

# Service Manual

AUTOMOTIVE ELECTRONICS

## V.W.

VEHICLE	DESTINATION	PRODUCED AFTER	V.W. PART NO.	MATUSHITA MODEL NO.
UNIVERSAL	North America	Dec., 1998	1J6 035 111	CX-CV1811F
UNIVERSAL	Europe	Dec., 1998	1J6 035 111	CX-CV1820L

## AUDI

VEHICLE	DESTINATION	PRODUCED AFTER	AUDI PART NO.	MATUSHITA MODEL NO.
UNIVERSAL	Europe	Dec., 1998	4B0 035 111A	CX-CA1821L
TT	Europe	Dec., 1998	8N8 035 111A	CX-CA1822L



### 6-Disc CD Changer



### FEATURES

- 6-slots disc magazine.
- Shock-proof function.
- 5 mounting angles (0°, 22.5°, 45°, 67.5°, 90°).

### ⚠ 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 product or products dealt with in this service information by anyone else could result in serious injury or death.

# Panasonic®

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(Recycle Paper)

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## LASER PRODUCTS

### Caution

This product utilizes a laser.  
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### Laser products:

Wave Length        780nm  
Laser power        No hazardous radiation is emitted with safety protection.

### Do not take apart this unit or attempt to make any changes yourself.

This unit is very intricate that uses a laser pickup to retrieve information from the surface of compact discs. The laser is carefully shielded so that its rays remain inside the cabinet. Therefore, never try to disassemble the player or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

## Specifications\*

Power Supply	: 12V DC (11V - 16V), test Voltage 14.4V, negative ground
Current Consumption	: Less than 0.4A
Output Impedance	: 47k $\Omega$ , 1000pF
Channel	: 2 channels
Channel Separation	: More than 86dB
S/N	: 92dB (IHF-A)
Total Harmonic Distortion	: Less than 0.015%

### Dimensions\*\*

Changer Unit	: 240(W) × 198.5(D) × 70(H)mm
Magazine	: 121.5(W) × 131(D) × 30(H)mm

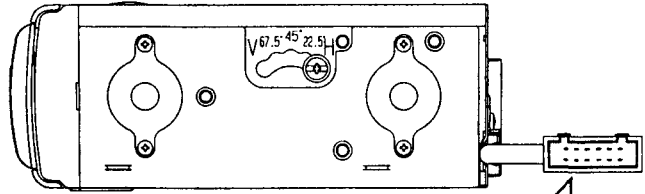
### Weight\*\*

Changer Unit	: 2.0kg
Magazine	: 0.14kg

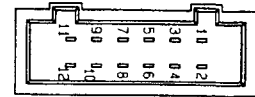
\* Specifications subject to change without notice.  
\*\* Dimensions and Weight shown are approximate.

## SIDE VIEW AND CONNECTOR

### <CX-CV1811F/1820L>

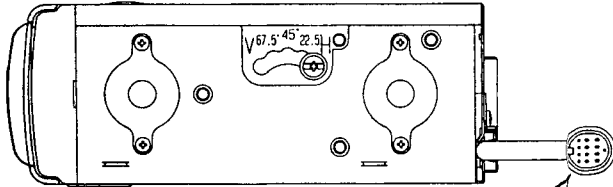


### <CN701 12P CONNECTOR>

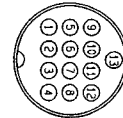


- |                     |                       |
|---------------------|-----------------------|
| 1. CD Data          | 7. CD Rch(+) Output   |
| 2. CD Clock         | 8. Power Supply, ACC  |
| 3. Ground           | 9. Signal Ground      |
| 4. Remote           | 10. CD Lch (+) Output |
| 5. No Connection    | 11. TOC Check Control |
| 6. Power Supply, +B | 12. No Connection     |

