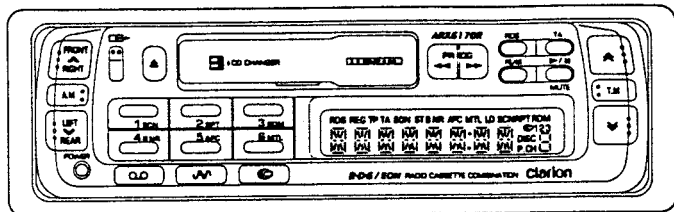


clarion Service Manual

Published by Service Dept.



FM/MW/LW RADIO CASSETTE COMBINATION WITH RDS-EON AND CD/MD CHANGER CONTROL

Model **ARX6170R**
 (PE-9916E)

■ SPECIFICATIONS

RADIO SECTION

Tuning system :PLL synthesizer
 Receiving frequencies
 :FM 87.5MHz
 MW 531 to 1,602kHz
 LW 153 to 279 kHz


TAPE DECK SECTION

Playback system :Auto reversing,4-track,2-channel
 stereo cassette tape playback
 Monaural also possible

GENERAL

Power supply voltage
 :DC 14V(10.8 to 15.6V allowable)
 Negative ground
 Power consumption
 :Less than 10A
 Speaker impedance
 :4 Ω (4 to 8 Ω allowable)
 Auto antenna rated current
 :0.5A or less
 Dimensions :Width 178mm
 Height 50mm
 Depth 152mm
 Weight :1.3kg

※Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

※"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

※For improvement purposes,specifications and design are subject to change without prior notice.

■ COMPONENTS

● PE-9916E-B		
Main unit	—	1
Mounting bracket	300-9035-03	1
Outer escutcheon	370-5496-0L	1
Extension lead	854-3848-00	1
Parts bag	921-9184-00	1
Hook plate	330-8216-0L	2
Lead holder	335-0833-01	1
Spacer	345-3653-01	1
Screw	716-0726-01	1

■ FEATURES

- Auto reverse with auto azimuth adjustment
- Dolby B noise reduction
- EON-RDS receiver with PI,PS,AF,TP,TA and REG
- Radio monitor
- High power 4 x 30W max.
- Electronic controls(Volume/Bass/Treble/Balance/Fader)
- Triggered audio mute for cellular telephone
- Detachable control panel

ADJUSTMENT:

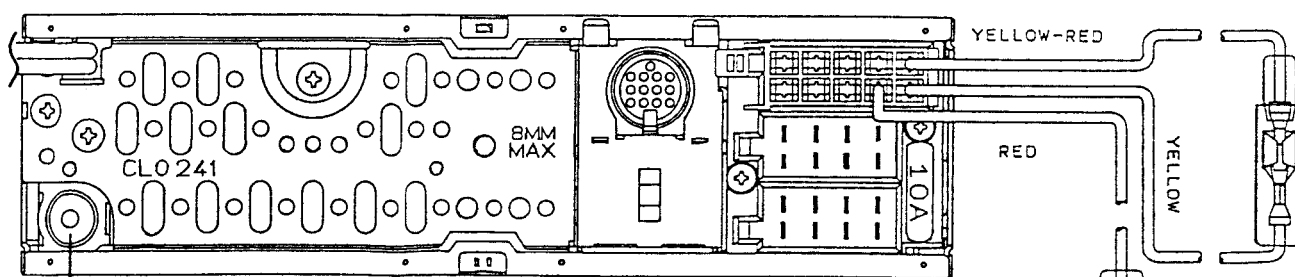
FM SECTION

Item	Procedure
Stop sensitivity	1. Input the 98.1MHz/25dB(30%,400Hz) signal. 2. Adjust VR441 so that the voltage of TP1 is in the range 0V to 5.0V.
SASC	1. Input the 98.1MHz/65dB(30%,7kHz) signal. 2. Adjust the output level of the main volume to 0dBm(0.775V). 2. Adjust the outputs evenly to -3dB by VR439 when the SG is set to 30dB.
Separation	1. Input the 98.1kHz, connect the output of a stereo modulator to the external modulation terminal, and input a 65dB SG signal. 2. Set the stereo modulator to the L or R ch and adjust VR440 so that the maximum separation is obtained.

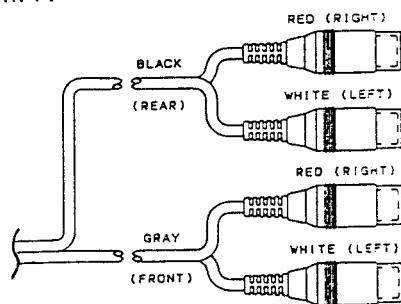
DOLBY SECTION

Item	Procedure
Dolby level	1. Playback a Dolby level test tape(400Hz,200nWb/m), connect the milli-volt meter to TP2(L), TP3(R). 2. Adjust VR349(L), VR350(R) to be obtain an output of 300mV*1dB. (Dolby switch: OFF)

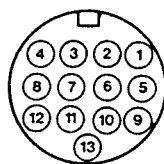
REAR VIEW AND CONNECTORS:



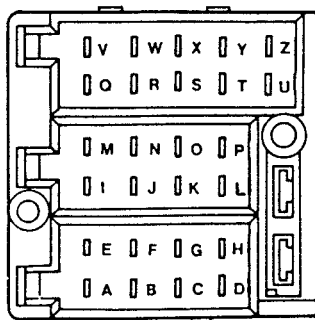
ANT.



RCA LINE OUT



1	SO/SI
2	SCK
3	
4	SRQ
5	
6	S. GND
7	Lch-IN
8	Rch-IN
9	
10	B/U (+14V)
11	ACC CONTROL
12	GND
13	



A	NFRONT SP Rch	+	
B	BACK UP	OFRONT SP Lch	+
C	ILLUMI	PREAR SP Lch	+
D	GND	Q	
E	TEL MUTE	R	
F		S	
G	AUTO ANT/AMP REMOTE	T	ACC
H	ACC	U	BACK UP
I	REAR SP Rch	V	
J	FRONT SP Rch	W	
K	FRONT SP Lch	X	
L	REAR SP Lch	Y	
M	REAR SP Rch	Z	COMMON

■ EXPLANATION OF IC's:

■ μPD78044AGF-084-3B9 052-3321-00 System controller

Outward From 80-pin plastic QFP

Terminal discription

Pin No.	Symbol	I/O	Function
1	E VOL CE	O	Chip enable signal output of electronic volume IC (CXAI946)
2	E VOL CLK	O	Clock output of electronic volume IC (CXAI946)
3	DOLBY	O	Repeats operation between H and L in tape mode when BNR key is pressed.
4	APC	O	H output H during FF/REW when tape mode APC is ON.
5	MTL	O	Repeats operation between H and L in tape mode when MTL key is pressed.
6	ACC CONT	O	ACC CONT signal output of C-BUS.
7	NC	-	Not in use.
8	VDD	-	+5V power supply voltage terminal
9	C-BUS SCK	O	Clock output of C-BUS
10	C-BUS SO	O	Output data of C-BUS
11	C-BUS SI	I	Input data of C-BUS
12	C-BUS SRQ	I	SRQ of C-BUS
13	PLL CE	O	Chip enable signal output of PLL IC (LC 72146M)
14	PLL CLK	O	Clock output of PLL IC (LC 72146M)
15	PLL DO	O	Output data of PLL IC (LC 72146M)
16	PLL DI	I	Input data of PLL IC (LC 72146M)
17	RESET	I	RESET signal input
18	LPF CONT.	O	Time constant switching terminal of LPF
19	NC	-	Not in use.
20	AVSS	-	Reference GND terminal of A/D converter.
21	AM SD	I	Station detection signal input during AM band auto tuning (SEEK, PS, AS) in radio mode.
22	ST IND	I	ST indicator lights in low level while receiving FM band station in radio mode.
23	FM SD	I	Station detection signal input during FM band auto tuning (SEEK, PS, AS) and tracking with RDS function in radio mode.
24	NC	-	Not in use.
25	S METER	I	Field strength signal of FM band station in radio mode. (used as A/D port)
26	NC	-	Not in use.
27	NC	-	Not in use.
28	REM CONT	I	Remote control data input with single wire voltage input (used as A/D port)
29	AVDD	-	Analog power supply terminal of A/D converter
30	AVref	-	Reference voltage input terminal of A/D converter
31	XT 1	-	Not in use.
32	XT 2	-	Not in use.
33	VSS	-	GND terminal.
34	X 1	-	Main system clock oscillator terminal connection terminal
35	X 2	-	Main system clock oscillator terminal connection terminal
36	FWD/REV	I	Cassette tape running direction. (Mute output with change of port in tape mode.)
37	BEEP	O	Pulse output of beep sound.
38	IF MUTE	O	Outputs during automatic tracking with RDS function.
39	RDS DATA	I	RDS data input from RDS decoder IC (SAA 8579).
40	LCD KEY REQ	I	Key request signal input from LCD driver (μ PD 16431).
41	LCD CLK	O	Clock output of LCD driver (μ PD 16431).
42	LCD DATA	I/O	Input/output data of LCD driver (μ PD 16431).
43	LCD STB	O	Strobe signal output of LCD driver (μ PD 16431).
44	POWER KEY	I	Key input of power key
45	RDS CLK	I	Synchronous clock from RDS decoder IC (SAA 6579).

