



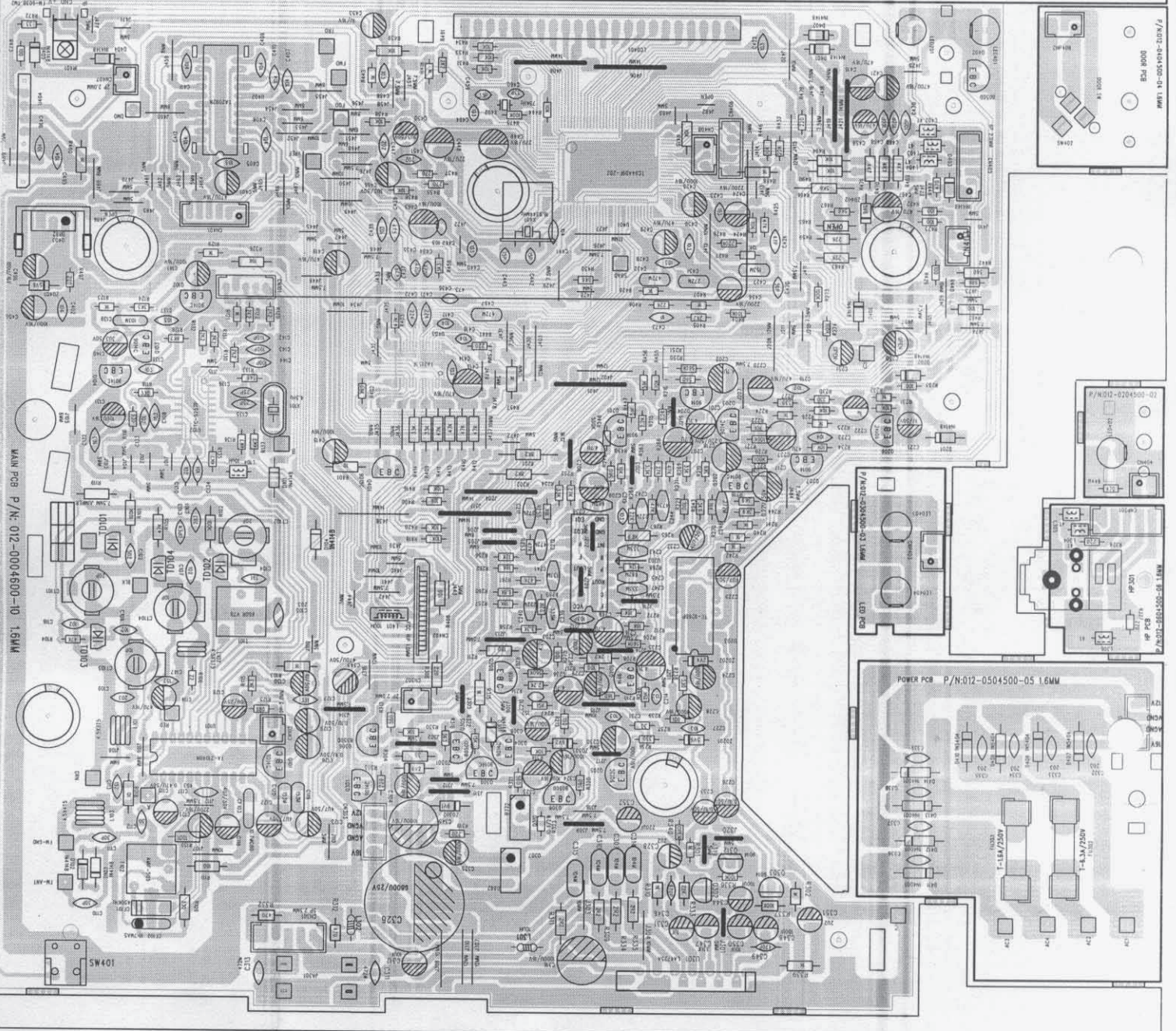
AKAI

**AM/FM STEREO RADIO (PPL)
CD/CDRW PLAYER W/REMOTE**

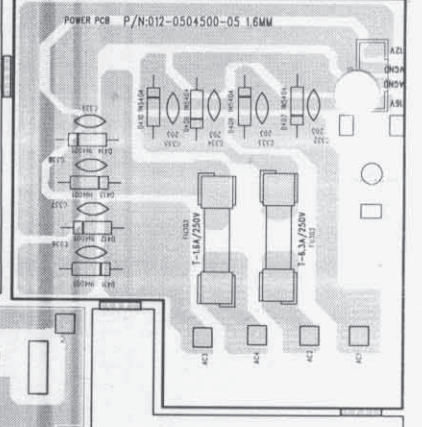
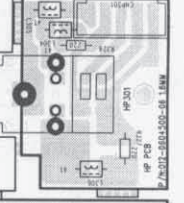
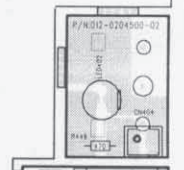
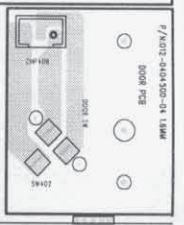
Model:
CDP-280