### <CX-CA1821/1822L>

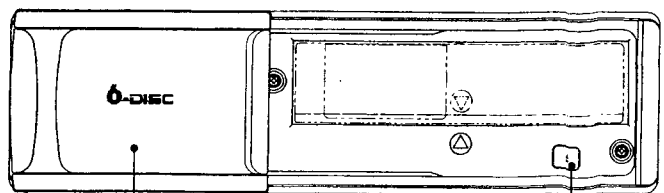


### <CN701 13P CONNECTOR>



- |                          |                      |
|--------------------------|----------------------|
| 1. CD Rch(+) Output      | 8. No Connection     |
| 2. Signal Ground for Rch | 9. CD Clock          |
| 3. CD Lch (+) Output     | 10. Power Supply, +B |
| 4. Signal Ground for Lch | 11. CD Data          |
| 5. CD Changer Ground     | 12. Remote           |
| 6. TOC Check Control     | 13. Remote           |
| 7. Power Supply, ACC     |                      |

## FRONT VIEW



Slide Door

Eject SW

## TERMINALS DESCRIPTION

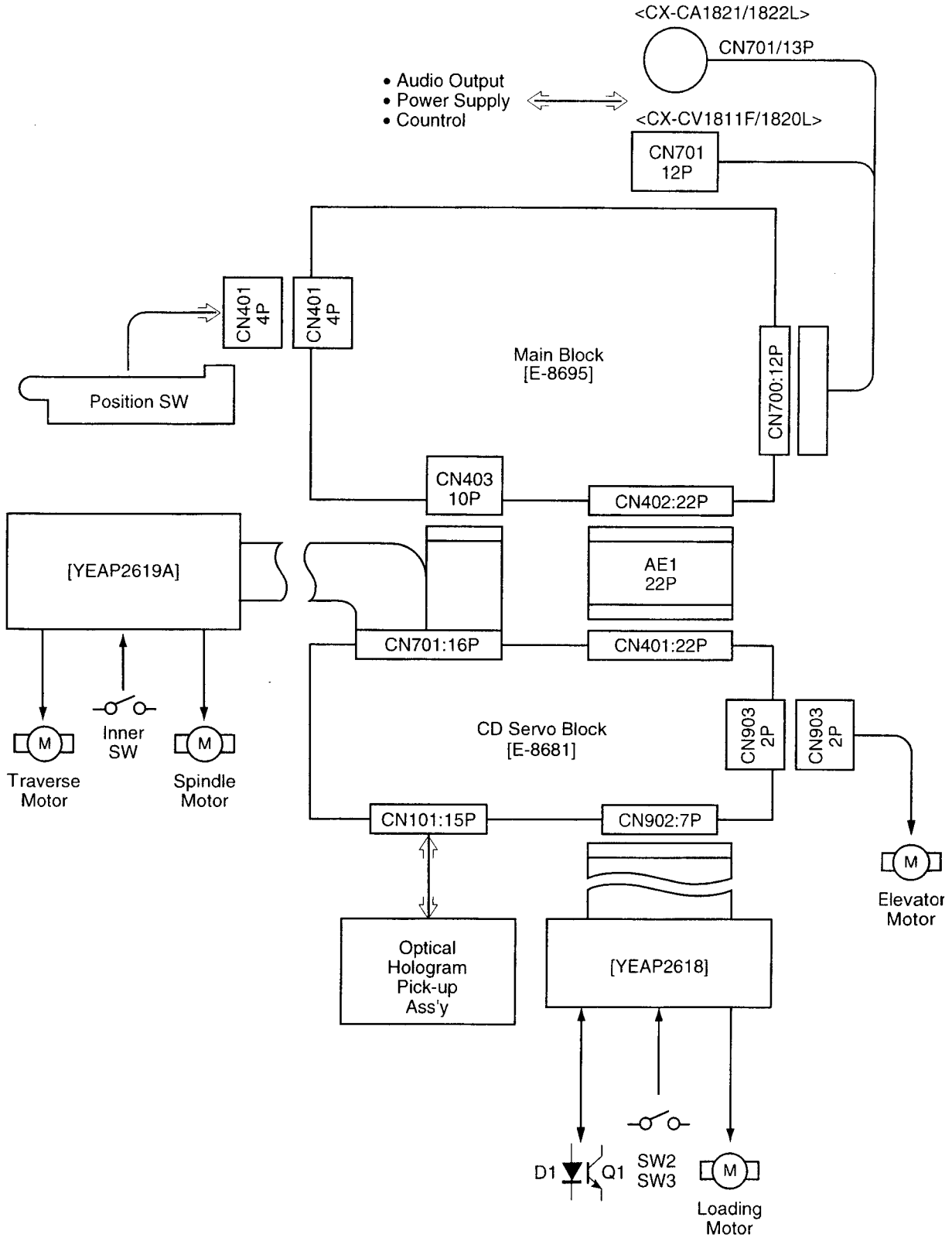
<Main Block>

■ IC600 MN1883220AB1

Pin No.	Port	Description	I/O	Vol.(V)
1	PC1	Motor driver mute	O	5.1
2	LMBRK	Loading motor brake	O	0
3	LMC	Loading motor control	O	2.5
4	EMBRK	Elevator motor brake	O	0
5	EMC2	Elevator motor control	O	2.5
6	EMC1	Elevator motor control	O	2.5
7	VDD	+5V power supply	—	5.1
8	OSC1	Crystal oscillator	—	2.3
9	OSC2	Crystal oscillator	—	2.4
10	VSS	Ground	—	0
11	X1	(Connecting to ground)	—	0
12	X0	Not used	—	—
13	EX1	(Connecting to ground)	—	0
14	/RESET	Reset input	I	5.1
15	BLKCK	Sub code block clock	I	0
16	IRQ1	Interrupt request	I	0
17	BAT.SENS	Battery level detection	I	5.1
18	—	Not used	—	—
19	—	Not used	—	—
20	D.MUTE	DSP mute	O	0
21	P.DOWN	CD Servo power control	O	0
22	P.ON	System power control	O	5.1
23	TSO	Not used	—	—
24	—	Not used	—	—
