	Description
1	CD	I	Serial data of parameter data input.
2	TSBWD	I	LSI test terminal. Normally connect to DVDD.
3	TI/O	I	LSI test terminal. Normally connect to DVDD.
4	AVDD	—	+5V power supply (A/D, D/A)
5	RL	O	RL channel D/A output
6	FL	O	FL channel D/A output
7	CHL	—	LINS input sample/hold capacitor external terminal.
8	LINS	I	L channel A/D input
9	RINS	I	R channel A/D input
10	CHR	—	RINS input sample/hold capacitor external terminal.
11	FR	O	FR channel D/A output
12	RR	O	RR channel D/A output
13	CV	O	A/D, center power voltage of the multiplying DAC.
14	AGND	—	GND (A/D, D/A)
15	AGND	—	GND (multiplying DAC)
16	VREF	I	Reference power voltage input of the multiplying DAC.
17	LINM	I	L channel multiplying DAC input
18	RINM	I	R channel multiplying DAC input
19	VOLM	O	L channel operational amplifier. Connect to the negative (−) terminal.
20	VOLP	O	L channel operational amplifier. Connect to the positive (+) terminal.
21	VOCM	O	C channel operational amplifier. Connect to the negative (−) terminal.
22	VOCP	O	C channel operational amplifier. Connect to the positive (+) terminal.

No.	Name	I/O	Description
23	VORM	O	R channel operational amplifier. Connect to the negative (−) terminal.
24	VORP	O	R channel operational amplifier. Connect to the positive (+) terminal.
25	AVDD	—	+5V power supply (multiplying DAC)
26	DVDD	—	+5V power supply (digital)
27	D7	I/O	External delay RAM data terminal
28	D6	I/O	
29	D5	I/O	
30	D4	I/O	
31	D3	I/O	
32	D2	I/O	
33	D1	I/O	
34	D0	I/O	
35	A0	O	External delay RAM address terminal
36	A1	O	
37	A2	O	
38	A3	O	
39	A4	O	
40	DGND	—	GND (digital)
41	DGND	—	
42	A5	O	External delay RAM address terminal
43	A6	O	
44	A7	O	
45	A12	O	
46	A14	O	
47	WE	O	External delay RAM write enable terminal

No.	Name	I/O	Description
48	A13	O	External delay RAM address terminal
49	A8	O	
50	A9	O	
51	A11	O	
52	OE	O	External delay RAM output enable terminal
53	A10	O	External delay RAM address terminal
54	CE	O	External delay RAM chip enable terminal
55	XO	O	Crystal oscillator connection terminal
56	XI	I	Crystal oscillator connection terminal (11.2896MHz)
57	SyncI	I	Test terminal for system cycle. Normally connect to DVDD.
58	DVDD	—	+5V power supply (digital)
59	SyncO	O	Test terminal for system cycle. Normally do not connect.
60	IC	I	Initial clear terminal. Requires to be reset when the power is turned ON.
61	LRS	O	External auto input balance terminal. Normally do not connect.
62	CSS	O	
63	BCK	I	Parameter data input bit clock
64	WCK	I	Parameter data input word clock

8. FOR CX-J510/WB,CX-J410/WB,CX-J310/WE AND WB

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

8.1 CONTRAST OF MISCELLANEOUS PARTS FOR CX-J510/WB

CX-J510/WB and CX-J510/WE have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		CX-J510/WE	CX-J510/WB	
◉	SUB TRANS assembly	AWZ4443	AWZ4442	
⚠	AC power cord	ADG1049	ADG1118	
NSP	Rear Panel(MTL)	ANC1963	ANC1965	

SUB TRANS ASSEMBLY
AWZ4442 and AWZ4443 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ4443	AWZ4442	
⚠	AC SOCKET 1−P	AKP1034	AKP1035	

8.2 CONTRAST OF MISCELLANEOUS PARTS FOR CX-J410/WB, CX-J310/WE AND WB

CX-J410/WB, CX-J310/WE, WB and CX-J410/WE have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		CX-J410/WE	CX-J410/WB	CX-J310/WE	CX-J310/WB	
◉	SUB TRANS assembly	AWZ4443	AWZ4442	AWZ4443	AWZ4442	
◉	MAIN assembly	AWZ4431	AWZ4431	AWZ4434	AWZ4434	
◉	FL assembly	AWZ4746	AWZ4746	AWZ4454	AWZ4454	
NSP	KEY assembly	AWZ4456	AWZ4456	AWZ4457	AWZ4457	
	Audition Button (PLS)	AAD2342	AAD2342	.....	.....	
⚠	AC power cord	ADG1049	ADG1118	ADG1049	ADG1118	
NSP	Packing case(PAP)	AHD2482	AHD2482	AHD2480	AHD2480	
	Front Panel(PLS)	AMB2051	AMB2051	AMB2053	AMB2053	
	Sub panel assembly	AMR2476	AMR2476	AMR2475	AMR2475	
NSP	Rear Panel(MTL)	ANC1967	ANC1969	ANC1971	ANC1973	

SUB TRANS ASSEMBLY
AWZ4442 and AWZ4443 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ4443	AWZ4442	
⚠	AC SOCKET 1-P	AKP1034	AKP1035	

MAIN ASSEMBLY
AWZ4434 and AWZ4431 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ4431	AWZ4434	
	R356	RS1/10S102J	.....	
	MINI JACK (MULTI-ROOM)	AKN1020	.....	

