HOLDEN GMH

SERVICE MANUAL

AUTOREVERSE CASSETTE STEREO PLAYER
& ELECTRONIC SEEK TUNE AM STEREO/FM STEREO RADIO
with 12 Programmable Memories & Digital Display

MCC-6703J

FOR ADDITIONAL TECHNICAL DESCRIPTION, REFER TO THE SERVICE MANUAL FOR MCC-6701V.

Printed in Japan Sep. '86 Modification Reserved

REF. NO. 12 600-1221-0002 MAIN CIRCUIT BOARD ASSEMBLY PARTS LIST

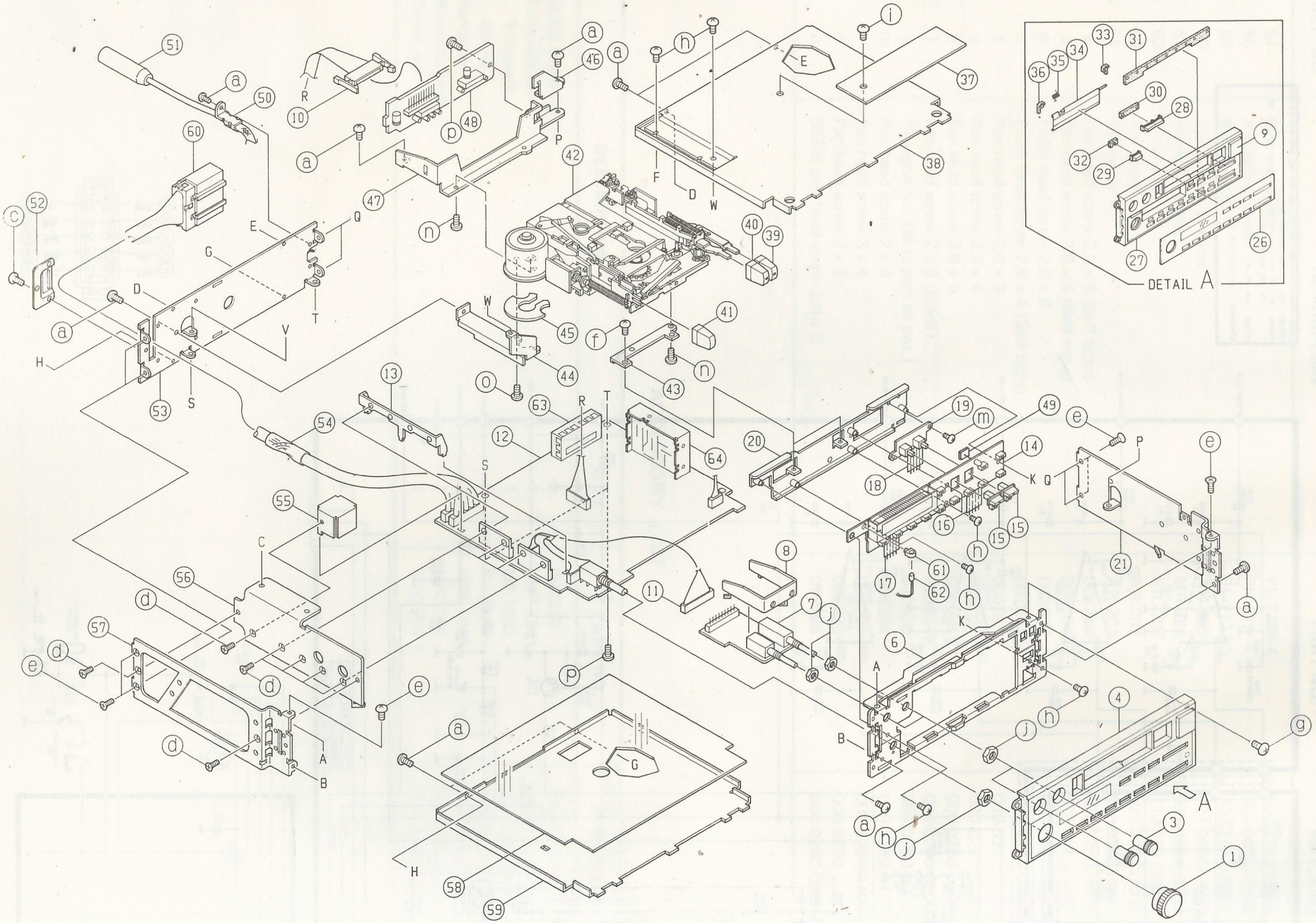
REF. NO.	DESCRIPTION			PART NO.	MFR'S NO.
—	Main printed circuit board			EP-1520-2	440-1520-0002
C111, 211, 608, 727	Electrolytic capacitor	1μF	50V	ECC-1/50	250-1R0M-1H00-014
C112, 212, 636, 855, 856	Tantalum electrolytic capacitor	1μF	16V	ECC-1/16	255-1R0M-1C00-020
C127, 129, 227, 229, 329, 429	Monolithic capacitor	0.001μF	25V	ECC-102	262-102K-1EJR-005
C128, 228	Tantalum electrolytic capacitor	0.15μF	16V	ECC-0.15/16	255-R15M-1C00-020
C130, 131, 155, 230, 231, 330, 331, 430, 431	Electrolytic capacitor	100μF	10V	ECC-100/10	250-101M-1A00-025
C132, 332	Electrolytic capacitor	22μF	16V	ECC-22/16	250-220M-1C00-022
C133, 159, 162, 233, 333, 433	Polyester film capacitor	0.1μF	50V	ECC-104	275-104J-1H00-000
C134, 234, 334, 434	Electrolytic capacitor	1000μF	10V	ECC-1000/10	250-102M-1A00-057
C151, 153, 602, 604, 605, 606, 607, 609, 611, 638	Monolithic capacitor	0.047μF	25V	ECC-473	262-473M-1EJR-020
C152, 616, 734, 862, 871	Electrolytic capacitor	10μF	16V	ECC-10/16	250-100M-1C00-014
C154	Electrolytic capacitor	47μF	16V	ECC-47/16	250-470M-1C00-033
C156, 715	Electrolytic capacitor	470μF	10V	ECC-470/10	250-471M-1A00-047
C158, 713, 732, 875	Electrolytic capacitor	47μF	10V	ECC-47/10	250-470M-1A00-033
C160	Electrolytic capacitor	470μF	16V	ECC-470/16	250-471M-1C00-047