Pin No.	Symbol	I/O	Function
46	X'tal Start	I	When power key is off and microcomputer is in HALT, release HALT according to change ACC DET status or detection of BAND key ON.
47	B/U DET	I	Detects connection of power in backup line. H : Disconnected. L : Connected.
48	IC	-	Connect to GND.
49	VOL A	I	Input of turning volume control (phase comparison)
50	VOL B	I	
51	NC	-	Not in use.
52	VDD	-	+5V power supply voltage terminal
53	LCD OE	O	Output enable signal output of LCD driver (μ PD 16431)
54	BAND KEY	I	Key input terminal of band key in radio mode.
55	ACC DET	I	Detects power connection status of accessory line.
56	WILL1	O	Control output signal of W illumination.
57	WILL2	O	
58	SLAVE ON	I	Slave status input of AUX
59	MASTER ON	O	Master status output of AUX
60	NC	-	Not in use.
61	PACK SW	I	Tape presence detection signal input in tape mechanism (TOM II M).
62	FF/REW	I	FF/REW status detection signal input of tape mechanism (TOM II M).
63	PHONE	I	Interruption signal input of car phone
64	NC	-	Not in use.
65	KI 3	I	Input of initially set diode matrix
67	KI 1		
68	NC	-	Not in use.
72			
73	KO 4	O	Input of initially set diode matrix
76	KO 1		
77	MOTOR	O	Motor control signal output of tape mechanism (TOM II M).
78	REMOTE	O	Status control signal output of POWER IC (HA1 3150A).
79	MUTE	O	Mute control signal output.
80	E VOL DO	O	Output data of electronic volume IC (CXAI946)

Key matrix table (initially set diode matrix)

KEY IN	KEY OUT	KO 1 (76 pin)	KO 2 (77 pin)	KO 3 (78 pin)	KO 4 (79 pin)
KI 1 (67 pin)		D-SW0	D-SW1	D-SW2	D-SW3
KI 2 (66 pin)		With/without LOUD-KEY	FF/REW display switching		
KI 3 (65 pin)					

□ : Momentary SW

▣ : Diode SW

Diode SW

In the table below, "O" means that diode SW is OFF and "I" means that diode SW is ON.

SW name	Function															
D SW0	Auto store initially set terminal for commercial item/OEM															
D SW1	<table border="1"> <thead> <tr> <th>D SW0</th> <th>D SW1</th> <th>Specification</th> </tr> </thead> <tbody> <tr> <td>O</td> <td>O</td> <td>Commercial mode</td> </tr> <tr> <td>O</td> <td>I</td> <td>Auto store initial setting : Both FM 1 and 2 buds</td> </tr> <tr> <td>I</td> <td>O</td> <td>OEM mode</td> </tr> <tr> <td>I</td> <td>I</td> <td>Auto store initial setting : FM2 only</td> </tr> </tbody> </table>	D SW0	D SW1	Specification	O	O	Commercial mode	O	I	Auto store initial setting : Both FM 1 and 2 buds	I	O	OEM mode	I	I	Auto store initial setting : FM2 only
D SW0	D SW1	Specification														
O	O	Commercial mode														
O	I	Auto store initial setting : Both FM 1 and 2 buds														
I	O	OEM mode														
I	I	Auto store initial setting : FM2 only														
D SW2	APC, DOLBY, MTL function selection terminal															
D SW3	<table border="1"> <thead> <tr> <th>D SW2</th> <th>D SW3</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>O</td> <td>O</td> <td>Without APC, Without DOLBY, Without MTL</td> </tr> <tr> <td>O</td> <td>I</td> <td>Without APC, Without DOLBY, With MTL</td> </tr> <tr> <td>I</td> <td>O</td> <td>Without APC, With DOLBY, With MTL</td> </tr> <tr> <td>I</td> <td>I</td> <td>With APC, With DOLBY, With MTL</td> </tr> </tbody> </table>	D SW2	D SW3	Function	O	O	Without APC, Without DOLBY, Without MTL	O	I	Without APC, Without DOLBY, With MTL	I	O	Without APC, With DOLBY, With MTL	I	I	With APC, With DOLBY, With MTL
D SW2	D SW3	Function														
O	O	Without APC, Without DOLBY, Without MTL														
O	I	Without APC, Without DOLBY, With MTL														
I	O	Without APC, With DOLBY, With MTL														
I	I	With APC, With DOLBY, With MTL														
LOUD KEY	Loud key selection terminal O : Without LOUD KEY I : With LOUD KEY															
FF/REW	Display switching terminal during FF/REW O : , Display of running direction I : FF/REW flashing															