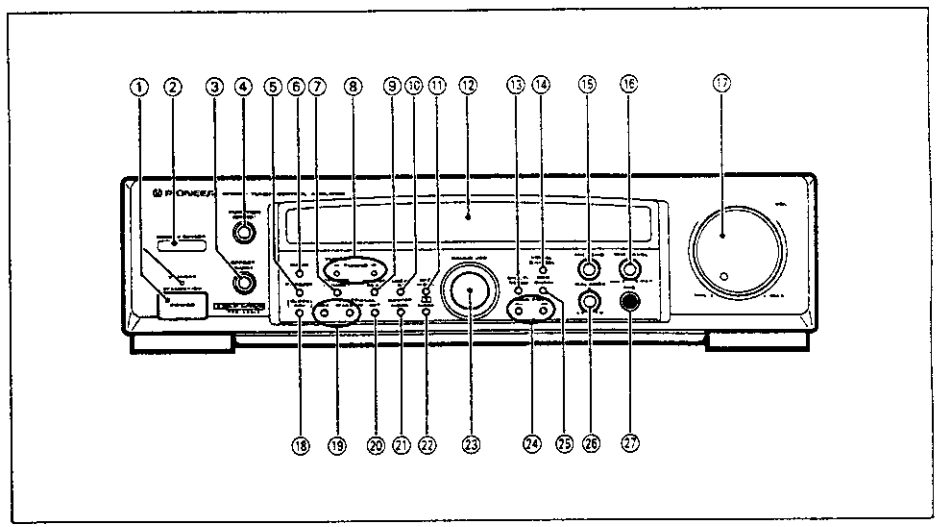
FL ASSEMBLY
AWZ4454 and AWZ4746 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ4746	AWZ4454	
	Q1172, Q1173, Q1175	XDA143ES	.....	
	Q1174	XDC124ES	.....	
	D1177	1SS252	.....	
	C1172	CEASR47M50	.....	
	R1173	RD1/8PM103J	.....	
	R1174	RD1/8PM473J	.....	

KEY ASSEMBLY
AWZ4457 and AWZ4456 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ4456	AWZ4457	
	Q1181	XDC143ES	.....	
	D1181	AEL1128	.....	
	R1181	RD1/8PM221J	.....	

9. FRONT PANEL FACILITIES



TUNER CONTROL AMPLIFIER CX-J310/ CX-J410/CX-J510/CX-J710/CX-J910

①POWER STANDBY/ON switch /STANDBY indicator
This is the switch for electric power.
ON ..... When set to the ON position, power is supplied and the unit becomes operational.
STANDBY..... When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
When only the time is indicated in the display section, the unit is in STANDBY.

②REMOTE SENSOR

③EFFECT ON/OFF button
Press this button ON, and select the desired sound field with the SFC MODE button. Press the button OFF, and sound from the source is reproduced without any effects.
When using the DOLBY PRO LOGIC SURROUND function, press the EFFECT button ON, and then select the mode with the ▯▯ MODE button. (CX-J510, CX-J710 and CX-J910 only)

④FUNCTION (DEMO) button
Each time you press the FUNCTION button, the amplifier function changes.
If this is pressed from power off, it goes into demonstration mode.

⑤FREQ/ST (Frequency/Station) button
Use to switch between the Frequency mode and the Station Call mode.

⑥BAND selector button
Each time the button is pressed, FM or AM reception is selected in order.

⑦STATION MEMORY button
Used to memorize stations.

⑧TUNING (+, -) buttons
[During tuning]
- When in the Frequency mode, use to raise and lower the reception frequency.
- When in the Station mode, use to raise and lower the station number.

[During time and timer setting]
Used for adjusting the clock, timer settings and its related adjustments.

⑨MEMORY SCAN button
Press this button to scan programs on the preset stations automatically for 5 seconds each. If you wish to continue listening to the station currently being scanned, press this button again to lock the tuning to the station. This will cancel the preset scan function and return you to normal reception.

⑩ LOCAL/DX button (when receiving FM broadcasts)
Use this if the broadcast signal is too strong, causing noise and distortion. The attenuator reduces the strength of the signal, reducing noise and distortion.