C161	Electrolytic capacitor	2200μF	16V	ECC-2200/16	250-222M-1C00-073
C601, 643, 851	Monolithic capacitor	0.022μF	25V	ECC-223	262-223M-1EJR-011
C610, 613, 614	Ceramic capacitor	33pF	50V	ECC-33P	260-330K-1H00-005
C612	Electrolytic capacitor	2.2μF	50V	ECC-2.2/50	250-2R2M-1H00-014
C615	Ceramic capacitor	100pF	50V	ECC-101	260-101K-1H00-010
C617, 618, 619, 620	Ceramic capacitor	270pF	50V	ECC-271	260-271J-1H00-020
C621, 622, 639, 646, 647	Monolithic capacitor	0.01μF	25V	ECC-103	262-103K-1EJR-005
C623, 644, 716, 726	Electrolytic capacitor	22μF	6.3V	ECC-22/6.3	250-220M-0J00-014
C624	Monolithic capacitor	0.0022μF	25V	ECC-222	262-222K-1EJR-005
C625, 626	Ceramic capacitor	680pF	50V	ECC-681	260-681J-1H00-035
C627	Ceramic capacitor	68pF	50V	ECC-68P	260-680K-1H00-006
C628	Ceramic capacitor	0.0012μF	50V	ECC-122	261-122K-1HJB-011
C629	Monolithic capacitor	0.0068μF	25V	ECC-682	262-682M-1EJR-006
C630, 731	Electrolytic capacitor	100μF	10V	ECC-100/10	250-101M-1A00-033
C631	Polystylene film capacitor	0.001μF	50V	ECC-102	271-102J-1H00-000
C632	Monolithic capacitor	0.0033μF	25V	ECC-332	262-332M-1EJR-005
C633, 730	Tantalum electrolytic capacitor	3.3μF	10V	ECC-3.3/10	255-3R3M-1A00-021
C634, 857, 864, 865	Tantalum electrolytic capacitor	2.2μF	10V	ECC-2.2/10	255-2R2M-1A00-021
C635	Monolithic capacitor	0.033μF	25V	ECC-333	262-333M-1EJR-016
C637, 645, 858, 859, 860, 861, 867, 878, 880	Electrolytic capacitor	4.7μF	25V	ECC-4.7/25	250-4R7M-1E00-014
C640, 641	Monolithic capacitor	0.015μF	25V	ECC-153	262-153K-1EJR-006
C642, 718, 719, 720, 721, 729, 852	Monolithic capacitor	0.01μF	25V	ECC-103	262-103M-1EJR-005
C711, 728, 870	Tantalum electrolytic capacitor	0.1μF	16V	ECC-0.1/16	255-R10M-1C00-020

