eurovox

SERVICE MANUAL

Computerised Logic System

AUTOREVERSE CASSETTE STEREO PLAYER with Dolby B-C NR & ELECTRONIC SEEK TUNE AM STEREO/FM STEREO RADIO with 12 Programmable Memories & Digital Display

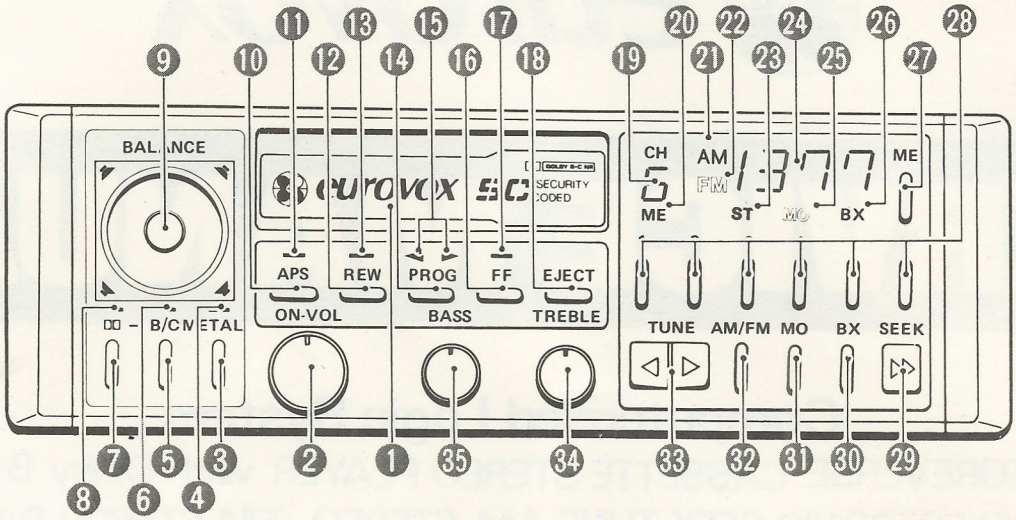
For CASSETTE P.C.B. LAYOUT—
See:
MCC — 2460E Manual.
although may not be identical.
in all respects.

MCC-2459E

FOR ADDITIONAL TECHNICAL DESCRIPTION, REFER TO THE SERVICE MANUAL FOR MCC-2460E

Printed in Japan Jun. '87 Modification Reserved

LOCATION OF CONTROLS



1. Cassette Door (Slot)
2. Volume Control/Radio On-Off Switch
3. Tape Selection Switch
4. Tape Selector (METAL) Indicator
5. Dolby B-C NR Selector Switch
6. Dolby C NR Indicator
7. Dolby Noise Reduction Switch
8. Dolby Noise Reduction Indicator
9. Joystick Balance Control
10. Automatic Program Selection Switch
11. Automatic Program Selection (APS) Indicator
12. Fast Rewind Switch
13. Fast Rewind Indicator
14. Program Selector Switch
15. Program Indicators
16. Fast Forward Switch
17. Fast Forward Indicator
18. Manual Cassette Ejection Switch
19. Digital Channel Number Indicator
20. Memory Enable (ME) Indicator
21. AM Indicator
22. FM Indicator
23. Stereo (ST) Indicator
24. Digital Frequency Readout
25. Mono (MO) Indicator
26. Wide/Narrow (BX) Indicator
27. Memory Enable Switch
28. Memory Address Switches
29. Automatic Seek Tuning Switch
30. Wide/Narrow (BX) Selector
31. Stereo/Mono Selector
32. AM/FM Waveband Selector Switch
33. Manual Tuning Switch
34. Treble Control
35. Bass Control

GENERAL INFORMATION

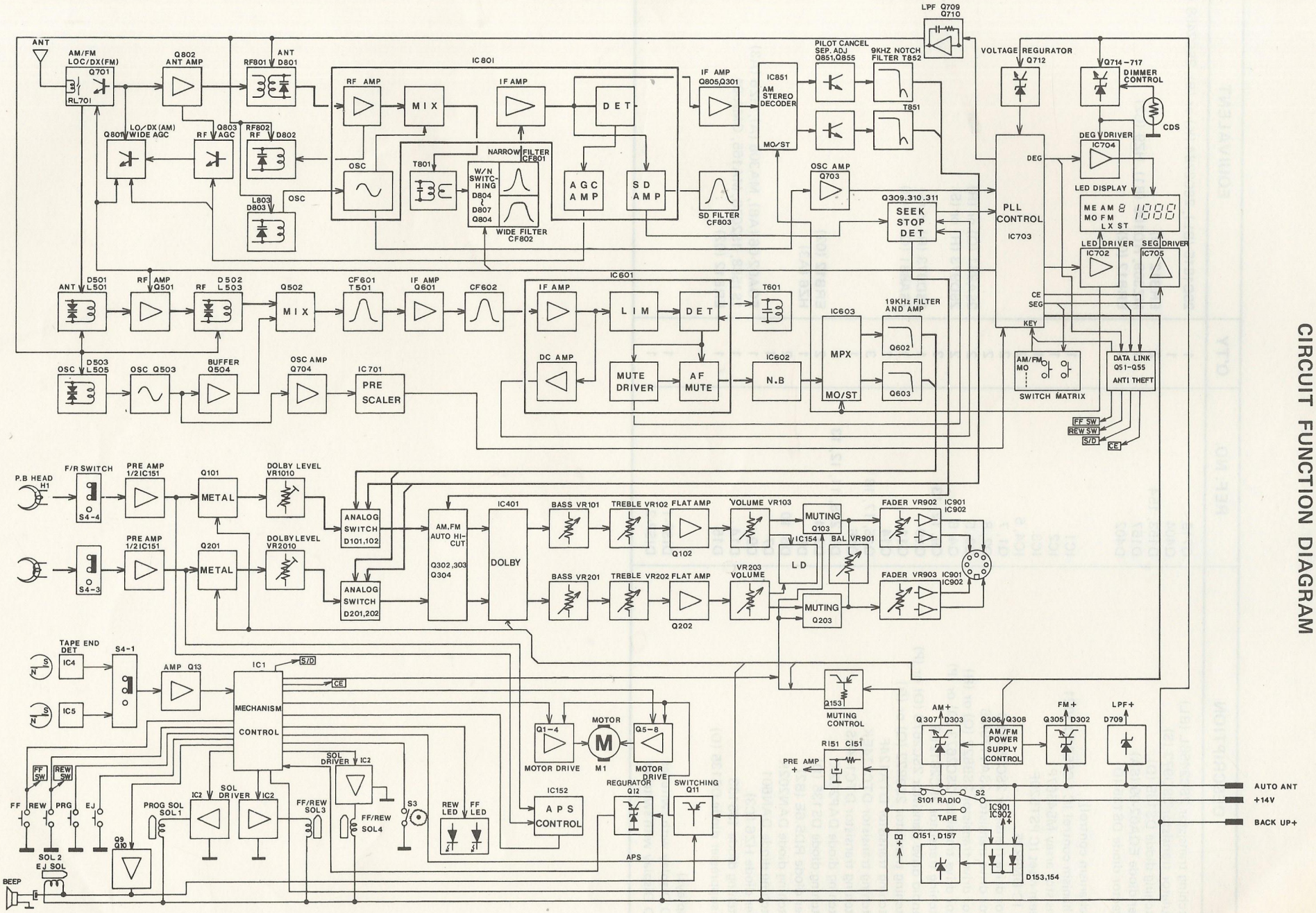
SEMICONDUCTORS: 21 ICs, 3 FETs, 85 Transistors, 74 Diodes, 2 LEDs