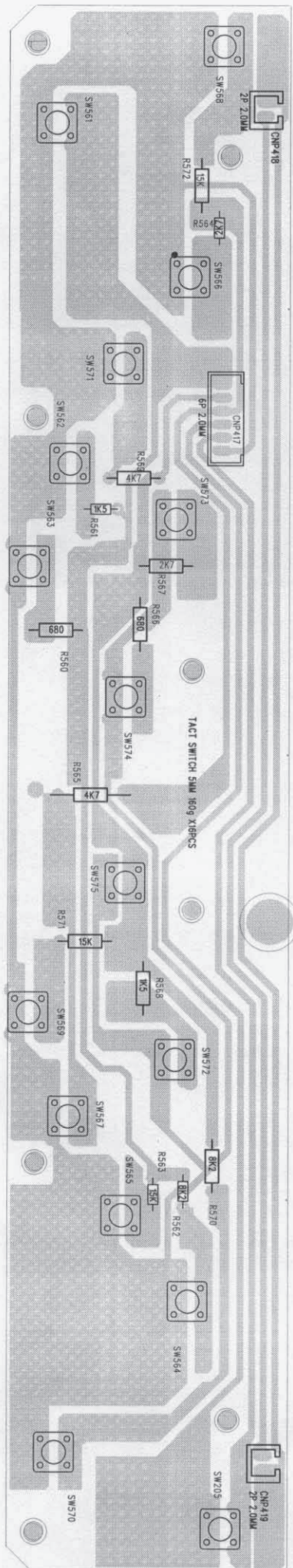
SERVICE MANUAL

DIP



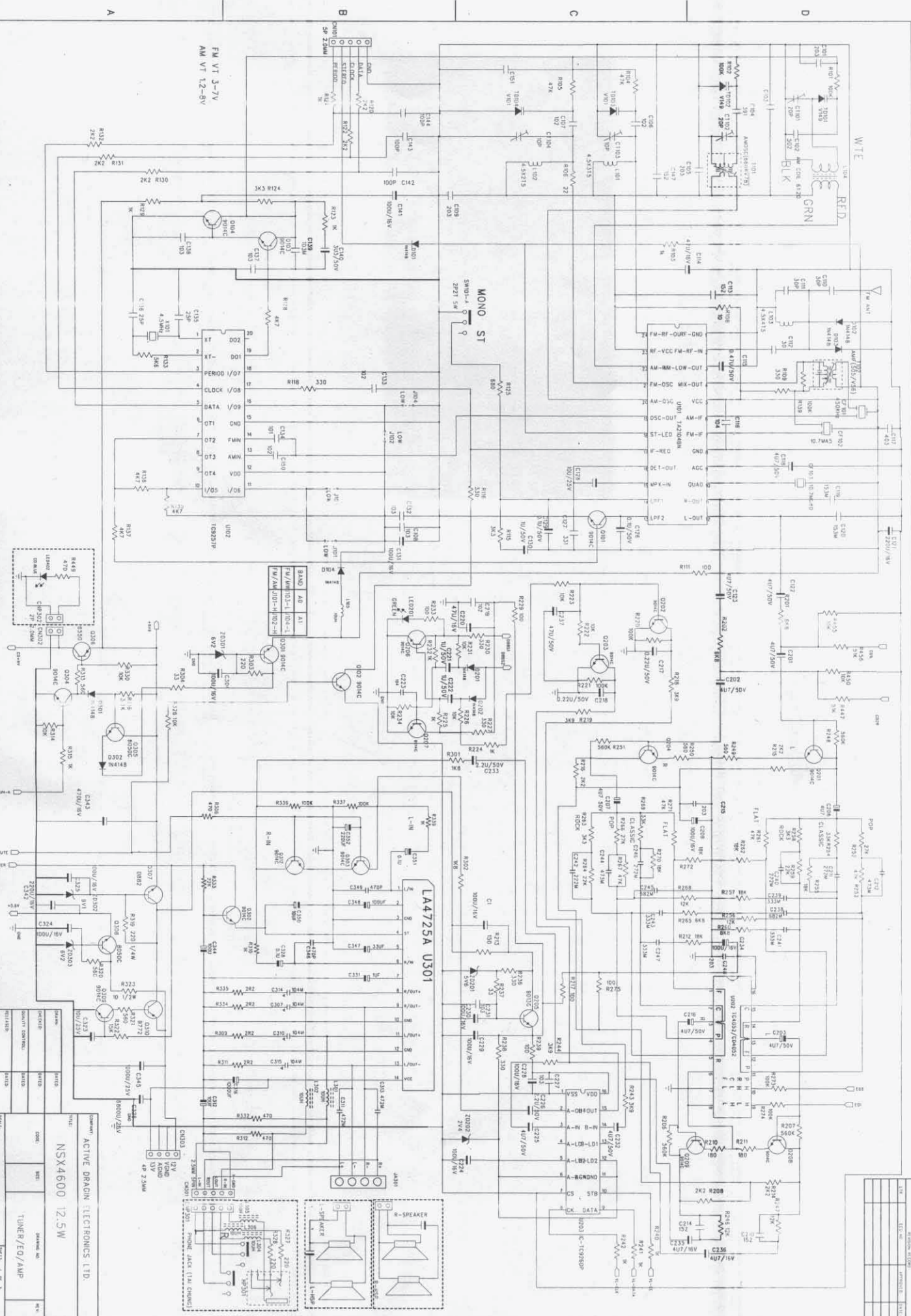
MAIN PCB P/N: 012-0004500-10 16MM





KEEP RECORD

6 5 4 3 2 1



