

SERVICE

MANUAL

COMPACT DISC

RECEIVER

ACR-60/120

interM

<http://www.inter-m.com>
MADE IN KOREA
NO: 9007978900

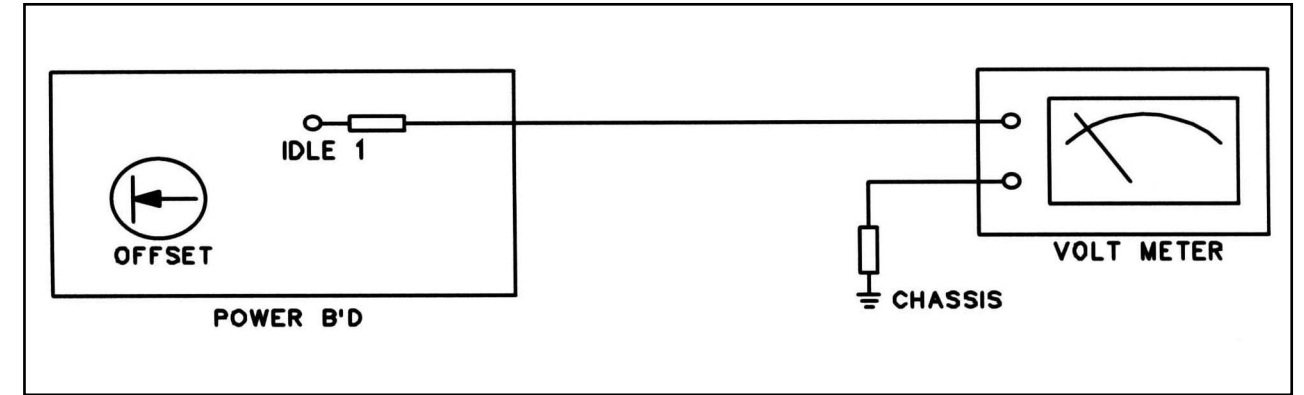
interM

ELECTRICAL ADJUSTMENT PROCEDURE

■ AMP SECTION

1. OFF SET VOLTAGE

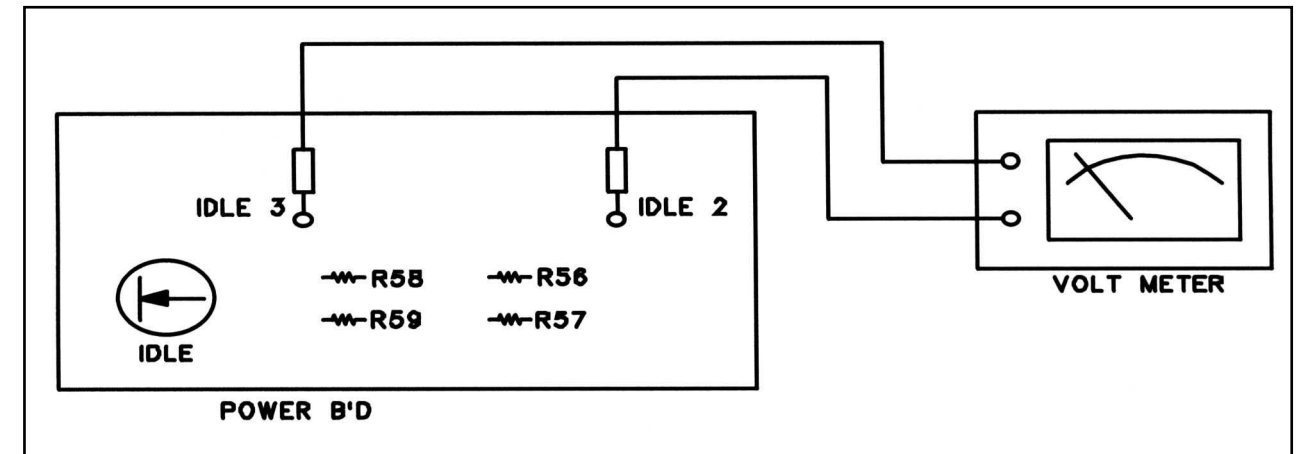
- A. Setting
Set the master volume controls minimum.
- B. Connection



- C. Adjustment
Control OFFSET until voltmeter is the "0" position.

2. IDLE CURRENT

- A. Setting
Set the master volume controls minimum.
- B. Connection



- C. Adjustment
Adjust IDLE so that the current through the R56, R57, R58, R59 become 10 milliamperes. When that voltage across the IDLE2 TO IDLE3 becomes 10 millivolt, the current becomes 10 milliamperes.

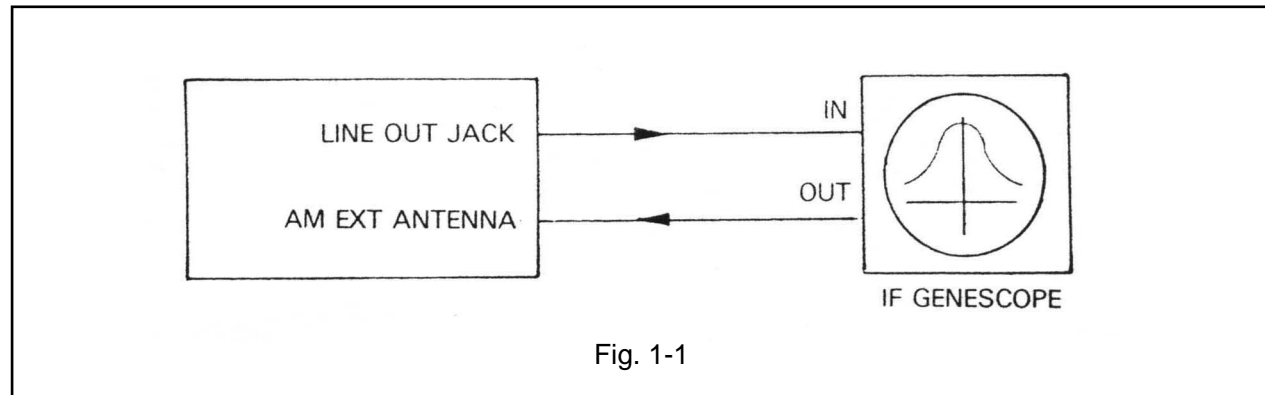
CONTENTS

Electrical Adjustment Procedure	1, 2, 3
Micom Data (CD)	4, 5, 6, 7
Specifications	8
Electrical Parts List	9, 10, 11, 12
Top and Bottom View of P.C. Board	13, 14, 15
Wiring Diagram	16
Block Diagram	17
Schematic Diagram	18, 19, 20, 21, 22, 23
Exploded View of Cabinet & Chassis / Mechanical Parts List	24, 25
Ass'y Drawing	26, 27

■ AM SECTION

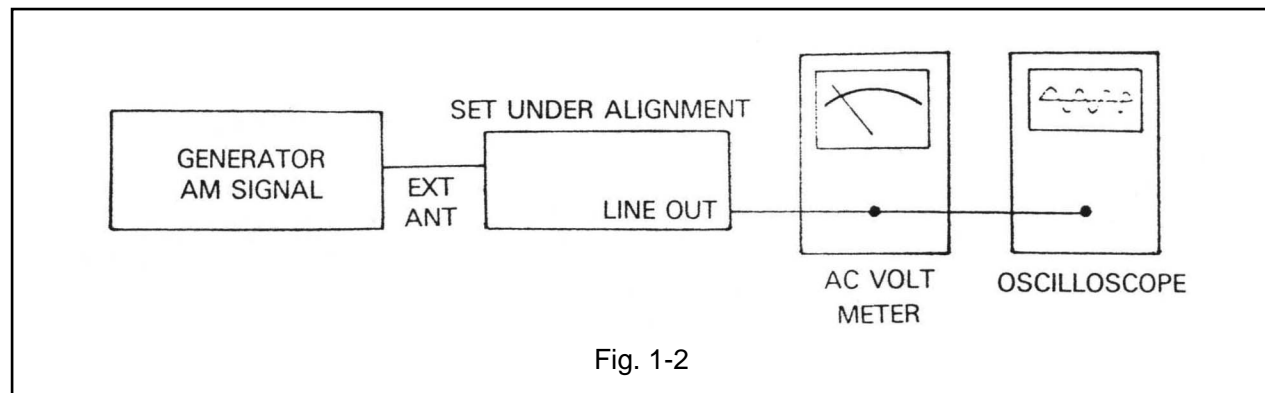
1. IF ALIGNMENT

- Set up the test equipment as Fig. 1-1 and set the genescope output level to 110dB (300mV).
- Adjust T603 so that the figure developed on the oscilloscope become laterally symmetrical with the axis of symmetry at 450kHz and it has a maximum amplitude as well.



2. RF TUNING ALIGNMENT

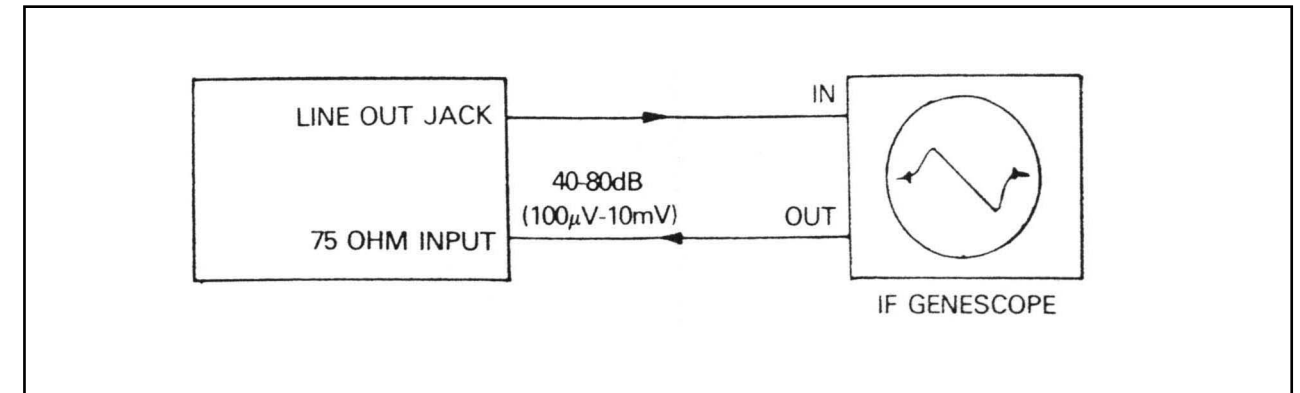
- Set up the test equipment as Fig. 1-2.
- Set AM SG to 30% modulation at 400Hz and 30-40dB output.
- Set the up and down switch of the frequency display to 603 (or 600) kHz.
Adjust AM SG to 603 (or 600) kHz, adjust T602 (RF) to maximize audio frequency output level.
- Set the up and down switch of the frequency display to 1404 (or 1400) kHz, adjust AM SG to 1404 (or 1400) kHz, and adjust AM trimmer capacitor C605 to maximize audio frequency output level.
- Repeat steps and so that output is maximized at the given frequencies.