DESCRIPTION	REF. NO.	Q'TY	EQUIVALENT
(AM Radio)			
AM IC LA1135	IC801	1	
AM stereo decoder IC MC13020P	IC851	1	
IF amplifier transistor 2SC2458L (BL)	Q301	1	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
RF AGC transistor 2SC2814 (F4)	Q801, 803	2	2SC2716 (O), 2SC2619 (B)
Radio frequency amplifier FET 2SK163 (M)	Q802	1	2SK523 (M)
Switching transistor, BX 2SA1342	Q804	1	
IF amplifier 2SC2814 (F4)	Q805	1	2SC2716 (O), 2SC2619 (B)
Buffer transistor 2SC2458L (BL)	Q851	1	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
Switching transistor DTC144ES	Q852, 857	2	
Audio buffer transistor 2SC2603 (F) or (E)	Q853, 856	2	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
Switching transistor (MO/ST) 2SA1115 (E) or (F)	Q854	1	2SA1175 (E) or (H), 2SA933S (Q) or (R)
Buffer transistor 2SC2603 (F) or (E)	Q855	1	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
Varactor diode SVC321SP	D801, 802, 803	3	1SV149
Switching diode 1SS110	D804, 805, 806, 807	4	1SS133, 1S1555
Voltage shift diode 1SS110	D808	1	1SS133, 1S1555
(FM Radio)			
IF IC LA1140	IC601	1	
NB IC LA2110	IC602	1	
MPX IC LA3376	IC603	1	
Radio frequency amplifier FET 3SK101 (GR)	Q501	1	3SK74
Mixer transistor 2SC2714 (R)	Q502	1	2SC2714 (O) or (Y)
Oscillator transistor 2SC2714 (R)	Q503	1	2SC2714 (O) or (Y)
Oscillator buffer FET 3SK302	Q504	1	3SK360
IF amplifier transistor 2SC930 (D)	Q601	1	2SC2787 (K) or (L)
Audio amplifier and filter 2SC2458L (BL)	Q602, 603	2	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
Switching transistor DTC144ES	Q604	1	
Varactor diode 1SV103	D501, 502, 503	3	SVC211
Switching diode 1SS133	D601, 604, 605	3	1S1588, 1S2076, MA165, GMA-01
Voltage shift diode 1SS133	D602, 603	2	1S1588, 1S2076, MA165, GMA-01
(PLL Control)			
Prescaler IC μPB553AC	IC701	1	
LED driver M54517P	IC702, 705	2	
PLL LSI and controller μPD1710G-227	IC703	1	
LED driver M54562P	IC704	1	
Regulator IC μPC78L05	IC706	1	
Switching transistor DTA144ES	Q51, 719	2	
Switching transistor 2SA1115 (E) or (F)	Q52, 54, 55, 713	4	2SA1175 (E) or (H), 2SA933 (Q) or (R)
Switching transistor DTC144ES	Q53, 720	2	
Switching transistor, LOC/DX, Mute, BX 2SC2603 (E) or (F)	Q701, 702, 706, 711	4	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
OSC buffer amplifier transistor (AM, FM) 2SC930 (D)	Q703, 704	2	2SC2787 (K) or (L)
Switching transistor, W/N DTA124 (F)	Q705	1	
Switching transistor, W/N, AGC cut DTC144ES	Q707, 708	2	
Low pass filter transistor 2SC2603 (F) or (E)	Q709, 710	2	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)

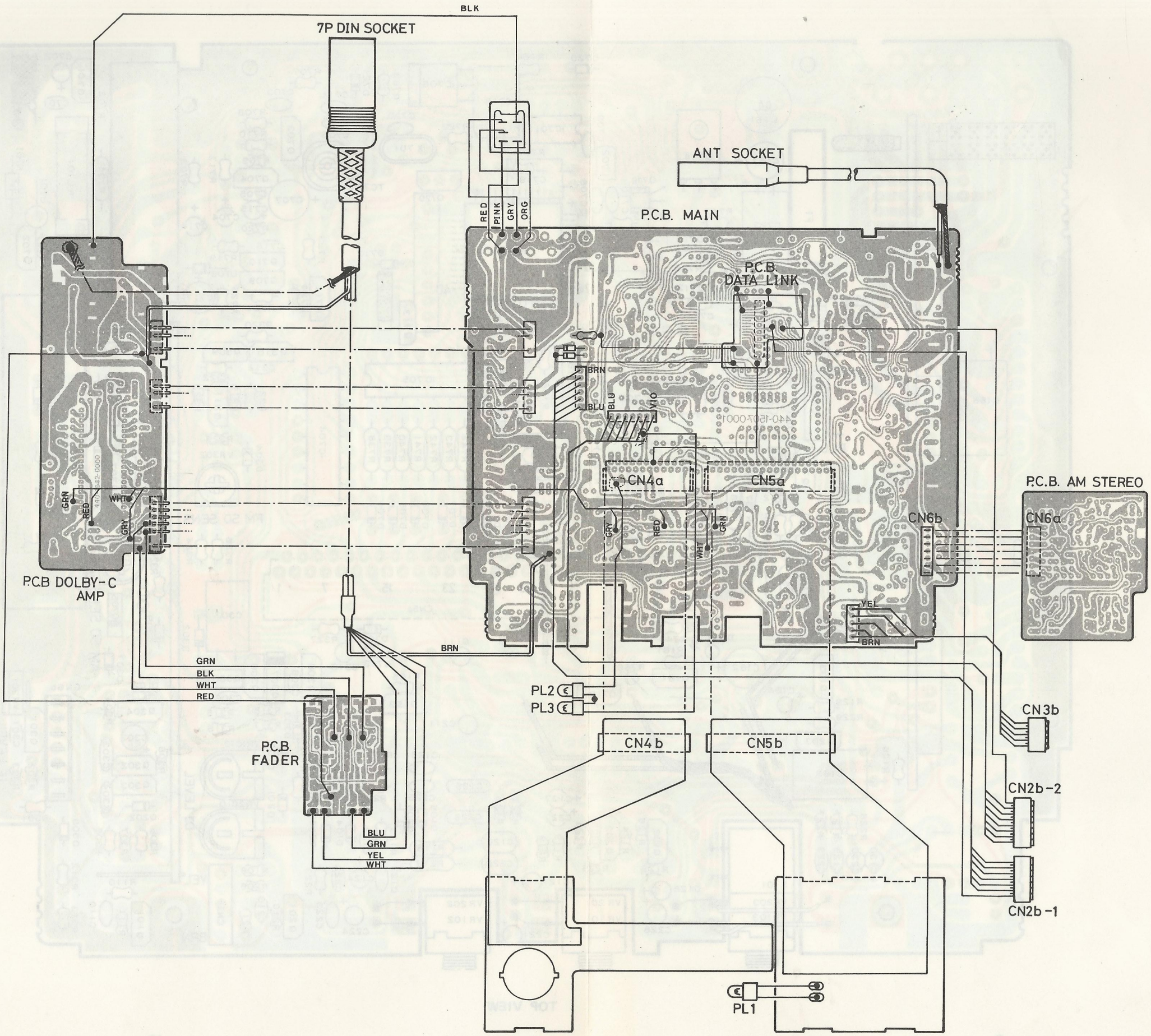
DESCRIPTION	REF. NO.	Q'TY	EQUIVALENT
Voltage regulator transistor 2SC2603 (F) or (E)	Q712	1	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
Switching transistor 2SA1115 (E) or (F)	Q713	1	2SA1175 (E) or (H), 2SA933 (Q) or (R)
LED driver (CH) 2SC2603 (F) or (E)	Q718	1	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
Switching diode 1SS133	D701, 702, 703, 704, 705, 706, 707, 708, 710, 712, 714, 715, 716, 717, 720, 721, 722, 723, 724	19	1S1588, 1S2076, MA165, GMA-01
Zener diode EQA02-09 (SA)	D709	1	MZ309, RD10E (B1), HZ9 (C2)
Zener diode HZ6 (C3)	D711	1	EQA02-06 (AB), MA306 (A), HZ6 (A3)
(Dimmer control)			
Dimmer control transistor 2SC1162 (C)	Q714	1	
Dimmer control transistor 2SC2603 (F) or (E)	Q715, 716, 717	3	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
Zener diode RD5.1E (B2)	D718	1	MTZ5.1 (B), EQA02-05 (EF)
(Regulator and mute)			
Switching transistor 2SA1115 (E) or (F)	Q153	1	2SA1175 (E) or (H), 2SA933S (Q) or (R)
Regulator transistor 2SD973 (S)	Q305, 307	2	
Switching transistor DTC144ES	Q306, 308	2	
Zener diode EQA02-09 (SA)	D302, 303	2	MZ309, RD10E (B1), HZ9 (C2)
Switching diode 1SS133	D306	1	1S1588, 1S2076, MA165, GMA-01
(Search stop and AM auto hi-cut)			
Band pass filter and amplifier transistor 2SC2458L (BL)	Q302, 303	2	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
Switching transistor 2SC2603 (F) or (E)	Q304, 310, 311	3	2SC2785 (E) or (F), 2SC536 (F) or (G), 2SC1740S (Q) or (R)
Switching transistor 2SA1115 (E) or (F)	Q309	1	2SA1175 (E) or (H), 2SA933S (Q) or (R)
Switching diode 1SS133	D304, 305, 307, 308, 309	5	1S1588, 1S2076, MA165, GMA-01
(Audio)			
Pre amplifier IC M51522L	IC151	1	
Cassette program selection IC M51143AL	IC152	1	
NR IC HA12088	IC401	1	
Buffer amplifier IC M51522L	IC901, 902	2	
Switching transistor DTC144ES	Q101, 201, 403	3	
Flat amplifier transistor 2SC2458L (BL)	Q102, 202	2	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
Muting transistor 2SD1021 (F) or (E)	Q103, 203	2	
Regulator transistor 2SC2458L (BL)	Q151	1	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
Switching transistor 2SA1115 (E) or (F)	Q401	1	2SA1175 (E) or (H), 2SA933 (Q) or (R)
Switching transistor DTA144ES	Q402	1	
Switching diode 1SS133	D101, 102, 104, 105, 201, 202, 204, 205, 401	9	1S1588, 1S2076, MA165, GMA-01

