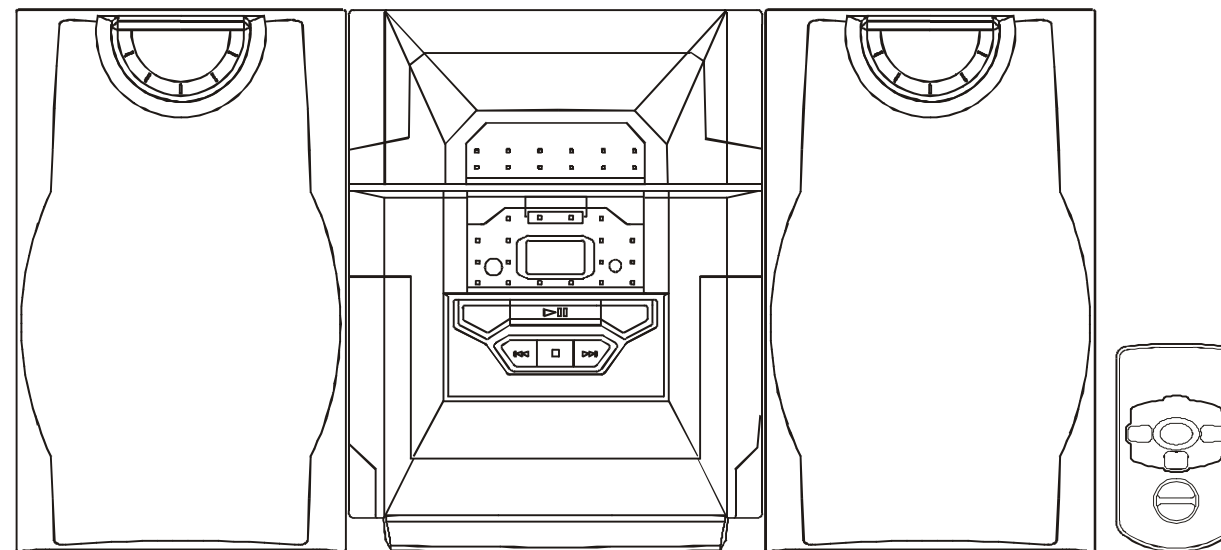


Service Manual

MICRO MUSIC SYSTEM with REMOTE-CONTROL



QX-D3100

CONTENTS

Page

Specifications & Performance Specifications	1
Electrical Parts List	4
Printed Circuit Boards	12
Wiring Diagram	15
Schematic Diagrams	17
Alignment Set-up Procedures	21
Equipment Connection Diagrams	22
Voltage Chart	24
IC Pins Description & IC Block Diagrams	26
Block Diagrams	29
Exploded Drawing Parts List	31
Exploded Drawing	34

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety characteristics. These safety characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by ⚠ in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

SPECIFICATIONS

GENERAL	
Output power:	2W x 2 (10% THD)
Power consumption:	15 Ω
Power source:	AC ~120V 60 Hz (USA and Canada)
	AC ~220V 50 Hz (China)
	AC ~230V 50 Hz (Europe)
	AC ~240V 50 Hz (Australia)
	AC ~110-120V/220-240V 50/60Hz (Others)

Specifications may be subject to change without notice.

PERFORMANCE SPECIFICATIONS

GENERAL TEST CONDITION	
Power Supply	:AC 230V 50Hz
Output Load	:8 ohm non-reactive
Reference Output	:50mW
Input Signal Source	:IRE Loop for AM
	:75 ohm dummy for FM
Modulation	:30% 400 Hz for AM
	:22.5 kHz Deviation 1000 Hz for FM MONO
	:75 kHz Deviation for FM MPX
Remarks	:7.5 kHz Pilot Tone
	:67.5 kHz L + R 1000 Hz
	:AC Bias

CD SECTION					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1.	10% Dis. Output Power (1kHz, 0dB)	W	2	1.6	
2.	Frequency Response (100Hz-20kHz/1kHz, 0dB)	dB	±2	±4	
3.	De-emphasis Response (1kHz, 0dB/5kHz-4.5dB/16kHz-9dB)	dB	±3	±4	
*4.	Channel Balance (1kHz, 0dB)	dB	0.5	3	
*5.	Channel Separation (1kHz, 0dB)	dB	55	40	
*6.	T.H.D. + Noise (1kHz, 0dB)	%	0.15	0.5	
*7.	S/N Ratio (1HF-A) (1kHz, 0dB)	dB	70	60	
8.	Playability: Wedge	PHILIPS 444A	μm	-	500
	Black Dot	PHILIPS 444A	μm	600	500
	Eccentricity	TCD-712ABEX	μm	-	150
	Skew Disc	TCD-731RABE	mm	-	±0.5
	Finger Print	PHILIPS 444A	Track	-	No.18

*with external "A" Weighting Filter
Item 1 - 4 Test Disc "CBS SONY YEDS7"

Level Matching Tape (B118N)		dB	0	
Tape (B112N)	(For VDE Special)	dB	0	
CD (-10dB 1K)		dB	0	+3/-5
AM (55% 5mV/m)		dB	0	±3
FM (40kHz 1mV)		dB	0	±3

PERFORMANCE SPECIFICATIONS - CONTINUED

(AM) SECTION, AMPLITUDE, MODULATION					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1.	Tuning Range	kHz	517 - 1650	517 - 1650 ±8 - ±30	
2.	I.F.	kHz	465	±5	
3.	S/N 5mV/m	1.0MHz dB	36	30	
4.	Sens. (at S/N 20dB)	0.6MHz	54	64	
		1.0MHz	54	60	
		1.4MHz	54	60	
5.	I.F. Rej.	0.6MHz dB	40	30	
6.	Image Rej.	1.4MHz dB	40	30	
7.	Spurious Rejection	dB	35	28	
8.	Bandwidth, -6dB, at (Max. Sens. +6dB)	1.0MHz kHz	6	4 - 9	
9.	ACA (±9kHz) Input at	1MHz (For VDE)	20	15	
	ACA (±9kHz) Input at	1MHz (For VDE Special)	20	12	
10.	AGC Figure Merit	100mV/m dB	50	40	
11.	Distortion, 5mV/m, 30%		1	3	
		5mV/m, 80%	3	6	
12.	10% THD Power	W	2	1.7	
13.	a. Tweet (2nd IF& 3rd IF)	%	-	15	
14.	Audio Fidelity, (1kHz = 0dB) 5mV/m	Hz	60 - 2200	120 - 2000	
15.	a. Dial Cal.,	600kHz	kHz	-	±40
		1000kHz	kHz	-	±70
		1400kHz	kHz	-	±70
16.	Low Voltage	%	80	85	
17.	a. Mod. Hum	dB	36	30	
	b. Hum at Min. Vol.	mV	0.5	2	

CASSETTE SECTION				
	TEST ITEMS	UNIT	NOMINAL	LIMIT
1.	Tape Speed (B-111LNA)	Hz	3000	3% / -3%
2.	Wow & Flutter Rms (JIS R.M.S.) (B-111LNA)	%	0.35	0.45
3.	Fast Forwards Time	Sec.	110	100 - 180
4.	Rewind - Time	Sec.	110	100 - 180
5.	Frequency Response B-257 (1KHz, 0dB) 125Hz		±3	±6
		6.3kHz	±3	±6
6.	Singal to Noise in Play (B-112BN)	dB	45	35
7.	Separation (MTT-141N)	dB	40	30
8.	Cross Talk (B-121N) w/BPF	dB	40	35
9.	Erase Ratio w/ BPF	dB	32	26
10.	Play Back Distortion (B-118N)	%	1	3
11.	Rec. / Playback S/N Ratio (FM 1mV 75kHz Dev.) w/BPF	dB	32	26
12.	Rec. / Playback Level Difference (Radio)	dB	-	±3
13.	Play Back 10% Distortion-output Per Channel (B-112BN)	W	2	1.7
14.	Record Play Back Distortion (S.R.L. + 20)	%	3	8
15.	ALC Effect Level (55% Mod., 74dB MW)	dB	-	±5
16.	Recovery Time	Sec.	-	<5
17.	VR Min. Hum & Noise (Motor On) w/o Tape	mV	0.5	3
18.	VR Max. Hum & Noise (Motor On) w/o Tape	mV	30	50
19.	Rec. / Play Frequency Response 125Hz, 6.3kHz	dB	-	±6

PERFORMANCE SPECIFICATIONS - CONTINUED

(FM) SECTION, FREQUENCY, MODULATION				
	TEST ITEMS	UNIT	NOMINAL	LIMIT
1.	Tuning Range	MHz	87.5 - 108.5	87.5 - 108.5 ±0.5
2.	I. F.	MHz	10.7	10.7 ±0.3
3.	Max. Sens. 90MHz	dB	10	15
	Max. Sens. 98MHz	dB	10	15
	Max. Sens. 106MHz	dB	10	15
4.	S/N 30dB Quieting Sens. 90MHz	dB	15	22
	98MHz	dB	15	22
	106MHz	dB	15	22
5.	3 dB Limit Sens.	dB	25	30
6.	I.F. Rej. 90MHz	dB	60	50
7.	Image Rej. 106MHz	dB	30	22
8.	Spurious Rej. (F± 5.35MHz) (Max. Sens. +6dB)	dB	40	34
9.	AM Suppression (60dB I/P)	dB	30	20
10.	AFC Hold Range	kHz	450	300 - 600
11.	Distortion at 1mV (Mono)	%	1	3
12.	Audio Fidelity, (-3dB) (Pre-emphass) (50µS)	Hz	60 - 9000	120 - 6000
13.	Power Out, Max.	W	-	-
	10% THD	W	2	1.7
14.	Low Voltage	%	80	85
15.	S/N Ratio at 1mV (Mono)	dB	50	45
	Hum (at Min. Vol.)	mV	0.5	3
	S/N Ratio at 46 dB (Stereo) Dev. 40 kHz 10% Pilot (for VDE Special) w/A Filter	dB	36	42
16.	Hum (at Min. Vol.)	mV	0.5	3
17.	Dial Calib.	MHz	-	±0.75
18.	Modulation Hum	dB	50	45
	(for VDE Special)	dB	48	42
19.	Stereo Separation	dB	26	22
20.	19kHz Leak Carrier	dB	32	27
21.	Stereo On (for VDE Special)	dB	26	30

ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
PCB			
CONTROL PCB	PCB CD6602-01-03 (94HB)	033-006602-100	1
MAIN PCB	PCB CD6602-01-01 (94HB)	033-006602-300	1
REGULATION PCB	PCB CD6602-01-02 (94HB)	033-006602-300	1
RECTIFIER PCB	PCB CD2390-01-04 (94V0)	033-002390-100	1
REMOTE CONTROL SECTION			
	REMOTE CONTROL HANDSET RC18-06 w/BATTERY L.GREY COLOR (FOR CD330x/CD66xx/CDG62)	043-R11806-010	1
BEAT CUT AND FM MONO/ST. SECTION			
RESISTORS [All are +5% 1/16W (1/8W) tape & wheel resistors unless otherwise specified]			
R1	*CdF RESISTOR 2.2 Kohm	001-022251-016	1
R318,319	*CdF RESISTOR 3.3 Kohm	001-033251-016	2
CAPACITOR			
C317	#MYLAR CAP 0.001 uF/100V +5%	004-010250-100	1
TRANSISTOR			
Q301	TRLNPNSS-TAP&TO-092 3DG1815	008-618150-000	1
SWITCH			
SW202	SLIDE SW SK22F03G9 AA F30 ALE (8C-CDC-622-18) (Cd FREE)	025-220091-108	1
CD SECTION			
RESISTORS [All are +5% 1/16W (1/8W) tape & wheel resistors unless otherwise specified]			
R101	*CdF RESISTOR 10 ohm	001-010051-016	1
R32,107,157	*CdF RESISTOR 1 Kohm	001-010251-016	3
R130	*CdF RESISTOR 10 Kohm	001-010351-016	1
R105	RESISTOR 18 Kohm	001-018351-016	1
R102,103	RESISTOR 27 Kohm	001-027351-016	2
R158	RESISTOR 5.6 Kohm	001-056251-016	1
R108	RESISTOR 91 ohm	001-091051-016	1
SR114	CHIP RESISTOR 10 Kohm +-5% 1/16W	001-310352-016	1
R124,128,139,413	*CdF RESISTOR 10 Kohm	001-010351-016	4
R126	*CdF RESISTOR 100 Kohm	001-010451-016	1
R127	*CdF RESISTOR 15 Kohm	001-015351-016	1
R106	*CdF RESISTOR 2.2 Kohm	001-022251-016	1
R123	*CdF RESISTOR 22 Kohm	001-022351-016	1
R129,131,132,133,134	*CdF RESISTOR 3.3 Kohm	001-033251-016	5
R135,137	*CdF RESISTOR 33 Kohm	001-033351-016	2
R199	*CdF RESISTOR 470 ohm	001-047151-016	1
R125,415	*CdF RESISTOR 47 Kohm	001-047351-016	2
R136,138	*CdF RESISTOR 6.8 Kohm	001-068251-016	2
R104	RESISTOR 68K	001-068351-016	1
CAPACITORS			
C104,105,114,122,123,128,130,140,145,155	(F003-010380-025) CERAMIC CAP 0.01 uF/ 50V +80%-20%	003-010380-050	10
C1,3,102,108,109,110,111,112,117,118,904,905,906	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	13
C157	CERAMIC CAP 0.0047 uF/50V +80%-20%	003-047280-050	1
C120	CERAMIC CAP 56 pF/50V +-10%	003-056010-050	1
C133	CERAMIC CAP 0.033 uF/50V +80%-20%	003-033380-050	1
C126	CERAMIC CAP 47 pF/50V +-10%	003-047010-050	1
C132	CERAMIC CAP 0.0047 uF/50V +80%-20%	003-047280-050	1
C107,136,137,138,139	CERAMIC CAP 0.047 uF/50V +80%-20%	003-047380-050	5

