

Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

CQ-MRX777EUC/EW



MD MECHANISM AND SERVO CIRCUIT CHANGE

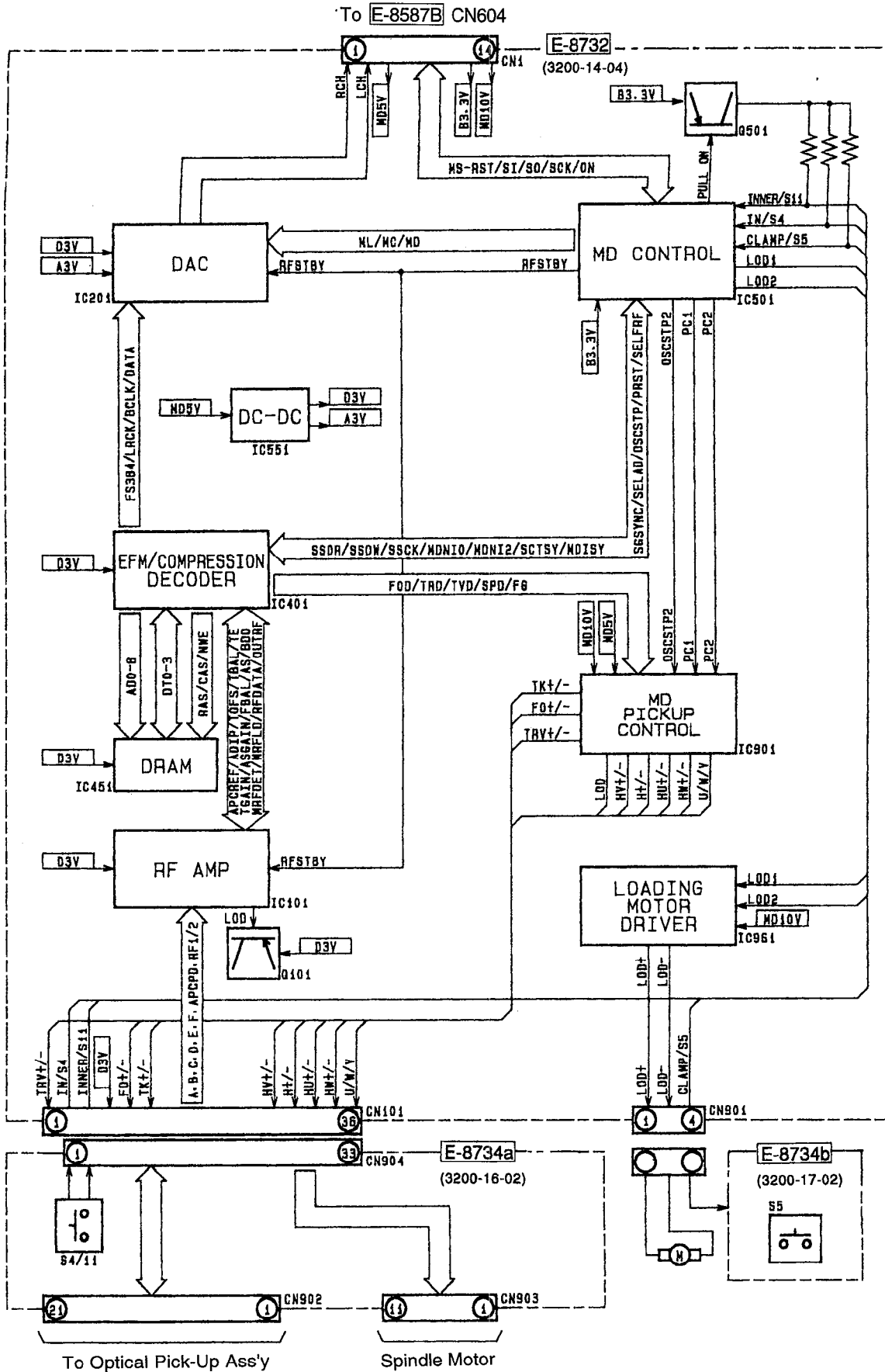
Please file and use this manual together with the Service Manual for the model listed above.