■ PARTS LIST

◎MAIN PWB

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 103	172-1041-11	0.1uF	C 412	183-4763-11	6.3V47uF	IC 302	051-5004-00	CXA1946Q
C 104	172-1041-11	0.1uF	C 413	183-2253-62	50V2.2uF	IC 303	051-2004-00	HA13150A
C 105	183-1063-31	16V10uF	C 414	176-8201-00	82pF CH	IC 401	051-6201-00	LC72146M
C 108	183-1053-61	50V1uF	C 415	176-4701-00	47pF CH	IC 501	051-1819-00	SAA6579T
C 109	183-1063-31	16V10uF	C 416	178-1042-05	0.1uF	IC 502	051-0362-01	BA338
C 110	183-1073-21	10V100uF	C 417	178-3312-05	330pF	IC 503	051-0301-01	uPC1228H
C 205	178-1022-05	1000pF	C 419	178-1032-05	0.01uF	IC 504	051-0160-51	SN74LS07N
C 206	184-4773-12	6.3V470uF	C 420	178-1032-05	0.01uF	IC 505	052-3321-00	uPD78044AGF-084-3B9
C 301	178-6832-05	0.068uF	C 421	178-2222-05	2200pF	L 101	010-2046-36	220uH
C 302	178-1022-05	1000pF	C 422	183-1063-31	16V10uF	L 102	009-0666-0L	
C 304	178-3322-05	3300pF	C 423	183-1063-31	16V10uF	L 401	010-2003-04	
C 305	178-5632-05	0.056uF	C 424	178-5622-05	5600pF	L 402	010-2198-01	0.22uH
C 307	178-6832-05	0.068uF	C 425	178-5622-05	5600pF	L 404	010-2230-38	220uH
C 308	178-1022-05	1000pF	C 427	178-1012-05	100pF CH	L 406	010-2230-28	33uH
C 310	178-5622-05	5600pF	C 428	172-1531-11	0.015uF	Q 101	101-0624-0L	2SB624
C 311	178-5622-05	5600pF	C 429	172-8231-11	0.082uF	Q 102	102-2712-00	2SC2712
C 312	178-5622-05	5600pF	C 431	176-1501-00	15pF CH	Q 103	103-1504-00	2SD1504
C 313	178-5622-05	5600pF	C 432	176-1801-00	18pF CH	Q 104	103-1504-00	2SD1504
C 314	172-1041-11	0.1uF	C 433	183-4753-51	35V4.7uF	Q 105	103-0882-00	2SD882
C 315	172-1041-11	0.1uF	C 434	183-1053-61	50V1uF	Q 107	102-2712-00	2SC2712
C 316	172-1041-11	0.1uF	C 435	178-3332-05	0.033uF	Q 108	100-1162-00	2SA1162
C 317	172-1041-11	0.1uF	C 436	042-0452-01	10V220uF	Q 109	103-1055-00	2SD1055
C 318	172-1041-11	0.1uF	C 501	178-1022-05	1000pF	Q 110	103-0882-00	2SD882
C 319	172-1041-11	0.1uF	C 502	178-1022-05	1000pF	Q 111	102-2712-00	2SC2712
C 320	172-1041-11	0.1uF	C 503	183-1073-12	6.3V100uF	Q 112	101-0772-0L	2SB772
C 321	172-1041-11	0.1uF	C 504	178-2732-05	0.027uF	Q 113	102-2712-00	2SC2712
C 322	178-1042-05	0.1uF	C 505	183-1053-61	50V1uF	Q 114	125-0002-01	RN2401
C 323	183-1063-31	16V10uF	C 506	183-1053-61	50V1uF	Q 401	125-2004-03	RN1403
C 324	183-2243-61	50V0.22uF	C 507	178-2732-05	0.027uF	Q 402	103-1306-00	2SD1306
C 325	183-6843-61	50V0.68uF	C 508	183-1073-12	6.3V100uF	Q 404	103-1306-00	2SD1306
C 326	183-1063-31	16V10uF	C 509	183-4763-31	16V47uF	Q 405	102-2712-51	2SC2712G.L
C 327	183-4753-51	35V4.7uF	C 510	183-1053-61	50V1uF	Q 406	102-2712-51	2SC2712G.L
C 328	183-2243-61	50V0.22uF	C 511	183-1053-61	50V1uF	Q 407	125-2004-03	RN1403
C 329	183-2253-62	50V2.2uF	C 512	178-1032-05	0.01uF	Q 408	125-2004-03	RN1403
C 330	183-6843-61	50V0.68uF	C 513	178-1032-05	0.01uF	Q 409	100-1162-50	2SA1162Y.G
C 331	183-1073-21	10V100uF	C 514	183-3353-61	50V3.3uF	Q 410	101-0624-0L	2SB624
C 332	184-3373-11	6.3V330uF	C 515	172-4731-11	0.047uF	Q 411	103-1306-00	2SD1306
C 333	183-1063-31	16V10uF	C 516	183-2253-62	50V2.2uF	Q 501	102-2712-00	2SC2712
C 334	183-1063-31	16V10uF	C 517	183-1053-61	50V1uF	Q 502	102-2712-00	2SC2712
C 335	183-1063-31	16V10uF	C 518	183-1053-61	50V1uF	Q 503	101-0822-00	2SB822
C 336	183-1063-31	16V10uF	C 519	183-4753-51	35V4.7uF	Q 504	101-0822-00	2SB822
C 337	183-1063-31	16V10uF	C 520	183-2263-31	16V22uF	Q 505	102-2712-00	2SC2712
C 338	183-1063-31	16V10uF	C 600	183-4763-11	6.3V47uF	Q 506	102-2712-00	2SC2712
C 339	183-1063-31	16V10uF	C 601	178-1042-05	0.1uF	R 101	117-1031-10	1/10W 10kohm
C 340	183-1063-31	16V10uF	C 602	178-1042-05	0.1uF	R 102	117-2721-10	1/10W 2.7kohm
C 341	183-1066-21	10V10uF NP	D 101	001-0356-00	1SS184	R 103	117-4731-10	1/10W 47kohm
C 342	183-1066-21	10V10uF NP	D 103	001-0330-00	1SS119	R 104	117-2231-10	1/10W 22kohm
C 344	183-1066-21	10V10uF NP	D 104	001-0330-00	1SS119	R 105	117-5621-10	1/10W 5.6kohm
C 345	183-1066-21	10V10uF NP	D 106	001-0330-00	1SS119	R 106	117-1031-10	1/10W 10kohm
C 346	183-1066-21	10V10uF NP	D 107	001-0516-00	MA111	R 107	117-3321-10	1/10W 3.3kohm
C 348	183-1066-21	10V10uF NP	D 108	001-0356-00	1SS184	R 108	111-5611-91	1/4WS 560ohm
C 349	183-4753-51	35V4.7uF	D 111	001-0583-31	MA8160	R 111	117-6821-10	1/10W 6.8kohm
C 350	183-4753-51	35V4.7uF	D 113	001-0466-00	S5688B	R 112	117-1031-10	1/10W 10kohm
C 351	183-4753-51	35V4.7uF	D 114	001-0377-37	MA4068L	R 113	111-2221-91	1/4WS 2.2kohm
C 352	183-4753-51	35V4.7uF	D 117	001-0503-36	HZS7 A1L	R 114	117-4731-10	1/10W 47kohm
C 353	178-1042-05	0.1uF	D 118	001-0377-45	MA4082H	R 115	111-3901-91	1/4WS 390ohm
C 357	183-2253-62	50V2.2uF	D 119	001-0377-28	MA4051L	R 117	111-1031-91	1/4WS 10kohm
C 359	183-1553-62	50V1.5uF	D 120	001-0377-44	MA4082M	R 118	111-2211-91	1/4WS 220ohm
C 360	042-0447-00	16V2200uF	D 204	001-0516-00	MA111	R 119	117-6821-10	1/10W 6.8kohm
C 361	042-0447-00	16V2200uF	D 205	001-0516-00	MA111	R 120	117-2231-10	1/10W 22kohm
C 362	183-1063-31	16V10uF	D 206	001-0516-00	MA111	R 121	111-9111-91	1/4WS 910ohm
C 367	172-1041-11	0.1uF	D 207	001-0516-00	MA111	R 122	117-1031-10	1/10W 10kohm
C 368	178-2242-05	0.22uF	D 210	001-0659-00	SLP-181B-51	R 123	117-4731-10	1/10W 47kohm
C 369	178-2242-05	0.22uF	D 211	001-0516-00	MA111	R 124	117-2221-10	1/10W 2.2kohm
C 370	178-3322-05	3300pF	D 301	001-0516-00	MA111	R 125	117-4721-10	1/10W 4.7kohm
C 371	178-2242-05	0.22uF	D 302	001-0516-00	MA111	R 126	117-3331-10	1/10W 33kohm
C 372	178-2242-05	0.22uF	D 303	001-0516-00	MA111	R 127	114-2291-11	1W 2.2ohm
C 401	178-1022-05	1000pF	D 403	001-0377-46	MA4091L	R 130	111-1021-91	1/4WS 1kohm
C 402	178-1042-05	0.1uF	D 404	001-0516-00	MA111	R 131	111-2221-91	1/4WS 2.2kohm
C 403	178-1032-05	0.01uF	D 501	001-0516-00	MA111	R 205	117-1031-10	1/10W 10kohm
C 404	183-4763-31	16V47uF	D 502	001-0516-00	MA111	R 206	117-1031-10	1/10W 10kohm
C 407	183-3343-62	50V0.33uF	D 503	001-0516-00	MA111	R 207	117-1031-10	1/10W 10kohm
C 408	178-1032-05	0.01uF	D 504	001-0516-00	MA111	R 208	111-4711-91	1/4WS 470ohm
C 409	183-4763-31	16V47uF	IC 203	051-0869-00	MB3771P(-G)	R 209	117-1031-10	1/10W 10kohm
C 411	178-5612-05	560pF CH	IC 301	051-1349-00	HA12134A	R 210	117-1031-10	1/10W 10kohm

ARX617OR

REF No.	PART No.	DESSCRPTION	REF No.	PART No.	DESSCRPTION	REF No.	PART No.	DESSCRPTION
R 211	117-1031-10	1/10W 10kohm	R 325	117-6821-10	1/10W 6.8kohm	R 503	117-8201-10	1/10W 82ohm
R 212	117-4731-10	1/10W 47kohm	R 326	117-2291-10	1/10W 2.2ohm	R 504	117-1241-10	1/10W 120kohm
R 213	117-1041-10	1/10W 100kohm	R 327	117-2291-10	1/10W 2.2ohm	R 505	117-4721-10	1/10W 4.7kohm
R 215	111-1031-91	1/4WS 10kohm	R 328	117-2291-10	1/10W 2.2ohm	R 506	117-4721-10	1/10W 4.7kohm
R 216	111-3321-91	1/4WS 3.3kohm	R 329	117-2291-10	1/10W 2.2ohm	R 507	117-1241-10	1/10W 120kohm
R 217	117-1041-10	1/10W 100kohm	R 330	117-4711-10	1/10W 470ohm	R 508	117-8201-10	1/10W 82ohm
R 218	117-1041-10	1/10W 100kohm	R 333	117-1031-10	1/10W 10kohm	R 509	111-1031-91	1/4WS 10kohm
R 219	117-1041-10	1/10W 100kohm	R 334	117-6821-10	1/10W 6.8kohm	R 510	111-1031-91	1/4WS 10kohm
R 220	117-1031-10	1/10W 10kohm	R 335	117-2291-10	1/10W 2.2ohm	R 511	117-1041-10	1/10W 100kohm
R 221	117-1031-10	1/10W 10kohm	R 336	117-2291-10	1/10W 2.2ohm	R 512	117-1041-10	1/10W 100kohm
R 222	117-1041-10	1/10W 100kohm	R 337	117-2291-10	1/10W 2.2ohm	R 514	117-3321-10	1/10W 3.3kohm
R 223	117-4731-10	1/10W 47kohm	R 338	117-2291-10	1/10W 2.2ohm	R 515	117-3321-10	1/10W 3.3kohm
R 224	117-1241-10	1/10W 120kohm	R 351	117-4711-10	1/10W 470ohm	R 516	117-3321-10	1/10W 3.3kohm
R 225	111-2241-91	1/4WS 220kohm	R 352	111-5611-91	1/4WS 560ohm	R 517	117-1021-10	1/10W 1kohm
R 226	117-4721-10	1/10W 4.7kohm	R 401	117-2221-10	1/10W 2.2kohm	R 518	111-1031-91	1/4WS 10kohm
R 227	117-1041-10	1/10W 100kohm	R 402	117-6831-10	1/10W 68kohm	R 519	117-1021-10	1/10W 1kohm
R 228	117-1041-10	1/10W 100kohm	R 403	117-1031-10	1/10W 10kohm	R 520	117-1031-10	1/10W 10kohm
R 229	117-1031-10	1/10W 10kohm	R 405	117-6831-10	1/10W 68kohm	R 521	117-1031-10	1/10W 10kohm
R 230	117-1031-10	1/10W 10kohm	R 406	117-1541-10	1/10W 150kohm	R 522	117-1031-10	1/10W 10kohm
R 231	117-1031-10	1/10W 10kohm	R 407	117-1241-10	1/10W 120kohm	R 523	111-9111-91	1/4WS 910ohm
R 232	117-1031-10	1/10W 10kohm	R 411	117-4711-10	1/10W 470ohm	R 524	111-9111-91	1/4WS 910ohm
R 233	111-1041-91	1/4WS 100kohm	R 413	117-1031-10	1/10W 10kohm	R 525	111-1021-91	1/4WS 1kohm
R 234	111-1041-91	1/4WS 100kohm	R 414	117-1031-10	1/10W 10kohm	R 526	117-1031-10	1/10W 10kohm
R 235	117-1041-10	1/10W 100kohm	R 415	117-3321-10	1/10W 3.3kohm	R 527	111-2721-91	1/4WS 2.7kohm
R 236	117-1041-10	1/10W 100kohm	R 416	117-3321-10	1/10W 3.3kohm	R 528	111-3311-91	1/4WS 330ohm
R 237	111-2221-91	1/4WS 2.2kohm	R 417	117-2221-10	1/10W 2.2kohm	R 529	117-4731-10	1/10W 47kohm
R 301	117-1831-10	1/10W 18kohm	R 418	117-3331-10	1/10W 33kohm	R 530	117-1541-10	1/10W 150kohm
R 302	117-2221-10	1/10W 2.2kohm	R 419	117-2221-10	1/10W 2.2kohm	R 531	117-1041-10	1/10W 100kohm
R 303	117-4731-10	1/10W 47kohm	R 423	117-1031-10	1/10W 10kohm	R 532	117-3931-10	1/10W 39kohm
R 304	117-1031-10	1/10W 10kohm	R 424	117-1031-10	1/10W 10kohm	R 533	111-1001-91	1/4WS 10ohm
R 305	117-1031-10	1/10W 10kohm	R 425	117-1021-10	1/10W 1kohm	R 534	111-1001-91	1/4WS 10ohm
R 306	117-4731-10	1/10W 47kohm	R 426	117-1021-10	1/10W 1kohm	R 535	117-1021-10	1/10W 1kohm
R 307	117-6821-10	1/10W 6.8kohm	R 427	117-6821-10	1/10W 6.8kohm	R 536	111-1031-91	1/4WS 10kohm
R 308	117-1031-10	1/10W 10kohm	R 428	117-1021-10	1/10W 1kohm	R 537	117-1021-10	1/10W 1kohm
R 309	117-4721-10	1/10W 4.7kohm	R 429	117-1021-10	1/10W 1kohm	R 538	117-1031-10	1/10W 10kohm
R 310	117-2221-10	1/10W 2.2kohm	R 430	111-5611-81	1/2WS 560ohm	R 539	111-1031-91	1/4WS 10kohm
R 311	117-1021-10	1/10W 1kohm	R 431	117-4721-10	1/10W 4.7kohm	R 540	117-1021-10	1/10W 1kohm
R 312	117-1021-10	1/10W 1kohm	R 432	117-2712-10	1/10W 270ohm	R 541	117-1031-10	1/10W 10kohm
R 313	117-1021-10	1/10W 1kohm	R 433	111-2221-91	1/4WS 2.2kohm	R 542	111-5611-91	1/4WS 560ohm
R 314	117-2221-10	1/10W 2.2kohm	R 434	117-2221-10	1/10W 2.2kohm	R 544	117-3321-10	1/10W 3.3kohm
R 315	117-4721-10	1/10W 4.7kohm	R 435	117-2221-10	1/10W 2.2kohm	R 600	117-1041-10	1/10W 100kohm
R 316	117-1031-10	1/10W 10kohm	R 436	117-2221-10	1/10W 2.2kohm	SUP 101	060-0122-10	DSP-201M-S00B
R 317	117-6821-10	1/10W 6.8kohm	R 437	117-4721-10	1/10W 4.7kohm	VR 349	012-3808-06	10kohm
R 318	117-1021-10	1/10W 1kohm	R 438	117-1021-10	1/10W 1kohm	VR 350	012-3808-06	10kohm
R 319	117-1021-10	1/10W 1kohm	R 443	117-5651-10	1/10W 5.6Mohm	VR 439	012-3808-11	220kohm
R 320	117-1021-10	1/10W 1kohm	R 444	117-1021-10	1/10W 1kohm	VR 440	012-3808-06	10kohm
R 321	117-1021-10	1/10W 1kohm	R 445	117-1021-10	1/10W 1kohm	VR 441	012-3808-11	220kohm
R 322	117-6821-10	1/10W 6.8kohm	R 446	117-1021-10	1/10W 1kohm	X 401	061-3013-00	4.33MHz
R 323	117-6821-10	1/10W 6.8kohm	R 501	117-3331-10	1/10W 33kohm	X 402	061-1066-00	7.2MHz
R 324	117-6821-10	1/10W 6.8kohm	R 502	117-3321-10	1/10W 3.3kohm	X 901	060-0130-50	