REF. NO.	DESCRIPTION			PART NO.	MFR'S NO.
C712, 714	Monolithic capacitor	0.015μF	25V	ECC-153	262-153M-1EJR-005
C717	Ceramic capacitor	5pF	50V	ECC-5P	260-5R0D-1HCH-005
C722	Ceramic capacitor	0.5pF	50V	ECC-0.5P	260-R50C-1HCK-005
C724, 725	Monolithic capacitor	0.022μF	25V	ECC-223	262-223K-1EJR-011
C733	Monolithic capacitor	0.033μF	25V	ECC-333	262-333K-1EJR-016
C735	Monolithic capacitor	0.0022μF	25V	ECC-222	262-222M-1EJR-005
C853, 854	Monolithic capacitor	0.0047μF	25V	ECC-472	262-472K-1EJR-005
C863, 866	Tantalum electrolytic capacitor	4.7μF	10V	ECC-4.7/10	255-4R7M-1A00-021
C868, 869	Tantalum electrolytic capacitor	0.47μF	16V	ECC-0.47/16	255-R47K-1C00-020
C872	Ceramic capacitor	50pF (CSC500K7)		ECC-50P	290-0007-0000
C873, 874, 876, 877	Monolithic capacitor	0.0033μF	25V	ECC-332	262-332K-1EJR-005
C879	Ceramic capacitor	47pF	50V	ECC-47P	260-470K-1H00-005
CF601, 602	Ceramic filter	10.7MHz		EOP-10	360-0010-0401
D101, 152, 153, 155, 156, 201, 601, 602, 603, 605, 606, 607, 711, 712, 713, 716, 717, 718, 719, 721, 722, 723, 724, 726, 727, 851, 852	Diode 1SS133 or equivalent			ETD-1SS133	304-0033-0000
D151	Diode DS135(D) or equivalent			ETD-DS135D	304-0023-1000
D154	Zener diode RD5.6E(B2) or equivalent			ETD-RD5.6EB2	306-0026-1100
D157, 714, 715, 720, 725	Zener diode EQA02-09(SA) or equivalent			ETD-EQA0209SA	306-0018-1000
D604	LED TLR211			ETD-TLR211	320-0027-0000
IC151, 152	Power amplifier IC HA13001			ETI-106	310-0106-0000
IC601	FM IF IC LA1140			ETI-83	310-0083-0000
IC602	NB IC LA2110			ETI-145	310-0145-0000
IC603	MPX IC LA3376			ETI-146	310-0146-0000
IC802	AM ST IC MC13020P			ETI-159	310-0159-0000
L151	Choke coil			ELS-99	350-0099-1400
L152	Inductor 2.2mH			ELD-301	351-0301-1700
L153	Inductor 470μH			ELD-200	351-0200-1200
L601	Inductor 22μH			ELD-209	351-0209-0900
L602	Inductor 4.7μH			ELD-196	351-0196-1200
L801	Inductor 18μH			ELA-35	352-0035-1100
N801	Surge protector			EIN-5	431-0005-0000
Q111, 152, 211, 603, 728, 729, 731, 732, 733, 851, 856	Transistor 2SC2458L(BL) or equivalent			ETTC-2458LBL	302-0078-1400
Q113, 213	Transistor 2SD1021(F) or equivalent			ETTD-1021F	302-0097-1300
Q151, 719, 854	Transistor 2SA1115(E) or equivalent			ETTA-1115E	301-0033-1100
Q601, 712, 713	Transistor 2SC930(D) or equivalent			ETTC-930D	302-0014-1000
Q602, 714, 715, 716, 718, 725, 726, 727, 857, 858	Digital transistor DTC144ES			ETTC-DTC144ES	302-0115-0000
Q711	Digital transistor DTC114YS			ETTC-DTC114YS	302-0131-0000
Q717	Digital transistor DTA124EF			ETTA-DTA124EF	301-0023-0000
Q720, 721, 722, 730, 734, 852, 853, 855	Transistor 2SC536(F) or equivalent			ETTC-536F	302-0007-1200