ACTIVE DRAGON ELECTRONICS LTD.
 NSX4600 12.5W
 TUNER/EO/AMP

6

5

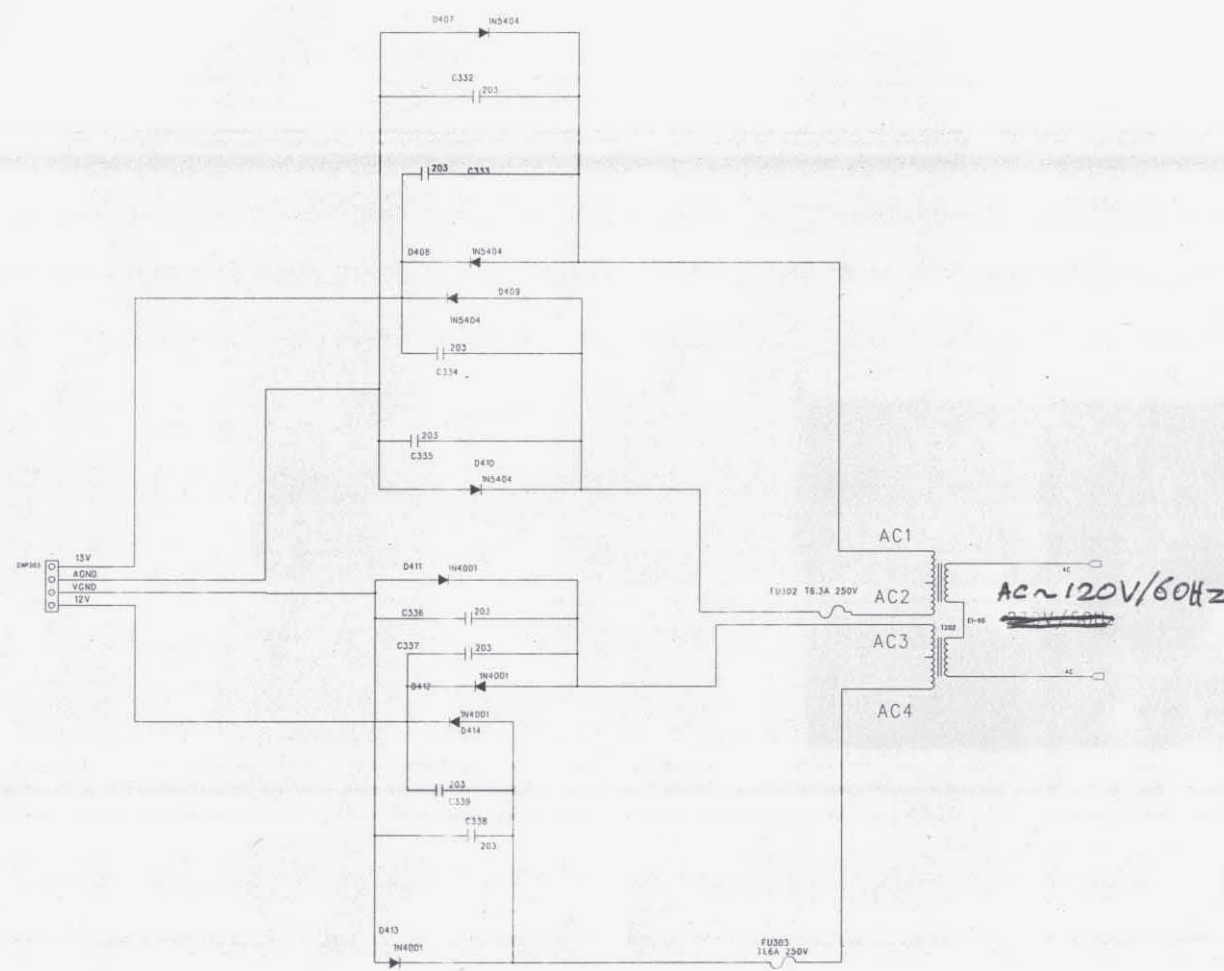
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3