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C135	CERAMIC CAP 820 pF/50V +-10%	003-082110-050	1
C134	CERAMIC CAP 0.0027 uF/50V +-10% (87-A11-125-08C) (AXIAL TAPED 52mm)	003-227210-050	1
C142,143	CERAMIC CAP 27 pF/50V +-5% (NPO) (CC45-CH1H270J/RBU04CH270J-L)	003-427050-050	2
C147,151	#MYLAR CAP 0.0012 uF/100V +-10%	004-012210-100	2
C127	(F004-015310-050) #MYLAR CAP 0.015 uF/ 100V +-10%	004-015310-100	1
C131	#MYLAR CAP 0.0027 uF/100V +-10%	004-027210-100	1
C152	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	1
C159	ELECT CAP 2.2 MFD/50V +-20% (5x11)	006-002000-50D	1
C146,150	ELECT CAP 3.3 MFD/50V +-20% (5x11)	006-003000-50D	2
EC101, C103,115,144,199	ELECT CAP 100 MFD/10V +-20% (5x11)	006-010100-10D	5
C148,149	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	2
C106	ELECT CAP 220 MFD/10V +-20% (6.3x11)	006-022100-10D	1
C113,116,119,121,124,125, 129,156	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	8
CRYSTAL			
X101	CRYSTAL 16.9344 MHz HC-49/S CL=16pF ±30ppm (SDE)	009-616934-500	1
TRANSISTORS			
Q101	TR PNPSST-RAD&SC-043 2SA1015-GR TOSHIBA	008-110150-000	1
Q102	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q103	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
INTEGRATED CIRCUITS			
IC103	ICMOTORDRIVER-04CH TA2092N (TOSHIBA) (87-A20-157-01J/AIWA)	010-832092-000	1
IC102	ICCDP-001CASP TA2109F	010-832109-000	1
IC101	ICMCU-01K-LED TC9457F-010	010-849457-001	1
DIODES			
D402	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	1
ZD104	ZENER IN-5232B 5.6V 1/2W (ROHM)	011-010056-120	1
D101,102	RECTIFIER IN-4001B	011-024001-000	2
INDUCTOR			
L101	INDUCTOR 10 uH CEC-100K +-10% (CdF)	018-010016-000	1
SWITCH			
	LEAF SWITCH LSA-1120Y2 (CdF)	022-001120-002	1
WIRES			
CN5 TO CD HEAD	FFC CABLE 16 PINS L=85mm 4+77+4 P:1mm 0.035x7 (TUNG HING)/E188165/KNW9606-1A	040-160085-101	1
MOT-1 TO MOT- P3A TO P3B	JP WIRE AWG26#1007 3x3mm 40mm RED	051-673040-006	1
LEAF SW TO CON101	JP WIRE AWG28#1007 5x5mm 60mm RED	051-875060-006	1
	HSG CD170-100(C) PEC 2001H-2 w/150mm RED,BLACK AWG28#UL1095 SLDG 4mm	136-020170-B01	1
CN3 TO CD MOTOR	HSG CD2997-6A(R1) JST PHR w/105mm AWG26 #UL2651TAT/6PIN FLAT CABLE SL.3.5mm (CdF)	136-062997-200	1
MISCELLANEOUS			
CN5,17	FFC CONN SOCKET 16P P:1 TAIKO DENKI 6116-0101/ CFF7816-01-01/TOC-B16X-G2) (CdF)	135-006116-160	2
	CD&-TLB-01-SAMG-N CD MECHANISM CMS-V75BG6 (U)	153-000756-000	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
CON101	HEADER CTL 2 PINS PHS-02 P:2mm, STRAIGHT TYPE WHT COLOR (MARKING:HR) (CdF)	135-PHS020-020	1
CD CONTROL SECTION			
RESISTORS [All are +-5% 1/16W (1/8W) tape & wheel resistors unless otherwise specified]			
R704	*CdF RESISTOR 1 Kohm	001-010251-016	1
R705	RESISTOR 2 Kohm	001-020251-016	1
R711	*CdF RESISTOR 220 ohm	001-022151-016	1
R703,708	*CdF RESISTOR 330 ohm	001-033151-016	2
R701,702	*CdF RESISTOR 3.3 Kohm	001-033251-016	2
R706,709	*CdF RESISTOR 6.8 Kohm	001-068251-016	2
SWITCHES			
SW702B	TACT SWITCH 4P 5mm 100G #1102A-4/ EVQ PAC 05R (=021-KHH901-000)	021-110200-002	1
SW701,703,704,705,706	TACT SWITCH 4P 5mm 100G #1102A-4/ EVQ PAC 05R (=021-KHH901-000)	021-110200-002	5
MISCELLANEOUS			
CED701	LEDD-G0.5IN-2.0D-C-R A505GD-D GREEN LY 5045-N / F1-2050AHG1	111-000505-004	1
PAOG.LED	LED LAMP #TLR124 3mm RED TOSHIBA	110-001240-003	1
CN701	FFC CONNECTOR 16 PINS P:1mm D100-SRV-16U/ LWFPC1.0-R-16P RIGHT-ANGLE	135-D100SR-160	1
GENERAL SECTION			
WIRE			
MAIN PCB CN17 TO CTL PCB CN19	FFC CABLE 16 PINS L=140mm 4+132+4 PITCH:1mm UL2896 0.035x0.7 (TUNG HING)	040-160140-102	1
INDUCTORS			
CON601 DC CABLE w/2 TURNS	FERRITE CORE #191806100AFX/T18x6x10	032-219180-000	2
CON101 DOOR SW CABLE w/1.5 TURNS	OD:18mm, ID:10mm, T:6mm		
AC CORD AROUND 2.5 TURN	FERRITE CORE FYE-T-062/T25x15x10 OD:25mm, ID:15mm, T:10mm	032-225015-010	1
MISCELLANEOUS			
	⚠ POWER TF EI-48 230V:12.4V EN/IEC (HCD213ENFN)	123-380213-140	1
	⚠ FUSE #21801.6 1.6A/250V 5x20mm TIME LAG (CUL/SEMKO/VDE/BSI APP.)	124-016000-002	1
	⚠ (F134-220120-001) PLA-VDE-6'06"-VDE-MG VDE APP.CORD 6.5'	134-B10331-004	1
POWER AMP. SECTION			
RESISTORS [All are +-5% 1/16W (1/8W) tape & wheel resistors unless otherwise specified]			
R805,806,807,808	*CdF RESISTOR 1 Kohm	001-010251-016	4
R405,406,408,801,802	*CdF RESISTOR 10 Kohm	001-010351-016	5
R809,810	*CdF RESISTOR 150 ohm	001-015151-016	2
R811,812	RESISTOR 180 ohm	001-018151-016	2
R898,899	RESISTOR 2.2 ohm	001-022851-016	2
R410,411	*CdF RESISTOR 33 Kohm	001-033351-016	2
R407,813	*CdF RESISTOR 4.7 Kohm	001-047251-016	2
VR801	VR-E12M2GV050KAWSH&D 50KCx2 RK12L12C0	030-E12503-202	1
CAPACITORS			
C905	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	1
C807,808	CERAMIC CAP 470 pF/50V +-10% TAPING (B TYPE/4mm)	003-047110-051	2

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C815,816	#MYLAR CAP 0.15 uF/100V +-10%	004-015410-100	2
C801,802	#MYLAR CAP 0.0027 uF/100V +-10%	004-027210-100	2
C819	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	1
C805,806	ELECT CAP 2.2 MFD/50V +-20% (5x11)	006-002000-50D	2
C404,403	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C811,812,809,810	ELECT CAP 100 MFD/10V +-20% (5x11)	006-010100-10D	4
C820	ELECT CAP 1000 MFD/25V +-20% (12.5x20)	006-010200-25D	1
C817	ELECT CAP 330 MFD/10V +-20% (8x11.5)	006-033100-10D	1
C405,830	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	2
C813,814	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	2
TRANSISTORS			
Q801,802	TRANSISTOR 2SK2541-T/2SK2541 (NEC)	008-902541-000	2
INTEGRATED CIRCUIT			
IC801	ICAMP-POWR-ST-00002W TA8227P TOSHIBA POWER AMPLIFIER 2Wx2	010-838227-000	1
DIODE			
D401	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	1
INDUCTORS			
L892,893	INDUCTOR 4.7 uH +-10% LAL04NA4R7K	018-010477-202	2
L890,891	TOROIDAL COIL 8 uH HA1205122008-1	037-512008-080	2
L894,895,896	TOROIDAL COIL 100 uH RI63-870001 (COILS)	037-870001-A00	3
SWITCH			
SW203/FUNCTION	SLIDE SW SK43D01G9 4P3T	025-430091-104	1
WIRE			
TP1-A TO TP1-B	JP WIRE AWG26#1007 5x5mm 120mm BLACK	051-675120-009	1
MISCELLANEOUS			
HP1	HEADPHONE JACK STEREO 3.5mm #MSJ-2000 (87-A60-420-01)	116-002000-351	1
CON802,803	HEADER MOLEX 2 PINS 5268-02A PITCH 2.5mm HORIZONTAL TYPE	135-005268-020	2
CON801	HEADER 3 PINS PEC #2507-WS-3 PITCH 2.5mm VERTICAL REPLACE:135-005267-030	135-2507WS-030	1
RECTIFIER SECTION			
RESISTORS [All are +-5% 1/16W(1/8W) tape & wheel resistors unless otherwise specified]			
R902	*CdF RESISTOR 10 Kohm	001-010351-016	1
R901,904	*CdF RESISTOR 470 ohm	001-047151-016	2
R903	*CdF RESISTOR 4.7 Kohm	001-047251-016	1
CAPACITORS			
C601,602,603,604	(F003-010380-025) CERAMIC CAP 0.01 uF/ 50V +80%-20%	003-010380-050	4
C901	ELECT CAP 100 MFD/10V +-20% (5x11)	006-010100-10D	1
C605,818,821	ELECT CAP 1000 MFD/25V +-20% (12.5x20)	006-010200-25D	3
C902	ELECT CAP 470 MFD/16V +-20% (10x12.5)	006-047100-16D	1
TRANSISTORS			
Q902	TRANSISTOR B1566E (LIGHTNING)	008-201566-100	1
Q901	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
DIODES			
D901,902,904	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	3
D903	ZENER IN-5237B, 8.2V, 1/2W	011-010082-120	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
D601,602,603,604	RECTIFIER J-05, 1.5A, 50V	011-020005-000	4
D907,908	RECTIFIER IN-4001B	011-024001-000	2
WIRE			
RTF PCB TO MAIN PCB CON12	HSG CD268-3B(C) PEC 2507H-3 w/250mm RED,NC,BLACK AWG22#UL1007 SLDG.4mm	136-030268-C00	1
TAPE SECTION			
RESISTORS [All are +-5% 1/16W (1/8W) tape & wheel resistors unless otherwise specified]			
R322	*CdF RESISTOR 10 Kohm	001-010351-016	1
R311,315	*CdF RESISTOR 12 Kohm	001-012351-016	2
R321	*CdF RESISTOR 220 ohm	001-022151-016	1
R302	RESISTOR 220 Kohm	001-022451-016	1
R314,317	RESISTOR 2.7 Kohm	001-027251-016	2
R320	RESISTOR 5.6 ohm	001-056851-016	1
VR301	SEMI-FIXED DIA.8mm 10 Kohm EVND8AA03B14 DOUBLE CONTACT/HOR. 3PINS (CdF+)	002-103085-100	1
R342	*CdF RESISTOR 100 ohm	001-010151-016	1
R312,316,389	*CdF RESISTOR 1 Kohm	001-010251-016	3
R310,323	*CdF RESISTOR 10 Kohm	001-010351-016	2
R304	RESISTOR 120 ohm	001-012151-016	1
R306,307,309,313	*CdF RESISTOR 4.7 Kohm	001-047251-016	4
R305,308	RESISTOR 56 ohm	001-056051-016	2
R301,303	*CdF RESISTOR 82 Kohm	001-082351-016	2
CAPACITORS			
MC319,320	#MYLAR CAP 0.01 uF/100V +-10%	004-010310-100	2
C318	#MYLAR CAP 0.0047 uF/100V +-5%	004-047250-100	1
C321	ELECT CAP 220 MFD/16V +-20% (6.3x11) (SA16V221M)	006-022101-16D	1
C314,316	#MYLAR CAP 0.01 uF/100V +-10%	004-010310-100	2
C304,310	#MYLAR CAP 0.0022 uF/100V +-5%	004-022250-100	2
C305,312	#MYLAR CAP 0.027 uF/100V +-5%	004-027350-100	2
C313,315	#MYLAR CAP 0.0047 uF/100V +-10%	004-047210-100	2
C303,307	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	2
C301,306,309	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	3
C302,308,326	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	3
C311	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	1
TRANSISTOR			
Q302	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
INTEGRATED CIRCUIT			
IC301	IC LS22241 AMP.CASS	010-732224-000	1
DIODES			
D301,302	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	2
ZD301	ZENER IN-5237B, 8.2V, 1/2W	011-010082-120	1
INDUCTOR			
T301	(F012-000600-010) IFT S4B60R(B) 10mm BLK	012-000460-010	1
WIRES			
FROM E/H TO CON301	HSG CD368-4B(C) PEC 2507-H-4 w/234mm BLK SHIELD WIRE AWG30#UL2547/3C SLDG.2mm	136-040368-C01	1
CON 501 TO DECK MOTOR/ L.SW	HSG 5CD1-4B JST PHR-04 w/310mm BLACK,RED BLUE,YELLOW AWG28#UL1571 SLDG 4mm	136-045CD1-201	1
SWITCH			