REF. NO.	DESCRIPTION				PART NO.	MFR'S NO.
Q723, 724	Transistor 2SD973(S)				ETTD-973S	302-0098-1200
R111, 211	Carbon film resistor	330k ohm	1/6W	±5%	ECR-330K	200-334J-2C00-010
R112, 124, 125, 212, 224, 225, 880, 882, 883	Carbon film resistor	1.5k ohm	1/6W	±5%	ECR-1.5K	200-152J-2C00-010
R113, 213, 646, 726	Carbon film resistor	100 ohm	1/6W	±5%	ECR-100	200-101J-2C00-010
R123, 151, 223, 622, 630, 647, 648, 750, 863, 864, 887	Carbon film resistor	22k ohm	1/6W	±5%	ECR-22K	200-223J-2C00-010
R127, 227, 327, 427	Carbon film resistor	33 ohm	1/6W	±5%	ECR-33	200-330J-2C00-010
R128, 228, 328, 428	Carbon film resistor	1 ohm	1/6W	±5%	ECR-1	200-1R0J-2C00-010
R152, 605, 619, 620, 637, 643, 716, 720, 738, 853, 865, 866	Carbon film resistor	2.2k ohm	1/6W	±5%	ECR-2.2K	200-222J-2C00-010
R153, 601, 603	Carbon film resistor	1.8k ohm	1/6W	±5%	ECR-1.8K	200-182J-2C00-010
R154	Carbon film resistor	180 ohm	1/2W	±5%	ECR-180	200-181J-2H00-010
R156, 638, 639, 645, 729	Carbon film resistor	3.3k ohm	1/6W	±5%	ECR-3.3K	200-332J-2C00-010
R157	Carbon film resistor	22 ohm	1/2W	±5%	ECR-22	200-220J-2H00-010
R158	Carbon film resistor	47 ohm	1/2W	±5%	ECR-47	200-470J-2H00-010
R602	Carbon film resistor	150 ohm	1/6W	±5%	ECR-150	200-151J-2C00-010
R604, 608	Carbon film resistor	330 ohm	1/6W	±5%	ECR-330	200-331J-2C00-010
R606, 607, 609, 634, 636, 650, 651, 715, 725, 737, 742, 855, 870	Carbon film resistor	1k ohm	1/6W	±5%	ECR-1K	200-102J-2C00-010
R610, 616, 633, 635, 641, 857, 858	Carbon film resistor	15k ohm	1/6W	±5%	ECR-15K	200-153J-2C00-010
R611, 617, 649, 711, 718, 727, 728, 730, 744, 872, 873	Carbon film resistor	10k ohm	1/6W	±5%	ECR-10K	200-103J-2C00-010
R612	Carbon film resistor	12k ohm	1/6W	±5%	ECR-12K	200-123J-2C00-010
R613, 615, 623, 719, 723, 735, 736, 739, 741, 749, 869, 890	Carbon film resistor	100k ohm	1/6W	±5%	ECR-100K	200-104J-2C00-010
R614	Carbon film resistor	68k ohm	1/6W	±5%	ECR-68K	200-683J-2C00-010
R618, 627, 628, 629, 734, 740, 746, 852, 856, 859, 860, 871, 875, 876	Carbon film resistor	4.7k ohm	1/6W	±5%	ECR-4.7K	200-472J-2C00-010
R621	Carbon film resistor	2.7k ohm	1/6W	±5%	ECR-2.7K	200-272J-2C00-010
R624, 745	Carbon film resistor	820 ohm	1/6W	±5%	ECR-820	200-821J-2C00-010
R625, 721, 748	Carbon film resistor	47k ohm	1/6W	±5%	ECR-47K	200-473J-2C00-010
R626	Carbon film resistor	6.8k ohm	1/6W	±5%	ECR-6.8K	200-682J-2C00-010
R631	Carbon film resistor	3.9k ohm	1/6W	±5%	ECR-3.9K	200-392J-2C00-010
R632, 642	Carbon film resistor	10 ohm	1/6W	±5%	ECR-10	200-100J-2C00-010
R640, 713	Carbon film resistor	33k ohm	1/6W	±5%	ECR-33K	200-333J-2C00-010
R644, 888	Carbon film resistor	1M ohm	1/6W	±5%	ECR-1M	200-105J-2C00-010
R714, 717	Carbon film resistor	5.6 ohm	1/6W	±5%	ECR-5.6	200-5R6J-2C00-010
R722, 747	Carbon film resistor	470 ohm	1/6W	±5%	ECR-470	200-471J-2C00-010