⑪ SFC MODE button
Use to recall SFC mode.
CX-J310/CX-J410/CX-J710:
DISCO, HALL, THEATER, STADIUM
CX-J510/CX-J910:
DISCO, HALL, DYNAMIC THEATER, STADIUM, ARENA

⑫ Display section

⑬ MULTI ROOM indicator (CX-J410 and CX-J510 European and U.K. models only)
Flashes when signal is received from MR-100 Multi-Room System Remote Control Sensor Unit.

⑭ VOCAL CANCEL button/indicator (CX-J510, CX-J710 and CX-J910 only)
When set to ON, the sound volume of vocal sounds is lowered.

⑮ MIC ECHO control (CX-J910 only)
Use to adjust the mic echo effect level during mic mixing.

⑯ MIC LEVEL control
Used for adjusting the volume of microphone.

⑰ VOL (VOLUME) control

⑱ CLOCK ADJ button
Used for starting the clock adjustment.

⑲ Timer selector buttons
[WAKE-UP 1, 2]
Used for timer playback setting.
[REC]
Used for timer recording setting.

⑳ SET button
Used for current time, timer playback, and timer recording setting.

㉑ CENTER MODE button (CX-J510, CX-J710, and CX-J910 only)
Use to select the center mode when using DOLBY PRO LOGIC SURROUND. Press the button to switch between NORMAL and PHANTOM modes.

㉒ MODE button (CX-J510, CX-J710, and CX-J910 only)
Use to select DOLBY PRO LOGIC SURROUND and DOLBY 3CH LOGIC.

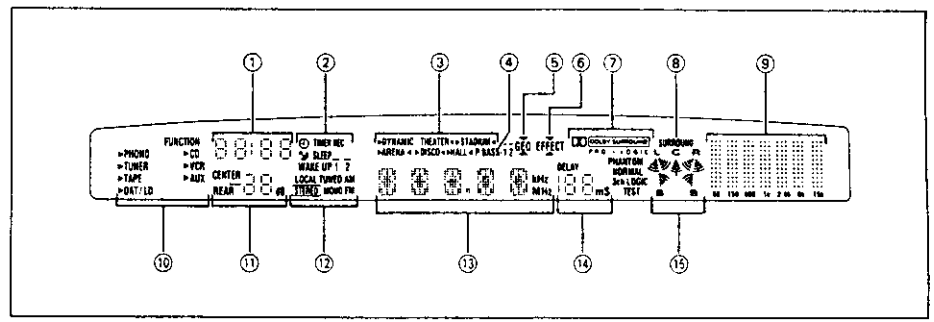
㉓ SOUND JOG
Use to increase and decrease the sound field effect, and the graphic equalizer effect.

㉔ GEQ (Graphic equalizer) FREQ buttons (← →)
Use to select frequencies to be boosted or attenuated with the graphic equalizer.

㉕ GEQ ON/OFF button
Use to switch the graphic equalizer ON or OFF.

㉖ BALANCE control (CX-J510, CX-J710 and CX-J910 only)
Use to adjust front left and right speaker balance.

㉗ MIC (microphone) jack
This is a standard jack for connecting a microphone.



Display Section
* Illustration shows model CX-J510.

① Time/channel indicators
Display current time and channel number.

② Time indicators
TIME REC: Lights during recording timer setting.
SLEEP: Lights when the sleep timer is ON.
WAKE UP 1, 2: Lights to indicate the selected timer during wake up timer setting.

③ Sound Field Control indicators
► ◄ lights for selected SFC mode.

④ P. BASS indicator (CX-J710 and CX-J910 only)

⑤ Graphic equalizer indicator
▼ ▲ lights when the graphic equalizer is ON.

⑥ Effect indicator
▼ ▲ lights when the SFC effect is ON.

⑦ DOLBY SURROUND indicator (CX-J510, CX-J710, and CX-J910 only)
DOLBY SURROUND PRO LOGIC : Lights when DOLBY PRO LOGIC SURROUND is ON.
PHANTOM/NORMAL: Displays selected center mode.
3ch LOGIC: Lights when DOLBY 3CH LOGIC is ON.
TEST: Lights when a test tone is being output for level adjustment of each channel.

⑧ Surround indicator
Lights when Surround is ON.

⑨ Spectrum analyzer display
Regular spectrum analyzer display. When using the graphic equalizer, graphic equalizer settings are displayed.

⑩ Function indicators
► lights to indicate the selected function.
Available functions with the CX-J710 and CX-J910 are PHONO, TUNER, TAPE, DAT, CD/LD, VCR, and AUX.