DESCRIPTION	REF. NO.	Q'TY	EQUIVALENT
Switching transistor 2SC2458L (BL)	Q719	1	2SC1815 (BL), 2SC2784 (K) or (E), 2SC2458 (BL)
Regulator transistor 2SD973 (S)	Q404	1	
Switching diode DS135 (D)	D153, 154	2	ERB12 (02)
Zener diode EQA02-09 (SA)	D157	1	MZ309, RD10E (B1), HZ9 (C2)
Protector diode DS135 (D)	D402	1	ERB12 (02)
(Mechanism control)			
Mechanism control IC LC6523C-3021	IC1	1	
Transistor array M54567P	IC2	1	
System reset IC PST520F	IC3	1	
Hall IC DN6835	IC4, 5	2	
Motor drive transistor 2SC2812L6	Q1, 7	2	
Motor drive transistor 2SA1179M6	Q2, 8	2	
Motor drive transistor 2SB822 (Q) or (R)	Q3, 5	2	2SA881 (Q) or (R)
Motor drive transistor 2SC2673 (Q) or (P)	Q4, 6	2	2SD973 (R) or (S)
Switching transistor 2SC2812L6	Q9, 12, 13	3	
Solenoid drive transistor 2SC2673 (Q) or (P)	Q10	1	2SD973 (R) or (S)
Switching transistor 2SB822 (Q) or (R)	Q11	1	2SA881 (Q) or (R)
Switching transistor DTA124F	Q14	1	
Switching transistor DTC114EK	Q15, 17, 18	3	
Switching transistor DTC144ES	Q16	1	
Switching diode DAP202K	D1, 2, 8, 11, 12, 13	6	
Switching diode DS135 (D)	D3, 4	2	ERB12 (02)
Zener diode RD5.6E (B2)	D5	1	HZ6 (A3)
Switching diode DAN202K	D6, 10	2	
Switching diode DAN601	D7	1	
Zener diode HZ6 (C3)	D9	1	EQA02-06 (AB), MA306 (A), HZ6 (A3)
Switching diode 1SS133	D14	1	1S1588, 1S2076, MA165, GMA-01
Arc suppresser diode DS135 (D)	D15	1	ERB12 (02)
(Displays)			
LED Display with switches	DISP-1	1	
LED Display with switches	DISP-2	1	