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
SW2	REC SWITCH 9P2T, 2mm PS92D01/PS92D01A (CdF)	024-009220-000	1
MISCELLANEOUS			
CON301	HEADER 4PINS PEC #2507-WS-4 P:2.5mm VERTICAL REPLACE:135-005267-040	135-2507WS-040	1
	CASSDECK-SM-T-S03+&& TN-9ZR-219 w/o MOTOR,RP HEAD,E HEAD	150-000219-K00	1
	MOTOR-DC-002V-NORMAL 2V #RF-410CA-12250 (MABUCHI) (TKS-71-A848)	151-021225-000	1
	RP/HEAD-&&-&&&&&&&&& #6PA (CHENWEI)	152-020006-000	1
	RP/HEAD-ST-TECHRECO& #TC-951(039) w/o PCB	152-020951-001	1
GOVERNORS SECTION			
RESISTORS [All are +-5% 1/16W(1/8W) tape & wheel resistors unless otherwise specified]			
R503	*CdF RESISTOR 1 Kohm	001-010251-016	1
R505,508,504	RESISTOR 1.5 ohm	001-015851-016	3
R506	RESISTOR 820 ohm	001-082151-016	1
R501,502,509,510	RESISTOR 8.2 ohm +-5% 2W	001-082850-002	4
R507	RESISTOR 9.1 Kohm	001-091251-016	1
VR501	SEMI-FIXED DIA.8mm 500 ohm DOUBLE CONTACT/ HORIZONTAL 3 PINS (CdF)	002-501085-000	1
CAPACITORS			
C505	CERAMIC CAP 0.001 uF/50V +80%-20% (UP050YF102Z) (AXIAL TAPED 52mm)	003-210280-050	1
C504	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	1
C503	ELECT CAP 100 MFD/10V +-20%(5x11)	006-010100-10D	1
C506	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	1
C502	ELECT CAP 220 MFD/10V +-20%(6.3x11)	006-022100-10D	1
C501	*CdF ELECT CAP 47 MFD/16V +-20% (VX SERIES/5x11)	006-047000-16C	1
TRANSISTOR			
Q501	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
INTEGRATED CIRCUIT			
IC501	IC UTC6650 MOTOR SPEED CONTROL IC	010-396650-000	1
DIODE			
ZD501	ZENER WZ-033, 3.3V, 1/2W	011-010033-120	1
MISCELLANEOUS			
CON501	HEADER CTL 4 PINS PHS-04 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS040-040	1
TUNER SECTION			
RESISTORS[All are +-5% 1/16W(1/8W) tape & wheel resistors unless otherwise specified]			
R209	RESISTOR 1.2 Kohm	001-012251-016	1
R208	*CdF RESISTOR 1 Kohm	001-010251-016	1
	*CdF RESISTOR 100 Kohm	001-010451-016	1
R415	RESISTOR 150 Kohm	001-015451-016	1
R207,413	*CdF RESISTOR 330 ohm	001-033151-016	2
R201	*CdF RESISTOR 3.3 Kohm	001-033251-016	1
R71	*CdF RESISTOR 470 ohm	001-047151-016	1
R204,206	*CdF RESISTOR 4.7 Kohm	001-047251-016	2
R202	RESISTOR 68 ohm	001-068051-016	1
R203,205	RESISTOR 8.2 Kohm	001-082251-016	2
CAPACITORS			
C210	CERAMIC CAP 33 pF/50V +-10%	003-033010-050	1

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	PVC DF443DF01-A04 AM/FM 126/20pF WIRING TYPE (20.2x20.2x13mm)	013-312620-003	1
C212	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	1
C220,221	CERAMIC CAP 20 pF/50V +-10%	003-020010-050	2
C205,208,213	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	3
C222	CERAMIC CAP 30 pF/50V +-10%	003-030010-050	1
C204	CERAMIC CAP 330 pF/50V +-10%	003-033110-050	1
C201	CERAMIC CAP 22 pF/50V +-5% (NPO) (CC45-CH1H220J/RBU04CH220J-L)	003-422050-050	1
C209	CERAMIC CAP 24 pF/50V +-5% (NPO) (CC45-CH1H240JYA/RBU04CH240J-L)	003-424050-050	1
C203	CERAMIC CAP 4 pF/50V +-0.25pF (NPO) (CC45-CH1H040C/RBU04CH040C-L)	003-440830-050	1
MC201,202	#MYLAR CAP 0.018 uF/100V +-10%	004-018310-100	2
MC206,207	#MYLAR CAP 0.0027 uF/100V +-10%	004-027210-100	2
MC203,204,208,209	#MYLAR CAP 0.0068 uF/100V +-10% *CdF POLY CAP 130 pF/50V +-5% (B131J09P2HH33AAA)	004-068210-100	4
	*CdF ELECT CAP 0.1 MFD/50V +-20% (VX/5x11)	005-013100-000	1
EC203,204	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000100-50C	2
EC201,208	ELECT CAP 1 MFD/50V +-20% (5x11)	006-000400-50D	2
EC205,206,207	ELECT CAP 220 MFD/16V +-20% (6.3x11) (SA16V221M)	006-001000-50D	3
EC202	ELECT CAP 33 MFD/16V +-20% (5x11)	006-022101-16D	1
EC209	ELECT CAP 33 MFD/16V +-20% (5x11)	006-033000-16D	1
INTEGRATED CIRCUIT			
IC201	ICREVA-AFM-FR-IF-MPX TA2111N (TOSHIBA)	010-832111-001	1
DIODES			
D201,202	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	2
INDUCTORS			
T301	IFT S7B146R 10mm (GREEN)	012-007146-010	1
L209,210	INDUCTOR 10 mH R0002-CW68-103K-813337/ 3A1565N	018-010012-004	2
T204	*CdF IFT 4A-224R, 10mm	012-002240-010	1
T202	IFT 1A1103R(B) 10mm	012-011030-010	1
	AM COIL 80:40T L1=150mm,L2/3=100mm0.07x3 10.5x32mm AN73-866846 (HERO WELL)	014-080403-150	1
L206	FM COIL 3T, 5mm, DIA:0.8mm (CS58-862492) (2.5Tx5mmx0.8mm/HEROWELL)	015-030050-008	1
L203,208	FM COIL 4T, 5mm, DIA:0.8mm (CS58-862493) (3.5Tx5mmx0.8mm/HEROWELL)	015-040050-008	2
L204	INDUCTOR 10 uH CEC-100K +-10%(CdF)	018-010016-000	1
L201	INDUCTOR 4.7 uH/CEC-4R7K +-10% LAL03 TB 4R7K	018-010477-000	1
	FERRITE BAR 10x70mm (CdF)	032-010070-000	1
RESONATORS			
CF204	CERAMIC FILTER L10.7MS2-A (CQ)	019-000107-029	1
CF203	CERAMIC FILTER LT-465B (SFU465B/GENFIELD)	019-000465-002	1
SWITCH			
SW201/AM FM	SLIDE SW SK22F03G9 AA F30 ALE (8C-CDC-622-18) (Cd FREE)	025-220091-108	1

ELECTRICAL PARTS LIST - CONTINUED

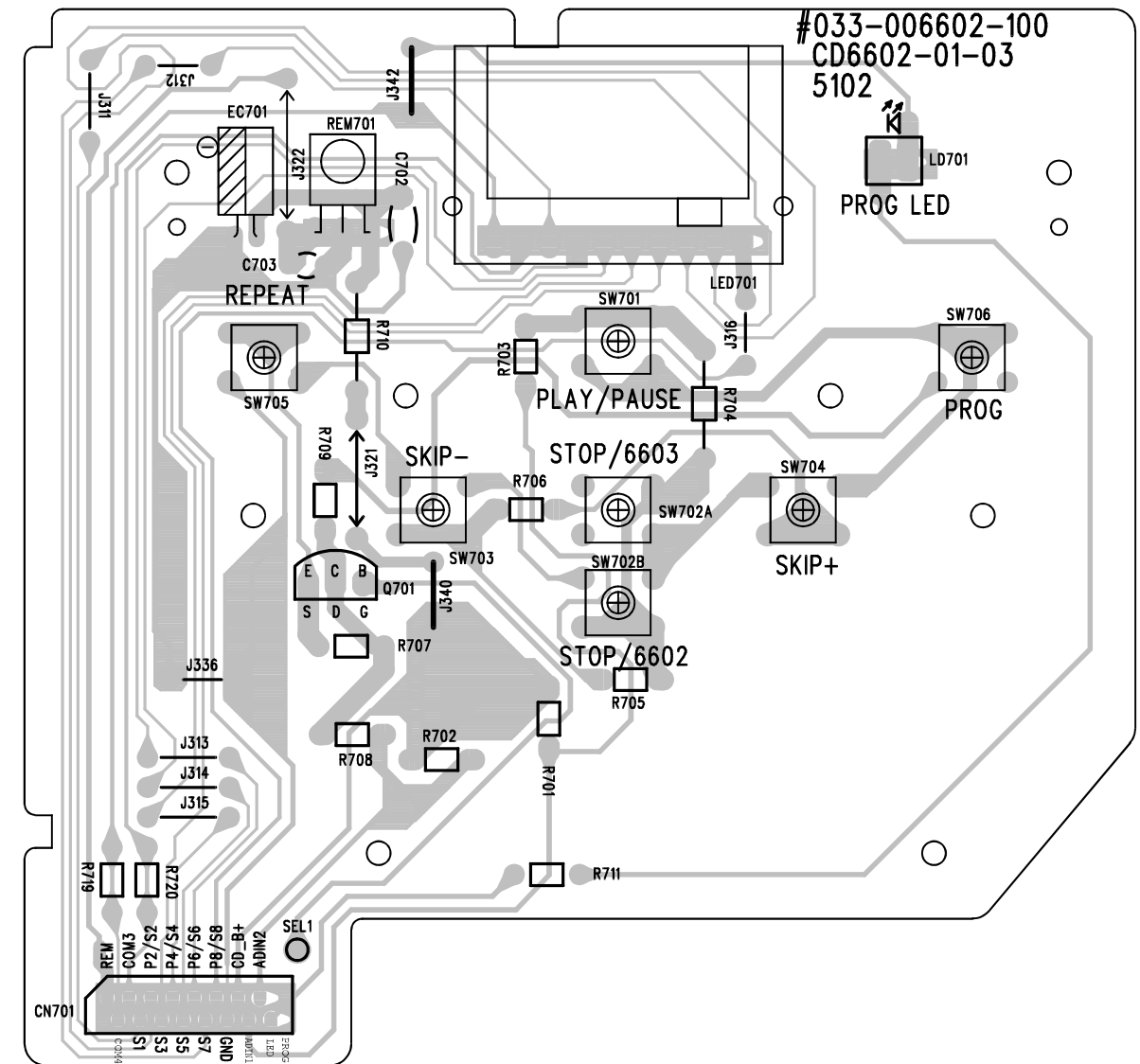
Ref. No.	Description	Mfr's Part No.	Qty.
WIRES			
MO-ST2 TO MO-ST3	JP WIRE AWG26#1007 5x5mm 120mm BLACK	051-675120-009	1
	(F051-679A20-009) JP WIRE AWG26#1007 3x0mm 1200mm BLACK (Cd FREE)	051-679A20-209	1
MISCELLANEOUS			
AM RED, AM BLE, FM IN	SOLDERING PIN	137-300000-002	3
SPEAKER SECTION			
WIRE			
2/SP.WIRE	HSG CD670-2A(C) PEC 2507H-2 w/1830mm BK, BK/WHT STRIPE AWG24#UL2468/2PIN SLDG 5mm	136-020670-C00	2
MISCELLANEOUS			
	SPK00004"008OHM0002W w/SHINNY BLACK CAP MAGNET:32x17x6 #AEF-40R03A/40RB326A	131-408002-012	2
ACCESSORY SECTION			
UNIT"KG"	SOLDERING WIRE 60/40, DIA:0.8mm TYPE #115B/115A (FOR CD ICS) BRAND"SOLNET"	055-006040-108	0.002
UNIT"KG"	SOLDERING WIRE 60/40 DIA. 1.2mm EX Rsn60A 1.2B	055-006040-112	0.0048
UNIT"KG"	SOLDERING BAR (PURE TIN) SN 99.9%	055-100000-001	0.0005
UNIT"KG"	SOLDERING BAR 60/40 SIGMA/KESTER	055-106040-001	0.0125

NOTES:

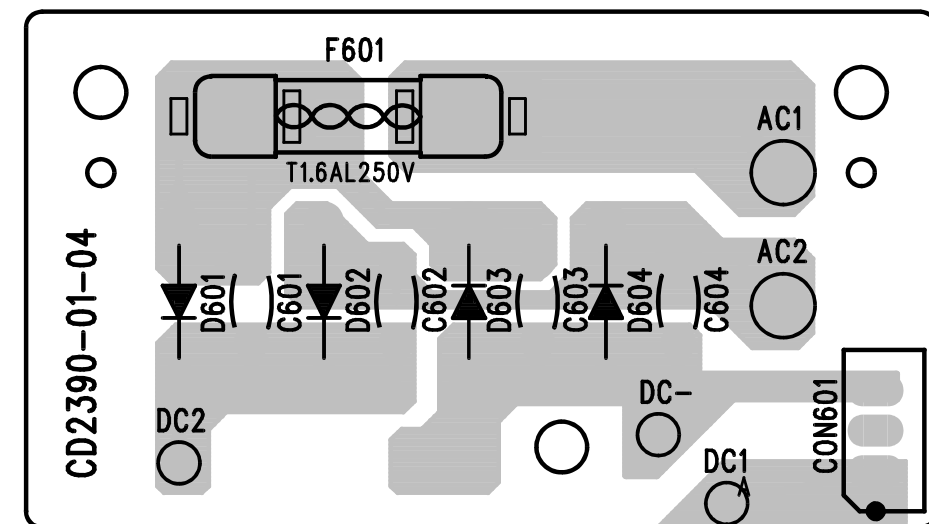
1. " # " Mylar is a registered trademark of E.I. Du Pont de Nemours and Company.
2. ⚠ Symbol in parts list represent safety parts.