■ FM SECTION

1. IF ALIGNMENT

- Set up the test equipment as Fig. 2-1.
- Adjust the cross T604 and T605 so that the S curve developed on the oscilloscope become point symmetry to the centry frequency poine of 10.7MHz with a maximum amplitude.
- If the genescope is not available, set the unit detuned and adjust the cross of T604, T605 so that noise output is maximized.



■ KS88-SERIES MICROCONTROLLERS

Samsung's KS88 series of 8-bit single-chip CMOS microcontrollers offers a fast and efficient CPU, a wide range of integrated peripherals, and various mask-programmable ROM sizes. Among the major CPU features are:

- Efficient register-oriented architecture
- Selectable CPU clock sources
- Idle and Stop power-down mode release by interrupt
- Built-in basic timer with watchdog function

A sophisticated interrupt structure recognizes up to eight interrupt levels. Each level can have one or more interrupt sources and vectors. Fast interrupt processing (within a minimum of four CPU clocks) can be assigned to specific interrupt levels.

■ KS88C2416/P2416/C2432/P2432 MICROCONTROLLER

The KS88C2416/P2416/C2432/P2432 single-chip CMOS microcontroller are fabricated using the highly advanced CMOS process, based on Samsung's newest CPU architecture.

The KS88C2416 is a microcontroller with a 16-Kbyte mask-programmable ROM embedded.
The KS88C2432 is a microcontroller with a 32-Kbyte mask-programmable ROM embedded.

The KS88P2416 is a microcontroller with a 16-Kbyte one-time-programmable ROM embedded.
The KS88P2432 is a microcontroller with a 32-Kbyte one-time-programmable ROM embedded.

Using a proven modular design approach, Samsung engineers have successfully developed the KS88 C2416/P2416/C2432/P2432 by integrating the following peripheral modules with the powerful SAM8 core:

- Six programmable I/O ports, including five 8-bit ports and one 5-bit port, for a total of 45 pins.
- Eight bit-programmable pins for external interrupts.
- One 8-bit basic timer for oscillation stabilization and watchdog functions (system reset).
- Two 8-bit timer/counter and two 16-bit timer/counter with selectable operating modes.
- Watch timer for real time.
- 8-input A/D converter
- Serial I/O interface

The KS88C2416/P2416/C2432/P2432 is versatile microcontroller for camera, LCD and ADC application, etc. They are currently available in 80-pin TQFP and 80-pin QFP package.

■ OTP

The KS88P2416/P2432 are OTP (One Time Programmable) version of the KS88C2416/C2432 microcontroller. The KS88P2416 microcontroller has an on-chip 16-Kbyte one-time-programmable EPROM instead of a masked ROM. The KS88P2432 microcontroller has an on-chip 32-Kbyte one-time-programmable EPROM instead of a masked ROM. The KS88P2416 is comparable to the KS88C2416, both in function and in pin configuration. The KS88P2432 is comparable to the KS88C2432, both in function and in pin configuration.

■ FEATURES

Memory

- ROM: 32-Kbyte (KS88C2432/P2432)
- ROM: 16-Kbyte (KS88C2416/P2416)
- RAM: 1056-Byte (KS88C2432/P2432, KS88C2424/P2424)
- RAM: 544-Byte (KS88C2416/P2416, KS88C2408/P2408)
- Data memory mapped I/O

Oscillation Sources

- Crystal, ceramic, RC (main)
- Crystal for subsystem clock
- Main system clock frequency 1-10 MHz (3 MHz at 1.8 V, 10 MHz at 2.7 V)
- Subsystem clock frequency: 32.768 kHz
- CPU clock divider (1/1, 1/2, 1/8, 1/16)

Two Power-Down Modes

- Idle (only CPU clock stops)
- Stop (System clock stops)

Interrupts

- 6 level 8 vector 8 internal interrupt
- 1 level 8 vector 8 external interrupt

45 I/O Pins

- 45 configurable I/O pins

Basic Timer

- Overflow signal makes a system reset
- Watchdog function

8-Bit Timer/Counter A

- Programmable 8-bit timer
- Interval, capture, PWM MODE
- Match/capture, overflow interrupt

8-Bit Timer/Counter B

- Programmable 8-bit timer
- Carrier frequency generator

16-Bit Timer/Counter 0

- Programmable 16-bit timer
- Match interrupt generates

16-Bit Timer/Counter 1

- Programmable 16-bit timer
- Interval, capture, PWM mode
- Match/capture, overflow interrupt

Watch Timer

- Real-time and interval time measurement
- Clock generation for LCD
- Four frequency outputs for buzzer sound

LCD Controller/Driver

- Maximum 16-digit LCD direct drive capability
- Display modes: static, 1/2 duty (1/2 bias)
- 1/3 duty (1/2 or 1/3 bias), 1/4 duty (1/3 bias)

A/D Converter

- Eight analog input channels
- 50µs conversion speed at 1 MHz f_{ADC} clock
- 10-bit conversion resolution

8-Bit Serial I/O Interface

- 8-bit transmit/receive mode
- 8-bit receive mode
- LSB-first/MSB-first transmission selectable
- Internal/external clock source

Voltage Booster

- LCD display voltage supply
- S/W control en/disable
- 3.0 V drive

Voltage Detector

- Programmable detection voltage (2.2V, 2.4V, 3.0V, 4.0V)
- En/Disable S/W selectable

Instruction Execution Times

- 400 ns at 10 MHz (main)
- 122 us at 32.768 kHz (subsystem)

Operating Temperature Range

- -40°C to 85°C

Operating Voltage Range

- 1.8V to 5.5V

Package Type

- 80-pin QFP
- 80-pin TQFP

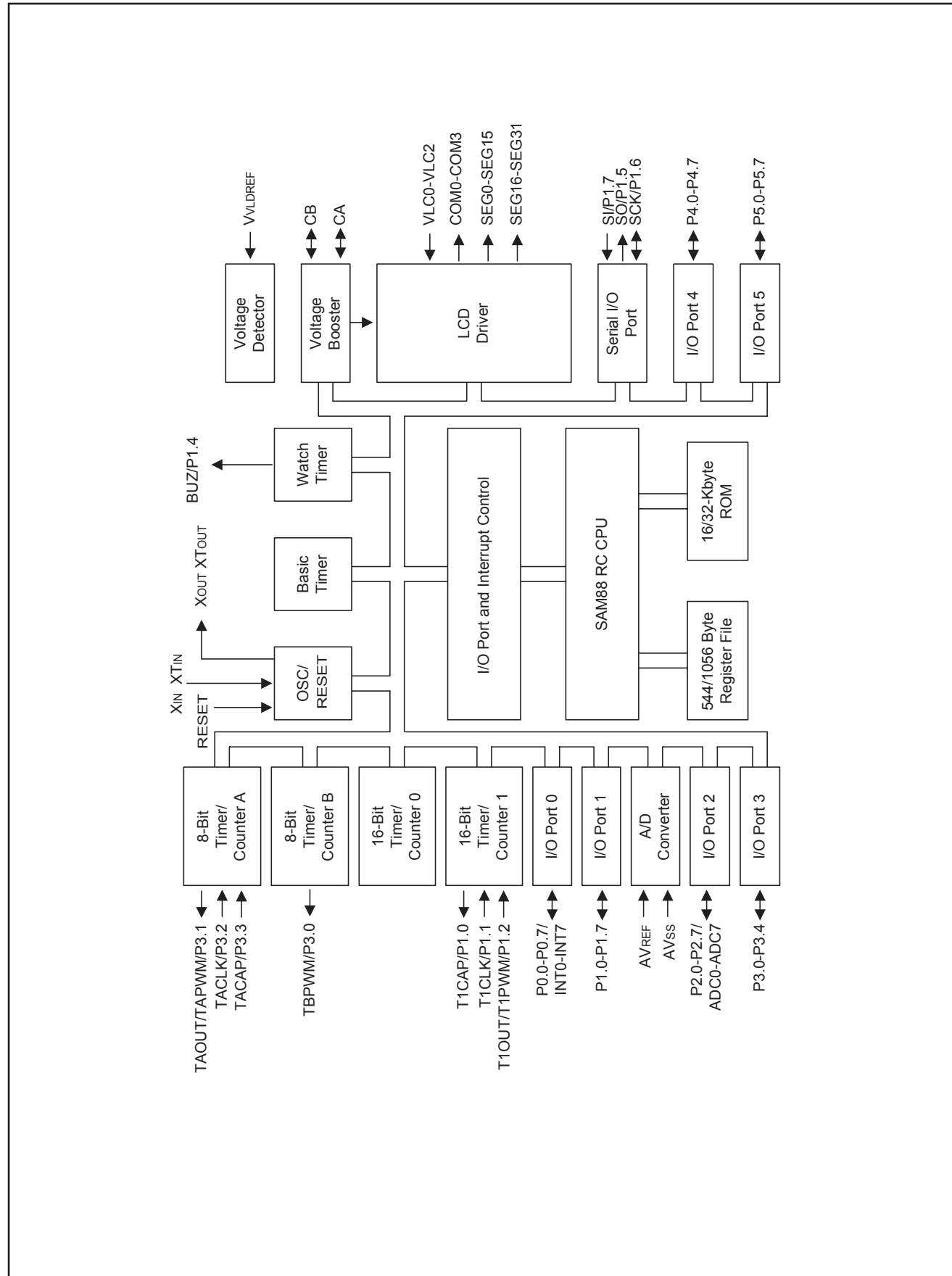
KS88C2432's ROM version device

- KS88C2424 (ROM 24 Kbyte)