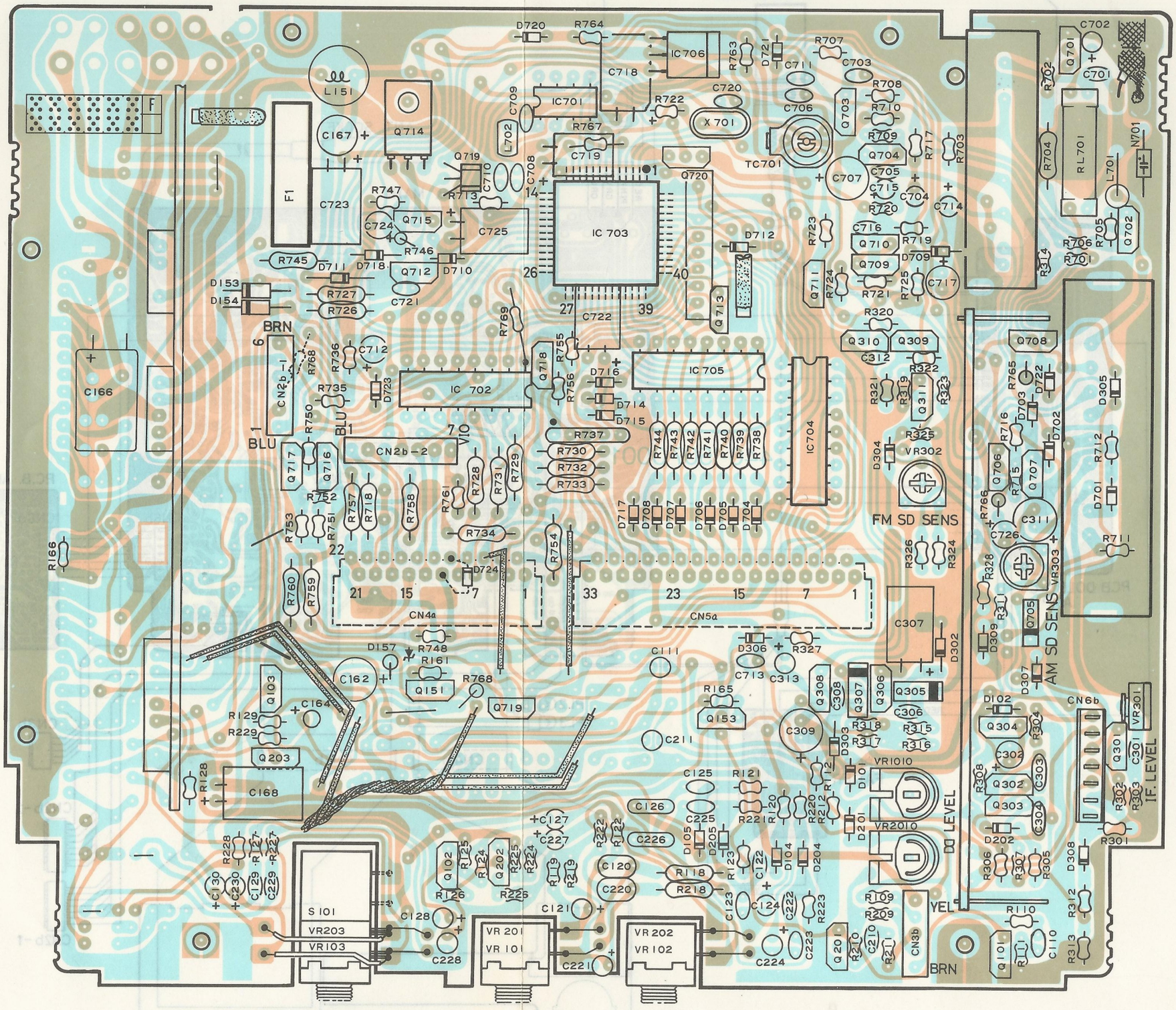
CIRCUIT FUNCTION DIAGRAM



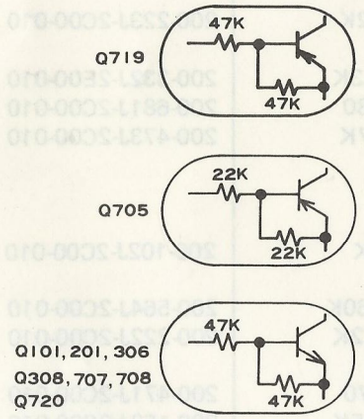
WIRING LAYOUT

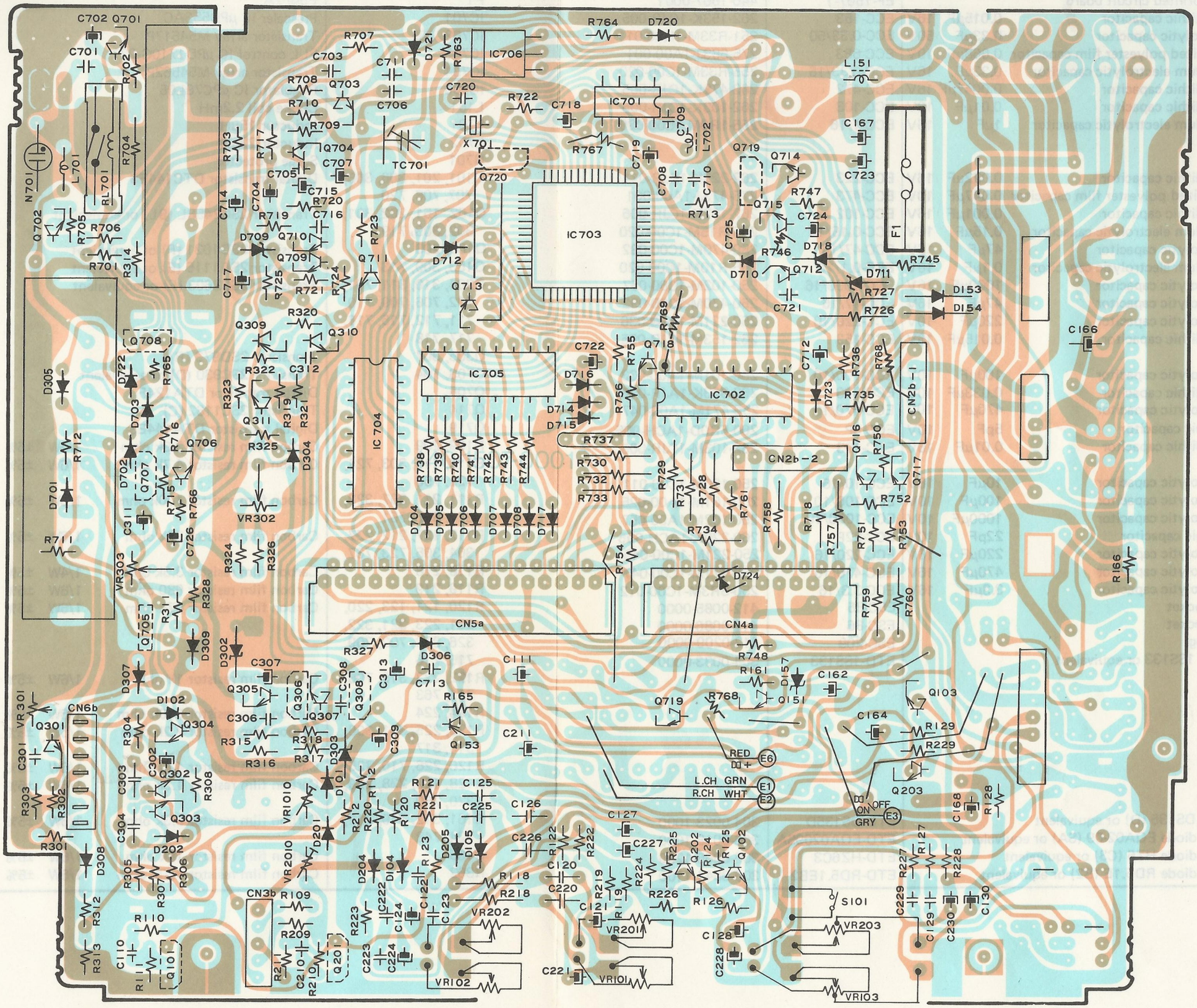


MAIN CIRCUIT BOARD COMPONENT LOCATION GUIDE



TOP VIEW


Q719
47K
47K
Q705
22K
22K
Q101, 201, 306
Q308, 707, 708
Q720
47K
47K


IC706
IC701
IC703
IC705
IC704
IC702
CN5a
CN4a
CN2b-1
CN2b-2
CN6b
CN3b
RL701
TC701
X701
F1
S101
VR301
VR302
VR303
VR201
VR202
VR203
VR101
VR102
VR103
RED
L.CH GRN
R.CH WHT
ON
OFF
GRY
E1
E2
E3
E6

BOTTOM VIEW

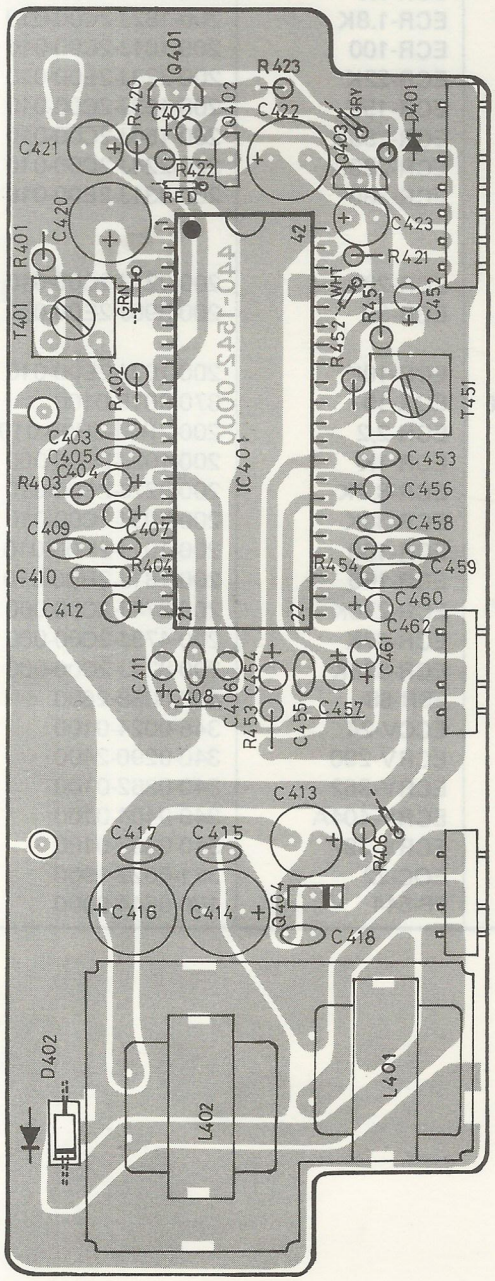
REF. NO. 43 600-1255-0002 MAIN CIRCUIT BOARD ASSEMBLY PARTS LIST

REF. NO.	DESCRIPTION			PART NO.	MFR'S NO.
—	Main printed circuit board			EP-1507-1	440-1507-0001
C110, 210	Monolithic capacitor	0.015μF	16V	ECC-153	262-153K-1CJR-005
C111, 211	Electrolytic capacitor	0.33μF	50V	ECC-0.33/50	251-R33M-1H00-011
C120, 220	Metallized polyester film capacitor	0.068μF	10V	ECC-683	275-683J-1A00-001
C121, 221, 714	Tantalum electrolytic capacitor	0.33μF	16V	ECC-0.33/16	255-R33M-1C00-020
C122, 222	Monolithic capacitor	0.0047μF	16V	ECC-472	262-472K-1CJR-005
C123, 223, 716	Monolithic capacitor	0.01μF	16V	ECC-103	262-103K-1CJR-005
C124, 127, 128, 224, 227, 228, 313, 702, 715	Tantalum electrolytic capacitor	1μF	16V	ECC-1/16	255-1R0M-1C00-020
C125, 225	Monolithic capacitor	0.022μF	16V	ECC-223	262-223K-1CJR-011
C126, 226	Metallized polyester film capacitor	0.047μF	10V	ECC-473	275-473J-1A00-001
C129, 229, 710	Monolithic capacitor	0.001μF	16V	ECC-102	262-102K-1CJR-005
C130, 230	Tantalum electrolytic capacitor	0.15μF	16V	ECC-0.15/16	255-R15M-1C00-020
C162, 309, 311, 707	Electrolytic capacitor	47μF	16V	ECC-47/16	250-470M-1C00-032
C164, 704	Tantalum electrolytic capacitor	0.1μF	16V	ECC-0.1/16	255-R10M-1C00-020
C166	Electrolytic capacitor	1000μF	16V	ECC-1000/16	250-102M-1C00-057
C167	Electrolytic capacitor	47μF	16V	ECC-47/16	250-470M-1C00-032
C168	Electrolytic capacitor	220μF	10V	ECC-220/10	250-221M-1A00-036
C301, 306, 308, 312, 713, 721	Monolithic capacitor	0.015μF	16V	ECC-153	262-153M-1CJR-005
C302	Electrolytic capacitor	100μF	10V	ECC-100/10	250-101M-1A00-033
C303, 304	Monolithic capacitor	0.033μF	10V	ECC-333	262-333K-1AJR-016
C307, 719	Electrolytic capacitor	470μF	10V	ECC-470/10	250-471M-1A00-047
C701, 705	Ceramic capacitor	5pF	10V	ECC-5P	260-5R0D-1ACH-005
C703, 706, 708, 709, 711	Monolithic capacitor	0.01μF	16V	ECC-103	262-103M-1CJR-005
C712, 724	Electrolytic capacitor	10μF	16V	ECC-10/16	250-100M-1C00-011
C717	Electrolytic capacitor	100μF	10V	ECC-100/10	250-101M-1A00-025
C718	Electrolytic capacitor	1000μF	10V	ECC-1000/10	250-102M-1A00-057
C720	Ceramic capacitor	22pF	10V	ECC-22P	260-220K-1ACH-005
C722	Electrolytic capacitor	220μF	16V	ECC-220/16	250-221M-1C00-045
C723, 725	Electrolytic capacitor	470μF	16V	ECC-470/16	250-471M-1C00-047
C726	Electrolytic capacitor	3.3μF	16V	ECC-3.3/16	250-3R3M-1C00-012
CN4a	22P socket			ESC-85	412-0085-0000
CN5a	33P socket			ESC-86	412-0086-0000
CN6b	7P plug			ESC-209	412-0209-0000
D101, 102, 104, 105, 201, 202, 204, 205, 304, 305, 306, 307, 308, 309, 701, 702, 703, 704, 705, 706, 707, 708, 710, 712, 714, 715, 716, 717, 720, 721, 722, 723, 724	Diode 1SS133 or equivalent			ETD-1SS133	304-0033-0000
D153, 154	Diode DS135 (D) or equivalent			ETD-DS135D	304-0023-1000
D157, 302, 303, 709	Zener diode EQA02-09 (SA) or equivalent			ETD-EQA0209SA	306-0018-1000
D711	Zener diode HZ6 (C3) or equivalent			ETD-HZ6C3	306-0065-1200
D718	Zener diode RD5.1E (B2) or equivalent			ETD-RD5.1EB2	306-0041-1100