PRINTED CIRCUIT BOARDS

CONTROL PCB CD6602-01-03



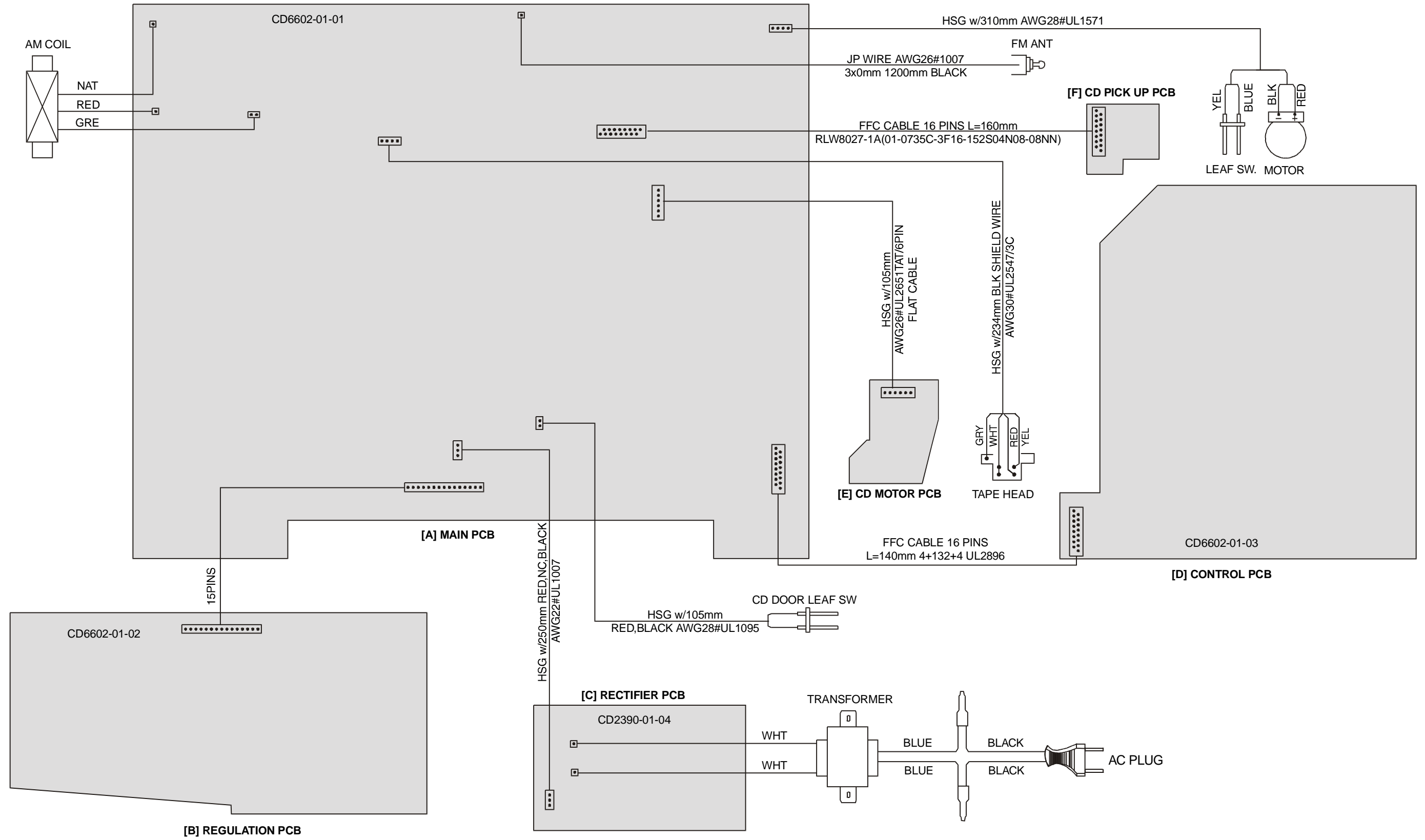
RECTIFIER PCB CD2390-01-04



REMARKS:

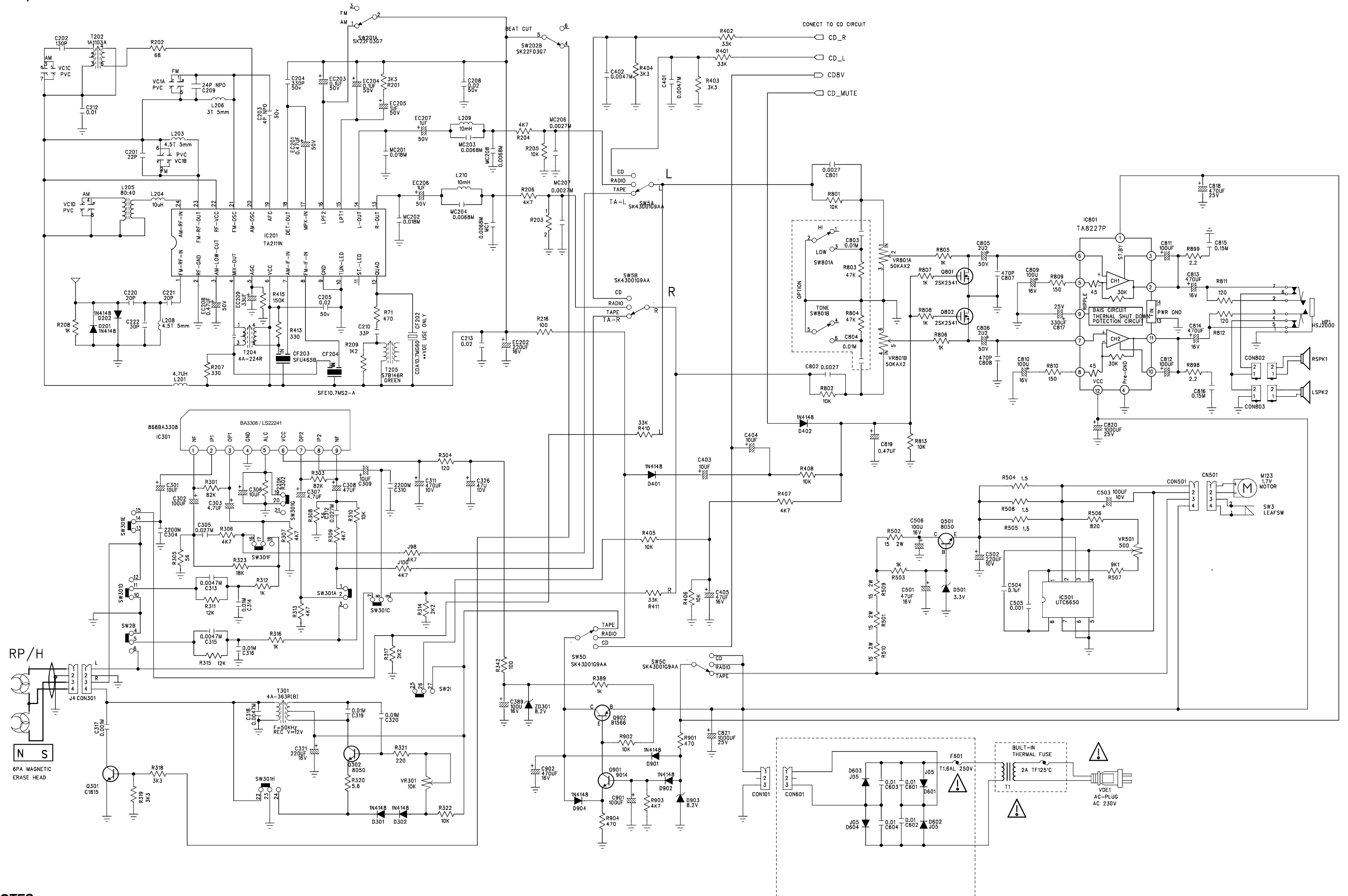
PCB Part No.: 033-006602-300 of this model are assembled and aligned in FULL SET and are supplied in FULL SET for serving.

WIRING DIAGRAM



SCHEMATIC DIAGRAMS

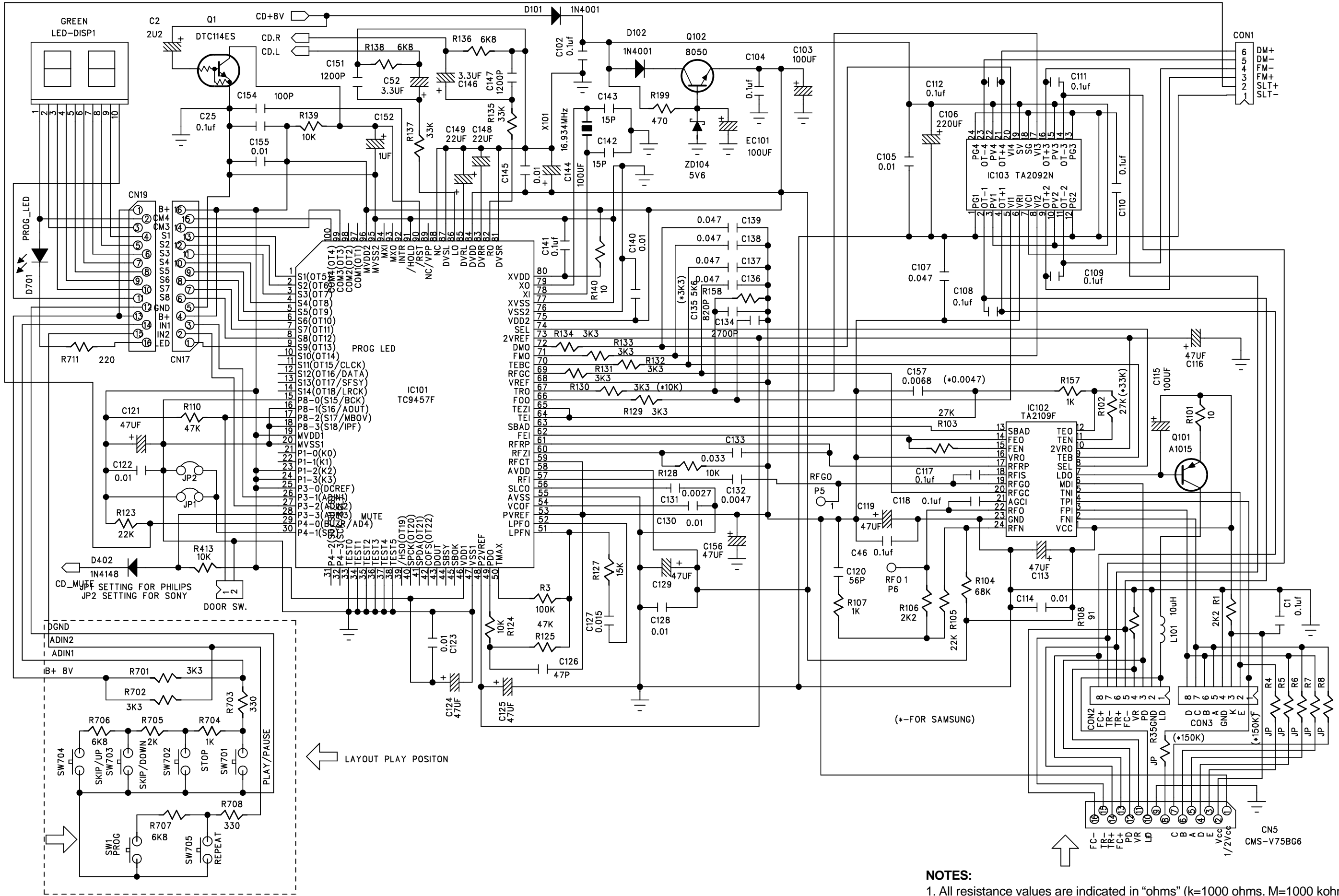
TUNER, CASSETTE & POWER AMP. SECTION



NOTES:

1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 kohms).
2. All capacitance values are indicated in "µF" ($\mu=10^{-6}$ µF).

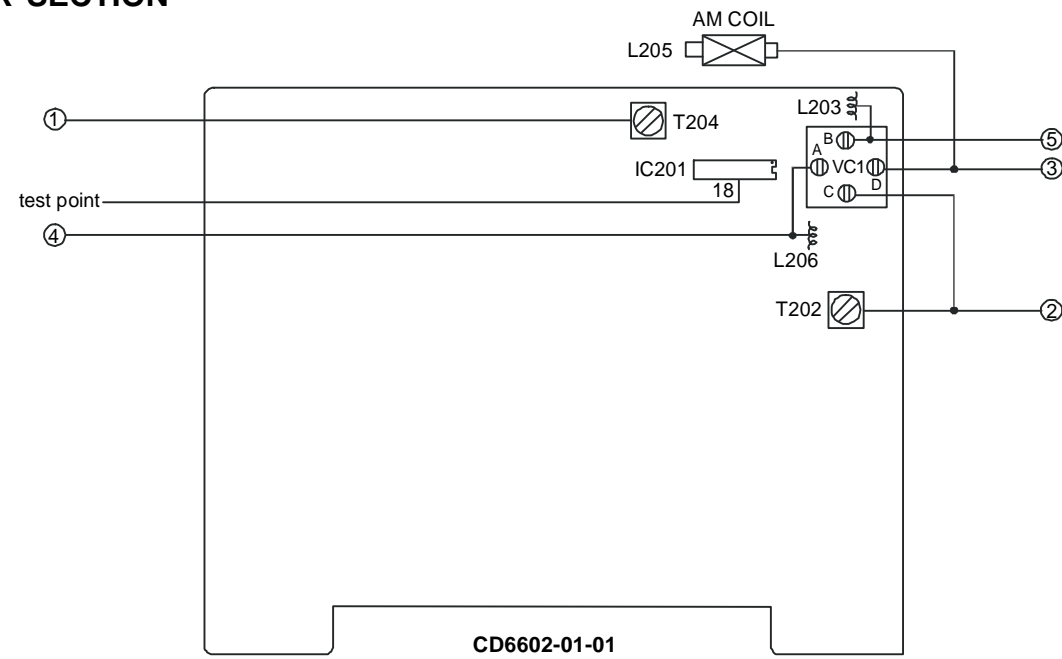
CD & CPU SECTION



NOTES:
 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 kohms).
 2. All capacitance values are indicated in "µF" (p=10⁻⁶µF).

ALIGNMENT SET-UP PROCEDURES

TUNER SECTION



1. AM IF Adjustment

Test point: IC201 (TA2111N) 18Pin
Adjustment location: T204
T204 ----- 465kHz

2. AM Frequency Range Adjustment

Test point: IC201 (TA2111N) 18Pin
Adjustment location: T202, VC1C
T202 ----- 517kHz
VC1C ----- 1650kHz

3. AM Tracking Adjustment

Test point: IC201 (TA2111N) 18Pin
Adjustment location: L205, VC1D
L205 ----- 600kHz waveform max.
VC1D ----- 1400kHz waveform max.

4. FM Frequency Range Adjustment

Test point: IC201 (TA2111N) 18Pin
Adjustment location: L206, VC1A
L206 ----- 87.5MHz
VC1A ----- 108.5MHz

5. FM Tracking Adjustment

Test point: IC201 (TA2111N) 18Pin
Adjustment location: L203, VC1B
L203 ----- 90MHz waveform max.
VC1B ----- 106MHz waveform max.