⑪ Center level, Rear level indicators (CX-J510, CX-J710, and CX-J910 only)

⑫ Tuner function indicator
LOCAL: Lights when the LOCAL function is ON.
STEREO: Lights during FM stereo broadcast reception.
MONO: Lights when the remote control FM MONO button is ON during stereo FM broadcast reception.
FM/AM: Indicates band being received.

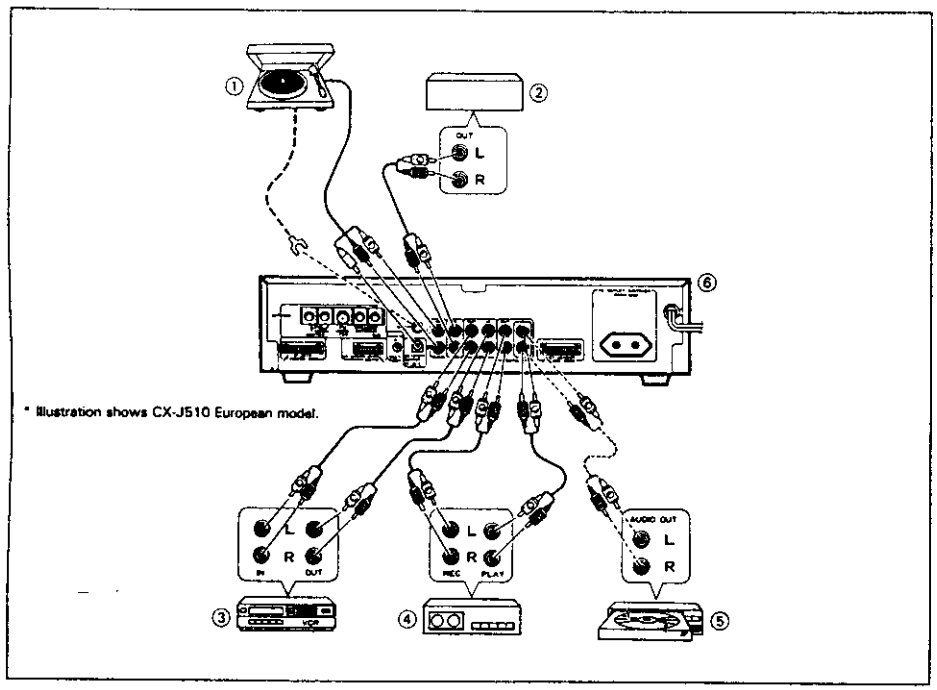
⑬ Alphanumeric display
Displays frequency of station being received, and major operation conditions.

⑭ SFC level/Delay time display
Displays SFC level and DOLBY PRO LOGIC SURROUND delay time.

⑮ Speaker indicators

10. CONNECTING OTHER COMPONENTS

With systems featuring the CX-J310/CX-J410/CX-J510 tuner control amplifiers.



* Illustration shows CX-J510 European model.

① Turntable PL-J210
② Audio equipment (such as a second CD player)
③ VCR (sound only)
④ DAT
⑤ LD player (sound only)
⑥ Tuner control amplifier

CX-J510, CX-J410, CX-J310

11. SPECIFICATIONS

TUNER CONTROL AMPLIFIER
CX-J310/CX-J410/CX-J510/CX-J710/CX-J910

FM Tuner Section
Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono: 12.8 dBf, IHF (1.2 μV/75 Ω)
Sensitivity (DIN) ..... Mono S/N 26 dB: 1 μV/75 Ω
Stereo S/N 46 dB: 50 μV/75 Ω
Signal-to-Noise Ratio (IHF, 85 dBf Input) ..... Mono: 77 dB
Stereo: 73 dB
Signal-to-Noise Ratio (DIN) ..... Mono: 66 dB
Stereo: 60 dB
Distortion ..... Stereo: 0.5 % (1 kHz)
Antenna Input ..... 75 Ω unbalanced
Output ..... 650 mV (100 % MOD.)

MW (AM) Tuner Section
Frequency range
9 kHz step ..... 531 kHz to 1,602 kHz
10 kHz step ..... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) ..... 350 μV/m
Output ..... 150 mV (30 % MOD.)

Power Supply/Miscellaneous
Power requirements
U.K. model ..... a.c. 240 Volts ~, 50/60 Hz
European model ..... a.c. 220 – 230 Volts ~, 50/60 Hz
Multivoltage model ..... AC 110 – 127 V/220 – 240 V (switchable), 50/60 Hz
Power consumption ..... 15 W
AC outlets
CX-J310/CX-J410/CX-J510/CX-J710
Switched (x 1) ..... 400 W MAX
CX-J910
Switched (x 2) ..... Total 500 W MAX
Dimensions ..... 360 (W) x 347 (D) x 91 (H) mm
Weight
CX-J310/CX-J410 ..... 3.9 kg
CX-J510/CX-J710/CX-J910 ..... 4.0 kg