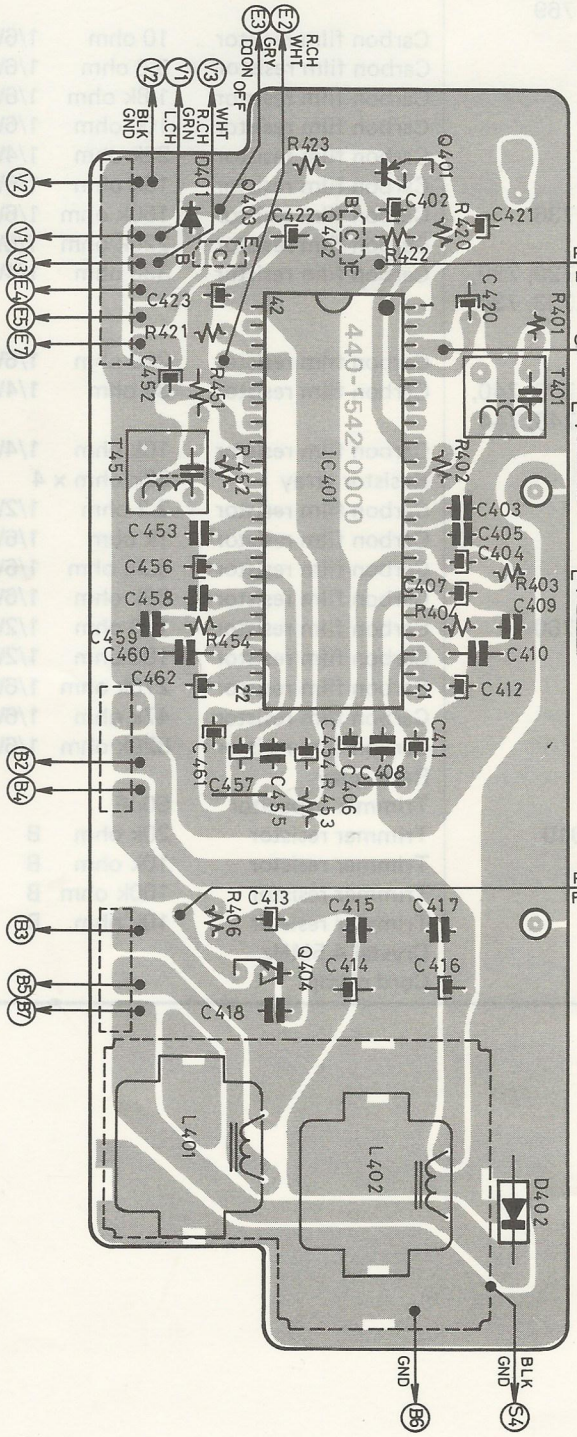
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
F1	Fuse 2A	ESX-86	419-0086-0000
IC701	Prescaler IC μPB553AC	ETI-89	310-0089-0000
IC702, 705	Transistor array M54517P	ETI-57	310-0057-0000
IC703	PLL control IC μPD1710G-227	ETI-205	310-0205-0000
IC704	Transistor array M54562P	ETI-111	310-0111-0000
IC706	Regulator IC μPC78L05	ETI-58	310-0058-0000
L151	Choke coil 2.2mH	ELD-301	351-0301-1700
L701	Inductor 15μH	ELA-35	352-0035-1100
L702	Inductor 22μH	ELD-164	351-0164-1100
N701	Surge protector	EIN-5	431-0005-0000
Q101, 201, 306, 308, 707, 708, 720	Digital transistor DTC144ES	ETTC-DTC144ES	302-0115-0000
Q102, 151, 202, 301, 302, 303, 719	Transistor 2SC2458L (BL) or equivalent	ETTC-2458LBL	302-0078-1400
Q103, 203	Transistor 2SD1021 (F) or equivalent	ETTD-1021F	302-0097-1300
Q153, 309, 713	Transistor 2SA1115 (E) or equivalent	ETTA-1115E	301-0033-1100
Q304, 310, 311, 701, 702, 706, 709, 710, 711, 712, 715, 716, 717, 718	Transistor 2SC2603 (F) or equivalent	ETTC-2603F	302-0091-1200
Q305, 307	Transistor 2SD973 (R)	ETTD-973R	302-0098-1100
Q703, 704	Transistor 2SC930 (D) or equivalent	ETTC-930D	302-0014-1000
Q705	Digital transistor DTA124F	ETTA-DTA124F	301-0023-0000
Q714	Transistor 2SC1162 (C)	ETTC-1162C	302-0018-1000
Q719	Digital transistor DTA144ES	ETTA-DTA144ES	301-0053-0000
R109, 209	Carbon film resistor 3.9k ohm 1/6W ±5%	ECR-3.9K	200-392J-2C00-010
R110, 210, 303, 721, 722, 756	Carbon film resistor 4.7k ohm 1/6W ±5%	ECR-4.7K	200-472J-2C00-010
R111, 211, 307, 323, 324, 325, 751	Carbon film resistor 100k ohm 1/6W ±5%	ECR-100K	200-104J-2C00-010
R112, 127, 212, 227, 304, 305, 723, 767	Carbon film resistor 22k ohm 1/6W ±5%	ECR-22K	200-223J-2C00-010
R118, 218	Carbon film resistor 3.3k ohm 1/4W ±5%	ECR-3.3K	200-332J-2E00-010
R119, 219	Carbon film resistor 680 ohm 1/6W ±5%	ECR-680	200-681J-2C00-010
R120, 121, 123, 220, 221, 223, 321, 322, 326, 328, 702, 709, 715, 716	Carbon film resistor 47k ohm 1/6W ±5%	ECR-47K	200-473J-2C00-010
R122, 222, 313, 708, 711, 763	Carbon film resistor 1k ohm 1/6W ±5%	ECR-1K	200-102J-2C00-010
R124, 224	Carbon film resistor 560k ohm 1/6W ±5%	ECR-560K	200-564J-2C00-010
R125, 225, 301, 308, 316, 317	Carbon film resistor 2.2k ohm 1/6W ±5%	ECR-2.2K	200-222J-2C00-010
R126, 226, 710, 725	Carbon film resistor 470 ohm 1/6W ±5%	ECR-470	200-471J-2C00-010
R128, 129, 228, 229, 320, 750	Carbon film resistor 1.5k ohm 1/6W ±5%	ECR-1.5K	200-152J-2C00-010
R161, 312, 319, 712, 724, 748	Carbon film resistor 3.3k ohm 1/6W ±5%	ECR-3.3K	200-332J-2C00-010
R165	Carbon film resistor 18k ohm 1/6W ±5%	ECR-18K	200-183J-2C00-010
R302	Carbon film resistor 820k ohm 1/6W ±5%	ECR-820K	200-824J-2C00-010