CASSETTE SECTION

1. Bias Frequency Adjustment

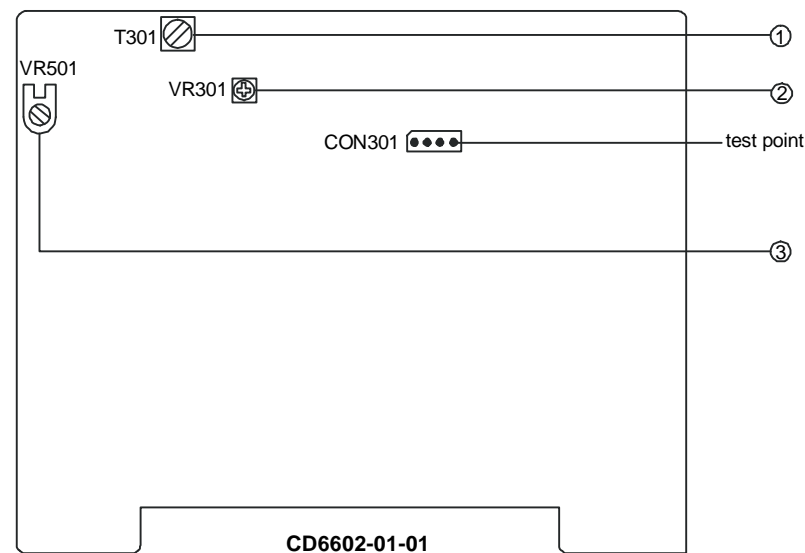
Test point: CON301 4Pin
Adjustment location: T301
T301 ----- 55kHz±5kHz

2. Bias Level Adjustment

Test point: CON301 4Pin
Adjustment location: VR301
VR301 ----- 13V±1V

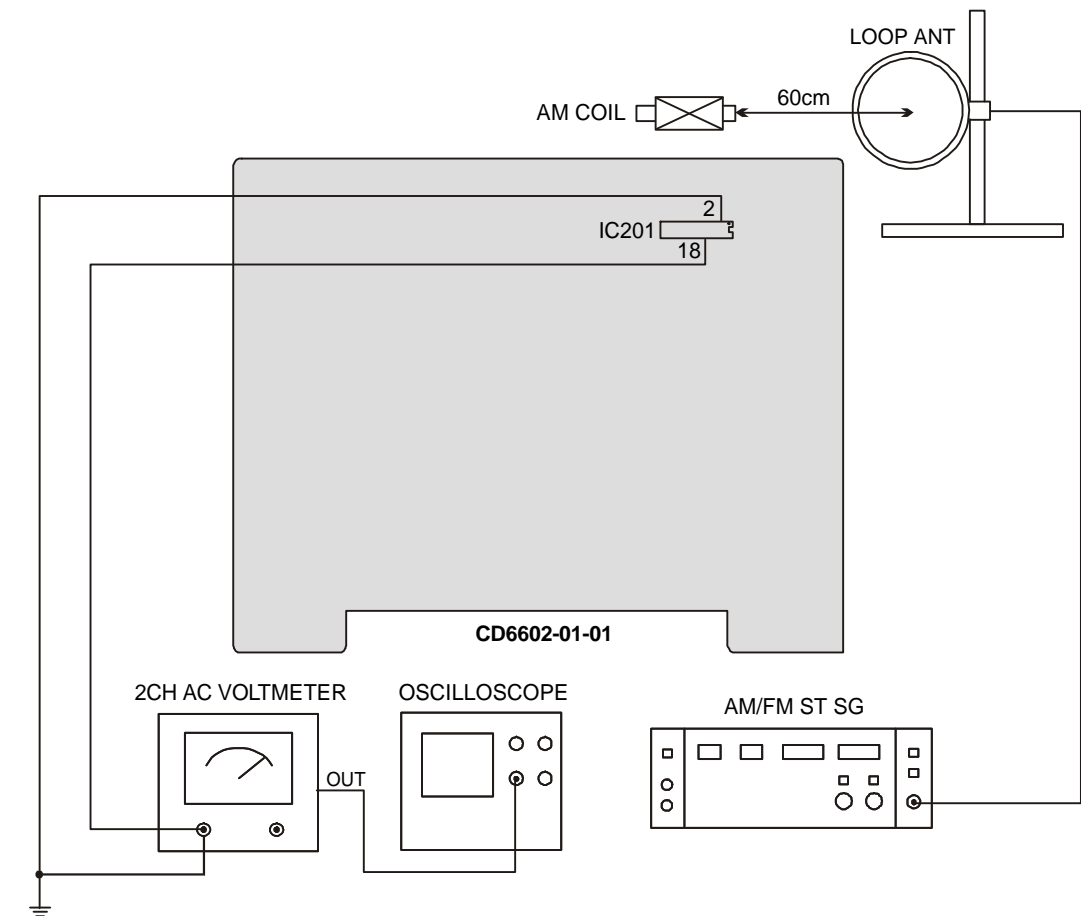
3. Tape Speed Adjustment

Test point: Headphone jack
Adjustment location: VR501
VR501 ----- 3000Hz±90Hz

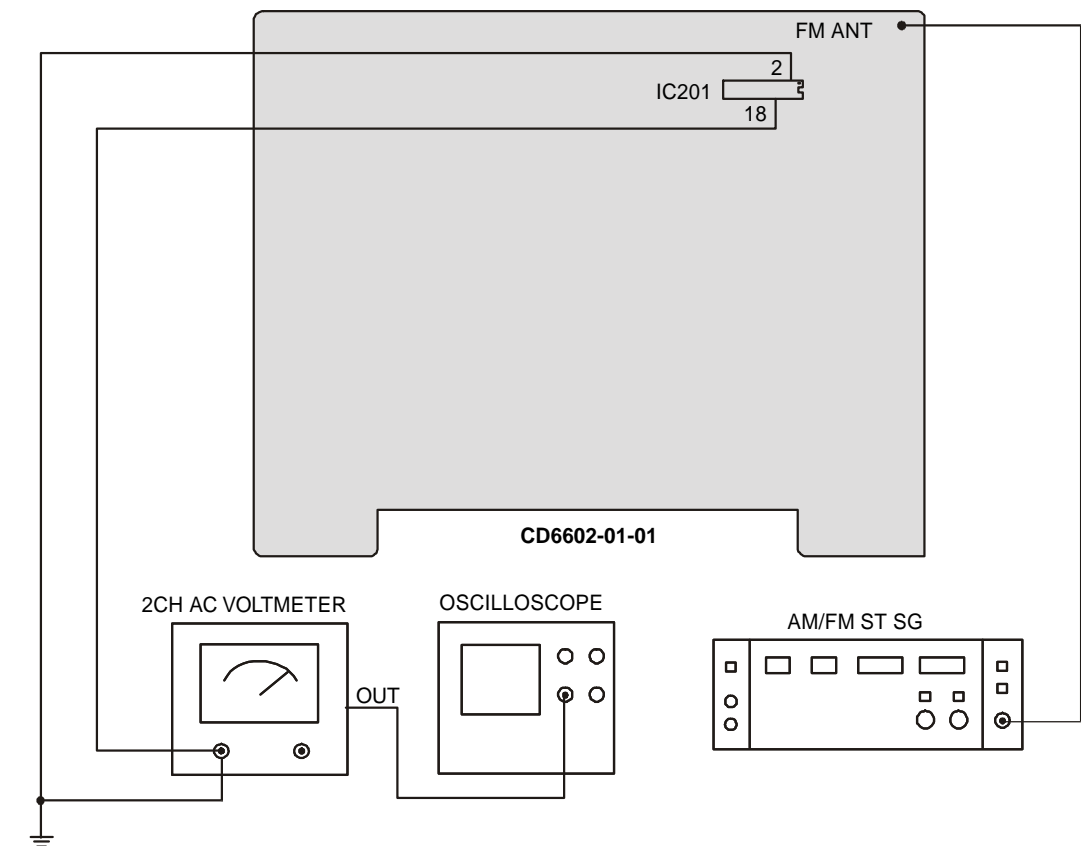


EQUIPMENT CONNECTION DIAGRAMS

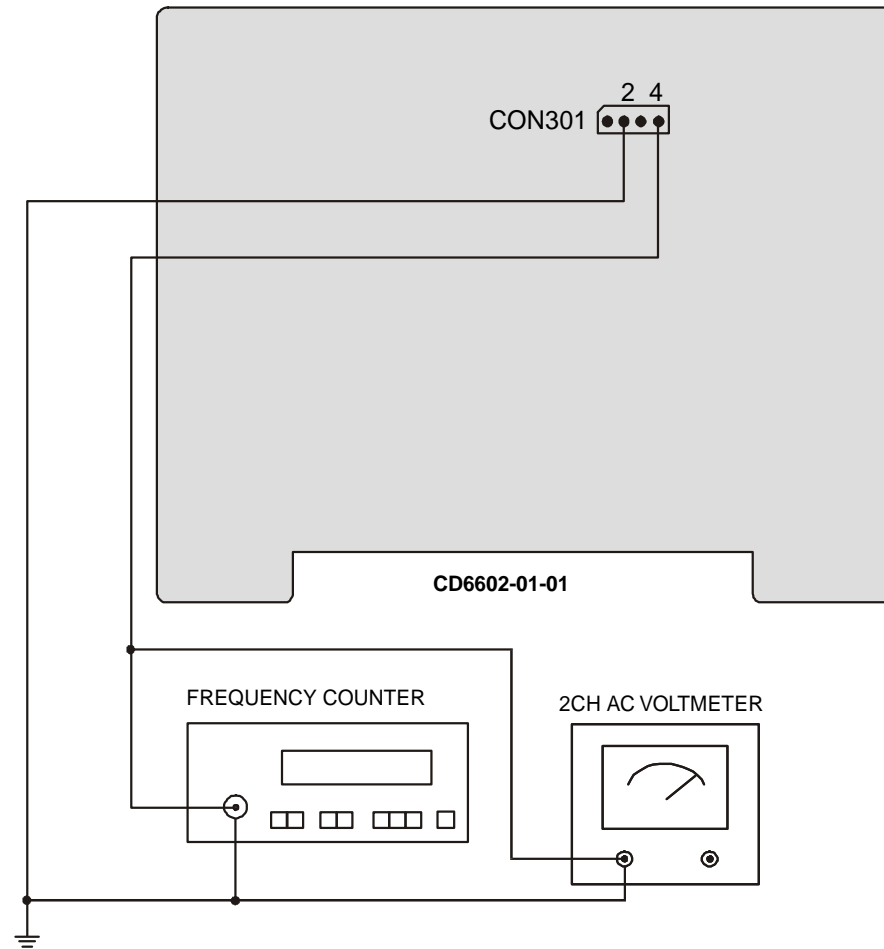
AM SECTION



FM SECTION



CASSETTE SECTION



VOLTAGE CHART

THE MEASURED VALUE IS DC VOLTAGE

UNIT: V

TUNER SECTION

TEST CONDITION: SET AM/FM TUNER ON ONE FREQUENCY

IC201 (TA2111N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
AM	0	0	1.28	5.65	0.42	5.66	4.91	5.69
FM	0.82	0	0.38	3.90	0.44	4.01	3.88	4.01
PIN'S NUMBER	9	10	11	12	13	14	15	16
AM	0	0	0.29	5.11	1.33	1.33	5.69	5.60
FM	0	0	4.70	3.22	1.27	1.27	3.27	3.12
PIN'S NUMBER	17	18	19	20	21	22	23	24
AM	0.72	1.12	1.12	5.66	5.66	5.65	5.65	5.58
FM	0.71	1.07	0.42	4.01	4.46	4.01	4.46	4.01

CASSETTE & POWER SECTION

TEST CONDITION: TAPE PLAY

IC301 (LS22241/BA3308)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9
PLAY	1.82	0	1.84	0	0	6.67	1.85	0	1.83

IC501 (UTC6650)

PIN'S NUMBER	1	2	3	4	5	6	7	8
PLAY	1.83	3.12	3.17	2.98	0	0	1.34	0.69

IC801 (TA8227P)

PIN'S NUMBER	1	2	3	4	5	6
PLAY	9.57	4.94	9.20	0	0.59	0
PIN'S NUMBER	7	8	9	10	11	12
PLAY	0	0.59	5.23	9.20	4.94	9.56

TRANSISTOR	Q301(9013)			Q302(9013)		
	E	C	B	E	C	B
PLAY	0	0	0	7.21	7.52	7.53
REC.	0	17.60	0	0	5.86	0.65

TRANSISTOR	Q901(9013)			Q902(B1566)		
	E	C	B	E	C	B
PLAY	7.10	12.40	7.70	13.00	7.80	12.40

CD SECTION & CPU SECTION

TEST CONDITION: CD PLAY

IC103 (TA2092N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	2.95	6.93	3.37	2.11	2.04	3.15	2.05
PIN'S NUMBER	9	10	11	12	13	14	15	16
	3.02	6.92	3.25	0	0	3.16	6.91	3.20
PIN'S NUMBER	17	18	19	20	21	22	23	24
	2.04	0	6.92	2.13	3.41	6.92	2.91	0

VOLTAGE CHART - CONTINUED

IC102 (TA2109F)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	4.81	2.03	2.03	2.10	2.03	0.18	3.62	2.39
PIN'S NUMBER	9	10	11	12	13	14	15	16
	2.17	4.06	2.04	2.08	3.18	2.06	2.04	2.04
PIN'S NUMBER	17	18	19	20	21	22	23	24
	2.93	2.03	2.04	1.16	2.03	2.17	0	2.04

IC101 (TC9457F)

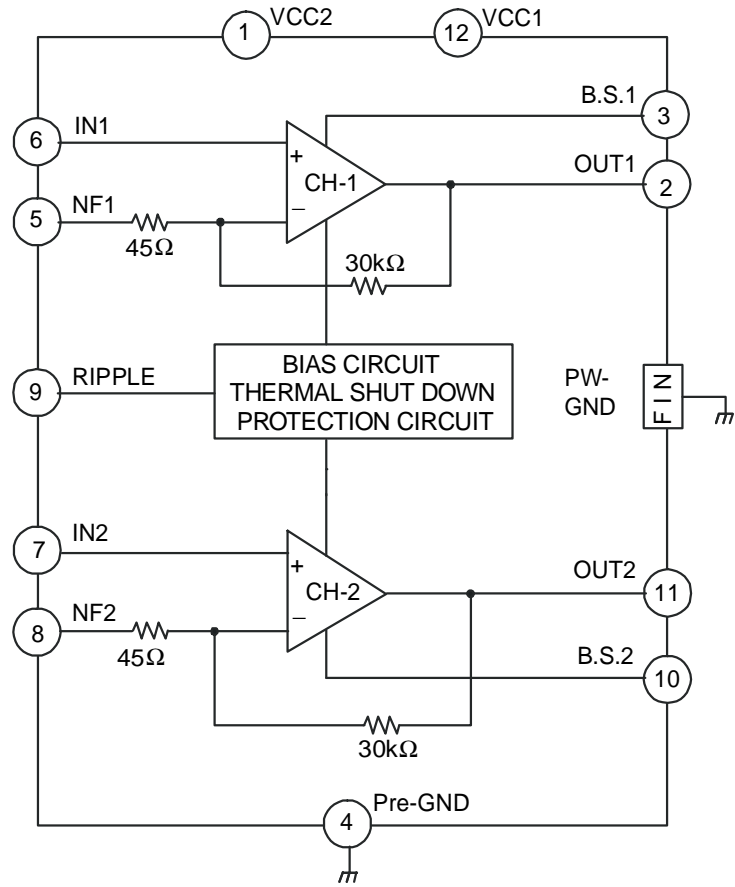
PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
	2.90	2.87	4.79	2.88	2.84	4.78	2.88	2.85	4.79	4.79
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
	4.79	4.78	0	0	0	0	0	0.11	4.84	0
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
	0	0	4.84	4.84	4.84	4.84	4.84	0	4.83	0
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
	0.65	0	0	0	0	0	0	0	4.84	2.42
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
	0.90	1.62	2.41	0	4.85	4.85	0	4.08	2.05	2.03
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
	0	1.86	2.05	1.48	0	2.10	2.06	4.84	2.05	2.05
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
	3.01	2.07	3.08	2.10	2.10	0	2.04	0	1.24	2.13
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
	2.06	0	4.08	2.40	4.85	0	0	2.07	2.35	4.78
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
	0	2.54	0	4.82	2.43	2.57	0	0	0	4.83
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
	0	0.12	4.83	0.14	0	0	0	0	1.91	2.28