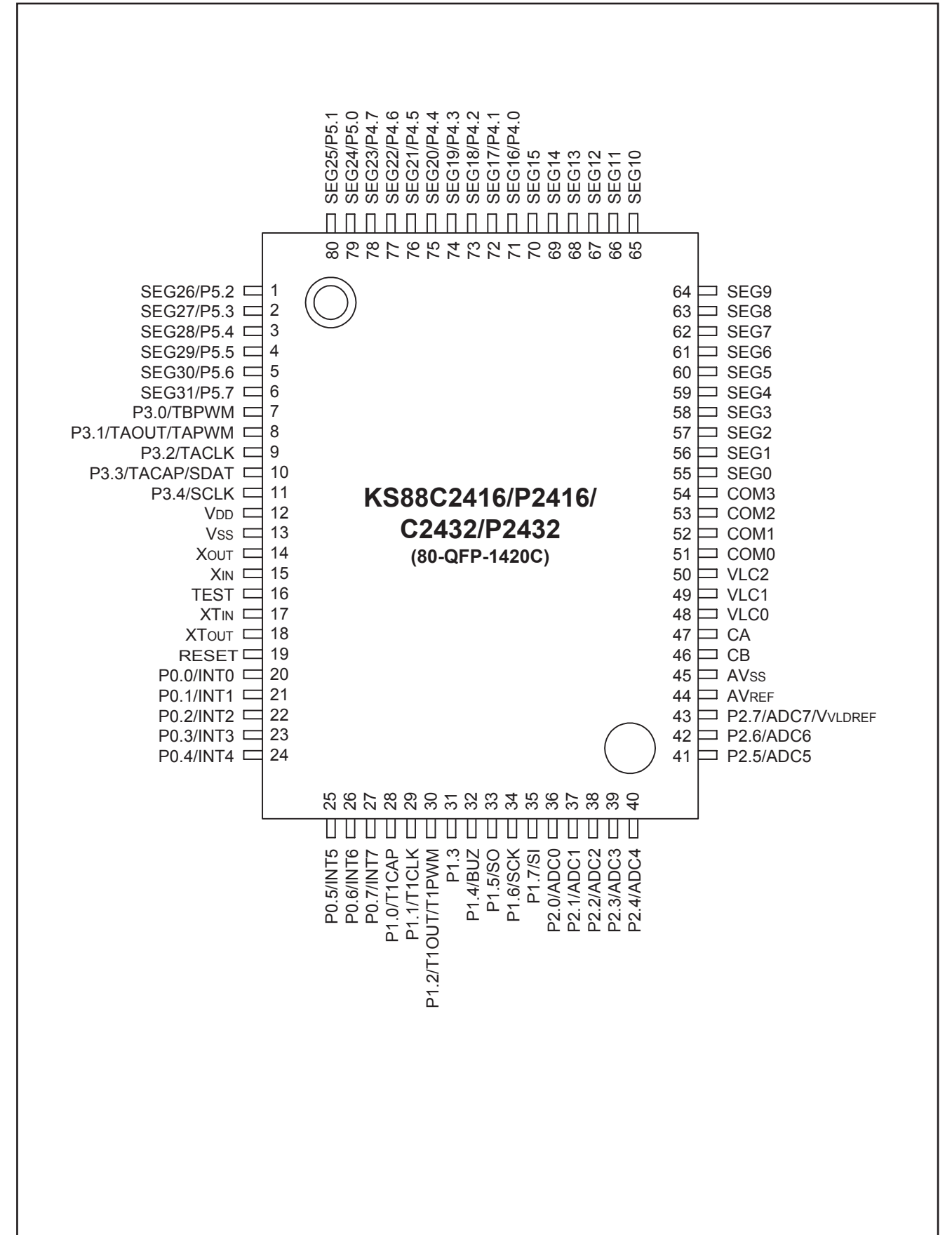
KS88C2432's ROM version device

- KS88C2408 (ROM 8 Kbyte)

■ BLOCK DIAGRAM



■ PIN ASSIGNMENT



SPECIFICATIONS

ELECTRICAL

- Rated Output Power (RMS).....ACR-60: 60W
ACR-120: 120W
- Speaker Output Impedance
ACR-6060W: 15.5V/4Ω, 25V/10.5Ω, 70V/82Ω, 100V/166Ω
ACR-120 120W: 22V/4Ω, 25V/5.2Ω, 70V/41Ω, 100V/83Ω
- Input Sensitivity/Impedance
MIC 1-3..... 1mV/600Ω
Aux..... 350mV/10kΩ
Amp In 1V/10kΩ
- Frequency Response (+1/-3dB)
MIC 1-3 100Hz-12kHz
Aux 60Hz-15kHz
Amp In.....60Hz-18kHz
- T.H.D.....Less than 1%
- S/N
MIC 1-3.....Better than 60dB
Aux.....Better than 75dB
- Tone Control
Bass (100Hz)±12dB
Treble (10kHz).....±12dB

TUNER SECTION

- Tuning Range.....FM: 87.5-108MHz
AM: 522-1620kHz
- Usable SensitivityFM: 2μV, AM: 12μV

COMPACT DISC SECTION

- Type.....3 CD Changer of Magazine Type
- Frequency Response (+1/-3dB).....20Hz-20kHz
- THDLess than 1%

GENERAL

- Power SourceAC 110V-240V, 50/60Hz
- Power ConsumptionACR-60: 85W
ACR-120: 120W
- Weight.....ACR-60: 13kg
ACR-120: 14.5kg
- Dimensions.....420(W) × 132(H) × 320(D)mm

*Specifications and design subject to change without notice for improvements.

ELECTRICAL PARTS LIST

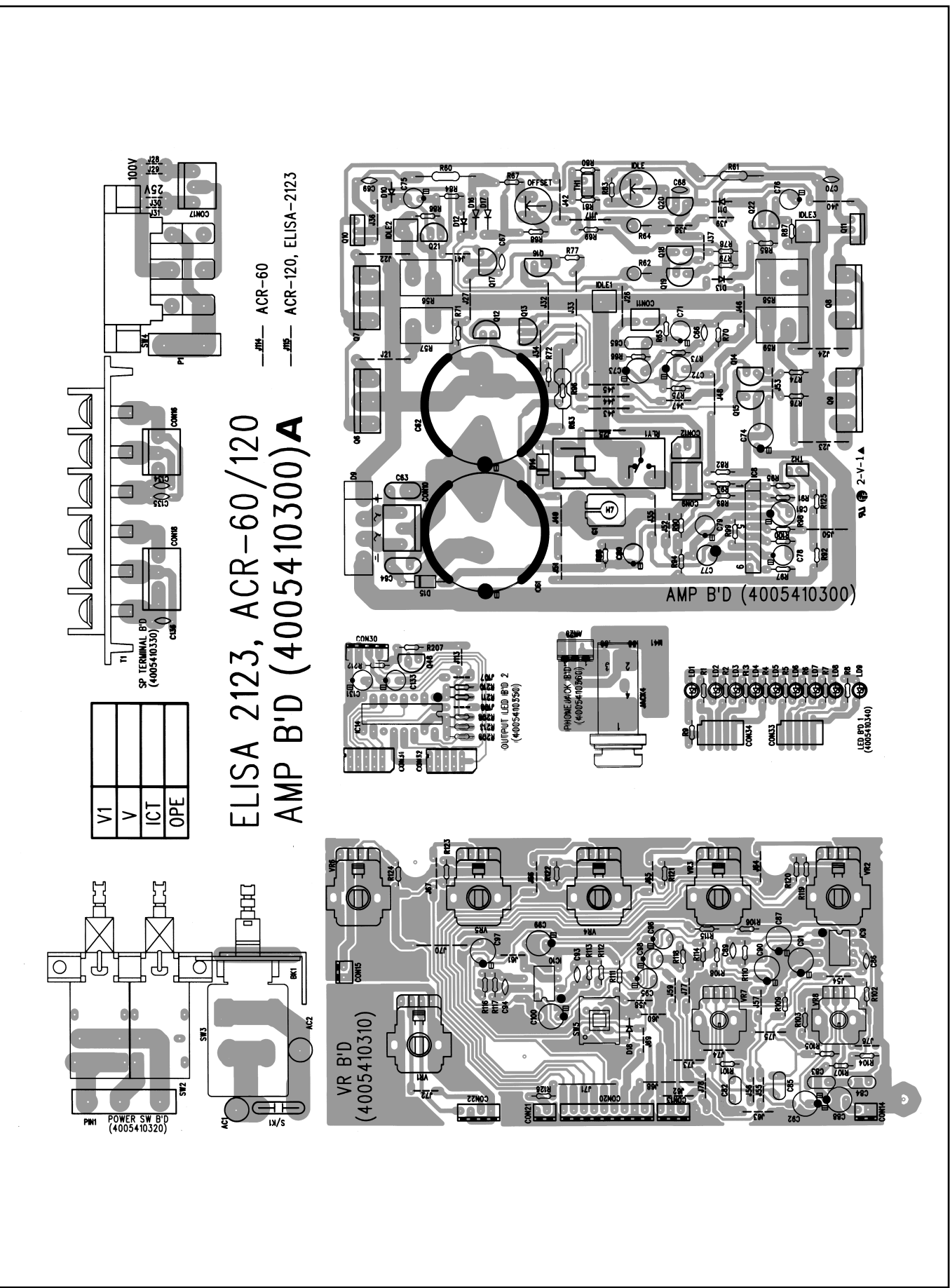
Ref No.	Part No.	Description	Value
INPUT B'D (4005410210)			
AN501	4428594903	LA5268/LAB0640/2.5MM-03P	CN 3P
C501-502, C505-506, C509-510	3509102530-T	CAP CE B 0.001UF 50V J	0.001/50
C503, C507, C511	3509150130-T	CAP CE SL 15PF 50V J	15P
C504, C570	3529680-311-T	CAP CE SL 68PF 50V J AXIAL	68P
C508, C512	3509330130-T	CAP CE SL 33PF 50V J	33P
C514	3509509030-T	CAP CE SL 5PF 50V J	5P
C515-516	3609153120-T	CAP MA 0.015UF 100V J	0.015/100(M)
C517	3509223530-T	CAP CE F 0.022UF 50V Z	0.022/50
C518, C572	3509470130-T	CAP CE SL 47PF 50V J	47P
C519, C521	3609104120-T	CAP MA 0.1UF 100V J	0.1/100(M)
C520	3609103120-T	CAP MA 0.01UF 100V	0.01/100(M)
C522-523, C525-526, C528-529, C533-534	3409247971-T	CAP AF RSG 4.7UF 50V 5P	4.7/50
C524, C527, C530-532, C536-537	3409210971-T	CAP AF RSG 1UF 50V 5P	1/50
C535	3409222071-T	CAP AF RSG 22UF 50V 5P	22/50
C538-541, C543-544	3409247071-T	CAP AF RSG 47UF 50V 6P	47/50
C542	3409247041-T	CAP AF RSG 47UF 25V 5P	47/25
C571	3529330311-A	CAP CE SL 33PF 50V J AXIAL	33P
C573-577	3509103530-T	CAP CE F 0.01UF 50V Z	0.01/50
CN501, CN503-505, CN507	4428595002	LW5267/LWB0640/2.5MM-02P	CN 2P
CN502	4428595509	WAFER 9P CA-6210	CN 9P
CN506	4428594903	LA5268/LAB0640/2.5MM-03P	CN 3P
D501-503	2058304100	DIODE IN4148	1N 4148
D504	2058502056	DIODE ZENER UZ-5.6BW (5.4,5.8)	UZ 5.6BM
FB501-506	3908609990	EMI FILTER 1000PF	EMI 1000P
IC2-3, IC502-503	2118010432	IC NJM2068DD JRC	NUM 2068DD
IC501	2128740208	IC BXA 4240	BXA4240K
JK1	4438097320	BOARD PHONE JACK(ST) MPA-95	PHONE JACK
JK501-502	4438194510	RCA JACK BOARD 2P (24MM)	JACK 2P
JMP	1508400501	JUMP WIRE (0.5/52MM)	JUMP
Q501	2008606105-T	TR PNP KTA 1266Y	KTA 1266Y
Q502-505	2008606998-T	TR NPN KTD 1302 KEC ONLY	KTD 1302
R501-502, R508-509, R515-516, R522, R530, R548	3009103973	RES CF 10K 1/5W J N	10K
R503-504	3009821973	RES CF 820 1/5W J N	820
R505	3009683973	RES CF 68K 1/5W J N	68K
R506, R513, R520, R534-535	3009104973	RES CF 100K 1/5W J N	100K
R507, R514, R521, R524, R539	3009101973	RES CF 100 1/5W J N	100
R510-511, R517-518, R527, R536	3009102973	RES CF 1K 1/5W J N	1K
R512, R519	3009154973	RES CF 150K 1/5W J N	150K
R523	3009123973	RES CF 12K 1/5 J N (ACR-60)	12K (ACR-60)
R523	3009123973	RES CF 15K 1/5 J N (ACR-120)	15K (ACR-120)
R525	3009472973	RES CF 4.7K 1/5W J N	4.7K
R526	3009273973	RES CF 27K 1/5W J N	27K
R528	3009105973	RES CF 1M 1/5W J N	1M
R529	3009274973	RES CF 270K 1/5W J N	270K
R531, R541	3009123973	RES CF 12K 1/5W J N	12K
R532	3009822973	RES CF 8.2K 1/5W J N	8.2K
R533	3009153973	RES CF 15K 1/5W J N	15K
R537	3009202973	RES CF 2K 1/5W J N	2K
R538	3039561572-F	RES MO 560 2W J N	560 2W
R540	3009224973	RES CF 220K 1/5W J N	220K
R542, R547	3009473973	RES CF 47K 1/5W J N	47K
R543	3009225973	RES CF 2.2M 1/5W J N	2.2M