REF. NO.	DESCRIPTION				PART NO.	MFR'S NO.
R724	Carbon film resistor	150k ohm	1/6W	±5%	ECR-150K	200-154J-2C00-010
R731, 732, 733, 851	Carbon film resistor	820k ohm	1/6W	±5%	ECR-820K	200-824J-2C00-010
R743	Carbon film resistor	220 ohm	1/6W	±5%	ECR-220	200-221J-2C00-010
R854, 889	Carbon film resistor	8.2k ohm	1/6W	±5%	ECR-8.2K	200-822J-2C00-010
R861, 862, 867, 868, 881	Carbon film resistor	220k ohm	1/6W	±5%	ECR-220K	200-224J-2C00-010
R874	Carbon film resistor	82k ohm	1/6W	±5%	ECR-82K	200-823J-2C00-010
R877	Carbon film resistor	120k ohm	1/6W	±5%	ECR-120K	200-124J-2C00-010
R878, 886	Carbon film resistor	430 ohm	1/6W	±5%	ECR-430	200-431J-2C00-010
R879	Carbon film resistor	56k ohm	1/6W	±5%	ECR-56K	200-563J-2C00-010
R884	Carbon film resistor	910 ohm	1/6W	±5%	ECR-910	200-911J-2C00-010
R885	Carbon film resistor	82 ohm	1/6W	±5%	ECR-82	200-820J-2C00-010
RL701	Reed relay				ESR-68	402-0068-2600
T601	Detector coil				ELD-210	351-0210-0900
T851, 852	Notch coil 9kHz				ELD-302	351-0302-0900
VR105, 205	Variable resistor — Volume/On-Off				ECRV-405	340-0405-0100
VR601	Trimmer resistor	330 ohm	B		ECRV-399	340-0399-0100
VR602, 851	Trimmer resistor	10k ohm	B		ECRV-397	340-0397-0100
VR603, 852, 853, 854	Trimmer resistor	22k ohm	B		ECRV-396	340-0396-0100
VR604	Trimmer resistor	4.7k ohm	B		ECRV-402	340-0402-0100
VR605	Trimmer resistor	47k ohm	B		ECRV-403	340-0403-0100
VR711, 712	Trimmer resistor	100k ohm	B		ECRV-404	340-0404-0100
X851	Ceramic resonator (CSA3.6MT7)				EOC-21	361-0021-0400
	Holder — IC				PL-2965	100-2965-0000
	Shield case				PL-7124	100-7124-0000