◎SW PWB (Escutcheon)

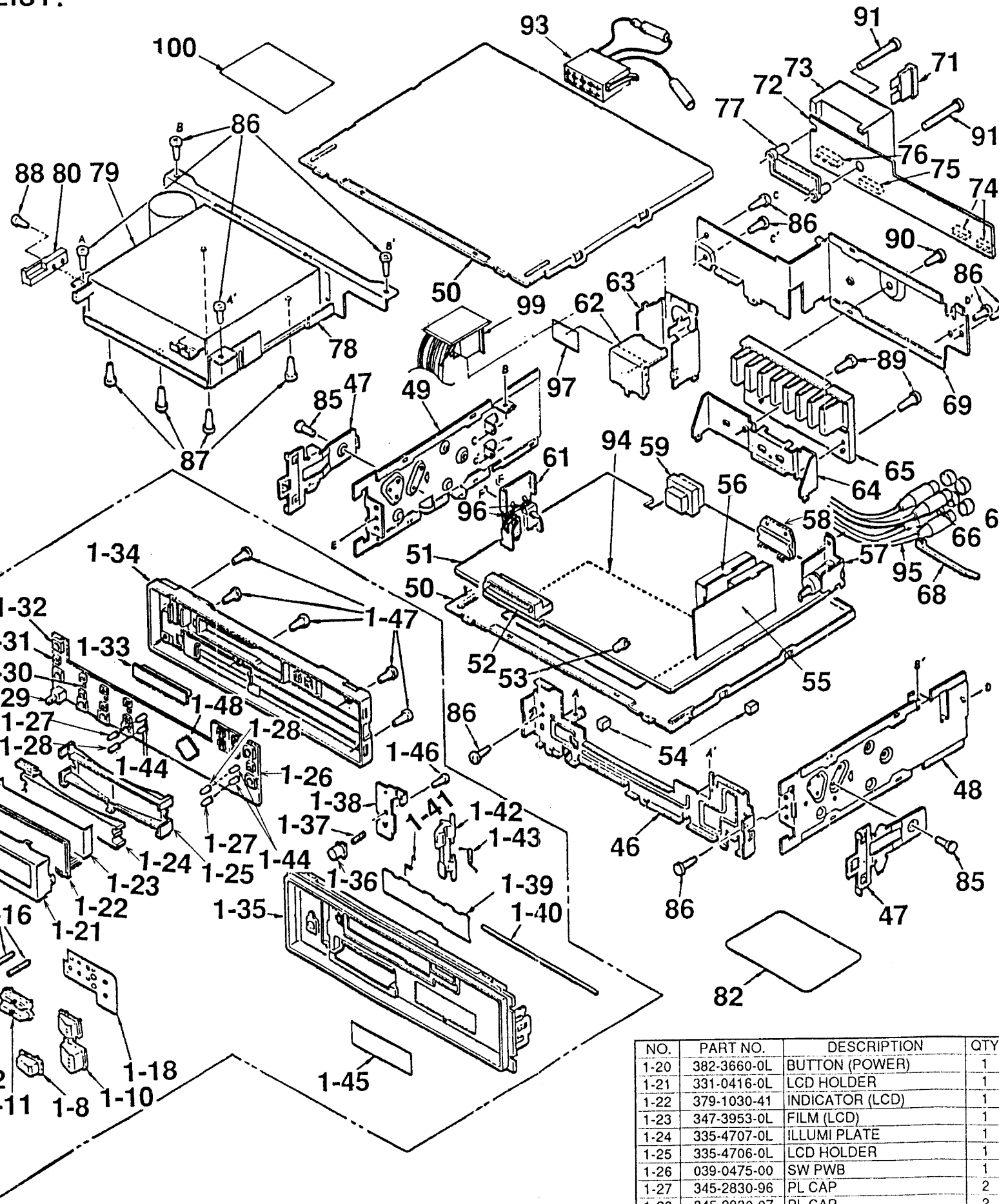
REF No.	PART No.	DESSCRPTION	REF No.	PART No.	DESSCRPTION	REF No.	PART No.	DESSCRPTION
C 1	043-1601-10	16V0.1uF	R 1	117-1031-10	1/10W 10kohm	R 17	117-3311-10	1/10W 330ohm
C 2	043-1601-10	16V0.1uF	R 2	117-1041-10	1/10W 100kohm	R 20	117-3311-10	1/10W 330ohm
D 1	001-0593-01	CL-155-Y/PG-D	R 3	117-1031-10	1/10W 10kohm	R 21	117-3311-10	1/10W 330ohm
D 2	001-0593-01	CL-155-Y/PG-D	R 10	117-3311-10	1/10W 330ohm	R 22	117-2711-10	1/10W 270ohm
D 3	001-0593-01	CL-155-Y/PG-D	R 11	117-3311-10	1/10W 330ohm	R 23	117-2711-10	1/10W 270ohm
D 4	001-0644-00	MA113	R 12	117-2711-10	1/10W 270ohm	R 24	117-2711-10	1/10W 270ohm
D 5	001-0644-00	MA113	R 13	117-2711-10	1/10W 270ohm	R 25	117-2711-10	1/10W 270ohm
D 7	001-0525-00	IMN10	R 14	117-2711-10	1/10W 270ohm	R 26	117-3311-10	1/10W 330ohm
D 8	001-0525-00	IMN10	R 15	117-2711-10	1/10W 270ohm	R 27	117-3311-10	1/10W 330ohm
IC 1	051-6001-01	uPD16431AGC-7ET	R 16	117-3311-10	1/10W 330ohm			