REF. NO.	DESCRIPTION				PART NO.	MFR'S NO.
R311, 703, 717, 755, 764, 768, 769	Carbon film resistor	10k ohm	1/6W	±5%	ECR-10K	200-103J-2C00-010
R314	Carbon film resistor	10 ohm	1/6W	±5%	ECR-10	200-100J-2C00-010
R315, 318	Carbon film resistor	5.6 ohm	1/6W	±5%	ECR-5.6	200-5R6J-2C00-010
R327, 720	Carbon film resistor	1.8k ohm	1/6W	±5%	ECR-1.8K	200-182J-2C00-010
R701	Carbon film resistor	100 ohm	1/6W	±5%	ECR-100	200-101J-2C00-010
R704	Carbon film resistor	22k ohm	1/4W	±5%	ECR-22K	200-223J-2E00-010
R705, 706	Carbon film resistor	15k ohm	1/6W	±5%	ECR-15K	200-153J-2C00-010
R707, 735, 736	Carbon film resistor	150k ohm	1/6W	±5%	ECR-150K	200-154J-2C00-010
R713, 761	Carbon film resistor	220k ohm	1/6W	±5%	ECR-220K	220-224J-2C00-010
R718, 728, 729, 730, 731, 732, 733, 734, 754	Carbon film resistor	330 ohm	1/4W	±5%	ECR-330	200-331J-2E00-010
R719	Carbon film resistor	220 ohm	1/6W	±5%	ECR-220	200-221J-2C00-010
R726, 738, 739, 740, 741, 742, 743, 744	Carbon film resistor	39 ohm	1/4W	±5%	ECR-39	200-390J-2E00-010
R727	Carbon film resistor	10k ohm	1/4W	±5%	ECR-10K	200-103J-2E00-010
R737	Resistor array	22k ohm x 4		±10%	ECX-15	370-0015-0100
R745	Carbon film resistor	2.2 ohm	1/2W	±5%	ECR-2.2	200-2R2J-2H00-010
R746	Carbon film resistor	1k ohm	1/6W	±5%	ECR-1K	200-102J-2C00-000
R747, 752	Carbon film resistor	8.2k ohm	1/6W	±5%	ECR-8.2K	200-822J-2C00-010
R753	Carbon film resistor	39k ohm	1/6W	±5%	ECR-39K	200-393J-2C00-010
R757, 758, 760	Carbon film resistor	100 ohm	1/2W	±5%	ECR-100	200-101J-2H00-010
R759	Carbon film resistor	180 ohm	1/2W	±5%	ECR-180	200-181J-2H00-010
R765	Carbon film resistor	270k ohm	1/6W	±5%	ECR-270K	200-274J-2C00-000
R766	Carbon film resistor	47k ohm	1/6W	±5%	ECR-47K	200-473J-2C00-000
R768	Carbon film resistor	820k ohm	1/6W	±5%	ECR-820K	200-824J-2C00-000
RL701	Reed relay				ESR-68	402-0068-2600
TC701	Trimmer capacitor	50pF			ECCV-24	345-0024-0100
VR1010, 2010	Trimmer resistor	20k ohm	B		ECRV-290	340-0290-2400
VR301	Trimmer resistor	10k ohm	B		ECRV-362	340-0362-0100
VR302	Trimmer resistor	100k ohm	B		ECRV-404A	340-0404-0100
VR303	Trimmer resistor	10k ohm	B		ECRV-397	340-0397-0100
X701	Crystal 4.5MHz				EOC-22	361-0022-1900
—	Cord clamp				PP-544	100-6544-0000