2

1

REVISION RECORD			
LT#	ECO NO.	APPROVED	DATE



D

C

B

A

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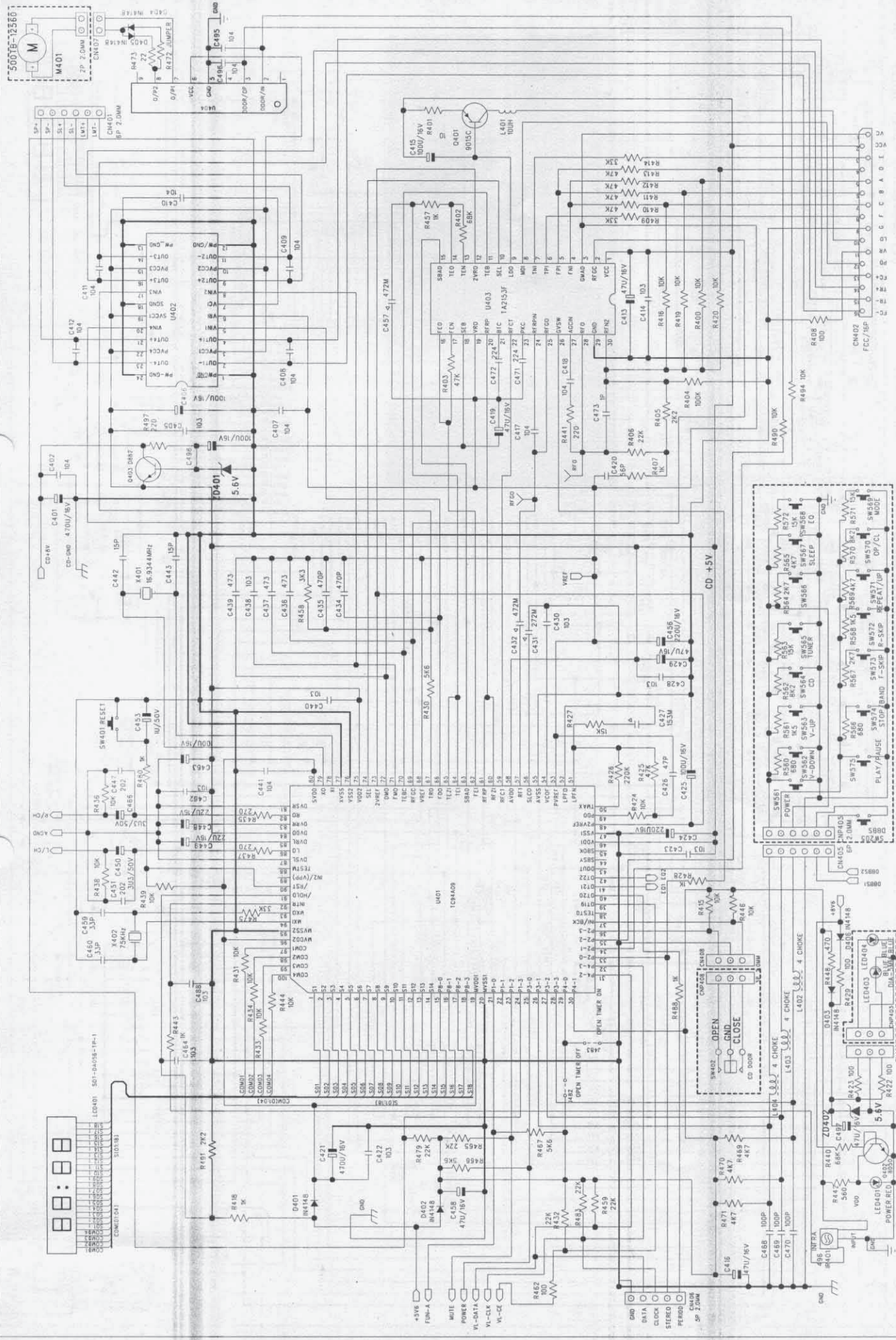
B

A

COMPANY: ACTIVE DRAGON ELECTRONICS LTD.