IC PINS DESCRIPTION & IC BLOCK DIAGRAMS

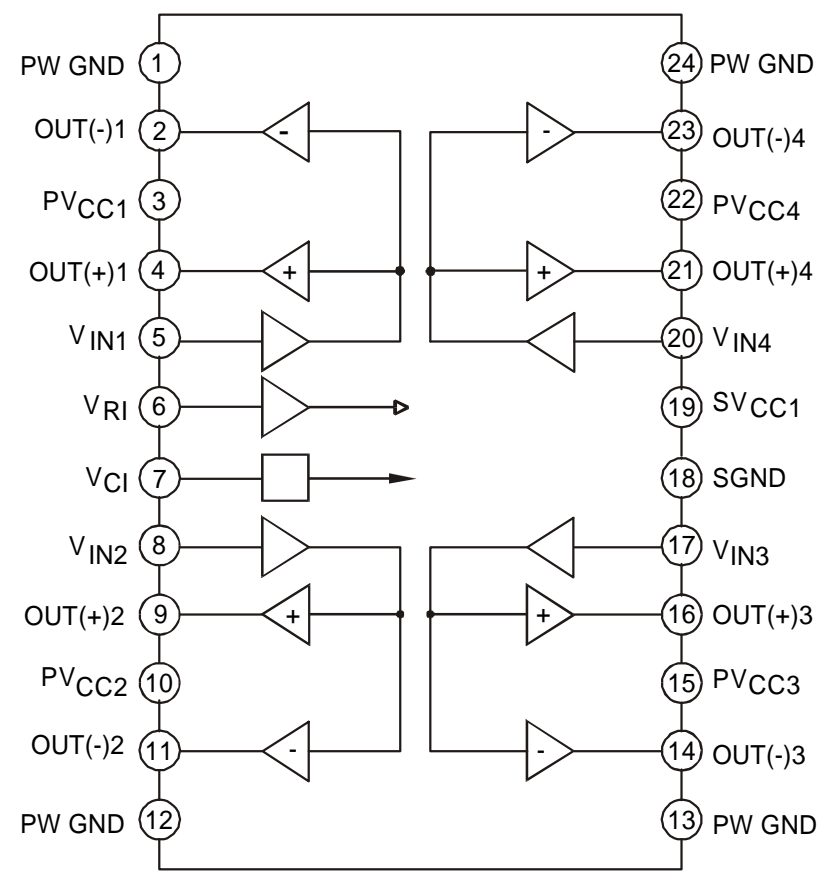
IC101 TC9457F PINS DESCRIPTION

Pin No.	Symbol	Pin Name	IN/OUT	Active	Init	Function
1-12	S1/OTS to S12/OT16	SEG0 to SEG8 (LED) / SEG0 to SEG5 (LED)	OUT	L/-	-	Track number display (2 digits) [play] & [REPEAT] mark [PROG] mark Connect to LCD or LED Refer to LCD or LED map
13-14	S13/OT15 to S14/OT18	NC	OUT	-	L	NC
15	S15/P8-0 CLCK	CDSEL0	IN	-	-	CD SEL0
16	S16/P8-1 /DATA	CDSEL1				CD SEL1
TL"=TOP Loading FL"=FRONT Loading						
17	S17/P8-2 /SFSY	DOOR IN	IN	L	-	Door status input ports TL FL P8-2: SW SW P8-3: L SW
18	S18/P8-3 /LRCK	DOOR OUT				
19-20 CD CONTROL PORT						
21	P1-0 (K0)	TRAY CLOSE	OUT	H	L	Tray output ports
22	p1-1 (k1)	TRAY OPEN				
23	P1-2 (K2)	DIGITAL SERVO DATA SEL 0	IN	-	-	DIGITAL SERVO DATA select
24	P1-3 (K3)	DIGITAL SERVO DATA SEL1				
25	P3-0/DCREF	LED DISPLAY ENABLE	IN	H	-	LED display enable input port H = LED display L = LCD display
26	P3-1/ADin1	A/D KEY INPUT1	IN	-	-	AD key input ports
27	P3-2/ADin2	A/D KEY INPUT2	IN	-	-	Refer to KEY map
28	P3-3/ADin3	Mute	OUT	L	L	Muting output port
29	P4-0/ADin4	PU INNER	IN	L	-	Pick up inner input port
30	P4-1	DIGITAL SERVO DATA SEL2		-	-	DIGITAL SERVO DATA select pin NO 23 24 30 SONY 0 0 0 SANYO 1 0 0 SHARP 0 1 0 SAMSUNG 1 1 0 THOMSON 1 0 1 PHILIPS 0 0 1
31	P4-2	NC	OUT	-	L	
32	P4-3	NC	OUT	-	L	
33-38	TEST0 to TEST5	GND	IN	-	-	Connect to GND
39-89 CD CONTROL PORT						
90	REST	REST	IN	L	-	Reset = L
91	HOLD	SYNCREC	IN	H	-	SYNCHRO REC INPUT PORT H = REC ON L = REC OFF
92	INTR	REMO-IN	IN	-	-	Remote control input
93-96 CD CONTROL PORT						
97-100	OT1 to OT4 /COM1 to COM4	COM1.COM2 (LED) COM1 to COM4 (LCD)	OUT	H	-	Connect to LCD or LED Refer to LCD or LED map