Ref No.	Part No.	Description	Value
R544	3009339373	RES CF 39K 15W J N	39K
R545	3009333973	RES CF 33K 1/5W J N	33K
R546	3009563973	RES CF 56K 1/5W J N	56K
R549	3009564973	RES CF 560K 1/5W J N	560K
R570-571	3009221973	RES CF 220 1/5W J N	220
VR501	3228074410	VR 09VSF30A103 10KA	10KA
XLR501-502, XLR504	4438193810	XLR JACK (F) 3P (E203A0040N)	XLR JACK
PRE POWER B'D (4005410200)			
AN1	4355886621	CON ASS'Y 5P	CON 5P
AN2-3, CON608	4428595003	LW5267/LWB0640/2.5MM-03P	CON 3P
CON601-602	3408222261	CAP RSA 2200UF 35V SNAP 18P	2200/35
C605-606	3409210141-T	CAP AF RSG 100UF 25V 6P	100/25
C607-608, C611, C613, C615	3509104530-T	CAP CE F 0.1UF 50V Z	0.1/50
C609	3419568265	CAP HE 6800UF 35V 20 PLUG	6800/35
C610, C614	3408247161	CAP RSA 470UF 35V SNAP 13P	470/35
C612, C616	3408233141	CAP RSA 330UF 25V SNAP 10P	330/35
CN601-602, CN604	4428595003	LW5267/LWB0640/2.5MM-03P	CON 3P
CN603, 605	4428595002	LW5267/LWB0640/2.5MM-02P	CON 2P
CN606	4428595008	LW5267/LWB0640/2.5MM-08P	CON 8P
CN607	4428595005	LW5267/LWB0640/2.5MM-05P	CON 5P
D601-602	2058100976	DIODE BRIDGE KBP202G/KBP203G	KBPC 202G
D605	2058100996	DIODE RECTIFIER LT1N4006(4007)	1N 4006
IC601	2118012005	IC KIA 7818 API KEC	7818
IC602	2118013005	IC KIA 7918 PI KEC	7918
IC603	2118011805	IC KIA 7812 API KEC	7812
IC604	2118011605	IC KIA 7809 API KEC	7809
IC605	2128611307	IC 7806 SAMSUNG	7806
PT	2828065700	TRANS POWER 120Version ACR-60(UL/CSA)	P.T (120Version)
PT	2828065710	TRANS POWER 220Version ACR-60(DOM)	P.T (220Version)
PT	2828065720	TRANS POWER 230Version ACR-60(EUROPE)	P.T (230Version)
PT	2828065730	TRANS POWER 240Version ACR-60(EUROPE)	P.T (240Version)
PT	2828065800	TRANS POWER 120Version ACR-120(UL/CSA)	P.T (120Version)
PT	2828065810	TRANS POWER 120Version ACR-120(DOM)	P.T (220Version)
PT	2828065820	TRANS POWER 120Version ACR-120(EUROPE)	P.T (230Version)
PT	2828065830	TRANS POWER 120Version ACR-120(EUROPE)	P.T (240Version)
R601-602, R609-610	3059100772	RES CE 10 5W JN	10 5W
R608, R612	3039100572-F	RES MO 10 2W J N	10 2W
R607	3059250783	RES CE 25 5W K T	25 5W
SW2	2423000999	SW POLY 50VX110 JX3K-T	POLY SW
POWER SW B'D & SPK SEL B'D (4005410320)			
AC1-2	4355770517	CON ASS'Y 1P (TERMINAL)	CON 1P
C617	3549472407	CAP SPARK KILLER 0.0047UF 400V	0.0047/400
CN501	4428595002	LW5267/LWB0640/2.5MM-02P	CON 2P
CN502	4428599003	WAFER YW025-03	CON 3P
SW1	4628988610	SW POWER SDDF3PATL011 (SP278)	POWER SW
SW600	4628984310	SW PUSH JPP-22-32H-01 JAEIL	SW
SW700	4648098410	SW PS-5-W7AV	SW
INLET B'D (4005410220)			
ACIN1	4308997310	AC CORD DOME 3-CORES	AC CORD
F601	5508412734	FUSE TS 20MM 2A/250V (UL/CSA) ACR-60	2A/250V (UL/CSA)
F601	5508112237	FUSE 51S 20MM 1A/250V (DOM) ACR-60	1A/250V (DOM)
F601	5508412234	FUSE TS 20MM 1A/250V (Europe) ACR-60	1A/250V (Europe)
F601	5508112937	FUSE 51S 20MM 3A/250V (UL/CSA) ACR-120	3A/250V (UL/CSA)
F601	5508222530	FUSE NB 31.8MM 1.5A/250V (DOM) ACR-120	1.5A/250V (DOM)
F601	5508412434	FUSE TS 20MM 1.25A/250V (Europe) ACR-120	1.25A/250V (Europe)
T1-4	4465998210	TERMINAL (250) PCB TAB	250T
TUNER B'D (4005412700)			
AN405, CON405	4355886621	CON ASS'Y 5P	CON 5P
C400, C402	3509473530-T	CAP CE F 0.047UF 50V Z	0.047/50
C401, C403, C405, C417-418, C428	3509223530-T	CAP CE F 0.022UF 50V Z	0.022/50
C404, C406, C416, C430	3409210971-T	CAP AF RSG 1UF 50V 5P	1/50