TITLE: NSX4600 12.5W

DRAWN:	DATE:	CODE:	REV:	DRAWING NO.:	REV.:
CHECKED:	DATE:			POWER	
QUALITY CONTROL:	DATE:				
RELEASED:	DATE:	SCALE:		SHEET: 2 OF 3	



Spare Parts list

Model no: CDP-280

27.январь.03

Item	Part no		Description		Location
1	012-0004600	10	MAIN PCB	1	
2	012-0104500	01	KEY PCB	1	
3	012-0204500	02	CD LIGHT PCB	1	
4	012-0304500	03	LED PCB	1	
5	012-0404500	04	DOOR PCB	1	
6	012-0604500	06	HP PCB	1	
7	012-0504500	05	POWER PCB	1	
8	022-1205508	00	LCD DISPLAY 055080	1	LCD401
9	29-94A09F	202	TC94A09F-202 (MICOM IC)	1	U401
10	29-52153F	01	TA2153F (CD SERVO)	1	U403
11	29-102092	01	TA2092N (POWER DRTVER)	1	U402
12	004-4725460	01	LA4725A POWER AMP	1	U301
13	29-102104	01	TA2104BN (RADIO AM/FM)	1	U101
14	29-109260	01	TC9260P VOL	1	U203
15	033-2106208	18	BA6208 (MOTOR)DRIVE	1	U404
16	29-304052	01	CD4052BP □SWITCH□	1	U202
17	29-309257	01	TC9257P □PLL CONTROL□	1	U102
18	30-10B772	00	Transistor: KSB772	1	Q310
19	30-10D882	00	Transistor: KSD882	2	Q307.Q403
20	30-209013	00	Transistor: 9013G	1	Q205
21	30-209014	00	Transistor: 9014C	18	Q101-104.Q201-204.Q206-209.Q301-304.Q312.Q309
22	30-209015	00	Transistor: 9015C	1	Q401
23	30-208050	00	Transistor: 8050C	3	Q305.Q308.Q402.
24	30-208550	00	Transistor: 8550C	1	Q306
25	31-304001	00	Diode: IN4001	4	D411-414
26	31-305404	00	Diode: 1N5404	4	D407-410
27	31-044148	00	Diode: IN4148	13	D401-406.D101-104.D201-202.D301
28	31-600101	01	Diode: V101	2	TD103-104
29	31-600149	01	Diode: V149	2	TD101-102
30	31-401249	12	Zener Diode: 2.4V	1	ZD202
31	31-401569	12	Zener Diode: 5.6V	3	ZD402.ZD401.ZD201
32	31-401629	12	Zener Diode: 6.2V	2	ZD303.ZD301
33	31-401919	12	Zener Diode: 9.1V	1	ZD302
34	31-523041	00	LED DIA-3MM RED L=28mm	1	LED401
35	31-553041	00	LED DIA-3MM GREEN	1	LED201
36	003-5600503	02	LED φ5MM BLUE	3	LED402.LED403-404.
37	30-2038LM	00	IR SENSOR MOUDLE 496 BLACK	1	IR401
38	010-5010700	03	FM IF CERAMIC FILTER 10.7MS3 3PINS	1	CF102
39	010-5010700	02	FM IF CERAMIC DISCRIMINATOR JT10.7MG-A	1	CF103
40	42-145004	02	AM IF CERAMIC FILTER HLB-450B	1	CF101
41	42-316931	00	Ceramic Filter 16.93MHZ	1	X401
42	42-304501	00	Crystal 4.5MHZ	1	X101
43	42-307501	00	Crystal 75KHZ	1	X402
44	32-157802	01H	IFT 10mm RED (FOR AM OSC)	1	T101
45	32-155603	01H	IFT 10mm ORANGE (FOR AM IF)	1	T102
46	33-106120	01	AM Coil 61:20T	1	AM CAIL
47	33-310600	01	10uH CKOKE COIL	2	L401.L104
48	40-180010	00	Ferrite Bar: 10×80mm	1	
49	33-530035	35	CHOKE COIL 3.5T W/FERRITE BEAD	6	L402-404.L304-306
50	33-452507	00	FM COIL 4.5×2.5T×0.7mm CLOCKWISE	1	L102