DOLBY-C CIRCUIT BOARD COMPONENT LOCATION GUIDE



TOP VIEW

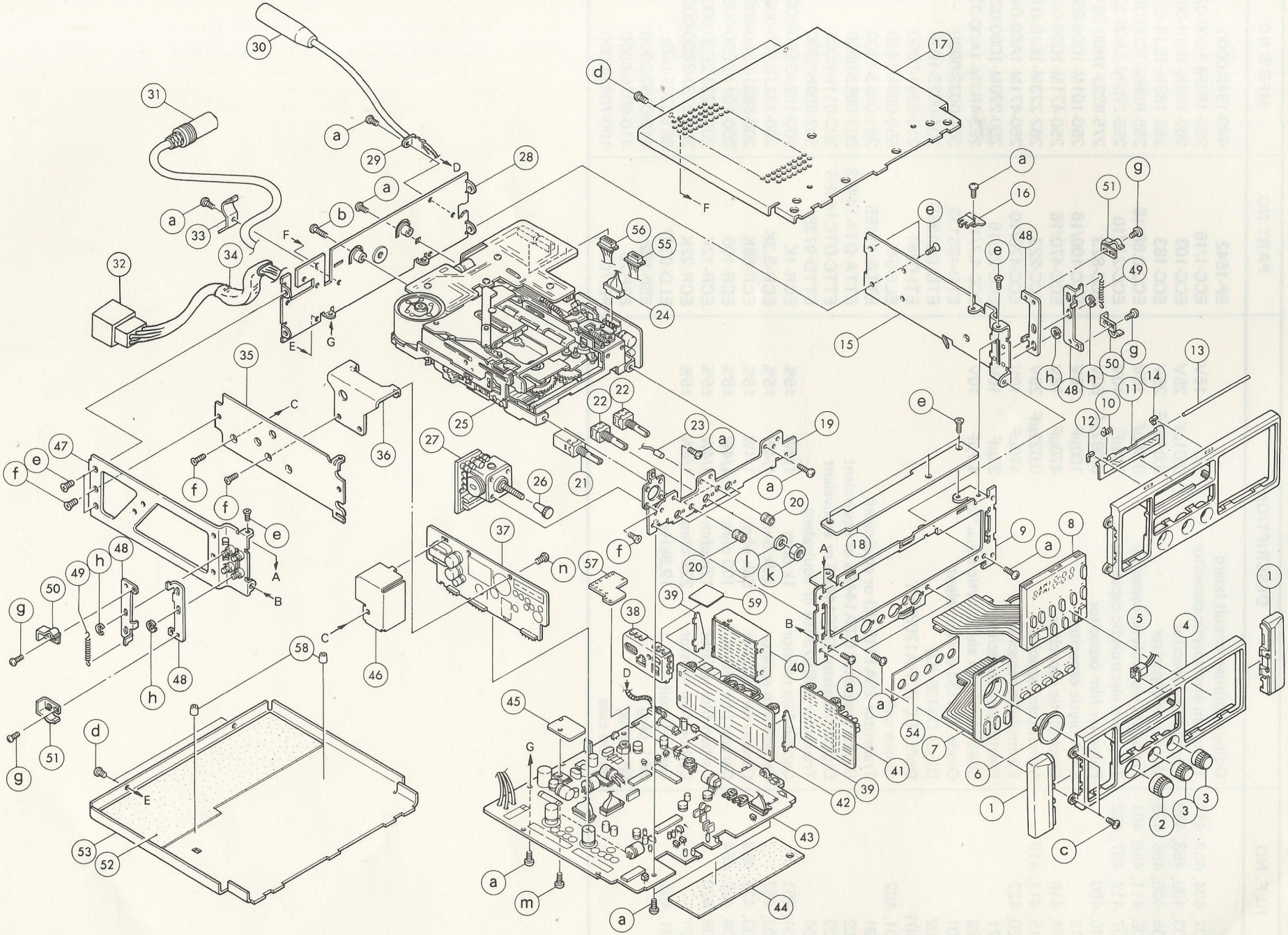


BOTTOM VIEW

REF. NO. 37 600-1256-0000 DOLBY-C CIRCUIT BOARD ASSEMBLY PARTS LIST

REF. NO.	DESCRIPTION				PART NO.	MFR'S NO.
–	Dolby-C printed circuit board				EP-1542	440-1542-0000
C402, 404, 452, 454	Tantalum electrolytic capacitor		1μF	16V	ECC-1/16	255-1R0M-1C00-020
C403, 409, 453, 459	Monolithic capacitor		0.01μF	25V	ECC-103	262-103K-1EJR-005
C405, 408, 455, 458	Monolithc capacitor		0.018μF	25V	ECC-183	262-183K-1EJR-010
C406, 411, 456, 461	Tantalum electrolytic capacitor		0.68μF	16V	ECC-0.68/16	255-R68M-1C00-020
C407, 412, 457, 462	Tantalum electrolytic capacitor		2.2μF	10V	ECC-2.2/10	255-2R2M-1A00-021
C410, 460	Polyester film capacitor		0.082μF	50V	ECC-823	275-823J-1H00-001
C413	Electrolytic capacitor		100μF	16V	ECC-100/16	250-101M-1C00-036
C414, 416	Electrolytic capacitor		470μF	16V	ECC-470/16	250-471M-1C00-047
C415, 417, 418	Monolithic capacitor		0.022μF	25V	ECC-223	262-223M-1EJR-010
C420, 422	Electrolytic capacitor		470μF	10V	ECC-470/10	250-471M-1A00-047
C421	Electrolytic capacitor		22μF	16V	ECC-22/16	250-220M-1C00-025
C423	Solid aluminum electrolytic capacitor		4.7μF	10V	ECC-4.7/10	253-4R7M-1A00-030
D401	Diode 1SS133 or equivalent				ETD-1SS133	304-0033-0000
D402	Diode DS135 (D)				ETD-DS135D	304-0023-1000
IC401	Dolby-BC IC HA12088NT				ETI-0241	310-0241-0000
L401, 402	Choke coil				ELS-94	350-0094-1400
Q401	Transistor 2SA1115 (E) or equivalent				ETTA-1115E	301-0033-1100
Q402	Digital transistor DTA144ES or equivalent				ETTA-DTA144ES	301-0053-0000
Q403	Digital transistor DTC144ES or equivalent				ETTC-DTC144ES	302-0115-0000
Q404	Transistor 2SD973 (S) or equivalent				ETTD-973S	302-0098-1200
R401, 451	Carbon film resistor	1k ohm	1/4W	±5%	ECR-1K	200-102J-2E00-000
R402, 452	Carbon film resistor	3.3k ohm	1/4W	±5%	ECR-3.3K	200-332J-2E00-000
R403, 423, 453	Carbon film resistor	68k ohm	1/4W	±5%	ECR-68K	200-683J-2E00-000
R404, 422, 454	Carbon film resistor	100 ohm	1/4W	±5%	ECR-100	200-101J-2E00-000
R406, 420	Carbon film resistor	12k ohm	1/4W	±5%	ECR-12K	200-123J-2E00-000
R421	Carbon film resistor	22k ohm	1/4W	±5%	ECR-22K	200-223J-2E00-000
T401, 451	Dolby-C coil	19.9kHz			ELD-0307	351-0307-0900
–	3P L plug				ESP-102	410-0102-0000
–	6P L plug				ESP-76	410-0076-0000
–	Shield case				PL-7063	100-7063-0000