◎ISO PWB

REF No.	PART No.	DESSCRPTION	REF No.	PART No.	DESSCRPTION	REF No.	PART No.	DESSCRPTION
C 363	183-1053-62	50V1uF	F 101	060-0057-06	10A	R 343	117-2721-10	1/10W 2.7kohm
C 364	183-1053-62	50V1uF	R 339	117-5611-10	1/10W 560ohm	R 344	117-2721-10	1/10W 2.7kohm
C 365	183-1053-62	50V1uF	R 340	117-5611-10	1/10W 560ohm	R 345	117-2721-10	1/10W 2.7kohm
C 366	183-1053-62	50V1uF	R 341	117-5611-10	1/10W 560ohm	R 346	117-2721-10	1/10W 2.7kohm
D 112	001-0188-01	1S1885A	R 342	117-5611-10	1/10W 560ohm			

EXPLODED VIEW · PARTS LIST:

NO.	PART NO.	DESCRIPTION	QTY
1	45-9916-AA	ESCUTCHEON-ASSY	1
1-1	378-0124-00	BADGE	1
1-2	370-5494-06	ESCUTCHEON	1
1-3	382-3662-1L	BUTTON (CD)	1
1-4	382-3670-1L	BUTTON (TUNER)	1
1-5	382-3671-1L	BUTTON (TAPE)	1
1-6	382-3667-0L	BUTTON (PRESET)	1
1-7	382-3663-0L	BUTTON (A-M)	1
1-8	382-3664-0L	BUTTON (T-M)	1
1-9	382-3665-0L	BUTTON (VOL U/D)	1
1-10	382-3666-0L	BUTTON (TUNE U/D)	1
1-11	382-3856-00	BUTTON (MUTE)	1
1-12	382-3325-01	BUTTON (FF)	1
1-13	382-3326-01	BUTTON (REW)	1
1-14	382-3847-00	BUTTON (EJECT)	1
1-15	382-3659-0L	BUTTON (RELEASE)	1
1-16	750-3075-00	SPRING	2
1-17	750-3074-00	SPRING	1
1-18	347-3969-0L	FILM HOLDER	1
1-19	347-3968-0L	FILM HOLDER	1

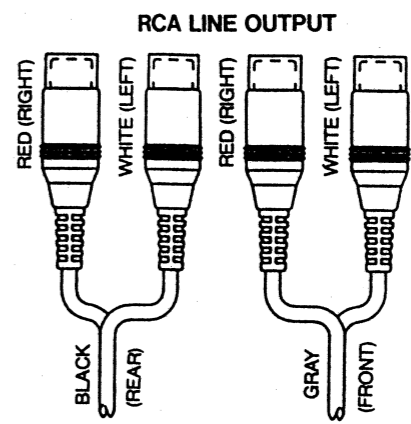
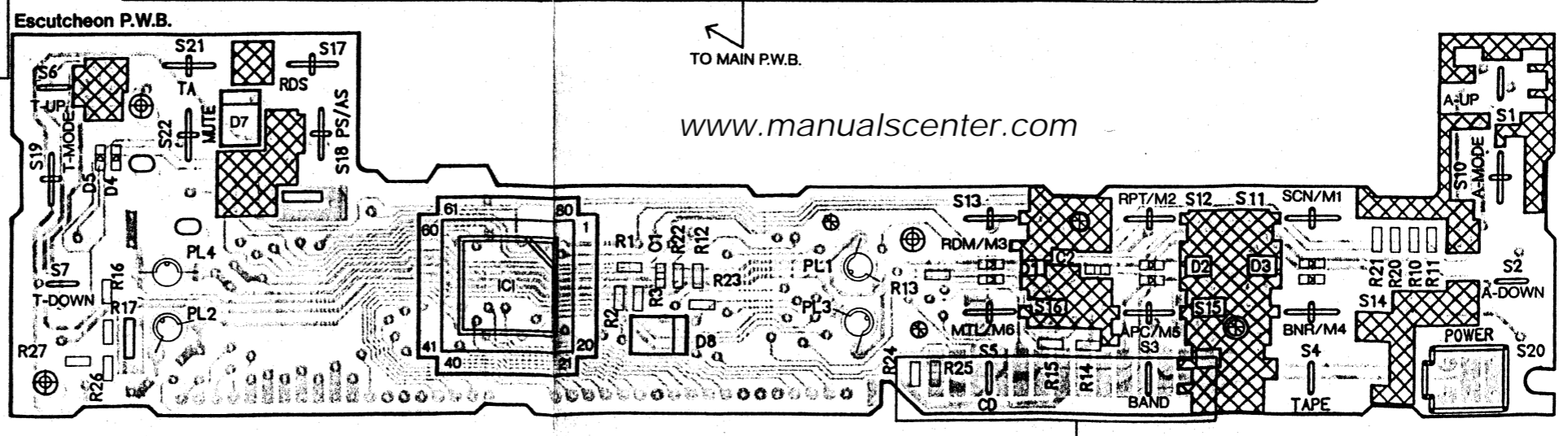
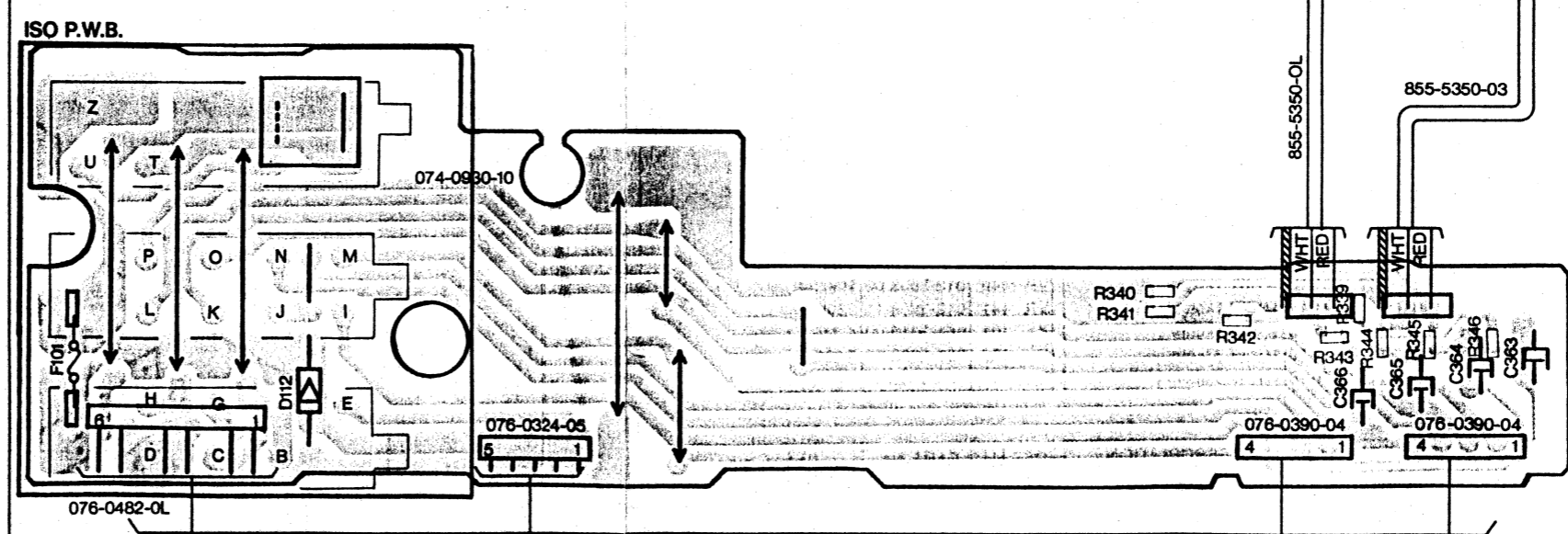
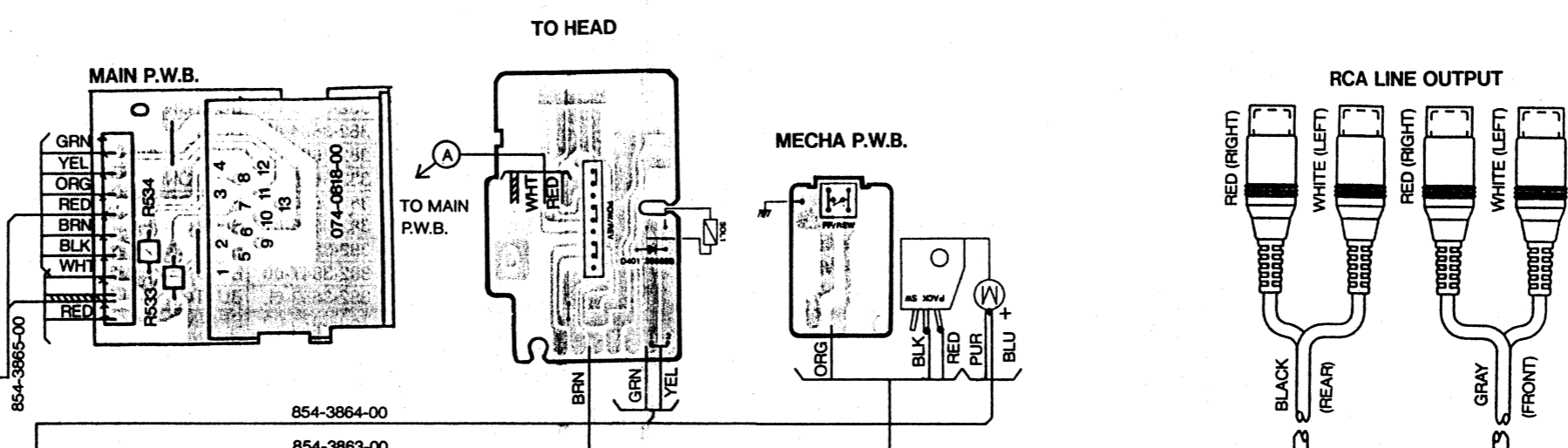
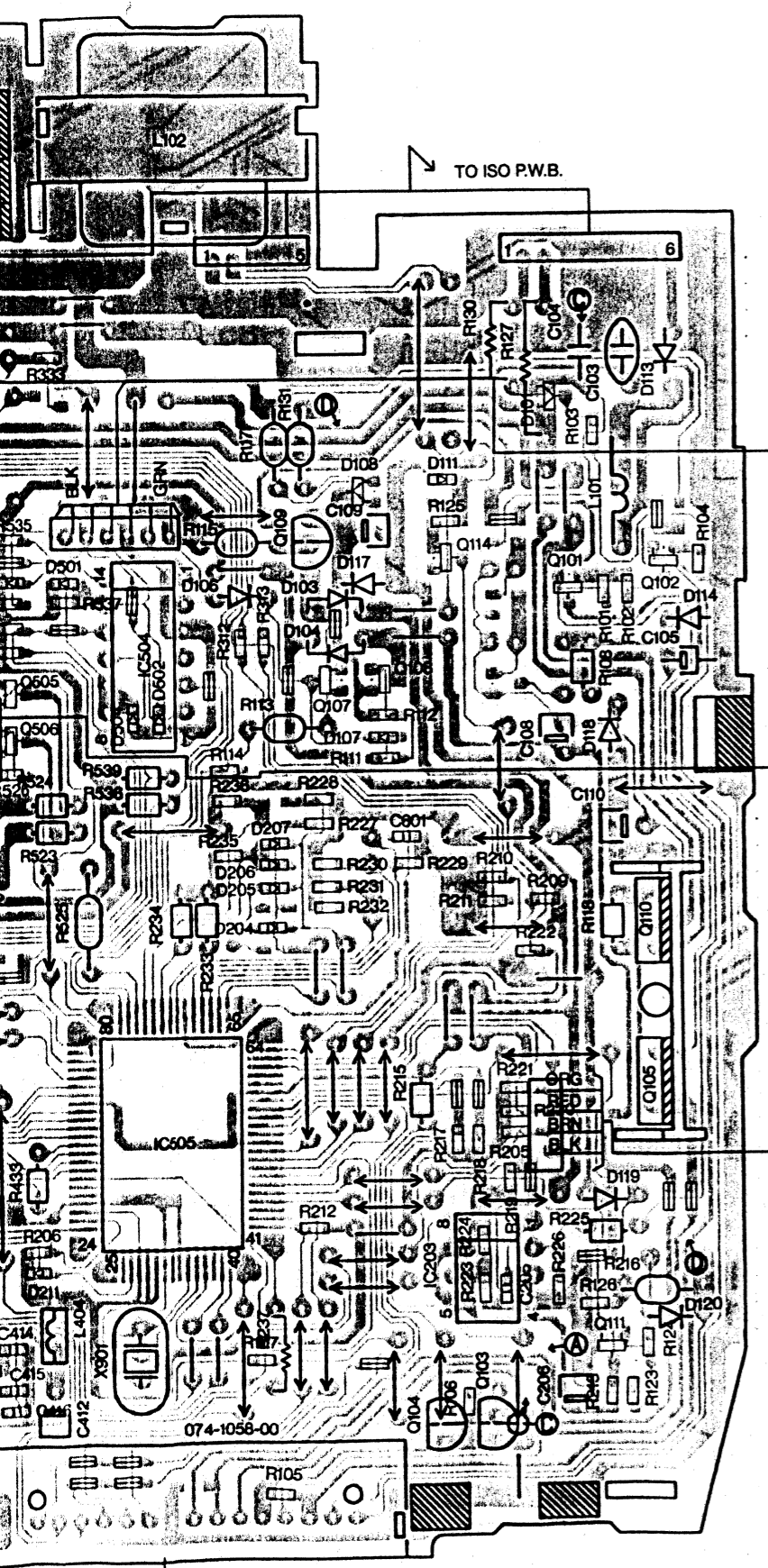