⚠ WARNING

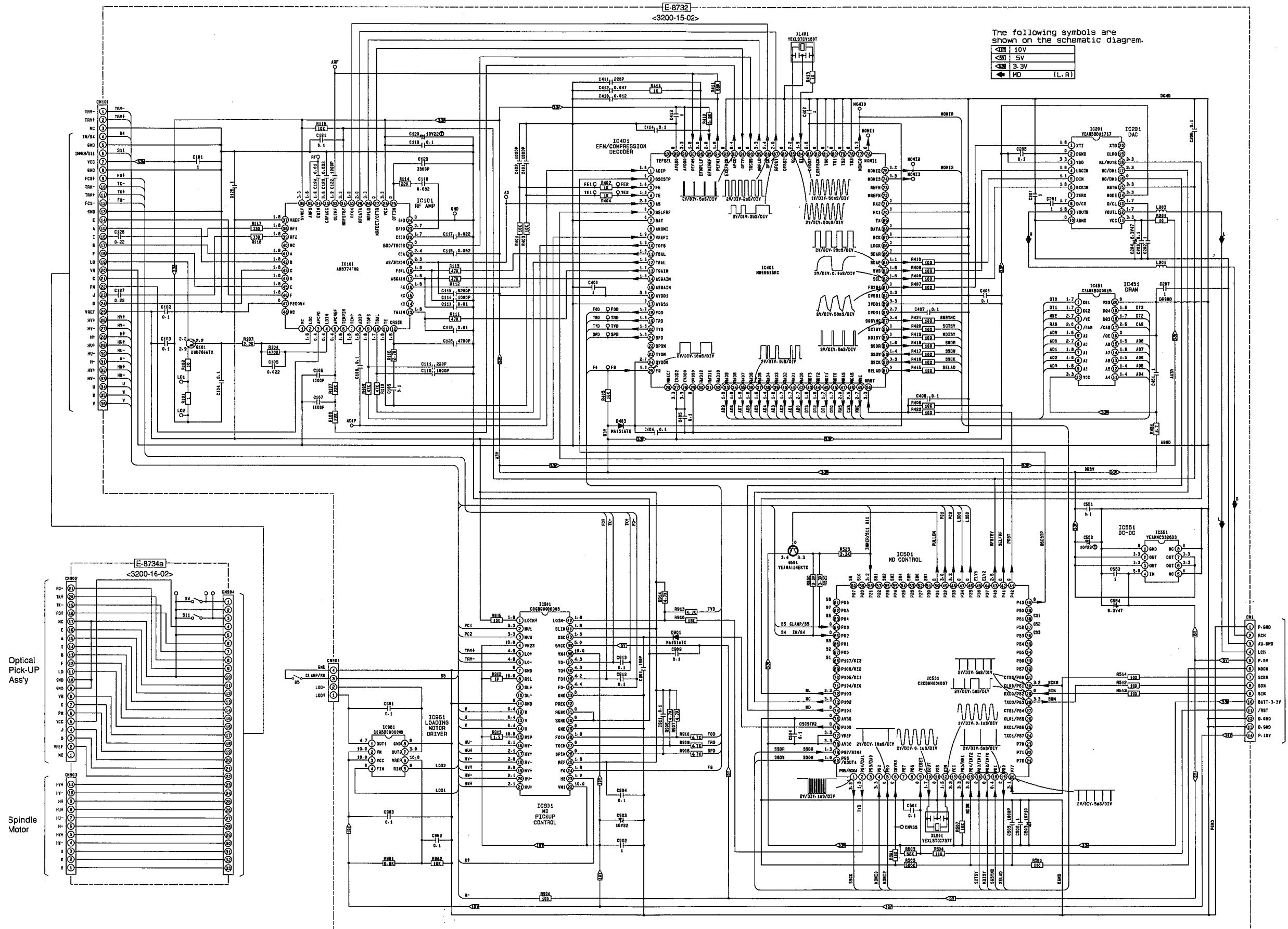
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.

Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the products dealt with in this service information by anyone else could result in serious injury or death.