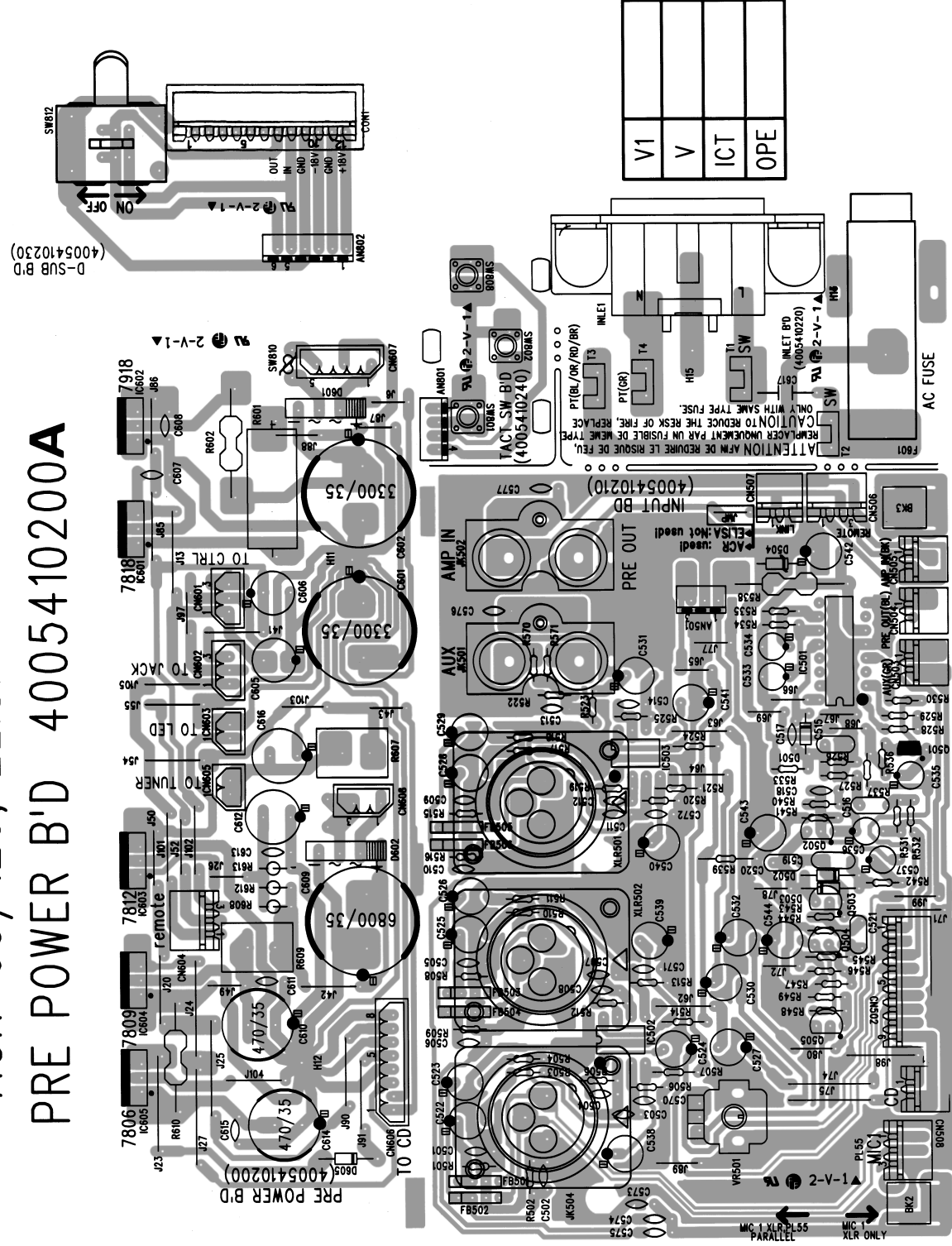
TOP AND BOTTOM VIEW OF P.C. BOARD

Ref No.	Part No.	Description	Value
CN305	4428536329	WAFER FMN-BTRK-29P/IMM.JST	CON 29P
CN306	4428595011	LW5267/LWB0640/2.5MM-11P	CON 11P
CN310	4428532204	WAFER S04B-EH/2.5MM/ANGLE.JST	CON 4P
D301-304	2058304100	DIODE IN4148	1N4148
IC301	2128000835	IC AN8806SB MATSUSHITA	AN8806SB
IC302	2128220435	IC AN8389SR MATSUSHITA	AN8389SB
IC303	2128514055	IC MN662720RB MATSUSHITA	MN662720RB
IC304	2128820535	IC SM5878AM NPC	SM5878AM
IC305	2128121007	IC CPU KS88P2432QW SAMSUNG	KS88P2432
IC306-307	2118010432	IC NJM2068DD JRC	NJM 2068DD
IC308-309	2118020710	IC TA7291S TOSHIBA	TA7291S
IC310	2138010979	IC M51953B MITSUBISHI	M51953BL
L301-302	2648099990	COIL INDUCTOR 10UH CDC-9300	100K
VR B'D (4005410310)			
Q301, Q304, Q307	2008606113-T	TR PNP KTA 1271(A1515) KEC	KTA 1271Y
Q302, Q305-306	2008606998-T	TR NPN KTD 1302 KEC ONLY	2SD 1302R
Q303	2008613954-T	TR DTC 124ES	DTC 124ES
R301-302, R331	3009124973	RES CF 120K 1/5W J N	120K
R303-306	3009183973	RES CF 18K 1/5W J N	18K
R308	3009824973	RES CF 820K 1/5W J N	820K
R307, R344, R373, R375	3009470973	RES CF 47 1/5W J N	47
R309	3009823973	RES CF 82K 1/5W J N	82K
R310-311	3009272973	RES CF 2.7K 1/5W J N	2.7K
R312	OPEN	OPEN	OPEN
R313	3009123973	RES CF 12K 1/5W J N	12K
R314, R317	3009393973	RES CF 39K 1/5W J N	39K
R315, R323, R332, R337, R339, R342, R366-367, R379-386	3009103973	RES CF 10K 1/5W J N	10K
R316, R333-335, R340, R346, R371-372	3009471973	RES CF 470 1/5W J N	470
R318, R376	3009472973	RES CF 4.7K 1/5W J N	4.7K
R319, R322	3009224973	RES CF 220K 1/5W J N	220K
R320-321, R341, R353, R355, R364	3009223973	RES CF 22K 1/5W J N	22K
R324, R348, R356, R360, R369	3009562973	RES CF 5.6K 1/5W J N	5.6K
R328	3009155973	RES CF 1.5M 1/5W J N	1.5M
R329, R351-352	3009681973	RES CF 680 1/5W J N	680
R330	3039100572-F	RES MO 10 2W J N	10 2W
R336, R338, R343, R368, R370, R374, R377-378	3009102973	RES CF 1K 1/5W J N	1K
R345, R357	3009682973	RES CF 6.8K 1/5W J N	6.8K
R347, R365	3009000973	RES CF 0 1/5W J N	0
R350, R362	3009101973	RES CF 100 1/5W J N	100
R354, R363	3009203973	RES CF 20K 1/5W J N	20K
R358-359	3009753973	RES CF 75K 1/5W J N	75K
R387	OPEN	OPEN	OPEN
R388	1508400501	JUMP WIRE (0.5/25M/M)	short
X301	3908101060	CRYSTAL 16.9344MHZ	KD6586FFB
X302	3908101080	CRYSTAL 4.19MHZ	4.19MHZ
CD DISPLAY B'D (4003484120)			
AN306	4353983802	CON ASS'Y 11P 90MM	CON 11P
AN305	4428536329	CON ASS'Y 4P 100MM	CON 4P
LD301-318	2308232222-T	SLR 34URF 25	LED
LC301	2338170394	LCD KXN29150DAN CD KEC	KXN2915DAN
S301	4628985710	TACT (5MM) SKHV10906A (KBW89)	REPEAT
S302	4628985710	TACT (5MM) SKHV10906A (KBW89)	CLEAR
S303	4628985710	TACT (5MM) SKHV10906A (KBW89)	MEMORY
S304	4628985710	TACT (5MM) SKHV10906A (KBW89)	DISPLAY
S305	4628985710	TACT (5MM) SKHV10906A (KBW89)	RESET

Ref No.	Part No.	Description	Value
S306	4628985710	TACT (5MM) SKHV10906A (KBW89)	STOP
S307	4628985710	TACT (5MM) SKHV10906A (KBW89)	PLAY
S308	4628985710	TACT (5MM) SKHV10906A (KBW89)	S-FF
S309	4628985710	TACT (5MM) SKHV10906A (KBW89)	S-REW
S310	4628985710	TACT (5MM) SKHV10906A (KBW89)	FF
S311	4628985710	TACT (5MM) SKHV10906A (KBW89)	REW
S312	4628985710	TACT (5MM) SKHV10906A (KBW89)	DISC
S313	4628985710	TACT (5MM) SKHV10906A (KBW89)	MODE
S314	4628985710	TACT (5MM) SKHV10906A (KBW89)	RANDOM
CD EJECT B'D (4003484110)			
AN307	4353981003	CON ASS'Y 4P 100MM	CON 4P
S315	4628985710	TACT (5MM) SKHV10906A (KBW89)	DISC1
S316	4628985710	TACT (5MM) SKHV10906A (KBW89)	DISC2
S317	4628985710	TACT (5MM) SKHV10906A (KBW89)	DISC3



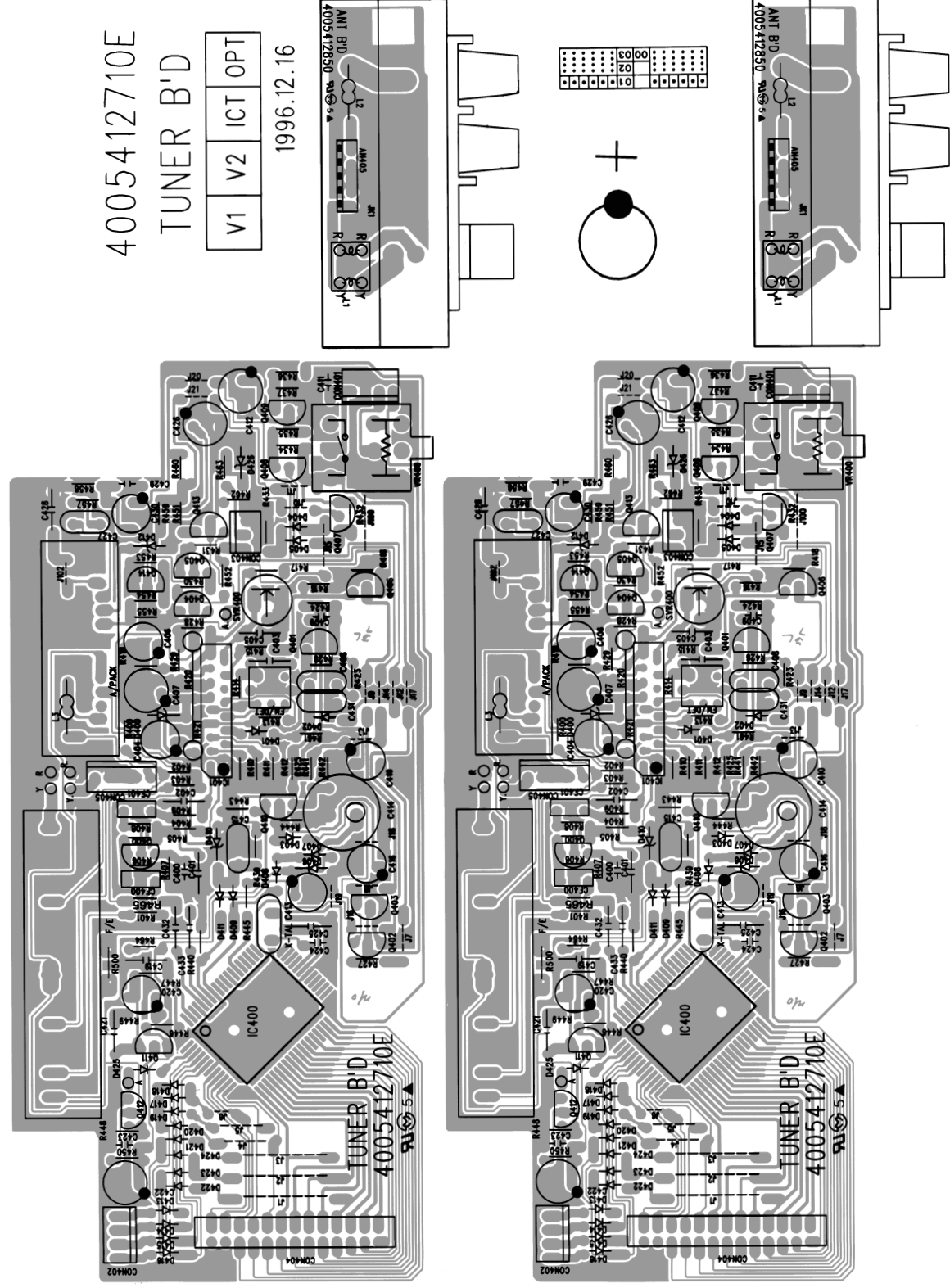
ACR-60/120, ELISA-2123 PRE POWER B'D 4005410200A