NO.	PART NO.	DESCRIPTION	QTY
1-31	013-3978-00	SWITCH	12
1-32	013-3977-10	SWITCH	7
1-33	076-0481-00	PLUG (DCP)	1
1-34	335-4704-00	REAR COVER	1
1-35	370-5495-00	ESCUTCHEON	1
1-36	382-3661-0L	BUTTON	1
1-37	750-3107-0L	SPRING	1
1-38	331-0417-0L	HOOK HOLDER	1
1-39	320-0521-10	DUSTPROOF-CVR	1
1-40	341-1278-00	SHAFT	1
1-41	750-2530-03	SPRING	1
1-42	335-4705-0L	HOOK	1
1-43	750-3106-0L	SPRING	1
1-44	017-9002-00	PILOT LAMP	4
1-45	291-0065-0L	STICKER	1
1-46	716-0778-00	WAVE SCREW	1
1-47	716-1674-0L	P-TIGHT SCREW	5
1-48	051-6001-01	IC (uPD1643A)	1
46	309-0648-00	FRONT-PLATE	1
47	750-2796-0L	SPRING	2
48	305-0235-00	SIDE CVR (R)	1
49	305-0234-00	SIDE CVR (L)	1
50	303-0441-0L	UPPER-CVR	2
51	039-0473-00	MAIN PWB	1
52	074-1058-00	OUTLET SOCKET	1
53	001-0659-00	LED	1
54	345-7495-0L	INSULATOR	2
55	80-1777-AJ	FM RDS TUNER	1
56	80-1603-AJ	AM TUNER	1
57	092-0668-0L	ANT-RECEPTACLE	1
58	051-2004-00	IC (HA13150A)	1
59	009-0666-0L	CHOKE	1
61	313-1577-0L	HEAT SINK	1
62	331-0413-0L	SHIELD PLATE	1
63	331-0412-0L	CONNECTOR-BRKT	1
64	331-0411-0L	IC HOLDER	1
65	313-1576-00	HEAT SINK	1
66	855-5350-0L	RCA PIN CORD	1
67	345-3799-0L	CAP	4
68	335-0833-01	LEAD HOLDER	1
69	307-0488-01	REAR-CVR	1
71	060-0057-56	AUTO FUSE (10A)	1
72	039-0474-00	ISO PWB	1
73	074-0930-10	ISO CONNECTOR	1
74	076-0390-04	PLUG (4P)	2
75	076-0324-05	PLUG (5P)	1
76	076-0482-0L	PLUG	1
77	335-4708-0L	SPACER (ISO)	1
78	331-0410-01	MECH-BRKT	1
79	930-0725-81	TAPE-MECHANISM	1
80	335-4822-00	SPACER	1
82	286-8382-00	SETPLATE	1
85	714-5008-41	MACHINE SCREW	2
86	731-3006-80	TAPTIGHT	10
87	714-3004-81	MACHINE SCREW	4
88	716-1619-00	SCREW	1
89	731-3008-80	TAPTIGHT	2
90	702-3008-81	TAP SCREW	1
91	714-3025-11	MACHINE SCREW	2
94	347-3996-0L	INSULATOR	1
95	855-5350-03	EXTENSION LEAD	1
96	347-4010-0L	INSULATOR	2
97	347-4001-0L	INSULATOR	1
99	074-0818-00	OUTLET SOCKET (13PIN)	1
100	290-6328-00	LABEL	1

NO.	PART NO.	DESCRIPTION	QTY
1-20	382-3660-0L	BUTTON (POWER)	1
1-21	331-0416-0L	LCD HOLDER	1
1-22	379-1030-41	INDICATOR (LCD)	1
1-23	347-3953-0L	FILM (LCD)	1
1-24	335-4707-0L	ILLUMI PLATE	1
1-25	335-4706-0L	LCD HOLDER	1
1-26	039-0475-00	SW PWB	1
1-27	345-2830-96	PL CAP	2
1-28	345-2830-07	PL CAP	2
1-29	013-3849-00	SWITCH (POWER)	1
1-30	001-0593-01	LED	3