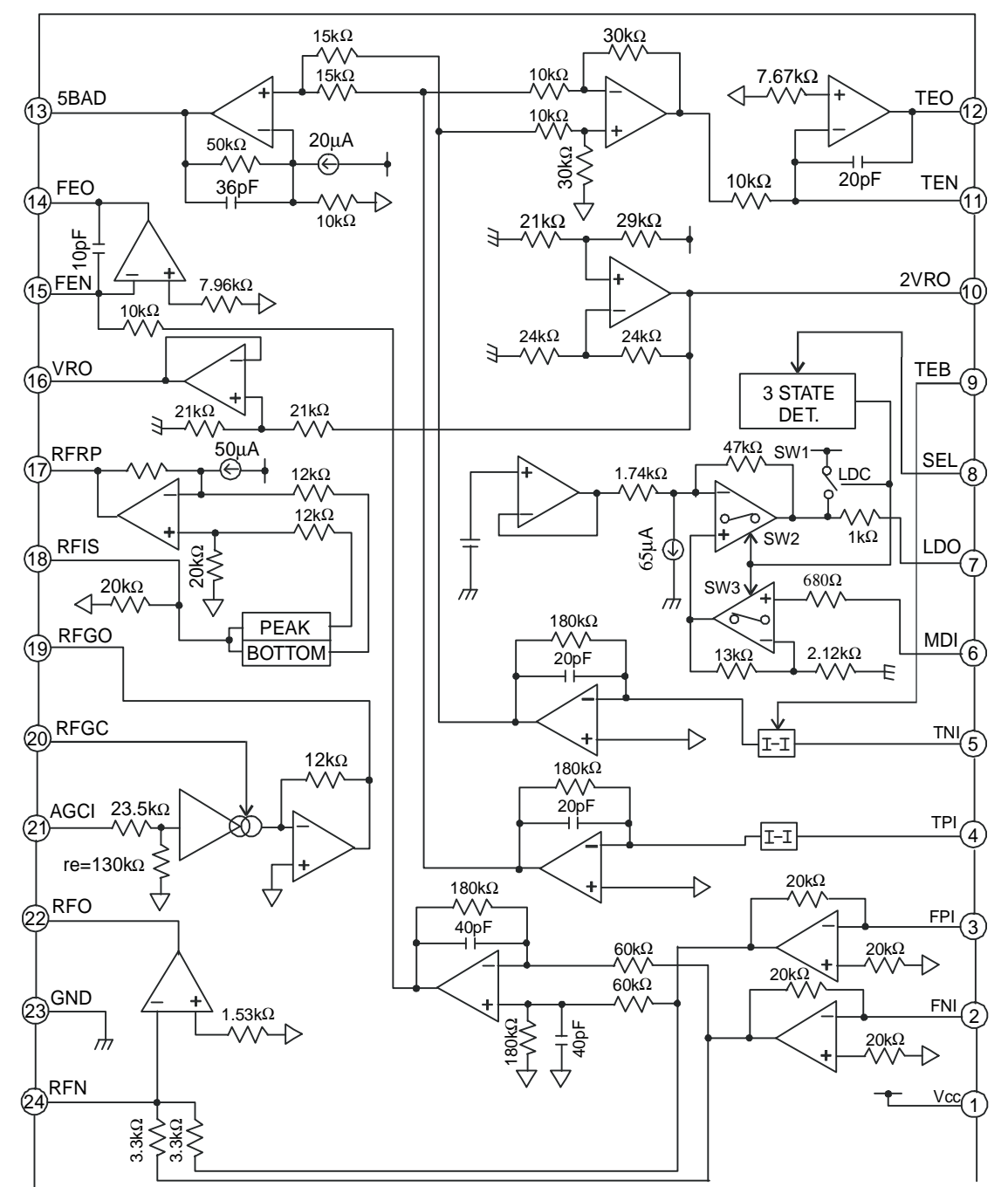
IC801 TA8227P



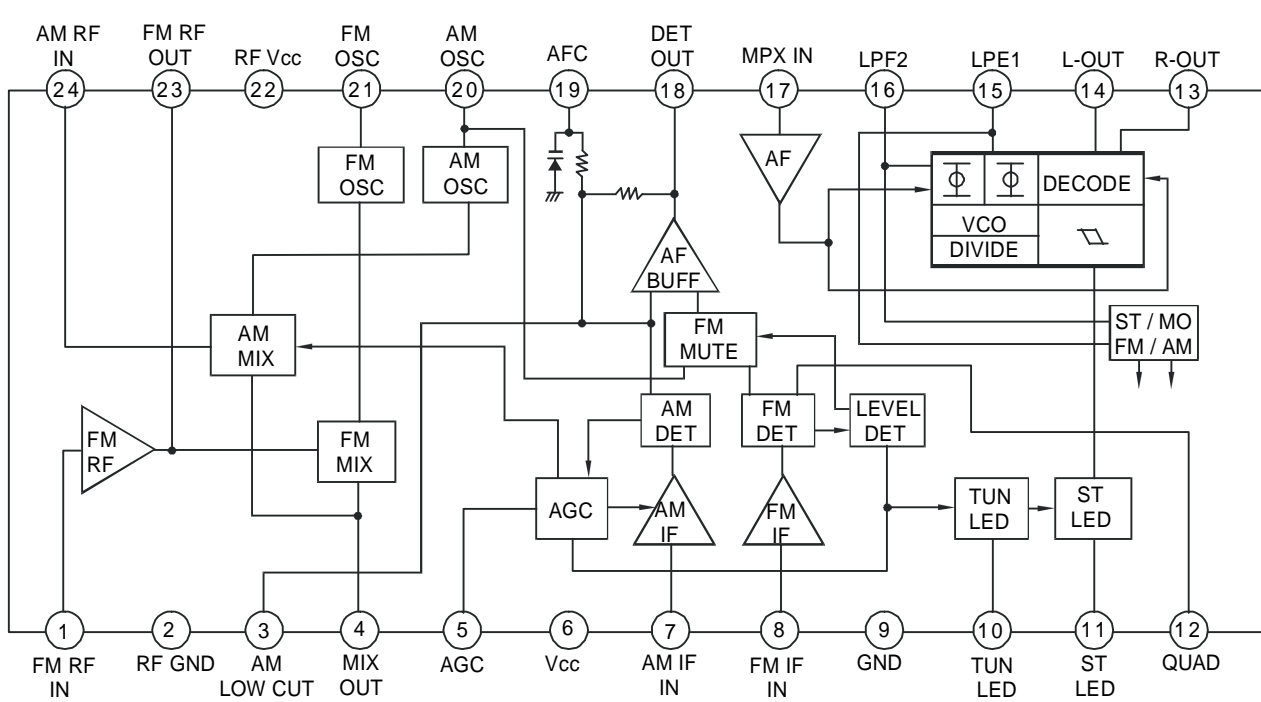
IC103 TA2092N



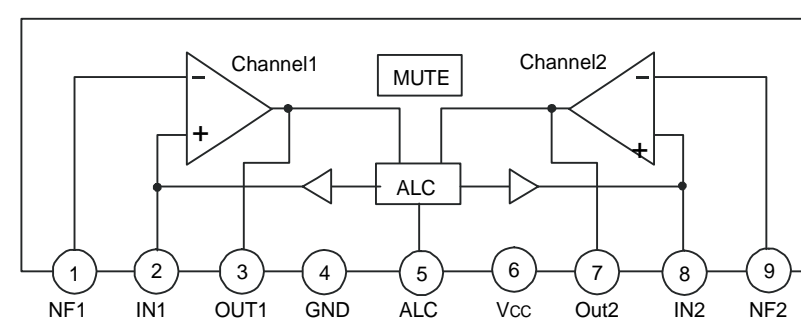
IC102 TA2109F



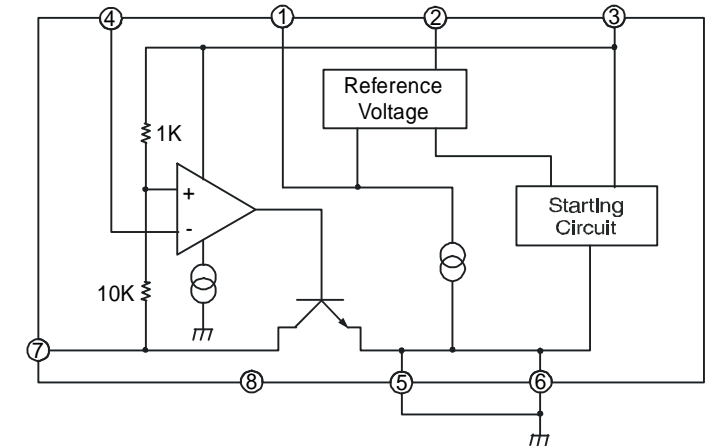
IC201 TA2111N



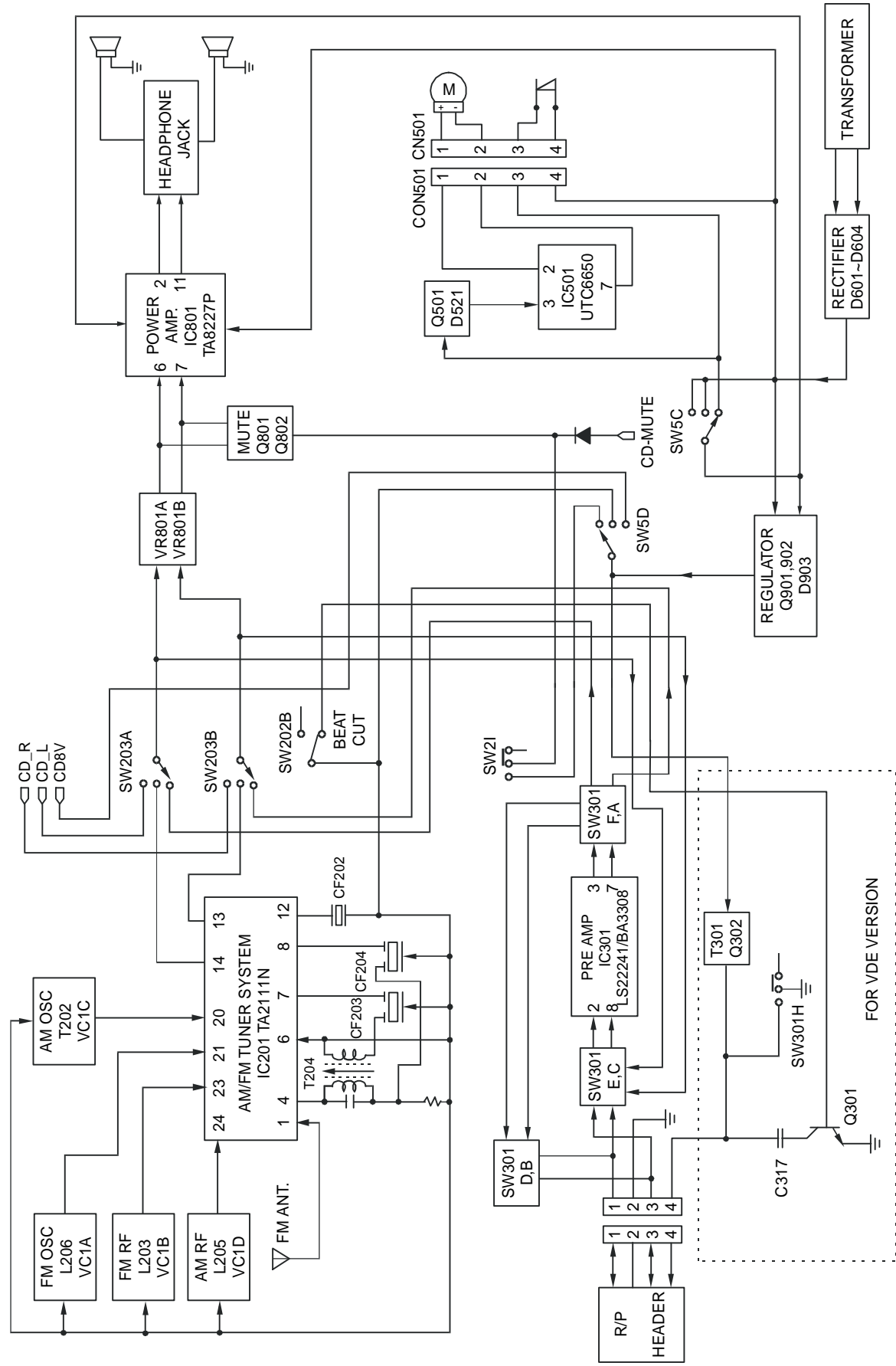
IC301 LS22241



IC501 UTC6650

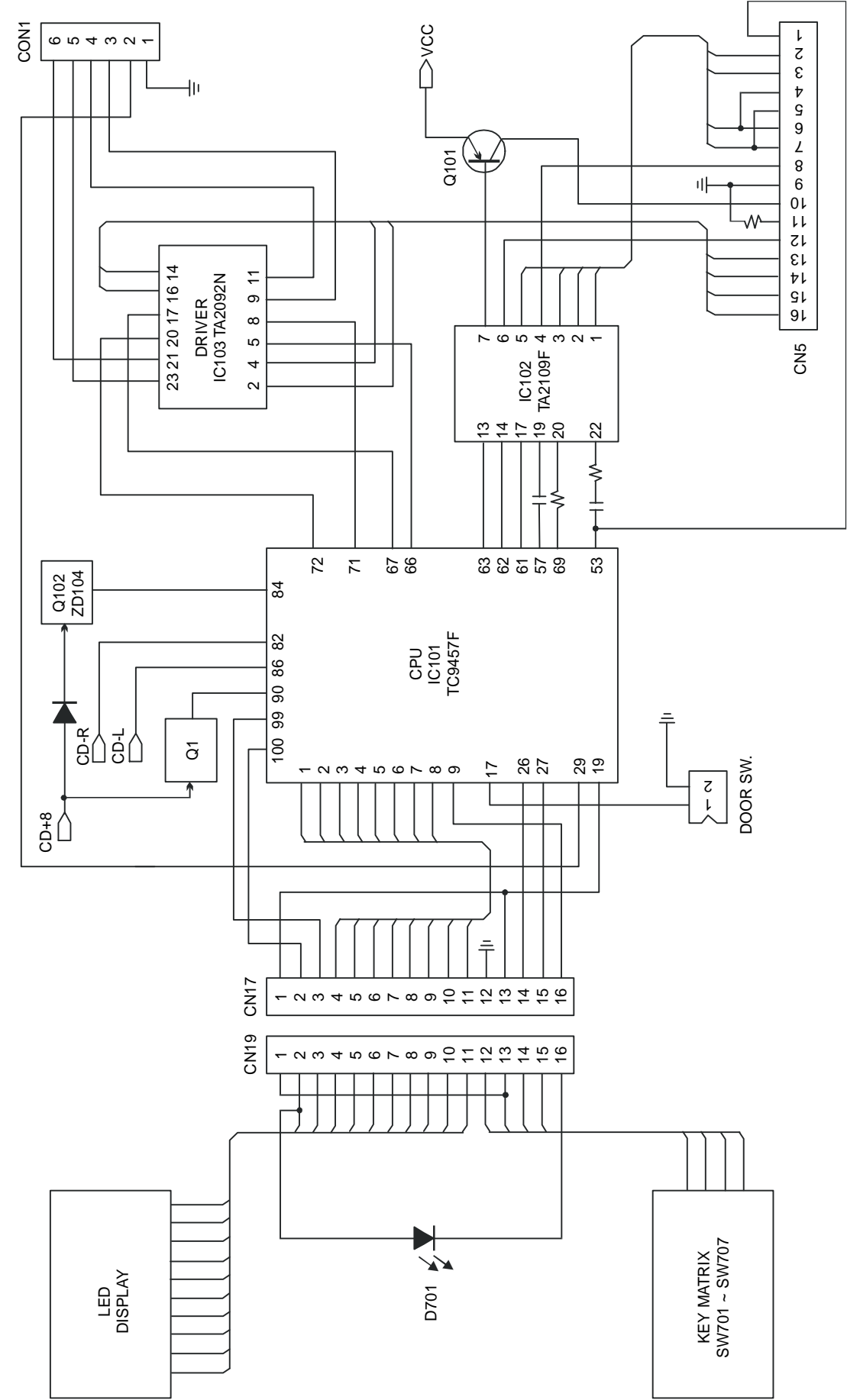


TUNER & POWER AMP. SECTION



BLOCK DIAGRAMS

CD & CPU SECTION



EXPLODED DRAWING PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
MAIN UNIT			
1	CD DOOR LENS, MOLD TRANS. BLUE(J34053) (SAN), CAV:1, w/PNT (w/RC)	500-660306-xxx	1
2	CD DOOR, MOLD C.GREY 9C (ABS) CAV:1, w/SPY & PNT	500-660303-xxx	1
3	CD DOOR SPRING, DIA:0.9mm (SUS WIRE)	561-660344-000	1
4	CD KNOB SET, MOLD COOL GREY 9C (ABS) CAV:2, w/SPY	510-660311-xxx	1
5	CD PLAY KNOB, MOLD COOL GREY 9C (ABS) CAV:2, w/SPY	510-660323-xxx	1
6	LEDD-G0.5IN-2.0D-C-R A505GD-D GREEN, LY 5045-N / F1-2050AHG1	CED701 111-000505-004	1
7	LED DISPLAY HOLDER, MOLD COOL GREY 9C (ABS) CAV:2	505-660218-000	1
8	CONTROL PCB CD6602-01-03	033-006602-100	1
9	CD DOOR COVER, MOLD COOL GREY 9C (ABS) CAV:2	500-660265-000	1
10	TRANSFORMER SHIELD PLATE, T=0.35mm, Z-11 STEEL PLATE	650-660262-000	1
11	POWER TRANSFORER	123-xxxxxx-xxx	1
12	CASS KNOB COVER RUBBER, 8x8x2mm THK PORON HH48C	700-130148-000	4
13	BACK CABINET, MOLD C.GREY 11C (HIPS) CAV:1, w/PNT (8 ohm)	500-660202-xxx	1
14	FM ANTENNA COVER, MOLD COOL GREY 11C (ABS) CAV:4	500-630147-008	1
15	TOP COVER, MOLD COOL GREY 9C (ABS) CAV:2, w/SPY & PNT	500-660208-xxx	1
16	REGULATION PCB CD6602-01-02	033-006602-300	1
17	HEAT SINK, T=2.0mm ALUMINIUM	613-0CDG74-000	1
18	MAIN PCB CD6602-01-01	033-006602-300	1
19	RECTIFIER PCB CD2390-01-04	033-002390-100	1
20	CORD CLAMP WASHER (SUCCESS)	532-900003-001	1
21	CD CUSHION CAP, MOLDED BLACK, CAV.12 (ABS)	509-130153-000	2
22	*CdF CD CUSHION, HARDNESS TO BE 35+-2 DEGREE, DURO,LIGHT GREY,MAT'L:IIR	700-189239-001	4
23	CD&-TLB-01-SAMG-N CD MECHANISM CMS-V75BG6(U)	153-000756-000	1
24	CD COVER, MOLDED BLACK, CAV.2 (ABS)	500-128116-000	1
25	CD DDOR SPRING BRACKET, T=0.8mm (E.G. STEEL)	605-660351-000	1
26	LEAF SWITCH LSA-1120Y2 (CdF)	022-001120-002	1
27	MOUNTING PLATE, T=0.8mm (EG STEEL)	650-078864-000	4
28	FRONT PANEL, MOLD C.GREY 9C (HIPS) CAV:1, w/SPY	500-660201-xxx	1
29	CASS DOOR FRAME, MOLD COOL GREY 9C (ABS) CAV:2	500-660605-000	1
30	CASS DOOR, MOLD C.GREY 9C (ABS) CAV:1, w/SPY & PNT	500-660104-xxx	1
31	CASS DOOR LENS, MOLD TRANS.BL (J35053) CAV:1, w/PNT	500-660107-xxx	1
32	FRONT COVER, MOLD COOL GREY 9C (ABS) CAV:2, w/SPY	500-660219-xxx	1
33	CASS DOOR SPRING, DIA:0.8mm (SUS WIRE)	561-660243-000	1
34	POINTER, MOLD GREEN (PMS354C) (LDPE-PP) CAV:2 (LDPE-PP) CAV:2	502-660220-000	1
35	DIAL PLATE, T=0.5mm, TRANS PVC, w/PNT, S:91.5x14.5mm	650-660225-xxx	1
36	DIAL GEAR-A, MOLD COOL GREY 9C (ABS) CAV:2	509-660216-000	1
37	POINTER COVER SHEET, 0.5mm THK'S PVC SHEET	650-660226-000	1
38	CASSETTE SPRING PLATE, T=0.3mm STAINLESS STEEL	650-189252-000	1
39	CASSDECK-SM-T-S03+&& TN-9ZR-219, w/o MOTOR,RP HEAD,E HEAD	150-000219-K00	1
40	(F550-769A41-000) GEAR HOLDER, MOLDED NATURAL, CAV.8 (ABS)	505-769A41-000	1
41	(F700-769A42-000) GEAR, MOLDED NATURAL, CAV.8 (ABS)	509-769A42-000	1
42	DIAL GEAR-B, MOLD COOL GREY 9C (ABS) CAV:2	509-660264-000	1
43	DIAL GEAR BRACKET, MOLD COOL GREY 9C (ABS) CAV:2	505-660217-000	1
44	RECORDING PLATE, T=0.6mm (SUS PLATE)	650-660252-000	1