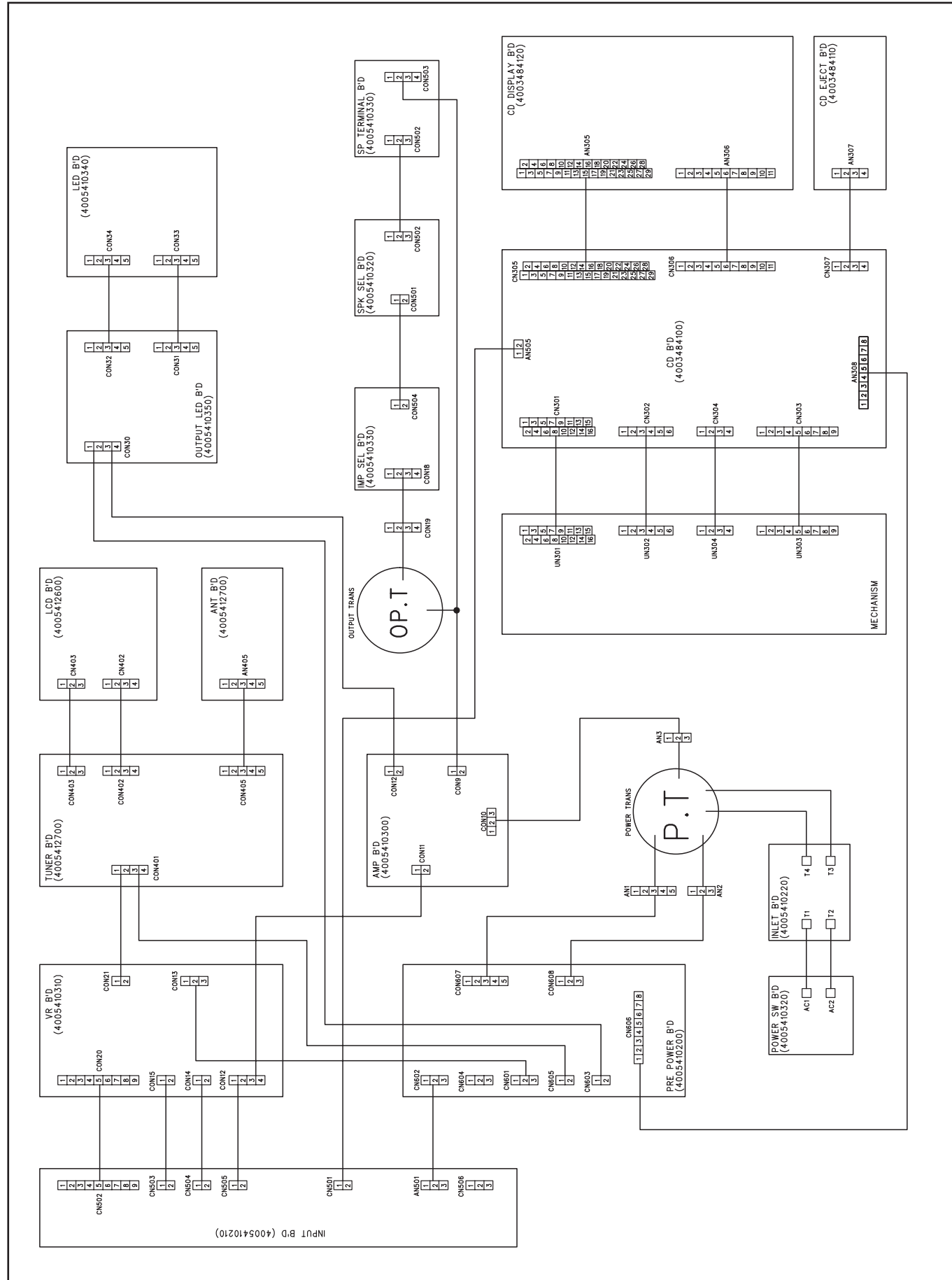
4005412710E
TUNER B'D

V1 V2 ICT OPT

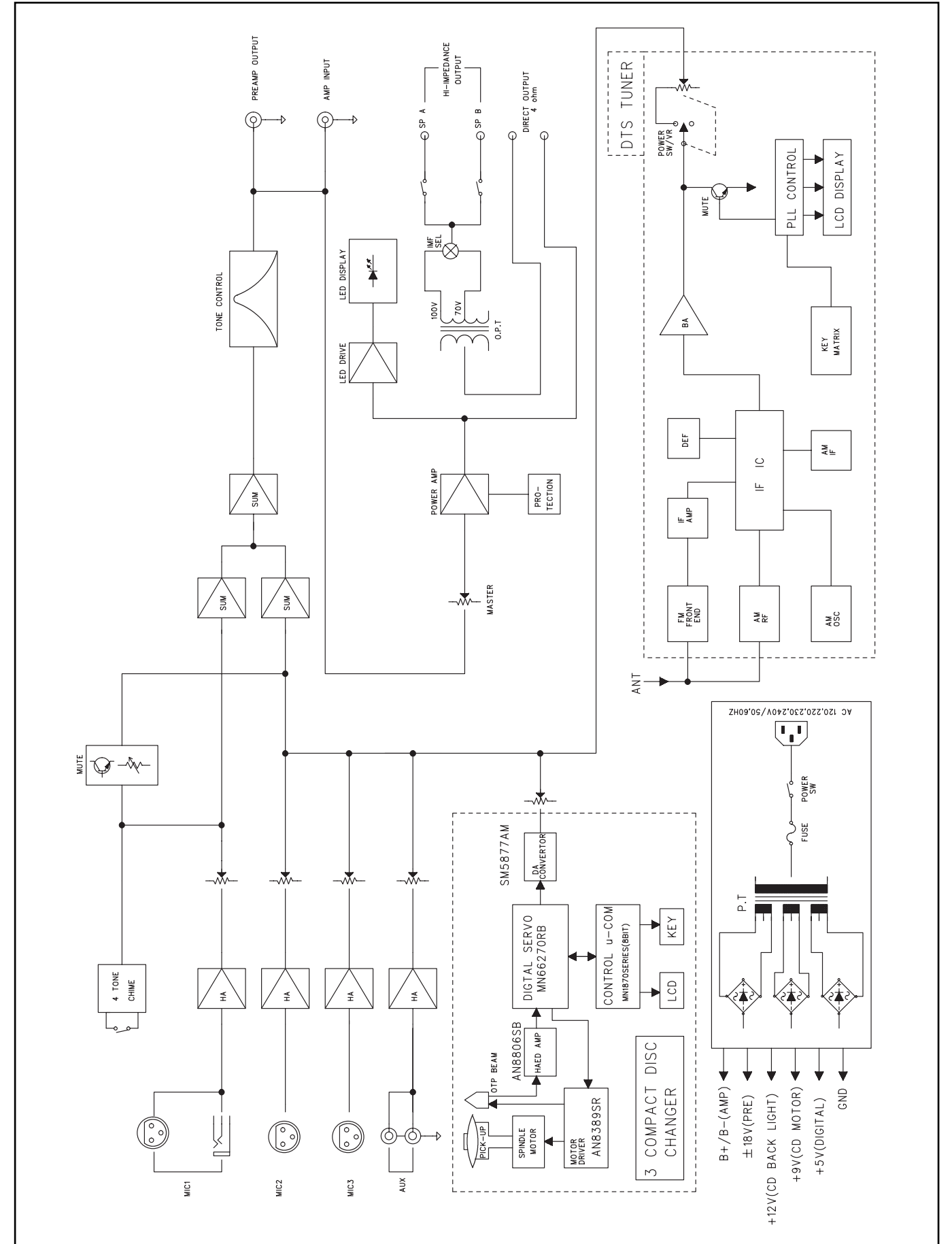
1996.12.16



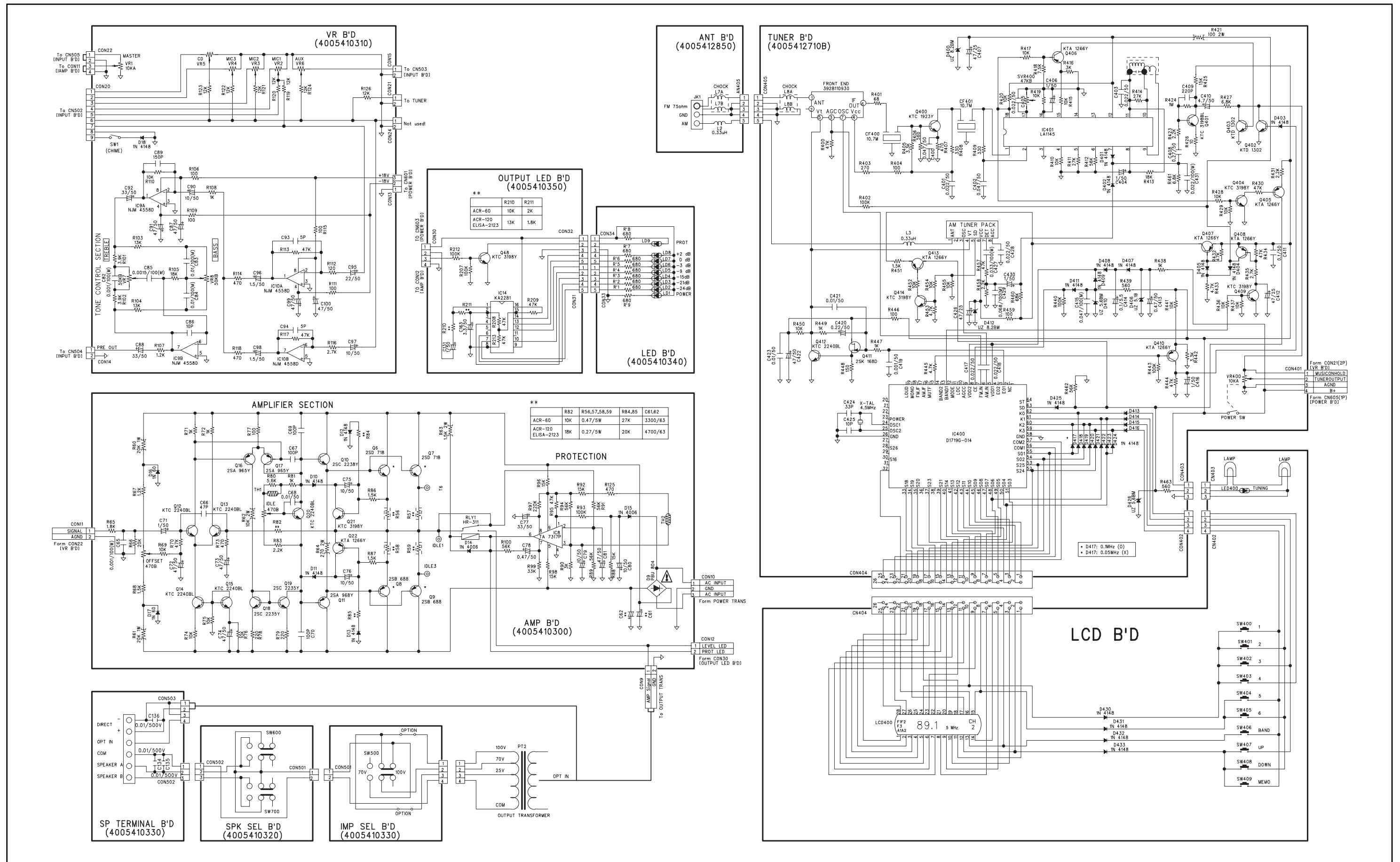
WIRING DIAGRAM

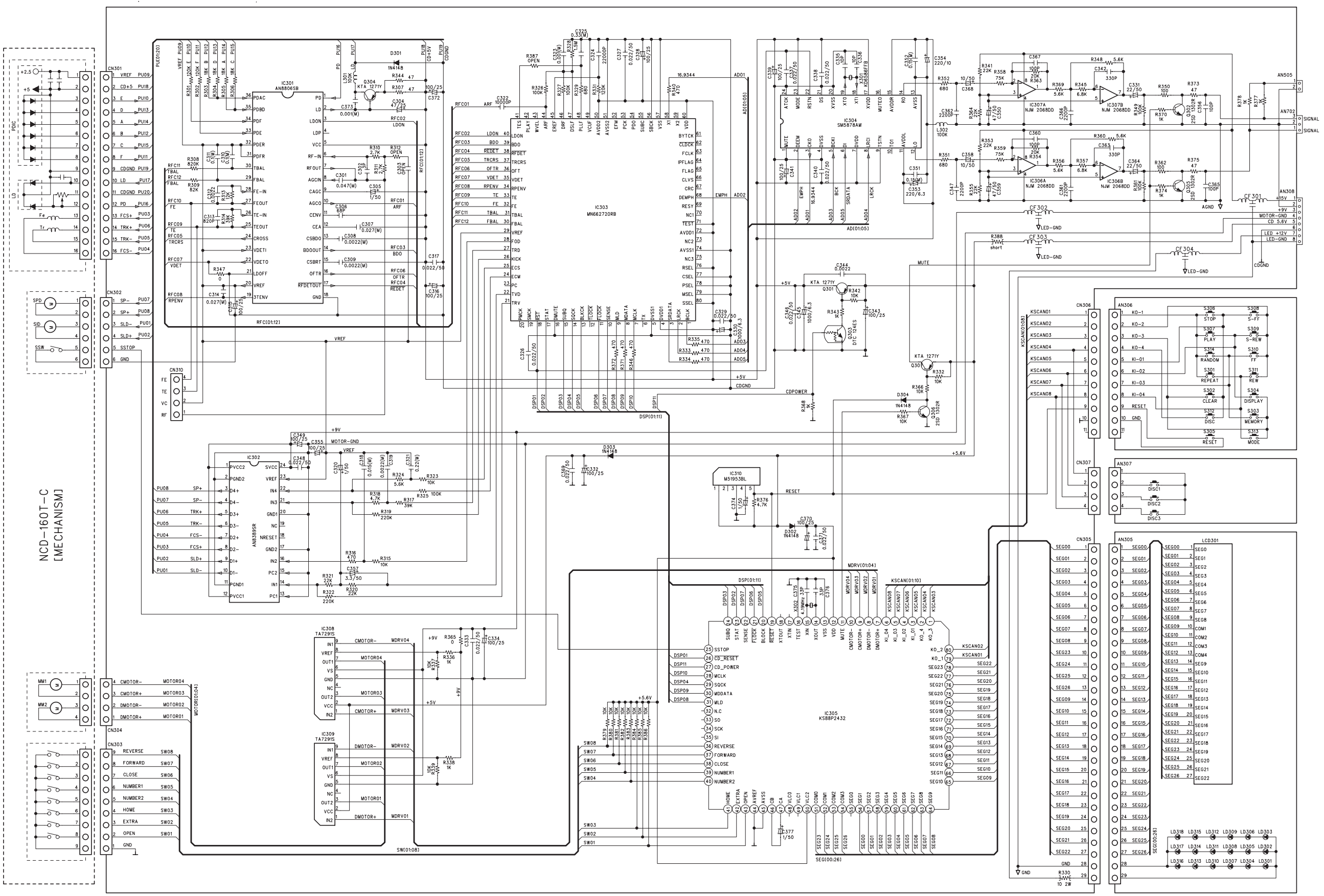


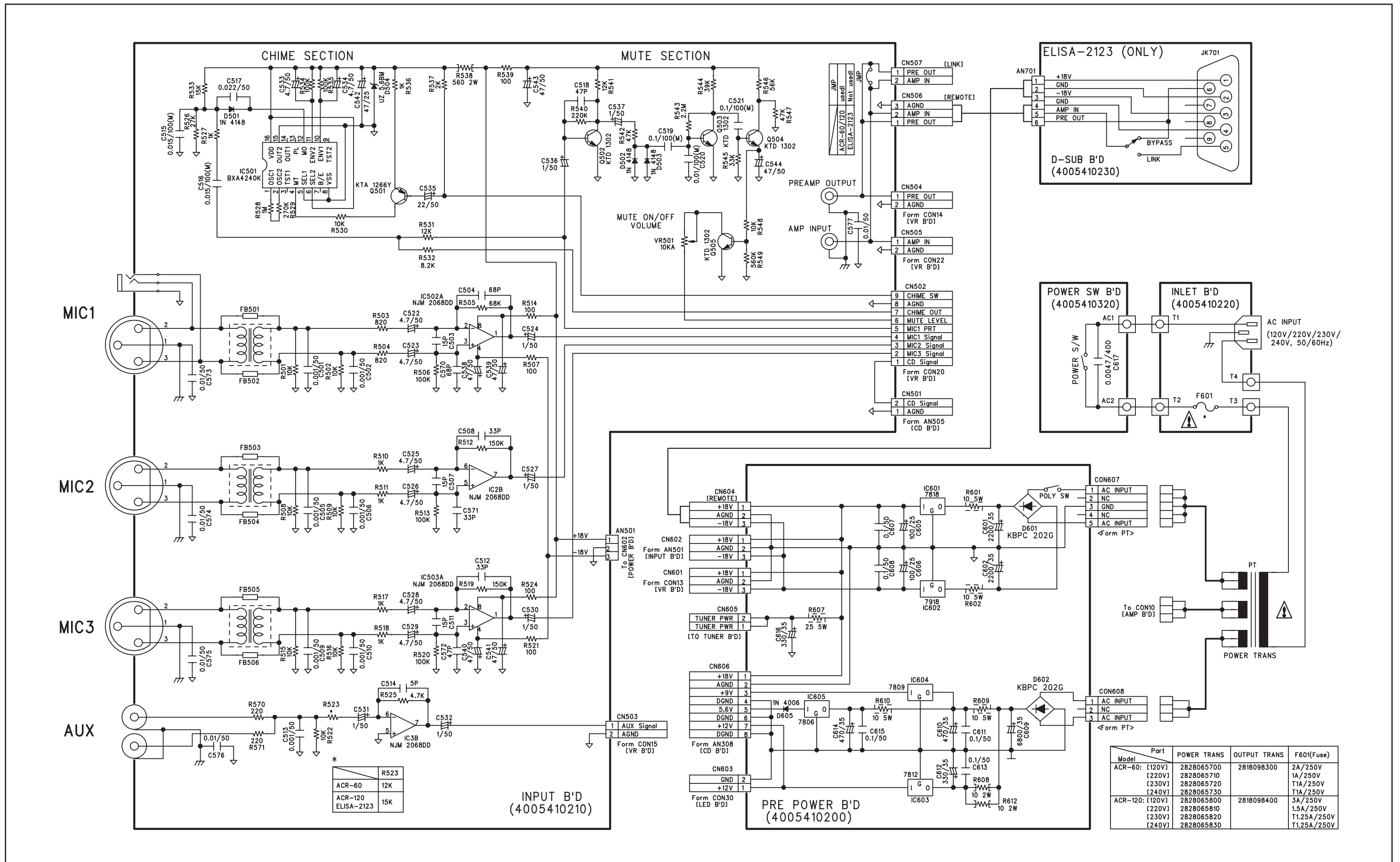
BLOCK DIAGRAM



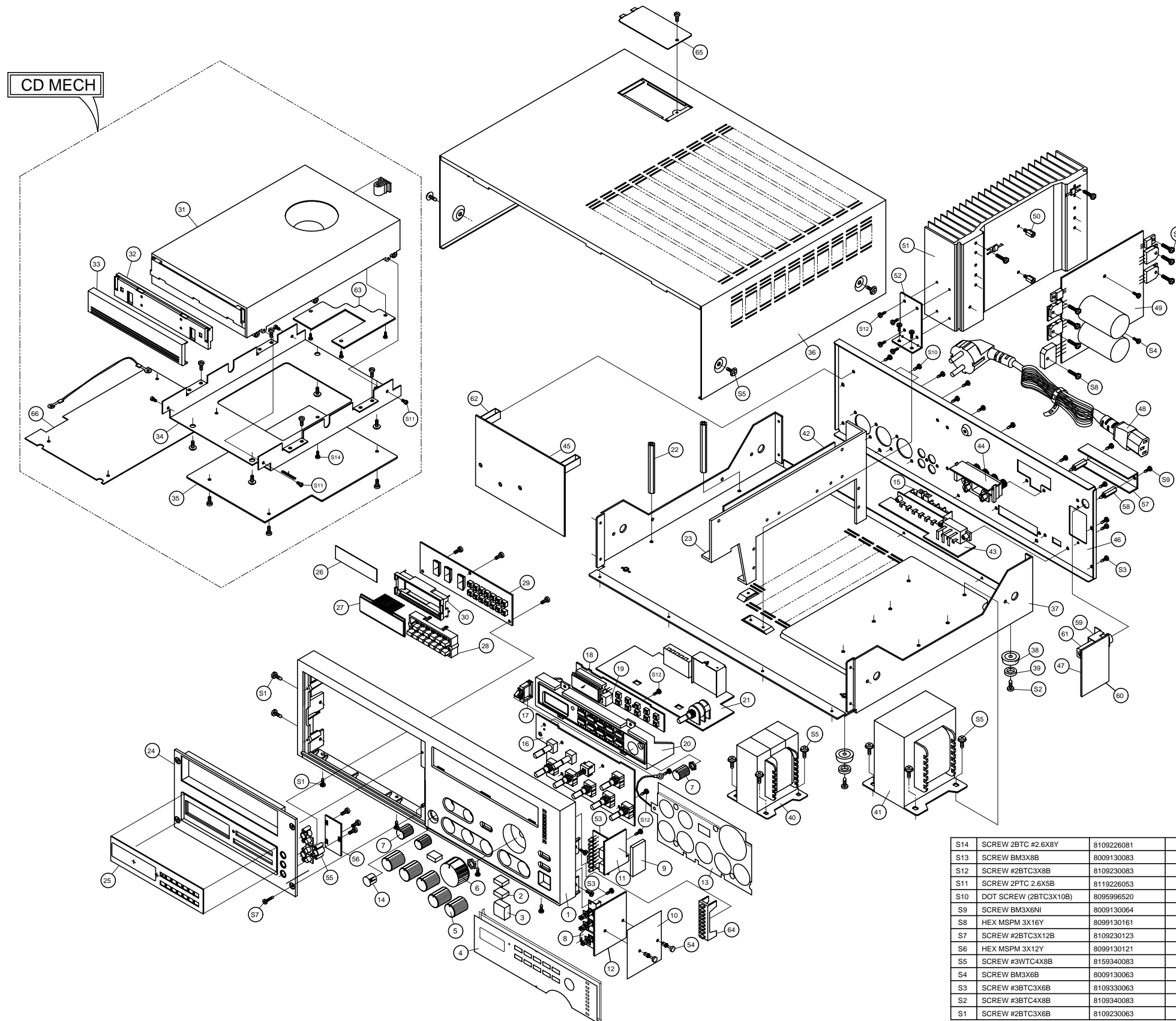
SCHEMATIC DIAGRAM





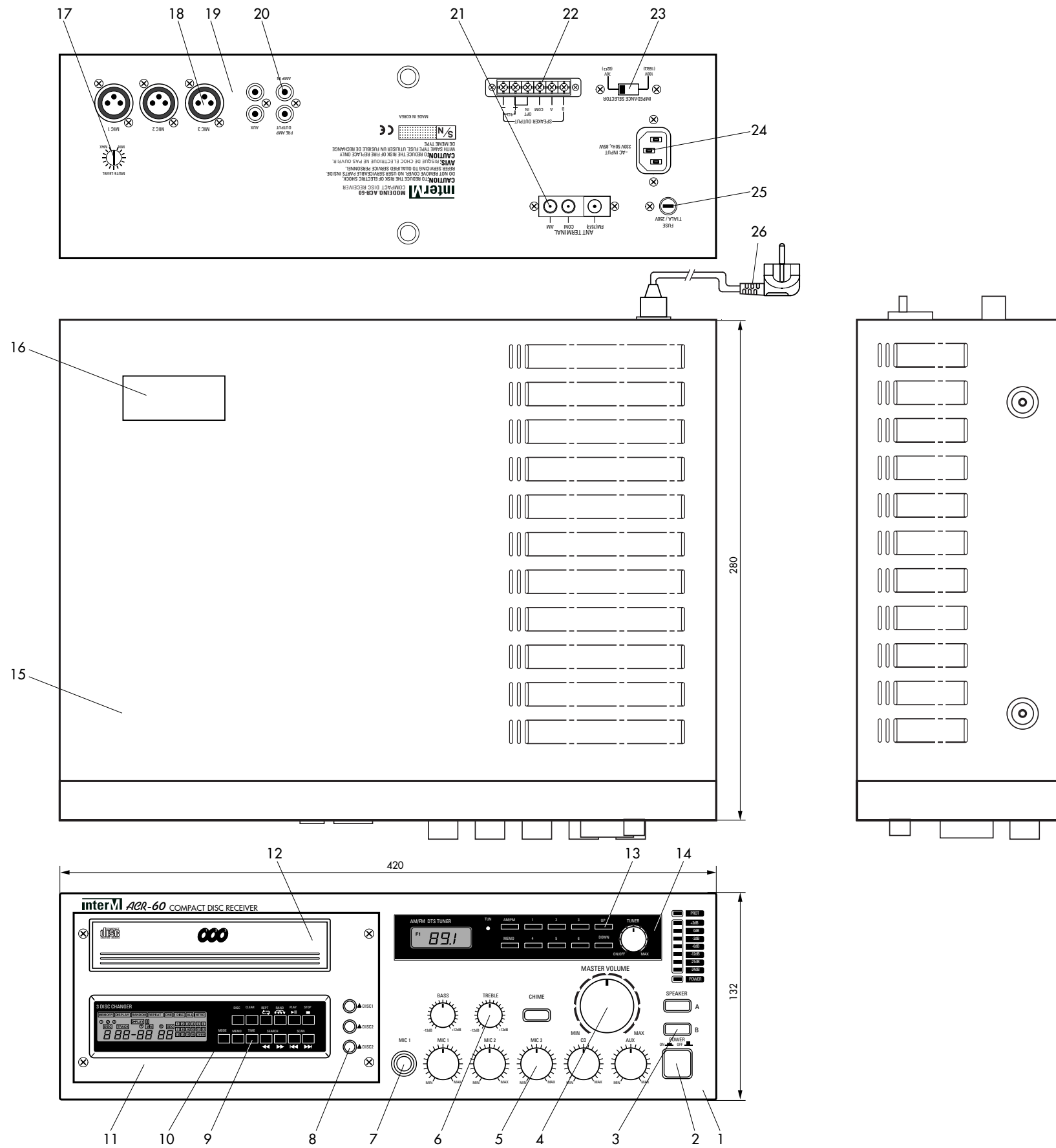


EXPLODED VIEW OF CABINET & CHASSIS/MECHANICAL PARTS LIST



66	SHIELD FENCE	6165168410	1	
65	BRACKET COVER	6505936610	1	
64	LENS LED	8545992710	1	
63	CONNECTOR PCB	4005409900	1	
62	BKT GND	6505955520	2	
61	FUSE HOLDER(SOCKET)	445899210(310)	1	
60	INLET B'D	4005410220	1	
59	BRACKET P/U B'	6505952110	1	
58	TERMINAL STUD	6535995820	2	
57	TERMINAL COVER	8575996530	1	
56	TACT SW B'D	4005410240	1	
55	TACT KNOB	048545991011	3	
54	RIVET NYLON	6538998810	2	
53	OUTPUT LED BD-1	4005410340	1	
52	HEAT SINK BKT	6505942010	1	
51	HEAT SINK	7502090110	1	
50	SUPPORTER	6535998020	2	
49	AMP B'D	4005410300	1	
48	AC CORD	4308999410	1	
47	AC INLET	4448599010	1	
46	BACK CHASSIS	046102980112	1	
45	INPUT B'D	4005410210	1	
44	SPEAKER SELECTOR	4628988310	1	
43	SP TERMINAL B'D	4005410330	1	