Item	Part no		Description		Location
51	33-503508	01	5.0×3.5T×0.8mm FM COIL	1	L101
52	33-454508	01	4.5×4.5T×0.8mm FM COIL	1	L103
53	010-0010000	01	CW45 10UH 6*8MM 5W	2	L301-302
54	35-200000	00	TACT SW (FOR RESET)	1	SW401
55	017-4200000	00	MICRO SWITCH CD DOOR	1	SW402
56	017-6006250	05	TACT SWITCH	16	SW561-575.SW205
57	017-1222025	02	SLIDE SWITCH (ST/MONO SW)	1	SW101
58	023-3040043	00	JACK SPEAKER TERMINAL PTB-407	1	JA301
59	013-0036260	00	STEREO PHONE JACK W/SW EJ35362	1	HP301
60	11-190360	00	PLASTIC: AM FERRITE BAR HOLDER	2	
61	15-100505	01	FM Sponge:10×5×5mm	2	
62	12-360323	01	FUSE HOLDER (FC-001-N)	4	
63	36-440100	00	10PF TRIMMER CAP	2	CT103-104
64	36-440200	00	20PF TRIMMER CAP	2	CT101-102
65	44-2418125	04	WAFER 4P 2.5mm	1	CN303
66	44-2418120	02	WAFER 2P 2.0mm	3	CN407.CN302.CN102.
67	44-2418120	03	WAFER 3P 2.0mm	2	CN403.CN408
68	44-2418125	05	WAFER 5P 2.5mm	1	CN301
69	44-2418120	06	WAFER 6P 2.0mm	1	CN405.
70	44-3016007	16	WAFER 16P FCC SOCKET P=1mm	1	CN402
71	078-0220110	10	JUMPER WIRE: UL1007 #22 BLACK	2	
72	078-0300516	10	JUMPER WIRE: UL2854#28	1	
73	078-0260216	10	JUMPER WIRE: UL1007#26 2P	1	
74	077-0036300	03	3PIN 2.0MM WITH CONNECTOR UL1007#26	1	
75	077-0037075	03	3PIN 2.0MM WITH CONNECTOR UL1007#26	1	
76	077-00342150	02	2PIN 2.0MM WITH CONNECTOR UL1007#26	2	
77	077-0038100	02	2PIN 2.0MM WITH CONNECTOR UL1007#26	1	
78	077-0039300	05	5PIN 2.5MM WITH CONNECTOR UL1007#22	1	
79	077-0040150	06	6PIN 2.0MM WITH CONNECTOR UL1007#26	2	
80	077-0041250	04	4PIN 2.5MM WITH CONNECTOR UL1007#20	1	
81	54-222915	12	Resistor: 2.2 Ω	4	R309.R334-335.R311.
82	54-210015	12	Resistor: 10 Ω	2	R401.R108.
83	54-210045	12	Resistor: 10 Ω	1	R323.
84	54-222015	12	Resistor: 22 Ω	2	R106.473
85	54-233015	12	Resistor: 33 Ω	2	R237.R304
86	54-210115	12	Resistor: 100 Ω	11	R111.217.229.233.239.275.R408.422.423.429.462
87	54-215115	12	Resistor: 150 Ω	1	R213
88	54-218115	12	Resistor: 180 Ω	2	R210-211
89	54-222125	12	Resistor: 220 Ω	7	R303.R441.R327.328.R479.R319.R497.
90	54-227115	12	Resistor: 270 Ω	2	R435.R437.
91	54-233115	12	Resistor: 330 Ω	7	R109.R227.R230.R236.R238.R118.R116.
92	54-247115	12	Resistor: 470 Ω	6	R448.R312.R332.R449.R306.R442
93	54-256115	12	Resistor: 560 Ω	5	R320.R249.R250.R313.R321
94	54-268115	12	Resistor: 680 Ω	3	R125.R560.R566
95	54-210215	12	Resistor: 1K Ω	20	R103.R224-225.R232.R240-242.R121.R123.R129.R315.R480
96	54-215215	12	Resistor: 1.5K Ω	2	R561.R568.
97	54-218215	12	Resistor: 1.8K Ω	2	R301.R302.
98	54-222215	12	Resistor: 2.2K Ω	11	R122.R130-132.R120.R214.R208.R215-216.R405.R491.
99	54-227215	12	Resistor: 2.7K Ω	2	R564.R567.
100	54-233215	12	Resistor: 3.3K Ω	6	R115.R124.R316.R258.R263.R458.
101	54-247215	12	Resistor: 4.7K Ω	9	.R135-136.R137.R128.R469-471.R565.R569.
102	54-256215	12	Resistor: 5.6K Ω	4	.R133.R430.R466-467.
103	54-239215	12	Resistor: 3.9K Ω	4	R243-244.R218-219.
104	54-268215	12	Resistor: 6.8K Ω	4	R265.R260.R201.202