EXPLODED VIEW – CABINET

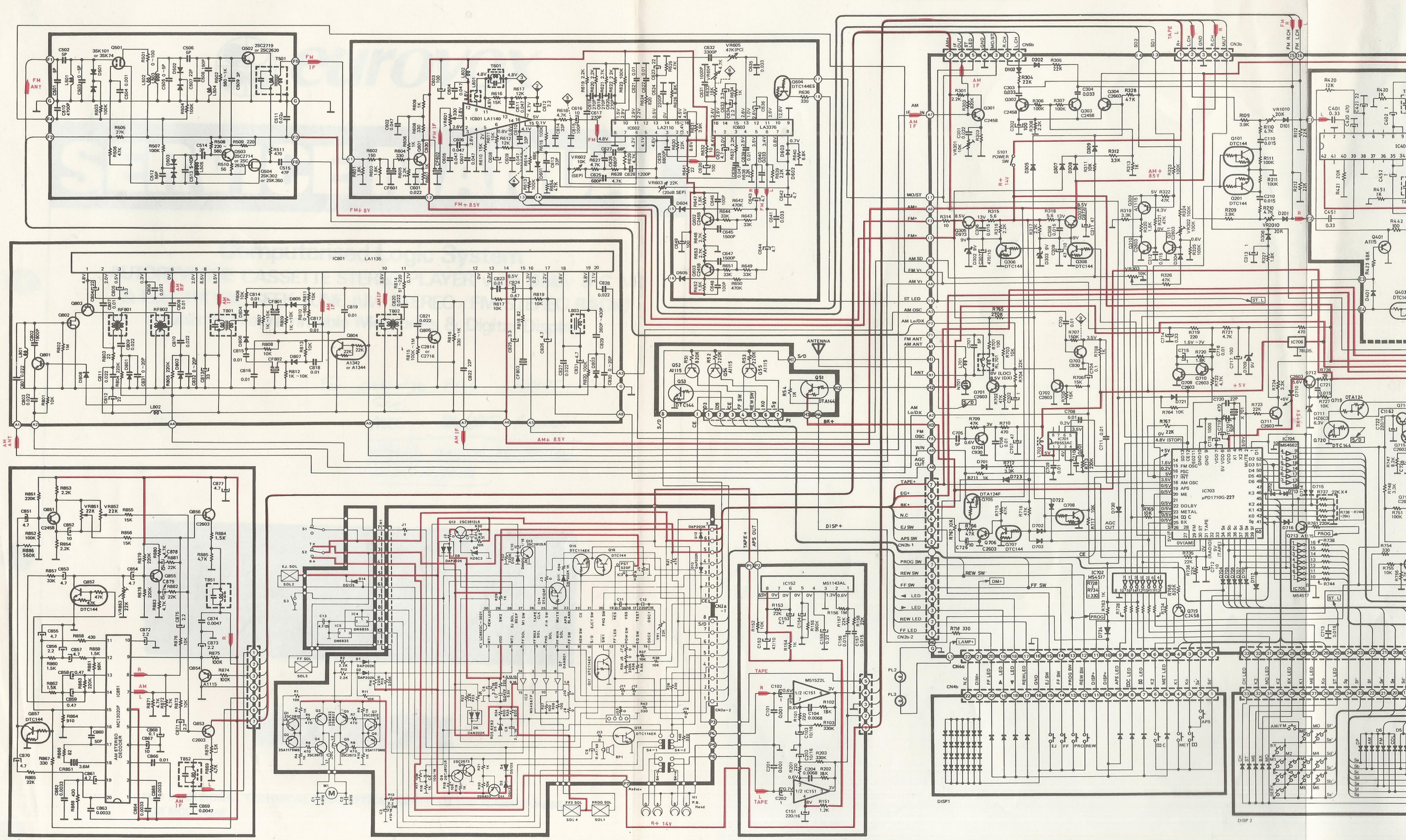


MECHANICAL PARTS LIST

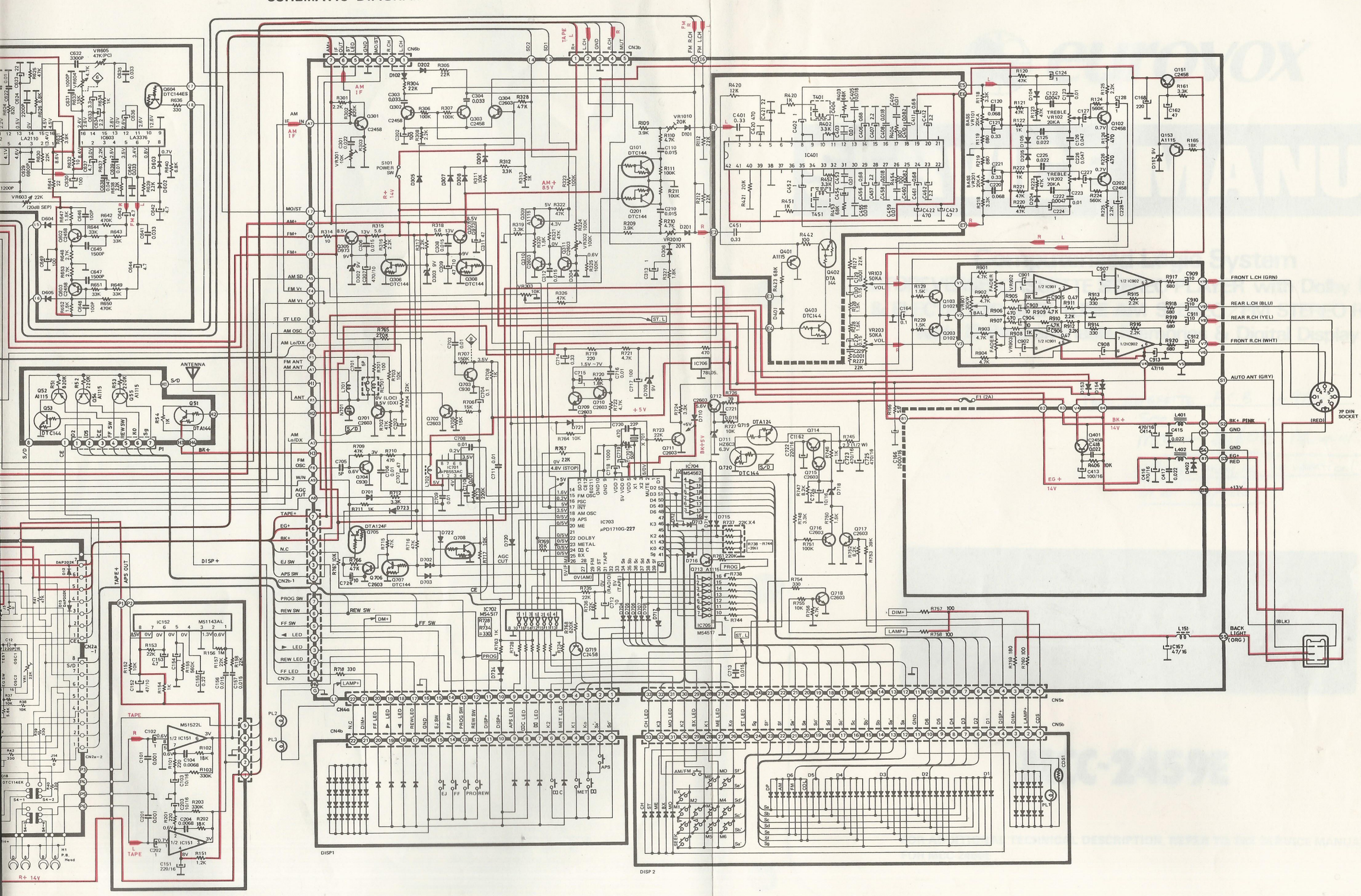
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
1	Side cover (190)	MP-1824X3	131-1824-0300
2	Knob – Volume	MP-1827	131-1827-0000
3	Knob – Bass/Treble	MP-1828	131-1828-0000
4	Escutcheon set	CMM-413	613-0413-0000
5	Lamp ass'y	CMY-235	610-0535-0000
	Lamp holder	MP-1832	131-1832-0000
	Lenz	MP-1840X3	131-1840-0300
	Lamp	EIL-71	430-0071-0000
6	Plastic ring – Balance	MP-1826	131-1826-0000
7	LED display – Tape function (A)	EX-1X3	330-0101-0300
8	LED display – Radio (B)	EX-2X5	330-0102-0500
9	Front chassis	PL-2766-4	100-2766-0004
10	Spring – Cassette door	SC-298	160-0298-0000
11	Cassette door ass'y	CMT-420	613-0420-0000
12	Holder – Door shaft (L)	PL-2776	100-2776-0000
13	Shaft – Cassette door	CC-1112	150-1112-0000
14	Holder – Door shaft (R)	PL-2786	100-2786-0000
15	Side panel ass'y (R)	CMK-132	610-0132-0000
16	Holder – PCB	PL-7065	100-7065-0000
17	Top lid	PL-2771	100-2771-0000
18	Plate – Reinforcement	PP-525	100-6525-0000
19	Sub front chassis	PL-2767-1	100-2767-0001
20	Lamp holder	MR-230	131-3230-0000
21	Variable resistor – Volume/On-Off	ECRV-0006	340-0006-0100
22	Variable resistor – Bass/Treble	ECRV-331	340-0331-0100
23	Pilot lamp	EIL-61	430-0061-0000
24	5P socket with wires	AH-0004	421-0004-0000
25	Autoreverse cassette mechanism	H-35CF-4	626-0035-3604
26	Knob – Balance	MP-1829	131-1829-0000
27	Fader control ass'y	CAP-1180	600-1180-0000
28	Rear panel ass'y	CMK-1318	610-1318-0000
29	Holder – Aerial socket	PL-2109	100-2109-0000
30	Aerial socket with cable	AH-294	428-0294-0000
31	7P DIN socket with wires	WD-0001	420-0001-0000
32	5P plug with wires	AH-0090	421-0090-0000
33	Holder – 7P wires	PL-2448	100-2448-0000
34	Vinyl tube	WTB-7-80	492-070Y-0080
35	Heatsink plate	PL-2773	100-2773-0000
36	Holder – PCB	PL-7066	100-7066-0000
37	Dolby-C PC board ass'y	CAP-1256	600-1256-0000
38	FM Tuner	AR-202	625-0202-0000
39	Holder – PCB	PP-523	100-6523-0000
40	AM Tuner	AR-203	625-0203-0000
41	AM stereo PC board ass'y	CRP-1175-2	600-1175-0002
42	FM PC board ass'y	CRP-1176-5	600-1176-0005
43	Main PC board ass'y	CTP-1255-2	600-1255-0002
44	PC board – Shield	EP-1508	440-1508-0000
45	Heatsink plate	PL-2803	100-2803-0000
46	Shield case	PL-7063	100-7063-0000
47	Side panel ass'y (L)	CMK-131	610-0131-0000

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
48	Holder – Snap-in spring	PL-2779	100-2779-0000
49	Spring – Snap-in	SC-353	160-0353-0000
50	Spring – Slide-in (L)	PL-2780-1	100-2780-0001
51	Spring – Slide-in (R)	PL-2781-1	100-2781-0001
52	Insulation paper	PN-600	101-0600-0000
53	Bottom lid	PL-2772-3	100-2772-0003
54	VR cover sheet	PN-1018	101-1018-0000
55	7P socket with wires	AH-0054	421-0054-0000
56	8P socket with wires	AH-0055	421-0055-0000
57	Data link PC board ass'y	CTP-1245-1	600-1245-0001
58	Spacer	MP-4094	131-4094-0000
a	Pan head screw 2.6 x 5 (Self tight)	006265ST	020-0260-0500-121
b	Pan head screw 2.6 x 10	0062610	000-0260-1000-021
c	Pan head screw 2.6 x 4	006264	000-0260-0400-021
d	Pan head screw 2.6 x 4 (Self tight)	006264ST	020-0260-0400-121
e	Flush head screw 2.6 x 4 (Self tight)	002264ST	021-0260-0400-121
f	Flush head screw 2.6 x 6	002266	001-0260-0600-021
g	Pan head screw 2 x 2	006202	000-0200-0200-021
h	E-ring D2.3	030234	080-0230-0000
k	Hexagon nut M6 (a part of pot.)	020620	064-0600-0000
l	Plain washer D6	010605	070-0600-0000
m	Pan head screw 2.6 x 8	006268	000-0260-0800-021
n	Pan head screw 3 x 6	006306	000-0300-0600-021

SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



ACCESSORY LIST

DESCRIPTION	Q'TY	PART NO.	MFR'S NO.
Screw kit	1	AS-79	633-0079-0000
Contains;			
Plain washer D4	1	010408	070-0400-0104
Plain washer D5	1	010508	070-0500-0100
Spring washer D5	1	0115210	072-0500-0200
Hexagon nut D5	1	020540	060-0500-0101
SEMS hexagon screw 4 x 8	1	094408	055-0400-0800-120
SEMS hexagon screw 5 x 16	1	0945016	055-0500-1600-121
Bolt	1	CS-525	150-2525-0000
Rear suspension plug	1	MR-203	131-3203-0000
Side cover set	1	CMM-0410	613-0410-0000
Side cover (180)	2	MP-1823X3	131-1823-0300
Side cover (200)	2	MP-1825X3	131-1825-0300
Removal lever ass'y	1	CMT-113	610-0763-0000
Removal lever	2	PP-524	100-6524-0000
5P socket with wires	1	CTT-0008	631-0008-0000
Handbook	1	HPB-1039	801-1039-0000
Dealer list	1	HPC-209-1	803-0209-0001
Supporting strap	1	PP-159	100-6159-0000