EXPLODED VIEW – CABINET



MECHANICAL PARTS LIST – CABINET

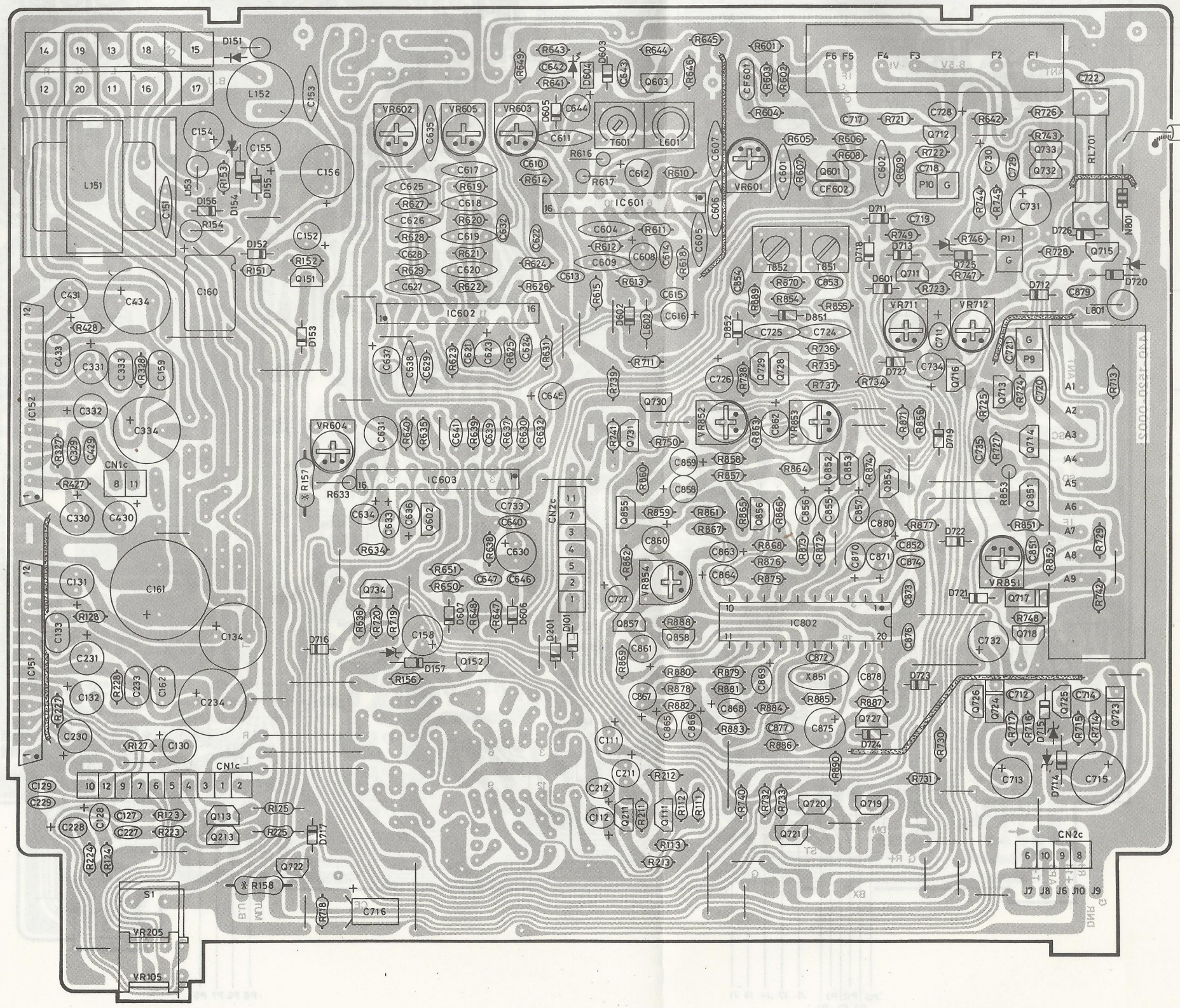
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
1	Knob ass'y – Volume	CMM-352	613-0352-0000
3	Knob ass'y – Fader/Balance/Bass/Treble	CMM-353	613-0353-0000
4	Escutcheon ass'y	CMM-422-1	613-0422-0001
6	Front chassis	PL-7125	100-7125-0000
7	Control PC board ass'y	CAP-1202	600-1202-0000
8	Holder – Variable resistor	PL-2952	100-2952-0000
9	Blanking plate	MP-4077	131-4077-0000
10	11P board-in connector	AH-0019	421-0019-0000
11	12P board-in connector	AH-0020	421-0020-0000
12	Main PC board ass'y	CTP-1221-2	600-1221-0002
13	Holder – Power amplifier IC	PL-2965	100-2965-0000
14	LCD display PC board ass'y	CTT-1195X1-1	600-1195-0101
15	Button set – MO/BX	CMM-391-1	613-0391-0001
16	Flat cable	WX-208-1	471-0208-0001
17	Flat cable	WX-210-1	471-0210-0001
18	Flat cable	WX-209-1	471-0209-0001
19	Switch PC board (A) ass'y	CTP-1203	600-1203-0000
20	Holder – LCD display	CMK-1283	610-1283-0000
21	Side panel (R)	PL-7129	100-7129-0000
26	Plate – Escutcheon	HPN-1507	181-1507-0000
27	Escutcheon with light guide	CMM-421	613-0421-0000
28	Button – Tune/Seek	MP-4100-1	131-4100-0001
29	Button	MP-4101	131-4101-0000
30	Cushion (B) – Switch	PN-1030	101-1030-0000
31	Cushion (C) – Switch	PN-1043	101-1043-0000
32	Cushion (A) – Switch	PN-1029	101-1029-0000
33	Holder – Door shaft (R)	PL-2962	100-2962-0000
34	Cassette door	PL-2954X7-2	100-2954-0702
35	Spring – Cassette door	SC-2057	160-2057-0000
36	Holder – Door shaft (L)	PL-2961	100-2961-0000
37	Label – Tray lock warning	HPC-203	803-0203-0000
38	Top lid	PL-2959-5	100-2959-0005
39	Button – FF/REW (R)	MP-2007X2	131-2007-0200
40	Button – FF/REW (L)	MP-2007X1	131-2007-0100
41	Button – Eject	MP-2007	131-2007-0000
42	Autoreverse cassette mechanism	AA-746-1	626-0005-0201
43	Holder – Mechanism	PL-7128	100-7128-0000
44	Holder – Motor	PL-7007-1	100-7007-0001
45	Spacer	PP-7098	100-7098-0000
46	Plate – Reinforcement	PL-7164	100-7164-0000
47	Holder (R) – Mechanism	PL-2950-2	100-2950-0002
48	Pre amplifier PC board ass'y	CAP-1205-1	600-1205-0001
49	Plate – Shade	PN-633	101-0633-0000
50	Holder – Aerial socket	PL-2109	100-2109-0000
51	Aerial socket with cable	AH-294	428-0294-0000
52	Holder – Power supply wire	PL-2966	100-2966-0000
53	Rear panel	PL-2956-4	100-2956-0004
54	Vinyl tube	WTB-12-40	492-120Y-0040
55	Case – Shield	PL-7124	100-7124-0000
56	Heatsink plate	PL-2955-1	100-2955-0001