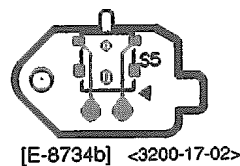
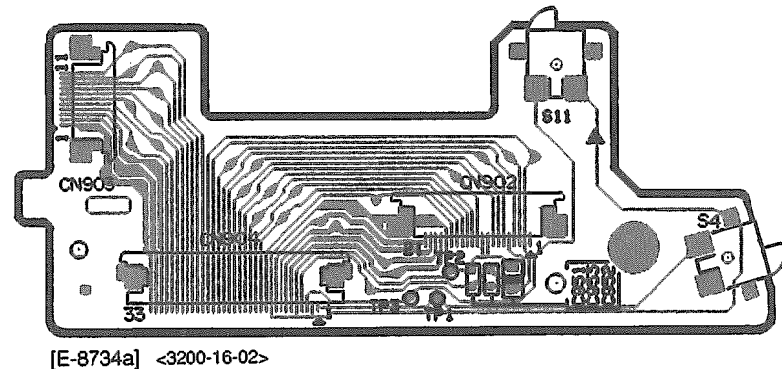
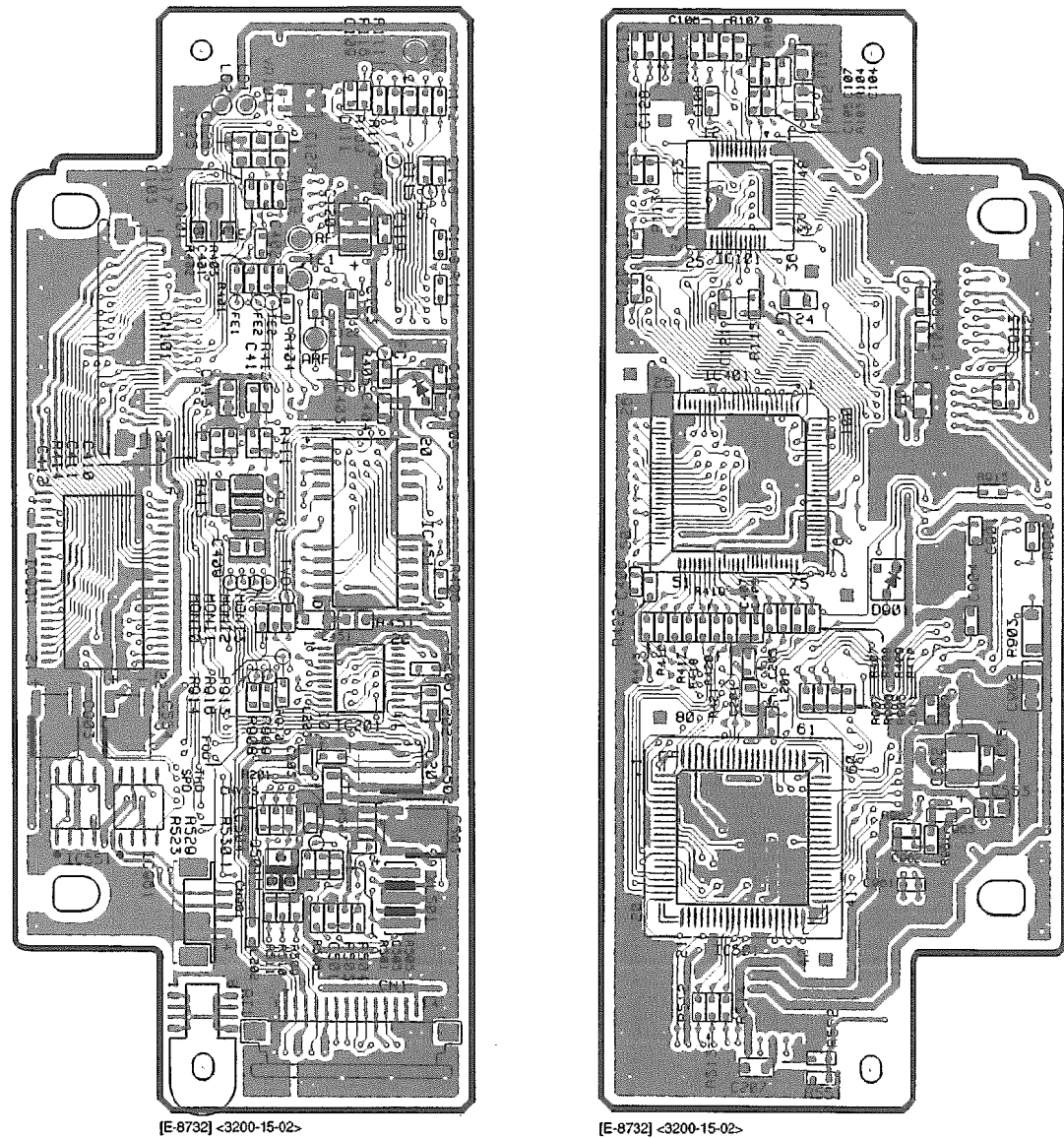
BLOCK DIAGRAM (MD Servo Block) MODELS CQ-MRX777EUC/EW