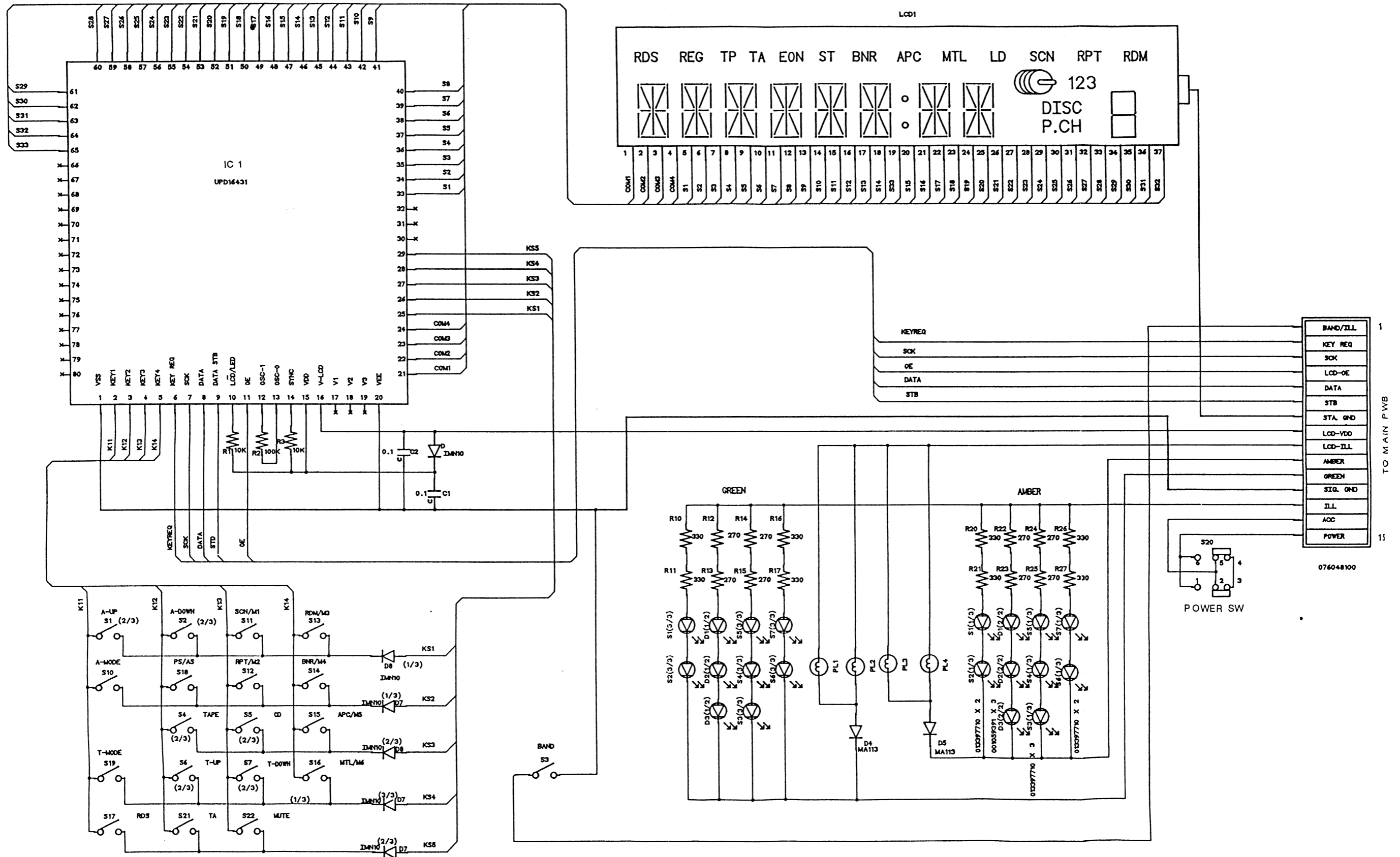
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505 109 114 102
 506 107 108 104 103 101 111 110
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 505



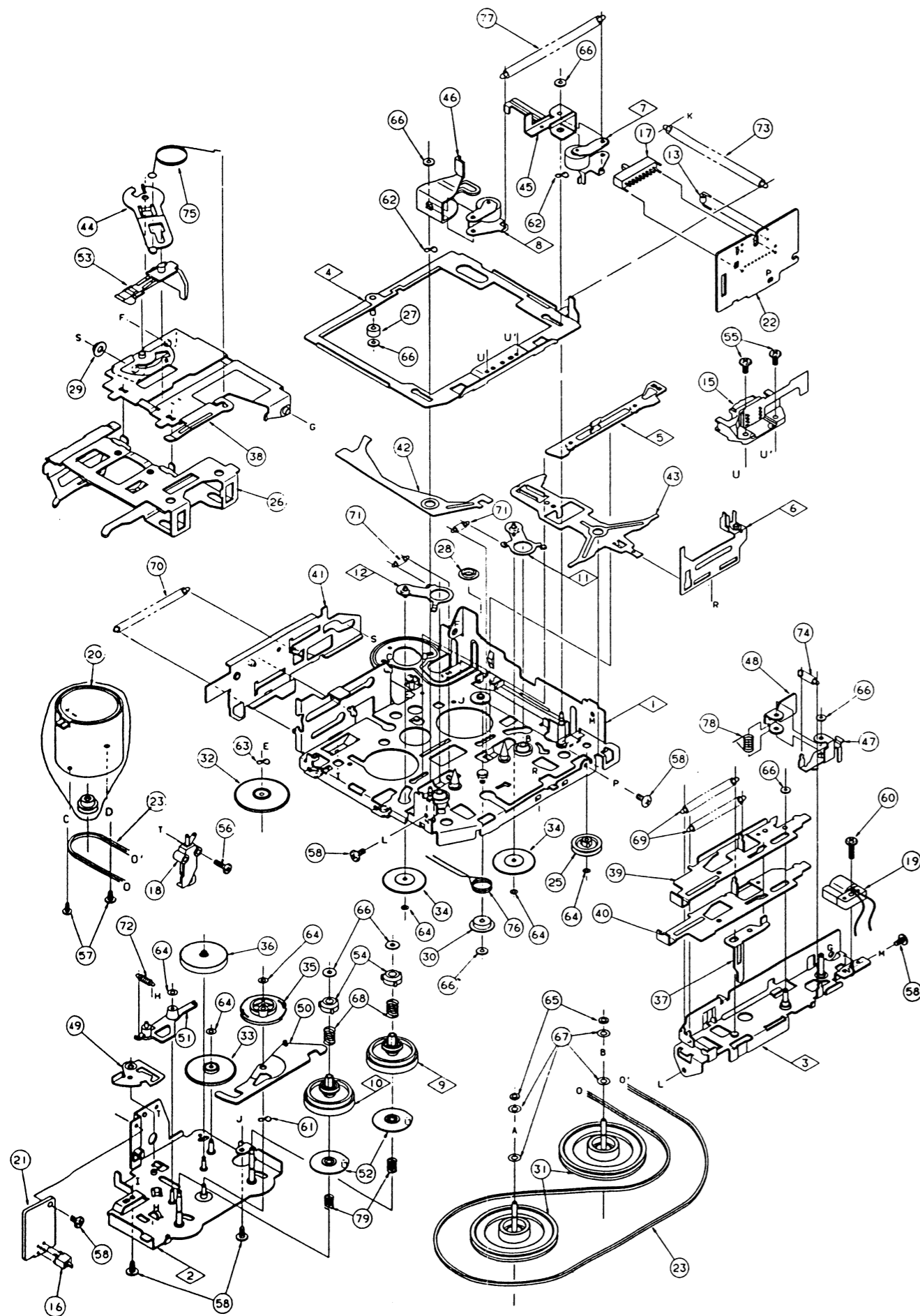
■CIRCUIT DIAGRAM: 1/2

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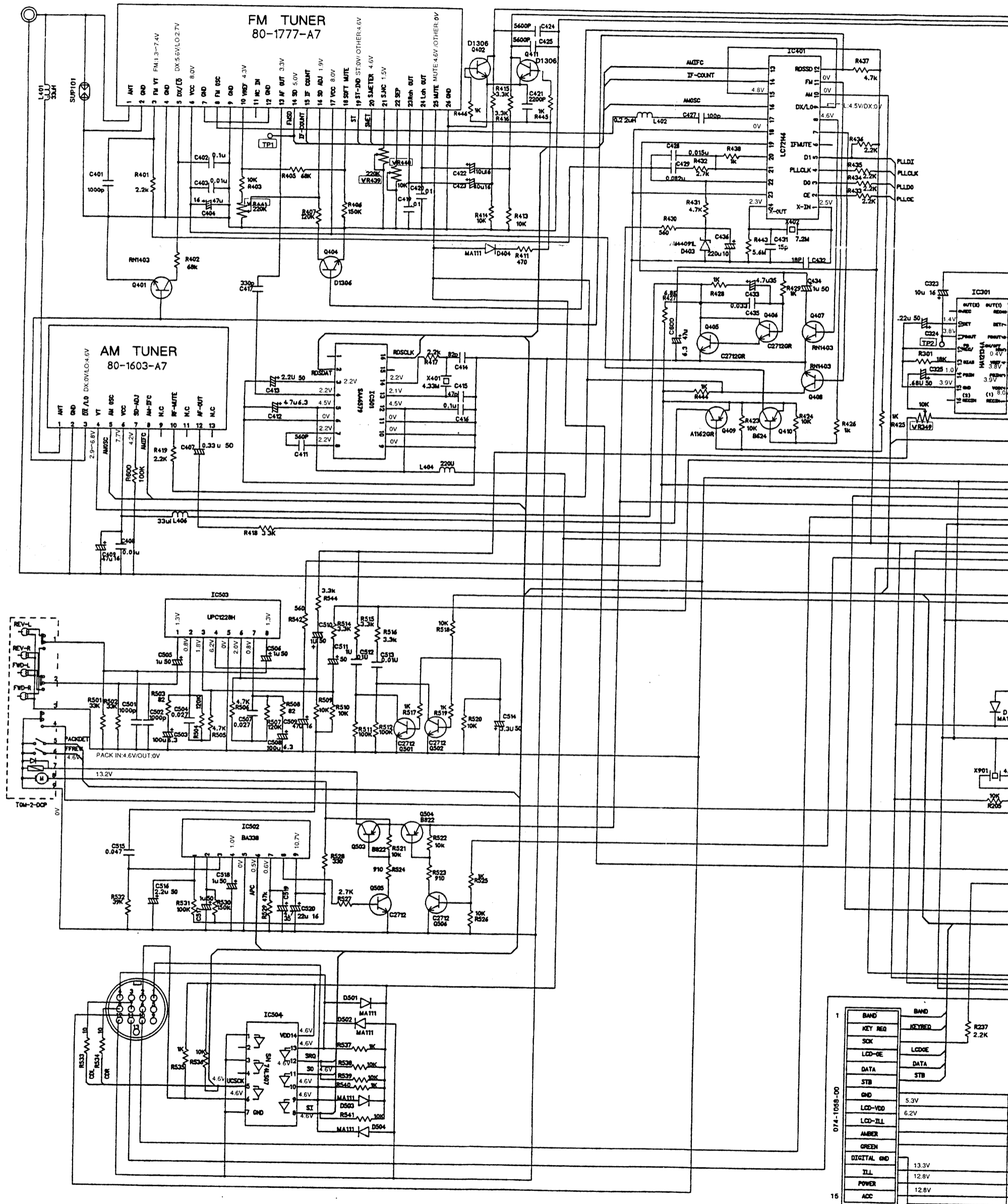
EXPLODED VIEW · PARTS LIST: Tape mecha · section
 ©930-0725-81 (TOM₂-DMA)