Item	Part no		Description		Location
105	54-282215	12	Resistor: 8.2K Ω	2	R562.R570.
106	54-210315	12	Resistor: 10K Ω	26	R450.R455.R231.R226.R222-223.R326.R330.R314.R415.R433-434.
107	54-212315	12	Resistor: 12K Ω	4	R256.R268.R246.R247
108	54-215315	12	Resistor: 15K Ω	5	R322.R427.R571.R572.R563.
109	54-218315	12	Resistor: 18K Ω	6	R212.R255.R257.R262.R270.R272.
110	54-222315	12	Resistor: 22K Ω	7	R259.R264.R406.R432.R459.R483.R333
111	54-227315	12	Resistor: 27K Ω	2	R252.R266.
112	54-233315	12	Resistor: 33K Ω	4	R409.R414.R269.R254.
113	54-247315	12	Resistor: 47K Ω	12	R104-105.R253.R261.R267.R271.R403.R425.R410-413.
114	54-251315	12	Resistor: 51K Ω	2	R447.R456.
115	54-268315	12	Resistor: 68K Ω	2	R402.R440.
116	54-210415	12	Resistor: 100K Ω	11	R404.R101-102.R273.R274.R336.R337.R475.R139.R220.R221
117	54-222415	12	Resistor: 220K Ω	1	R426.
118	54-256415	12	Resistor: 560K Ω	4	R206-207.R251.R248.
119	55-422286	12	M.CAP: 0.0022UF	2	C240.C242
120	55-427286	12	M.CAP: 0.0027UF	3	C431.C211.C246
121	55-447286	12	M.CAP: 0.0047UF	4	C432.C457.c311.c313
122	55-468286	12	M.CAP: 0.0068UF	2	C245.C238
123	55-415386	12	M.CAP: 0.0150UF	4	C427.C119.120.C139
124	55-433386	12	M.CAP: 0.0330UF	4	C239.C241.C243.C247.
125	55-447386	12	M.CAP: 0.0470UF	2	C244.C212
126	55-410486	12	M.CAP: 0.1000UF	4	C307.C310.C314-315
127	55-210468	12	E.CAP: 0.1 UF	4	C129.C126.C328.C351
128	55-222468	12	E.CAP: 0.22 UF	2	C217-218.
129	55-247468	12	E.CAP: 0.47 UF	1	C115.
130	55-210568	12	E.CAP: 1 UF	5	C130.C221-222.C453.C331
131	55-222568	12	E.CAP: 2.2 UF	2	C226.C233
132	55-233568	12	E.CAP: 3.3 UF	3	C140.C450.C466.
133	55-247568	12	E.CAP: 4.7 UF	13	C118.C216.C206-207.C122-123.C201-203.C225.C232.C235-236
134	55-210647	12	E.CAP: 10UF	4	C128.C323.C350.C312.
135	55-222627	12	E.CAP: 22UF	2	C448-449.
136	55-233637	12	E.CAP: 33UF	1	C347
137	55-247637	12	E.CAP: 47UF	9	C114.C237.C220.C413.C416.C419.C429.C458.C497.
138	55-210737	12	E.CAP: 100UF	19	C209.C234.C141.C229-230.C131.C304.C224.C228.C324-325.
139	55-222737	12	E.CAP: 220UF	4	C121.C424.C456.C352
140	55-247737	12	E.CAP: 470UF	3	C421.C401.C343
141	55-210847	12	E.CAP: 1000UF	2	C345.C316.
142	55-368847	12	E.CAP: 6800UF	1	C326.
143	55-101065	12	C.CAP: 1PF	1	C473.
144	55-115065	12	C.CAP: 15PF	2	C442-443.
145	55-125065	12	C.CAP: 25PF	2	C135-136.
146	55-130065	12	C.CAP: 30PF	3	C110-111.C112
147	55-133065	12	C.CAP: 33PF	2	C459-460.
148	55-147065	12	C.CAP: 47PF	1	C426.
149	55-156065	12	C.CAP: 56PF	1	C420.
150	55-110165	12	C.CAP: 100PF	8	C142.C143.C144.C134.C468.C469.C470.C488
151	55-133165	12	C.CAP: 330PF	1	C127
152	55-1391Y5	12	M.C CAP: 390PF	1	C104.
153	55-147165	12	C.CAP: 470PF	4	C434-435.C346.349.
154	55-110266	12	C.CAP: 0.0010UF	6	C219.C106-107.C133.C150.C116
155	55-115266	12	C.CAP: 0.0015UF	4	C113.C147.C210.C214.
156	55-120266	12	C.CAP: 0.002UF	2	C447.C451.
157	55-1502Y6	12	M.C CAP: 0.0050UF	1	C102.
158	55-110366	12	C.CAP: 0.0100UF	18	C227.C231.C108.C132.C405.C414.C422.423.C428.C430.