SCHEMATIC DIAGRAM (MD Servo Block) MODELS CQ-MRX777EUC/EW



WIRING DIAGRAM (MD Servo Block) MODELS CQ-MRX777EUC/EW



1 MD Player Parts

Note:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a load map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

1.1. IC's and Transistors

MD SERVO BLOCK [E-8732]

Ref. No.	Part No.	Part Name & Description	Remarks
IC101	AN8774FEQ	IC	
IC201	YEAMBBDA1717	IC	
IC401	AN66618RC	IC	
IC451	C3ABKB000015	IC	
IC501	C2CBH000007	IC	
IC551	YEAMMC3326D3	IC	
IC901	C0GEG0000005	IC	
IC961	C0GEB0000008	IC	
Q101	2SB766ATX	Transistor	
Q501	YEANR114ERTX	Transistor	

1.2. Diodes

MD SERVO BLOCK [E-8732]

Ref. No.	Part No.	Part Name & Description	Remarks
D403	MA151ATX	Diode	
D901	MA151ATX	Diode	

1.3. Capacitors

MD SERVO BLOCK [E-8732]

Ref. No.	Part No.	Part Name & Description	Remarks
C101	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C102	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C103	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C104	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C105	YECUZ1E223KX	Ceramic, 0.022 μ F 25WV	
C106	YECUZ1H102FK	Ceramic, 1000pF 50WV	
C107	YECUZ1H102FK	Ceramic, 1000pF 50WV	
C108	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C109	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C110	YECUZ1H102FK	Ceramic, 1000pF 50WV	
C111	YECUZ1H221JC	Ceramic, 220pF 50WV	
C112	YECUZ1H103FK	Ceramic, 0.01 μ F 50WV	
C113	YECUZ1H103FK	Ceramic, 0.01 μ F 50WV	
C114	YECUZ1H102FK	Ceramic, 1000pF 50WV	
C115	F1H1E8220002	Ceramic, 8200pF 25WV	
C116	YECUZ1C823FK	Ceramic, 0.082 μ F 16WV	
C117	YECUZ1E223KX	Ceramic, 0.022 μ F 25WV	
C118	YECUZ1C823FK	Ceramic, 0.082 μ F 16WV	
C119	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C120	YECSW1A226MS	Electrolytic, 22 μ F 10WV	
C121	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C122	YECUZ1H102KK	Ceramic, 1000pF 50WV	
C123	YECUZ1C333FK	Ceramic, 0.033 μ F 16WV	
C124	YECUS1H103FK	Ceramic, 0.01 μ F 50WV	
C125	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C126	YECUS1C224KK	Electrolytic, 0.22 μ F 16WV	
C127	YECUS1C224KK	Electrolytic, 0.22 μ F 16WV	
C128	YECUZ1H472KK	Ceramic, 4700pF 50WV	
C129	YECUZ1H332KK	Ceramic, 3300pF 50WV	
C130	YECUS1H681JM	Ceramic, 680pF 50WV	
C131	YECUS1H681JM	Ceramic, 680pF 50WV	
C201	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C202	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C203	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C204	ECEH0JVC470F	Electrolytic, 47 μ F 6.3WV	
C205	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C206	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C207	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C401	YECUZ1H102KK	Ceramic, 1000pF 50WV	
C402	YECUZ1H102KK	Ceramic, 1000pF 50WV	
C403	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C404	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C405	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C406	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C407	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C408	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C409	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C410	F1H1E1230002	Ceramic, 0.012 μ F 25WV	
C411	YECUZ1H221JC	Ceramic, 220pF 50WV	
C412	YECUZ1C473KX	Ceramic, 0.047 μ F 16WV	
C413	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C414	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C451	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C501	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C502	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C503	YECSW1A106MA	Electrolytic, 10 μ F 10WV	
C504	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C505	YECUZ1H102KK	Ceramic, 1000pF 50WV	
C551	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C552	YECSW1A226MS	Electrolytic, 22 μ F 10WV	
C553	F1J1A1050010	Electrolytic, 1 μ F 10WV	
C554	ECEH0JVC470F	Electrolytic, 47 μ F 6.3WV	
C901	YECUZ1H181JC	Ceramic, 180pF 50WV	
C902	YECUV1C105KX	Electrolytic, 1 μ F 16WV	
C903	ECEH1CVC220F	Electrolytic, 22 μ F 16WV	
C904	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C909	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C911	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C912	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C913	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C961	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C962	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C963	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	