REF NO.	PART NO.	DESCRIPTION	QTY	REF NO.	PART NO.	DESCRIPTION	QTY
1	960-4180-05	DECK ASSY	1	41	630-2498-10	EJECT LEVER-C	1
2	960-4181-05	BOTTOM ASSY	1	42	630-2499-01	CHANGE LEVER	1
3	960-4182-03	FRAME ASSY	1	43	630-2501-02	CHANGE PLATE	1
4	960-4403-00	HEAD ASSY-AZ	1	44	630-2502-05	SWING ARM	1
5	960-4186-02	FF / REW -P-ASSY	1	45	630-2505-02	FF / REW LINK	1
6	960-4187-01	HEAD SW ASSY	1	46	630-2506-04	RELEASE LINK	1
7	960-4188-03	ROLLER ASSY-F	1	47	630-2507-04	LOCK LINK	1
8	960-4189-03	ROLLER ASSY-R	1	48	630-2509-02	KICK LINK	1
9	960-4190-07	REEL ASSY-F	1	49	630-2529-01	MUTE PLATE	1
10	960-4191-07	REEL ASSY-R	1	50	631-1958-05	CHECK LINK	1
11	960-4192-02	IDLER ASSY-F	1	51	631-1959-01	CHANGE LINK	1
12	960-4193-02	IDLER ASSY-R	1	52	631-1961-03	CHECK PLATE	2
13	001-0466-00	DIODE (S5688B)	1	53	631-1963-04	PACK STOPPER	1
15	011-0324-00	HEAD	1	54	631-1967-00	SLIDE BUSH	2
16	013-3906-00	SWITCH	1	55	714-2005-81	MACHINE SCREW	2
17	013-3922-00	SWITCH (SLIDE)	1	56	714-2008-81	MACHINE SCREW	1
18	013-3924-00	SWITCH	1	57	716-0484-02	SCREW	2
19	015-0246-02	PLUNGER	1	58	716-1471-00	S-TIGHT 2-3	6
20	SMA-141-100	MOTOR-ASSY	1	60	716-1608-00	S-TIGHT 2-8	1
21	099-9126-00	P.W.B.	1	61	745-0752-00	PLATE SPRING	1
22	099-9669-00	P.W.B.	1	62	745-0756-00	SPRING WASHER	2
23	602-0115-00	BELT	1	63	746-0712-03	WASHER	1
25	604-0042-01	TENSION PULLEY	1	64	746-0724-00	WASHER	6
26	606-0100-05	PACK GUIDE	1	65	746-0762-00	WASHER	2
27	610-0333-01	HEAD POLLER A	1	66	746-0768-00	WASHER	8
28	610-0334-01	HEAD ROLLER B	1	67	746-0839-00	CAPSTAN WASHER	4
29	610-0335-02	EJECT ROLLER	1	68	750-2564-01	SLIDE SPRING	2
30	610-0336-01	SP ROLLER	1	69	750-2904-02	FF / REW-SPRING	2
31	611-0094-00	FLYWHEEL	2	70	750-2905-02	EJECT SPRING	1
32	613-0272-10	GEAR A	1	71	750-2906-00	IDLER SPRING	2
33	613-0273-02	GEAR B	1	72	750-2907-03	CHANGE-L-SPRING	1
34	613-0274-02	IDLER GEAR	2	73	750-2908-02	HEAD SPRING	1
35	613-0275-03	CHANGE GEAR	1	74	750-2909-04	LOCK SPRING	1
36	613-0277-02	CHECK GEAR	1	75	750-2910-03	SLOT SPRING	1
37	630-2488-02	SELECT PLATE	1	76	750-2911-01	HOLDING SPRING	1
38	630-2494-07	GUIDE ARM	1	77	750-2912-01	PINCH SPRING	1
39	630-2715-00	FF-LEVER-DCP	1	78	750-2913-01	KICK SPRING	1
40	630-2716-00	REW-LEVER-DCP	1	79	750-2919-03	CHECK SPRING-R	2

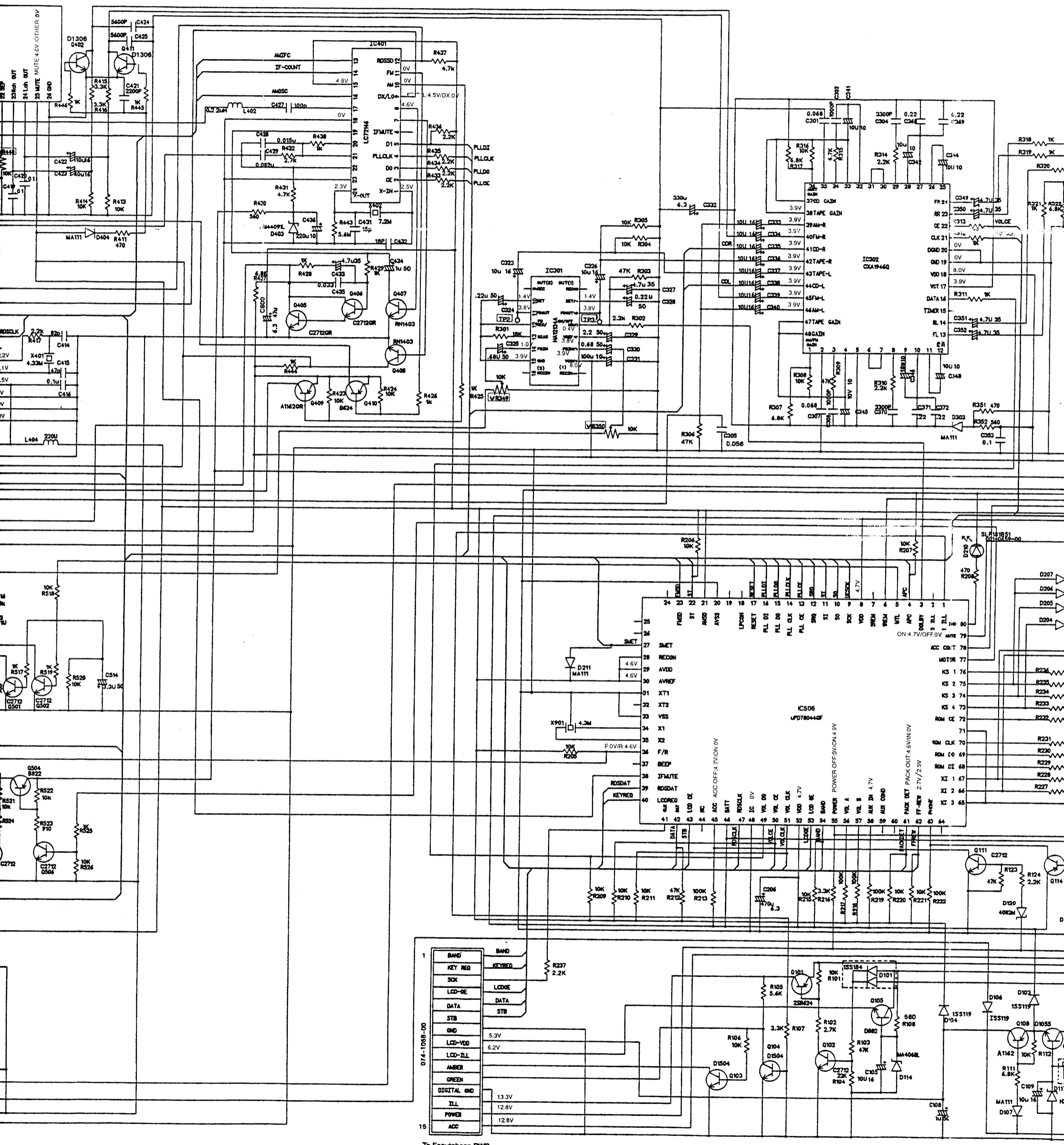
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CIRCUIT DIAGRAM: 2/2
© MAIN PWB



1	BAND	BAND	
	KEY REQ	KEYREQ	R237 2.2K
	SCK	LCDDE	
	LCD-DE	DATA	
	DATA	STB	
	STB		
	GND	5.3V	
	LCD-VDD	6.2V	
	LCD-ILL		
	AMBER		
	GREEN		
	DIGITAL GND	13.3V	
	ILL	12.8V	
	POWER	12.8V	
	ACC		

To Escutcheon PWB



To Escutcheon PWB