Item	Part no		Description		Location
159	55-120366	12	C.CAP: 0.0200UF	7	C109.C332-335.C101.C105.
160	55-140366	12	C.CAP: 0.0400UF	1	C117.
161	55-147366	12	C.CAP: 0.0470UF	3	C436-437.C439.
162	55-110466	12	C.CAP: 0.1000UF	13	C223.C402.C407-412.C417-418.C441.C495-496.
163	55-122466	12	C.CAP: 0.2200UF	2	C471-472.
164	001-4066007	10	EI-66 230V 50Hz DC13V 2.4A DC12V 1A H-18	1	
165	243-1256010	04	MOTOR 500TB-12560-32	1	
166	47-B31BG6	SM	SAMSVNG CD MECHANISM (CMS-B31BG6U)	1	
167	034-0163250	03	FUSE □5×20mm T-6.3A/250V VDE.UL APPD	1	
168	51-125116	01	FUSE □5×20mm T-1.6A/250V VDE.UL APPD	1	
169	036-2221465	00	FERRITE BEAD 22.0mmx14.0mmx6.5mm	1	
170	229-1313252	00	CD Rubber: GREEN	2	
171	229-1313201	00	CD Rubber: RED	2	
172	029-0003480	01	UL APP R=3MM L=48mm	1	
173	030-0450085	00	SOLDERLESS CONNECTOR 8.5mm	2	
174	030-0400044	00	AC CORD CLIP PUSHING 4N-4	1	
175	031-0041980	11	AC LINE CORD BS APPD	1	
176	030-1605503	00	UL APP EIBER 160MM*55MM*0.3MM	1	
177	W-902810	16	16P PH 1.0FCC 100mm	1	
178	029-0008800	01	UL APP R=8MM L=80mm	1	
179	000-0845000	00	SPK BOX ASS'Y	2	
180	000-0145000	00	REMOTE CONTROL HANSET ASS'Y	1	
181	029-0130100	01	HOT SHRINKAGE TUBE	1	
182	029-0190350	01	HOT SHRINKAGE TUBE	2	
183	000-1045000	01	PLASTIC ASS'Y		
184	200-4500111	01	PLASTIC: TOP CABINET	1	
185	201-4500111	01	PLASTIC: BOTTOM CABINET	1	
186	202-4500141	01	PLASTIC: BACK COVER	1	
187	219-4500110	01	PLASTIC: CD DOOR	1	
188	202-4500111	01	PLASTIC: SIDE PANEL "L"	1	
189	202-4500121	01	PLASTIC: SIDE PANEL "R"	1	
190	204-4500111	01	PLASTIC: DISPLAY LENS	1	
191	204-4500120	01	PLASTIC: CD DOOR LENS	1	
192	204-4500031	01	PLASTIC: BACK LIGHT LENS	1	
193	209-4500010	01	PLASTIC: GEAR "A"	1	
194	209-4500020	01	PLASTIC: GEAR "B"	1	
195	209-4500030	01	PLASTIC: GEAR "C"	1	
196	209-4500040	01	PLASTIC: PULLY	1	
197	215-4500111	01	PLASTIC: CD KNOB "A"	1	
198	215-4500121	01	PLASTIC: FUNCTION KNOB	1	
199	215-4500141	01	PLASTIC: POWER KNOB	1	
200	202-4500131	01	PLASTIC: CD DOOR COVER	1	
201	215-4500131	01	PLASTIC: CD KNOB "B"	1	
202	215-4500151	01	PLASTIC: OPEN / CLOSE KNOB	1	
203	212-4500010	01	PLASTIC: CD MECH HOLDER	1	
204	212-4500020	01	PLASTIC: SW BRACKER	1	
205	212-4500040	01	PLASTIC: CD DOOR BRACKET "R"	1	
206	212-4500030	01	PLASTIC: CD DOOR BRACKET "L"	1	
207	212-4500050	01	PLASTIC: MOTOR BRACKER	1	
208	220-4500010	01	PLASTIC: LCD HOLDER	1	
209	212-4500060	01	PLASTIC: REMOTE BRACKET	1	
210	212-4500070	01	PLASTIC: 90 JOIN PIECE	1	
211	220-4500020	01	PLASTIC: CD DOOR LED BRACKET	1	
212	220-4500030	01	PLASTIC: X-BASS LED BRACKET	1	

Item	Part no		Description		Location
213	11-120470	02	PLASTIC: CD DUST COVER	1	
214	306-4600001	00	HEAT SINK 1	1	
215	306-4600002	00	HEAT SINK 2	1	
216	306-4600005	00	BACK BOARD	1	
217	306-4500006	00	TRANSFORMER BOARD	1	
218	12-360001	02	HEAT SINK FOR D882	1	
219	306-4500012	00	SHIELD PLATE	1	
220	225-4500009	00	MOTER BELT $\phi 24 \times 1.3 \times 1.3 \text{mm}$	1	
221	409-0146000	01	GIFT BOX	1	
222	415-0146000	00	CARTON BOX	1/2	
223	401-4600021	00	INSTRUCTION BOOK	1	
224	402-4600020	01	RATING LABEL	1	
225	19-360072	01	CLASS 1 LABEL	1	
226	19-360010	01	LASER LENS LABEL	1	
227	19-120080	01	SERIAL NO. LABEL	1	
228	402-4600090	00	COUNTRY CODE LABEL	2	
229	403-1846000	00	POP LABEL 500W	3	
230	405-0101080	01	CD PROTECTION	1	
231	403-1701020	00	THERMAL FUSE FITTED LABEL	1	