25	TSCK	Not used	—	—
26	/FLOK	Not used	—	—
27	/TLOCK	Not used	—	—
28	FOS	Focus control	I	2.5
29	TRV	Ttaverse motor control	I	2.5
30	MCLK	I/F communication clock	O	0
31	MLD	I/F communication data	O	0
32	—	Not used	—	—
33	CLVS	Not used	—	—
34	VDET	Not used	—	—
35	SENSE	Not used	—	—
36	TSI	Not used	—	—
37	TEST	Not used	—	5.1

Pin No.	Port	Description	I/O	Vol.(V)
38	—	(Connecting to ground)	—	0
39	SQCK	Q-code clock	O	0
40	SUBQ	Q-code data	I	0
41,42	—	(Connecting to ground)	—	0
43	REMO	CD Changer remote	I	4.8
44	CH.CLK	CD changer clock	O	4.8
45	VB	(Ground pull-down)	—	0
46	CH.DATA	CD changer data	O	0
47	VDD	+5V power supply	—	5.1
48	AVDD	+5V power supply	—	5.1
49	VREF	(Connecting to ground)	—	0
50	ENCBIT2	Position SW	I	0
51	ENCBIT1	Position SW	I	4.9
52	ENCBIT3	Position SW	I	4.9
53-55	—	(Connecting to ground)	—	0
56	TOC CTRL	TOC Check control	I	5.1
57	—	(Ground pull-down)	—	0
58	VREF	(Connecting to ground)	—	0
59	AVSS	Ground	—	0
60	VSS	Ground	—	0
61,62	—	(Connecting to ground)	—	0
63	EJECT	Eject SW	I	5.1
64-66	—	(Connecting to ground)	—	0
67	STAT	DSP status	I	0
68	—	(Connecting to ground)	—	0
69	SW4	Inner SW	I	4.9
70	H.DATA	I/F communication data	O	0
71	NRST	CD controller reset	O	0
72	ACC.SENS	ACC level detection	I	0
73	PS1	Disc IN SW	I	2.0
74	SW1	Magazine loading SW	I	4.8
75	SW2	Disc save/clamp SW	I	4.9
76	SW3	Disc position SW	I	0
77	—	(Connecting to ground)	—	0
78	SW1	Magazine loading SW	I	4.8
79	PC2	Not used	—	—
80	TESTLED	Not used	—	—