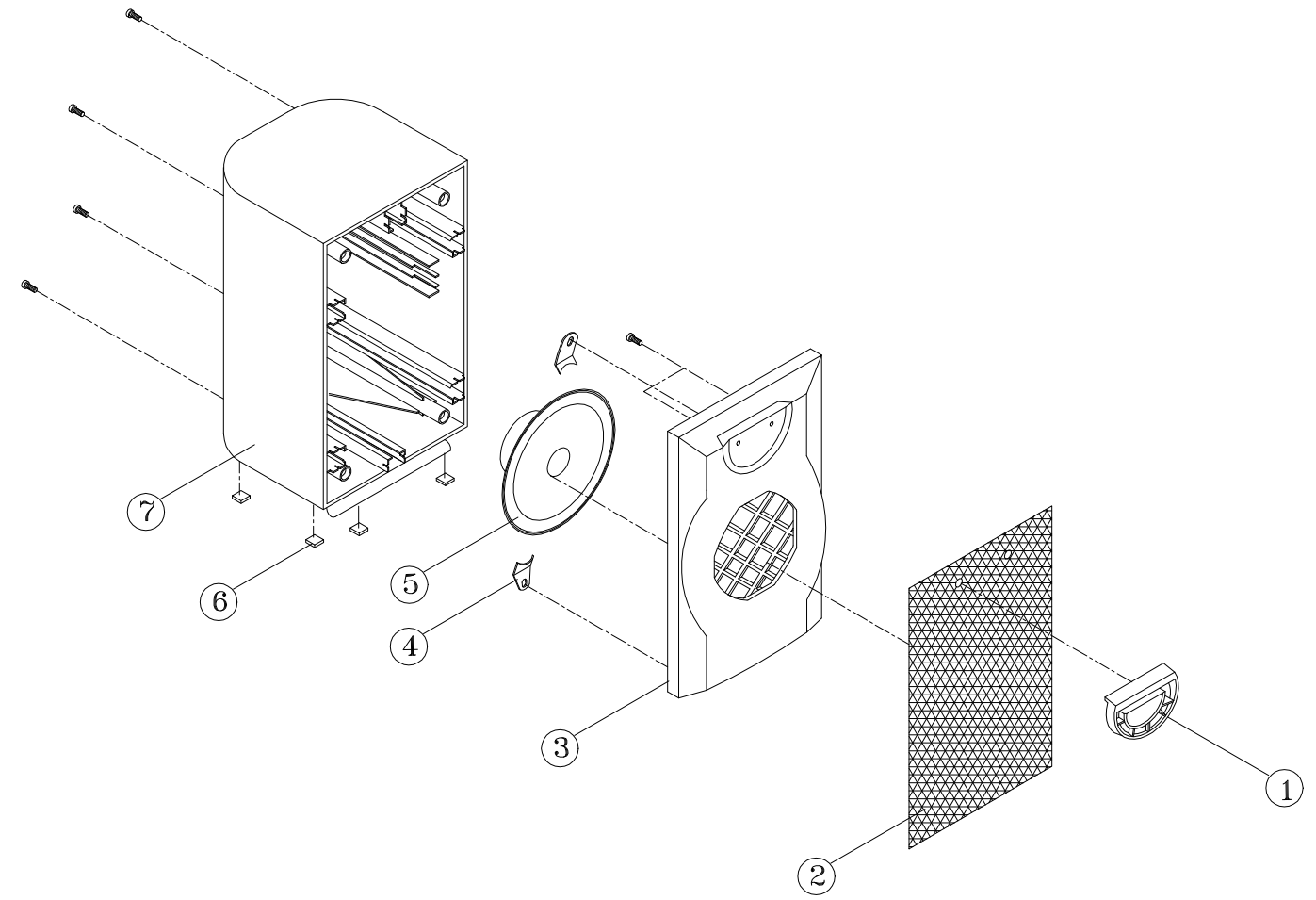
EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
45	CASS KNOB SET, MOLD COOL GREY 9C (ABS) CAV:2	510-139110-002	1
46	TUNING KNOB, MOLD COOL GREY 9C (ABS) CAV:2	510-660215-000	1
47	VOLUME KNOB, MOLD COOL GREY 9C (ABS) CAV:2	510-660210-000	1
48	FERRITE BAR 10x70mm (CdF)	032-010070-000	1
49	*CdF (F550-250000-000) ANTENNA BAR HOLDER	505-250000-000	2
50	HEADPHONE JACK STEREO 3.5mm #MSJ-2000, (87-A60-420-01)	HP1 116-002000-351	1
51	HEAT SINK, T=0.5mm (SOLDERING STEEL PLATE)	613-021716-000	1
52	(F550-630123-000) PCB CONNECTION BRACKET, MOLDED BLACK, CAV.4 (ABS)	505-630123-000	1
53	SENSOR HOLDER, MOLD COOL GREY 9C (ABS) CAV:2	505-660314-000	1
	RUBBER FOOT, DIA:10x2mm THK PORON, w/N500 BLACK	1/DIAL GEAR A-DIAL GEAR B 700-CD8065-000	1
	*CdF WIRE JOINT IN/CLIP TYPE CE-2	700-000200-000	2
	SPONGE, SIZE:15mmx15mmx10mm	700-0228A3-000	3
	METAL TIE(CdF)	727-000001-000	1
	4" CABLE/PLASTIC TIE (SKB-1M/CV-100)(CdF)	727-000100-000	4
	PVC HEAT SHRINKABLE TUBE DIA. 3mm (UNITUBE), (UL/CSA APP) (CdF)	UNIT"M" 728-015030-001	0.045
	METAL WASHER DIA:2.8/DIA:9.5x0.5mm	2/CD MECH 532-202809-550	2
	RUBBER PAD, 7.0x4.0x2.0mm (PORON RUBBER)	2/CD DOOR 700-130152-000	2
	SCREW ST2x8mm, PAB BRASS BASED (M2.3H)	4/CONTROL PCB 720-010200-080	4
	SCREW ST2x12mm KAB BLACK ZINC	4/CD DOOR COVER 720-020200-121	4
	SCREW ST2.6x17mm BB w/CHROMATE-PLATING	4/CD MECH 720-110260-172	4
	SCREW ST3x6mm, BB BRASS BASED	2/CD DOOR SPRING BKT 720-110300-060	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	1/GEAR HOLDER 720-110300-080	1
	TOOTH WASHER Ø3mm Zn	1/PVC GEAR 532-103000-000	1
	FIBRE WASHER DIA:3mmx6mmx0.4mm	2/PCB-SCREW 532-303006-040	2
	RUBBER PAD, 7.0x4.0x2.0mm (PORON RUBBER)	2/TOP COVER 700-130152-000	2
	BATTERY SPONGE 55x14x10mm W/DOUBLE	0.5/SET 700-993853-000	0.5
	ADHESIVE TAPE , 9938-53, GREY		
	SPK. BOX FELT 80x8x0.3mm, BLACK, (TSB#PM0005432010) (CdF)	0.5/F.PANEL 700-993856-000	0.625
	SCREW ST2x8mm, PAB BRASS BASED (M2.3H)	2/FRONT COVER-FRONT PANEL 720-010200-080	2
	SCREW ST2.6x8mm, PAB (M3 HEAD) (M3H) BRASS BASED	720-010260-080	3
	SCREW ST3x8mm, PWAB BRASS BASED	3/PCB-PCB CONNECTION BKT 720-030300-080	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	1/GEAR-FRONT PANEL 720-030300-080	2
	SCREW 2.6x6mm PM w/CHROMATE-PLATING	1/DIAL BKT-DIAL GEAR-B 720-110300-080	7
	SCREW 3x10mm, PM BRASS BASED	5/MAIN PCB 720-110300-080	7
	SCREW 2.6x4mm, KM (HEAD Ø4.2mm) BRASS BASED	2/DIAL GEAR BKT-PCB 721-010260-062	1
	NUT M3x0.5 PITCH Ni	1/PVC GEAR 721-010260-062	1
	METAL WASHER Ø3.2xØ12x0.8mm	1/HEATSINK 721-010300-100	3
	2P4T PVC PLATE, 0.3mm THK BLACK PVC	2/ANTENNA BAR HOLDER 721-020260-040	2
	RUBBER PAD, 7.0x4.0x2.0mm (PORON RUBBER)	2/PVC 721-020260-040	2
	SCREW ST3x10mm, PB BRASS BASED	1/HEATSINK 725-000030-500	3
		2/ANTENNA BAR HOLDER 720-050300-100	2

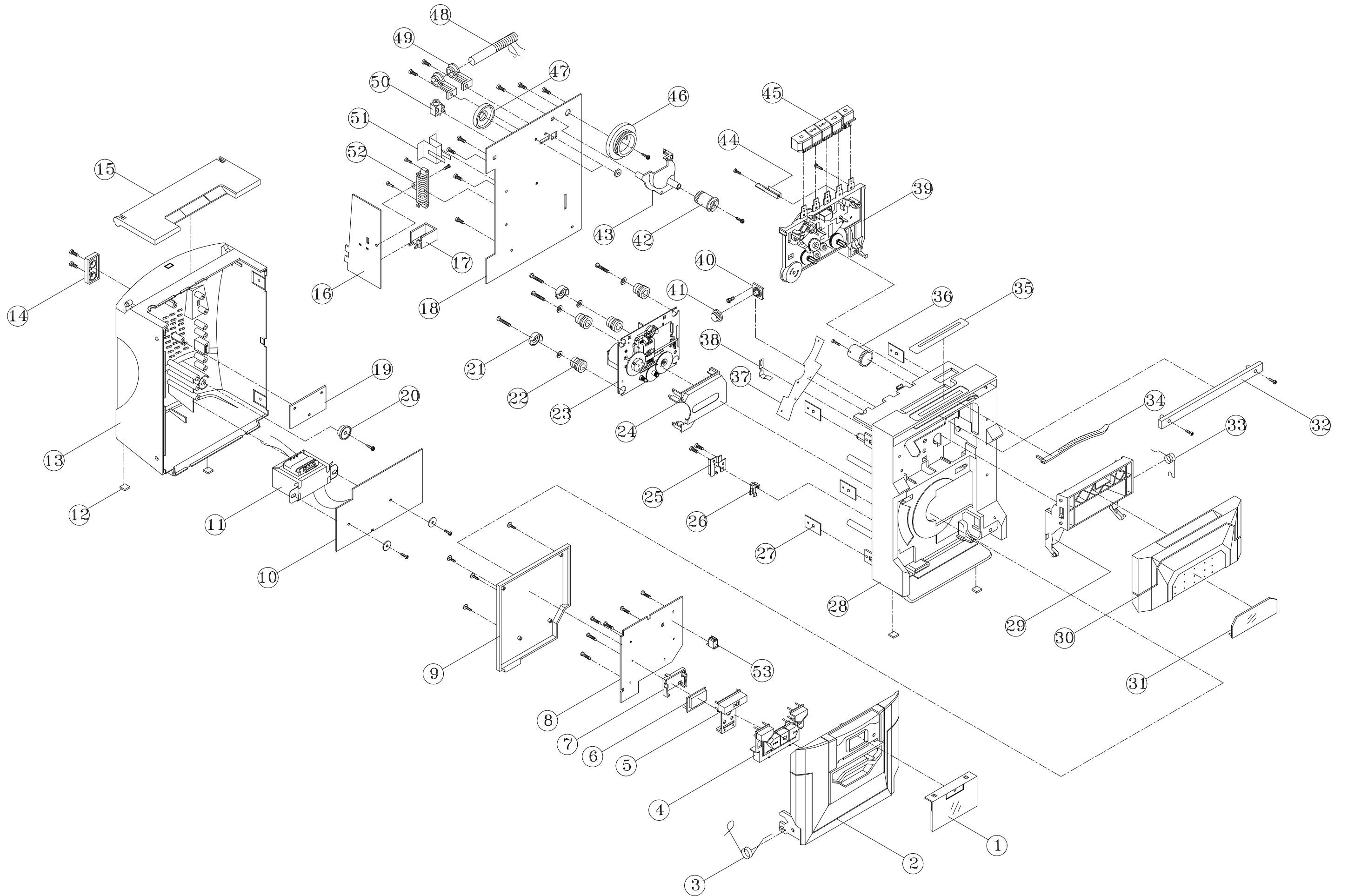
EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	SCREW ST3x12mm, PWAB BRASS BASED 1/CORD CLAMP EASHER-REAR CAB.	720-030300-120	1
	SCREW ST3x12mm PB BRASS BASED 3/REAR CAB.	720-050300-120	3
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED 2/RECTIFIER PCB	720-110300-080	2
	SCREW ST3x20mm BB HEAD V5.9-6.3 BRASS BASED 2/TRANSFORMER	720-110300-200	2
	SCREW 3x6mm KM BLK 4/REAR CAB. (MOUNTING PLATE)	721-020300-061	4
	RUBBER PAD, 7.0x4.0x2.0mm (PORON RUBBER)	700-130152-000	2
	CASSETTE DOOR CUSHION, 4.0x2.0x2.0(T)mm (PORON) 2/DOOR FRAME	700-660680-000	2
	SCREW ST2x8mm, PAB BRASS BASED (M2.3H) 1/CASS DECK-FRONT PANEL	720-010200-080	1
	SCREW ST2x10mm, PB 2/DECK MECH.	720-050200-100	2
	SCREW 2x4 PB T.T.S. BLACK (Ø3.0mm HEAD), (01 BTTP 2x4 AB) B TYPE 3/CASS KEY	722-020207-041	3
	SCREW M2x2mm PM T.T.S BLACK (B TYPE) (1P2x2AB) 1/CASS DECK	722-110200-201	1
	CABLE COVER SHEET, 55x40mm (T=0.4mm RED FIBRE) 1/PCB	650-660267-000	1
	*CdF FUSE HOLDER, HTF-015	550-790000-000	2
	EYELET Ø1.9mmx4mm HEAD:3.3mm (Ø2.0mm) AC1,2	726-001900-000	2
	METAL TIE (CdF)	727-000001-000	2
	PVC HEAT SHRINKABLE TUBE DIA. 3mm (UNITUBE), (UL/CSA APP) (CdF) UNIT"M"	728-015030-001	0.042
SPEAKER SECTION			
1	SPEAKER PANEL TRIM, MOLD C.GR 9C (ABS) CAV:4, w/SPY	509-660221-xxx	2
2	SPEAKER CLOTH #FP-662-0WT (SILVER GREY) WIDTH:60"-62" (320x220mm)x2 UNIT"YD"	662-0FP662-000	0.1
3	SPEAKER PANEL, MOLD BLK (HIPS) CAV:2	500-660222-000	2
4	SPEAKER CLIP B & C	724-113854-000	4
5	SPK00004"008OHM0002W w/SHINNY BLACK CAP MAGNET: 32x17x6 #AEF-40R03A/40RB326A	131-408002-012	2
6	CASS KNOB COVER RUBBER, 8x8x2mm THK PORON HH48C	700-130148-000	8
7	SPEAKER CABINET, MOLD COOL GREY 11C (HIPS) CAV:2	500-660224-001	2
	SPEAKER SUPPORT BAR, 114.8x20x12mm PARTICLE BOARD (E1)	660-660260-000	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED 4/SPEAKER PANEL TRIM	720-110300-080	8
	SCREW ST3x12mm, BB HEAD V5.9-6.3, BB BRASS BASED (P TYPE) 4/SPEAKER CLIP	720-110300-120	8
	SCREW ST3x12mm, BB HEAD V5.9-6.3, BB BRASS BASED (P TYPE) 8/SPEAKER CABINET (L)/(R)	720-110300-120	8

EXPLODED DRAWING - SPEAKER



EXPLODED DRAWING - MAIN UNIT



NOTES:

FEBRUARY, 2003