42	PRE POWER B'D	4005410200	1	
41	TRANS POWER	2828065820	1	
40	TRANS OUTPUT	2818098400	1	
39	FOOT FELT	6735994110	4	
38	FOOT	6335999510	4	
37	MAIN CHASSIS	6122691110	1	
36	TOP COVER	046122095720	1	
35	CD PCB	4005410810	1	
34	BRACKET CD MECH	6503973810	1	
33	CD DOOR(OUT)	048543986212	1	
32	CD DOOR(IN)	8543986310	1	
31	CD MECHANISM	5708999310	1	
30	LCD SUPPORT	8575990810	1	
29	TACT B'D	4005410820	1	
28	TACT KNOB(CD)	048545989021	1	
27	LCD KXN 29150 DAN	2338170394	1	
26	FILTER	8545988310	1	
25	INLAY(CD)	048575990911	1	
24	CD PACK	048522991611	1	
23	SUB HEAT SINK	7503093610	1	
22	STUD	6535993510	2	
21	TUNER B'D	4005412710	1	
20	PACK TUNER	048522995911	1	
19	LAMP SPONGE	6735989010	1	
18	TACK B'D	4005412600	1	
17	SIDE LOCKING SADDLE	6538997711	1	
16	VR B'D	4005410310	1	
15	SHORT BAR	4465998010	1	
14	BUSHING CAP	6538995703	1	
13	INSULATION SHEET	6163196210	1	
12	POWER SW B'D	4005410320	1	
11	OUTPUT LED BD-2	4005410350	1	
10	INSULATION PLATE	6735988920	1	
9	RUBBER SPONGE	6715997420	1	
8	PCB BKT	6505954610	1	
7	CONTROL KNOB	048543997011	3	
6	LEVEL KNOB	048543997311	1	
5	CONTROL KNOB	048543998313	5	
4	TUNER INLAY	048533998513	1	
3	KNOB PUSH	048543997210	1	