1.4. Resistors

MD SERVO BLOCK [E-8732]

Ref. No.	Part No.	Part Name & Description	Remarks
R101	ERJ6GEYJ1R0V	Chip, 1 Ω 1/10W	
R102	ERJ6GEYJ100	Chip, 10 Ω 1/10W	
R103	ERJ3GEYJ222V	Chip, 2.2k Ω 1/16W	
R104	ERJ3GEYJ474V	Chip, 470k Ω 1/16W	
R107	ERJ3GEYJ223V	Chip, 22k Ω 1/16W	
R108	ERJ3GEYJ223V	Chip, 22k Ω 1/16W	
R109	ERJ3GEYJ473V	Chip, 47k Ω 1/16W	
R110	ERJ3GEYJ473V	Chip, 47k Ω 1/16W	
R111	ERJ3GEYJ473V	Chip, 47k Ω 1/16W	
R112	ERJ3GEYJ473V	Chip, 47k Ω 1/16W	
R113	ERJ3GEYJ473V	Chip, 47k Ω 1/16W	
R114	ERJ3GEYJ223V	Chip, 22k Ω 1/16W	
R115	ERJ3GEYJ103V	Chip, 10k Ω 1/16W	
R116	ERJ3GEYJ272V	Chip, 2.7k Ω 1/16W	
R117	ERJ3GEYJ331V	Chip, 330 Ω 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R118	ERJ3GEYJ331V	Chip, 330Ω 1/16W	
R201	ERJ6GEYJ100	Chip, 10Ω 1/10W	
R401	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R402	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R403	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R404	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R405	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R406	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R407	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R408	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R409	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R410	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R411	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R412	ERJ3GEYJ562V	Chip, 5.6kΩ 1/16W	
R413	ERJ6GEYJ100	Chip, 10Ω 1/10W	
R414	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R415	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R416	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R417	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R418	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R419	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R420	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R421	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R422	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R451	ERJ6GEYJ4R7V	Chip, 4.7Ω 1/10W	
R501	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R503	ERJ3GEYJ563V	Chip, 56kΩ 1/16W	
R504	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R505	ERJ3GEYJ564V	Chip, 560kΩ 1/16W	
R506	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R507	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R512	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R513	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R514	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R523	ERJ3GEYJ332V	Chip, 3.3kΩ 1/16W	
R529	ERJ3GEYJ332V	Chip, 3.3kΩ 1/16W	
R530	ERJ3GEYJ332V	Chip, 3.3kΩ 1/16W	
R902	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R903	ERJ8GEYJ1R5V	Chip, 1.5Ω 1/8W	
R904	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R906	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R907	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R908	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R909	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R910	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R913	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R914	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R915	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R916	ERJ3GEYJ183V	Chip, 18kΩ 1/16W	
R961	ERJ3GEYJ682V	Chip, 6.8kΩ 1/16W	
R962	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	

1.5. Connectors

MD SERVO BLOCK [E-8732]

Ref. No.	Part No.	Part Name & Description	Remarks
CN1	YEAE5227114	Connector, 14P	
CN101	KLMN36B00003	Connector, 36P	
CN901	KIK04A00071	Connector, 4P	

MOTOR BLOCK [E-8734]

Ref. No.	Part No.	Part Name & Description	Remarks
CN902	YEAE01681DP	Connector, 21P	
CN903	YEAE5274611	Connector, 11P	
CN904	KLMN33B00002	Connector, 33P	

1.6. Electric Parts

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
S4	YEAS09316	Sensor	

Ref. No.	Part No.	Part Name & Description	Remarks
S5	YEAS09308	Micro Switch	
S11	KOL1BA000021	Switch	

CRYSTALS

Ref. No.	Part No.	Part Name & Description	Remarks
XL401	YEXLSTCV169T	Crystal OSC	
XL501	YEXLSTCC737T	Crystal OSC	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L201	YELTBLMB601	Coil	
L203	YELTBLMB601	Coil	