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
57	Side panel (L)	PL-2769-4	100-2769-0004
58	Insulation paper	PN-675	101-0675-0000
59	Bottom lid	PL-2772-3	100-2772-0003
60	10P plug with wires	AH-0066	421-0066-0000
61	Holder — Lamp	MR-264	131-3264-0000
62	Pilot lamp	EIL-207	430-0207-0000
63	FM tuner	AR-202	625-0202-0000
64	AM tuner	AR-203	625-0203-0000
a	Pan head screw 2.6 x 5 (Self tight)	006265ST	020-0260-0500-121
c	Pan head screw 2.6 x 4 (Self tight)	006264ST	020-0260-0400-121
d	Flush head screw 2.6 x 6	002266	001-0260-0600-021
e	Flush head screw 2.6 x 4 (Self tight)	002264ST	021-0260-0400-121
f	Pan head screw 2.6 x 3	006263	000-0260-0300-021
g	Pan head screw 2.6 x 4	006264	000-0260-0400-021
h	Pan head screw 2.6 x 5	006265	000-0260-0500-021
i	Pan head screw 2 x 8 (Black)	006208K	000-0200-0800-022
j	Hexagon nut D6 (a part of pot.)	020620	064-0600-0000
m	Pan head screw 2 x 4	006204	000-0200-0400-021
n	Pan head screw 3 x 4	006304	000-0300-0400-021
o	Pan head screw 2 x 5	006205	000-0200-0500-021
p	SEMS pan head screw 2.6 x 5	093265	050-0260-0500-121

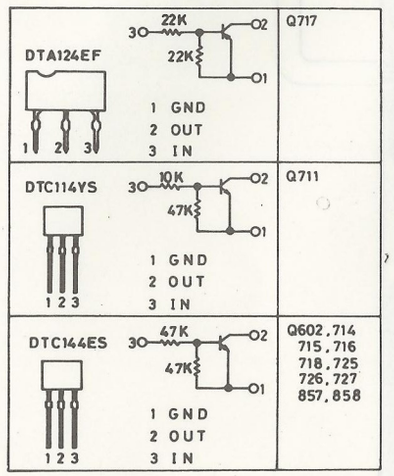
ACCESSORY LIST

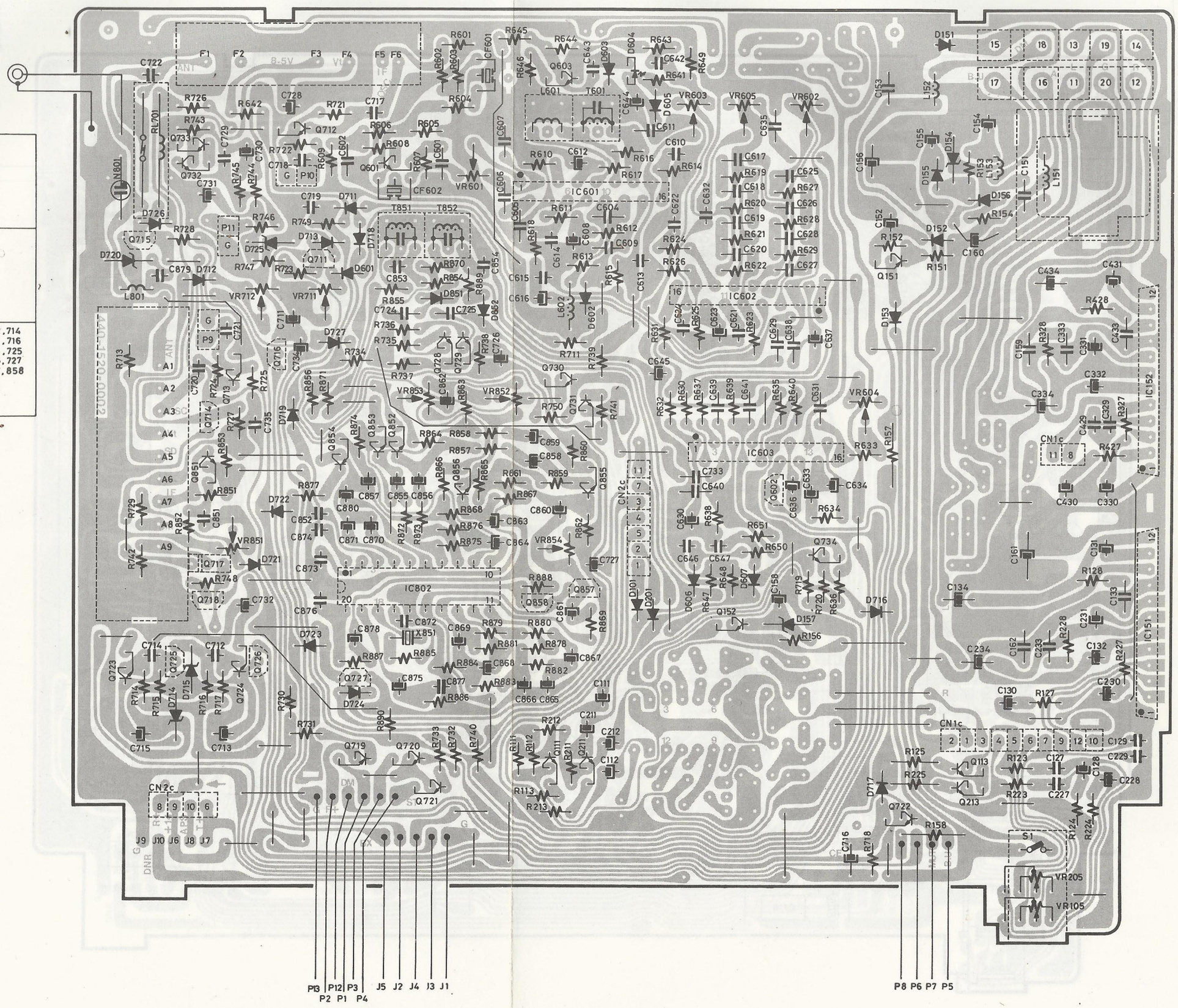
DESCRIPTION	Q'TY	PART NO.	MFR'S NO.
SEMS screw 3 x 10	2	093310	050-0300-1000-120
Trimplate set	1	CMT-191	610-0841-0000
Trimplate	1	MP-1983	131-1983-0000
Spring	2	PL-2915	100-2915-0000
Handbook	1	HPB-1033	801-1033-0000
Warranty card	1	HPC-163	803-0163-0000
Dealer list	1	HPC-209-1	803-0209-0001