2	CHIME KNOB	048543997110	3	
1	FRONT PANEL	048521995111	1	
NO	PART NAME	PART NUMBER	QTY	REMARK

ASS'Y DRAWING



No.	Description	Part No	Q'ty	Remark
1	FRONT PANEL	048521995111	1	ACR-60
		048521995112	1	ACR-120
2	PUSH KNOB	048543997210	1	
3	CHIME KNOB	048543997110	3	
4	LEVEL KNOB	048543997313	1	
5	CONTROL KNOB	048543998334	5	
6	CONTROL KNOB	048543997013	3	
7	PHONE JACK	4438097320	1	
8	TACT KNOB	048545991011	3	
9	TACT KNOB	048545989021	1	
10	CD INLAY	048575990911	1	
11	CD PACK	048522991611	1	
12	CD DOOR	048543986214	1	
13	TUNER PACK	048522995911	1	
14	TUNER INLAY	048533998513	1	
15	TOP COVER	046122095720	1	
16	COVER B.K.T	046505936612	1	
17	CONTROL KNOB	048543997011	1	
18	XLR JACK(F) 3P	4438193810	3	
19	BACK CHASSIS	046102980112	1	ACR-60 220V
		046102980101	1	ACR-60 230V
		046102980114	1	ACR-60 120V
		046102980115	1	ACR-60 240V
		046102980116	1	ACR-120 220V
		046102980102	1	ACR-120 230V
20	RCA JACK	046102980118	1	ACR-120 120V
		046102980119	1	ACR-120 240V
21	ANT. TERMINAL	4465998410	1	
22	SCREW TERMINAL 6P	4465997706	1	
23	SELECTOR SWITCH	4618001110	1	
24	AC INLET	4448599010	1	
25	SOCKET TERMINAL	4355934707	1	
26	AC CORD	4308999410	1	