1.7. Mechanical Parts

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
AT1	YEATSD00405	Terminal	
1	YEFA011798A	Upper Chassis	(4-A)
2	YEFS04699	Damper	(3-A) (4-B)
3	YEFX0052428	Float Spring A	(3-B) (4-C)
4	YEFX0052429	Float Spring B	(4-A) (4-B)
5	YEFA011832	Cartridge Holder Ass'y	(3-A)
6	YESFX046097	Slide Cam Plate L	(3-A)
7	YESFX046098	Slide Cam Plate R	(3-B)
8	YESFX005109	Slide Cam Spring	(3-A) (3-C)
9	YEFA011833	Suspension Chassis Ass'y	(2-C)
10	YEFX206147A	Suspension LockB	(3-B)
11	YESFX046110	Actuator B	(3-B)
12	YEFX0052431	Lock Spring B	(3-B)
13	YEFX239463	SW Actuator	(3-A)
14	YEFX00522436	SW Actuator Spring	(3-A)
15	YEFX239464	Motor Bracket A	(2-A)
16	YESAK01025	Motor Ass'y	(2-B)
17	YEFX003974	Motor Gear B	(2-A)
18	YEJF03258	Feed Screw Ass'y	(2-A)
19	YESFX021108	Motor Bracket C	(3-B)
20	YEFX0052389A	Leaf Spring	(2-B)
21	BQL2A1CRH	Spindle Motor	(2-B)
22	YEFX018627	Spindle Motor Holder	(2-B)
24	KLR1100J	Optical Pickup Ass'y	(2-C)
25	YEFW062547	Guide Shaft	(2-B)
26	YEFX0052433	Shaft Holder	(2-B)
27	YEFW046173	Nut Holder	(2-B)
28	YEFX0052434	Sub Shaft Spring	(2-B)
29	YEFX0052435	Guide Shaft Spring	(2-C)
30	YEFA011834	Main Chassis Ass'y	(1-A)
31	YESFX046103	Rink Plate L	(1-A)
32	YESFX046104	Rink Plate R	(2-B)
33	YEFX0462034A	Suspension Guide L Ass'y	(1-A)
34	YEFX206145A	Suspension Guide L	(1-A)
35	YEFX0462075	Suspension Guide R Ass'y	(1-C)
36	YEFX206146A	Suspension Guide R	(1-B)
37	YEFX0462036	Lock Plate F Ass'y	(1-C)
38	YEFX0462077	Rack Plate Ass'y	(1-A)
39	YESFX003070	Gear E	(2-B)
40	YEFX0462078	Gear Mounting Bracket Ass'y	(1-A)
41	YESFX003071	Gear D	(2-A)
42	YESFX003072	Gear C	(2-A)
43	YESAK01026	Loading Motor Ass'y	(2-A)
44	YEAE012820	Motor Extension Cord	(2-A)
45	YESFX0003073	Gear B	(2-A)
46	YESFX046113	SW Actuator E	(1-A)
48	YESFR01018	Clamper C	(2-B)
49	YEAP2724	Motor FPC	(2-B)
50	YEFX0462045A	P. Bracket F	(1-C)
51	YEFX0462046A	P. Bracket B	(2-C)
101	YESJS01118	Screw, 2.6mm*3mm	

Ref. No.	Part No.	Part Name & Description	Remarks
102	YESJS01119	Screw, 2mm*3.5mm	
103	YEFX014072	Retaining Ring, 2.1mm*5mm*0.4mm	
104	YEJS06131	Screw, 2.6mm*4mm	
105	YEJT03251	Screw, 1.2mm*3mm	
106	YESJS01124	Screw, 2mm*3mm	
107	YESJS01125	Screw, 1.4mm*1.5mm	
108	YEJT03253	Screw, 1.7mm*5.2mm	
109	YEJS06131	Screw, 2mm*4mm	
110	YESJT03055	Screw, 2mm*3mm	
111	YESJS01130	Screw, 1.4mm*3.5mm	
112	YESJS01131	Screw, 1.2mm*2.2mm	
113	YEJE01027	E-Ring, 2mm	
114	YESJT03117	Screw, 2mm*4mm	

EXPLODED VIEW (MD Player Parts) MODELS CQ-MRX777EUC/EW