MAIN CIRCUIT BOARD COMPONENT LOCATION GUIDE



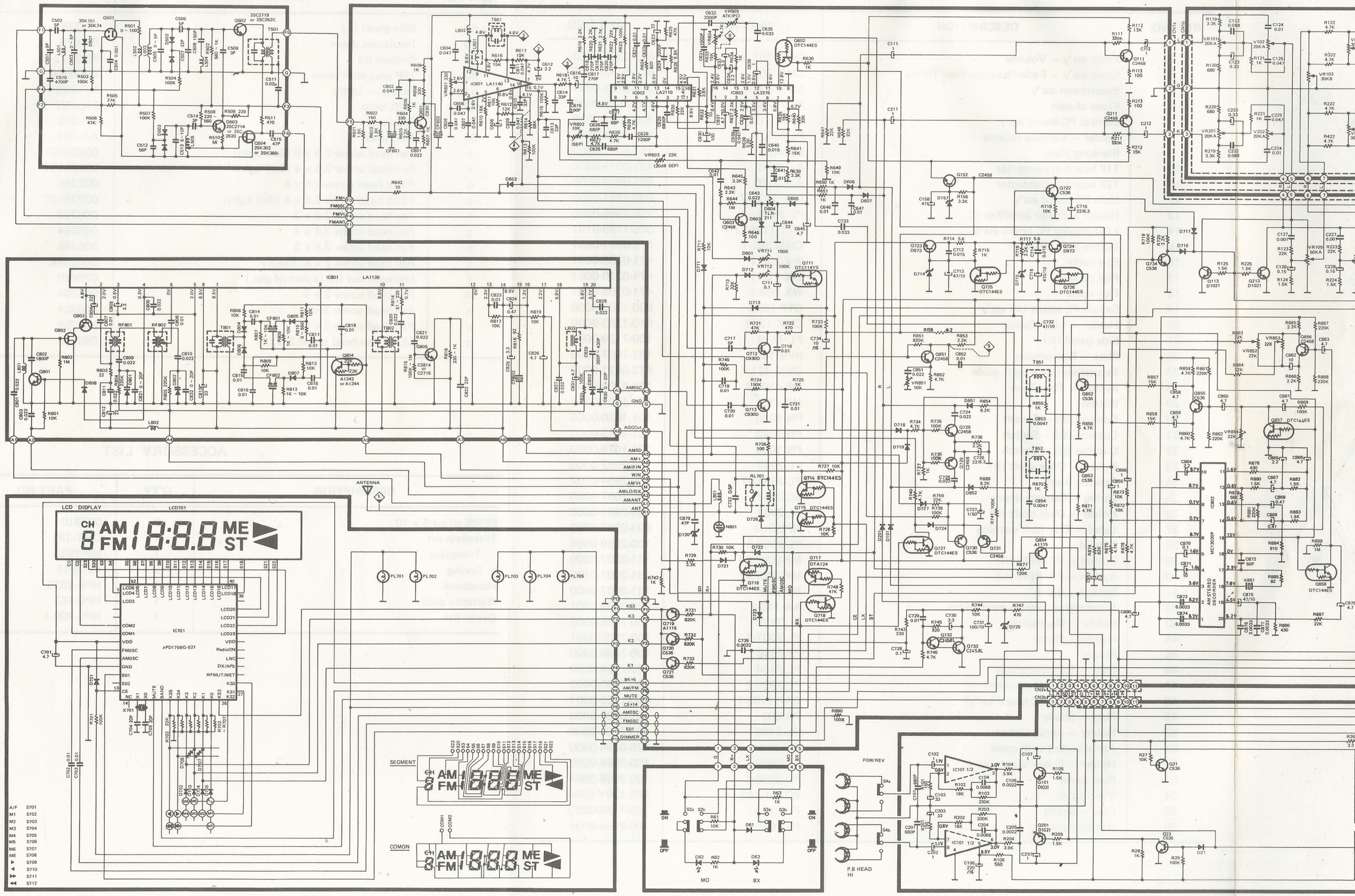
TOP VIEW


DTA124EF
22K
22K
1 GND
2 OUT
3 IN
Q717
DTC114YS
10K
47K
1 GND
2 OUT
3 IN
Q711
DTC144ES
47K
47K
1 GND
2 OUT
3 IN
Q602, 714
715, 716
718, 725
726, 727
857, 858

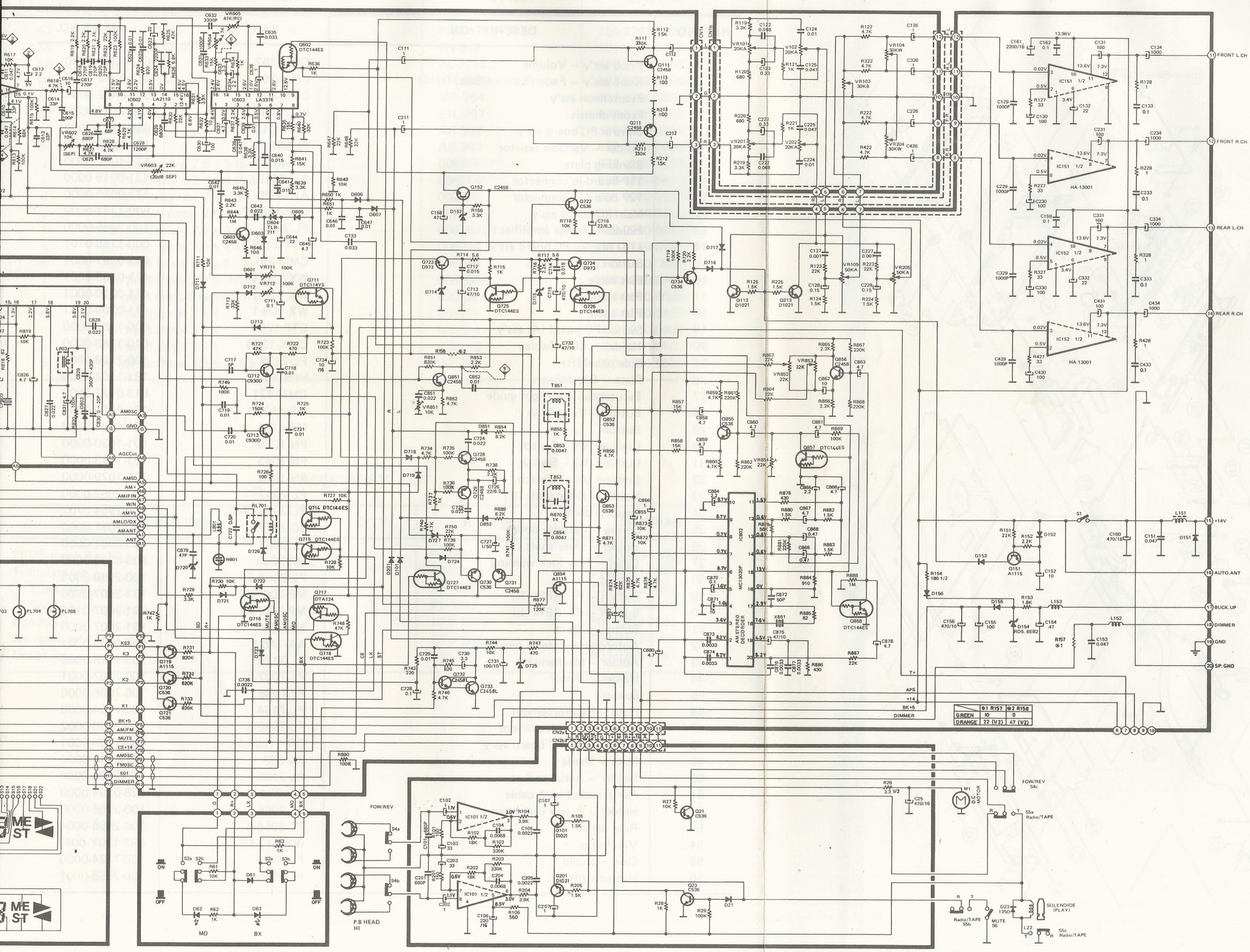

P13 P12 P3 J5 J2 J4 J3 J1
P2 P1 P4
P8 P6 P7 P5

BOTTOM VIEW

SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



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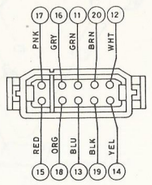
	⊕1 R157	⊕2 R158
GREEN	10	0
ORANGE	22 (1/2)	47 (1/2)