## WIRING CONNECTION

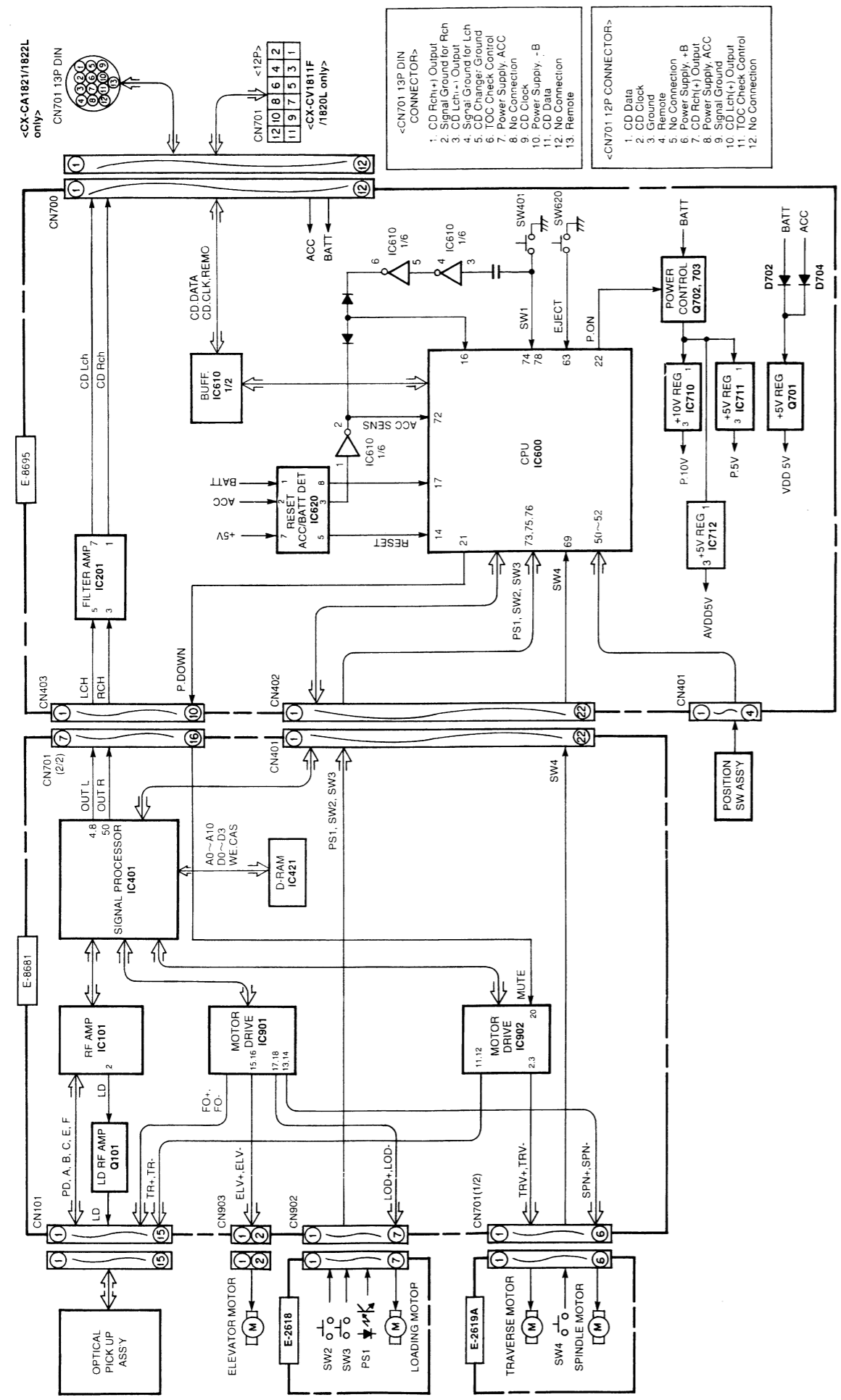


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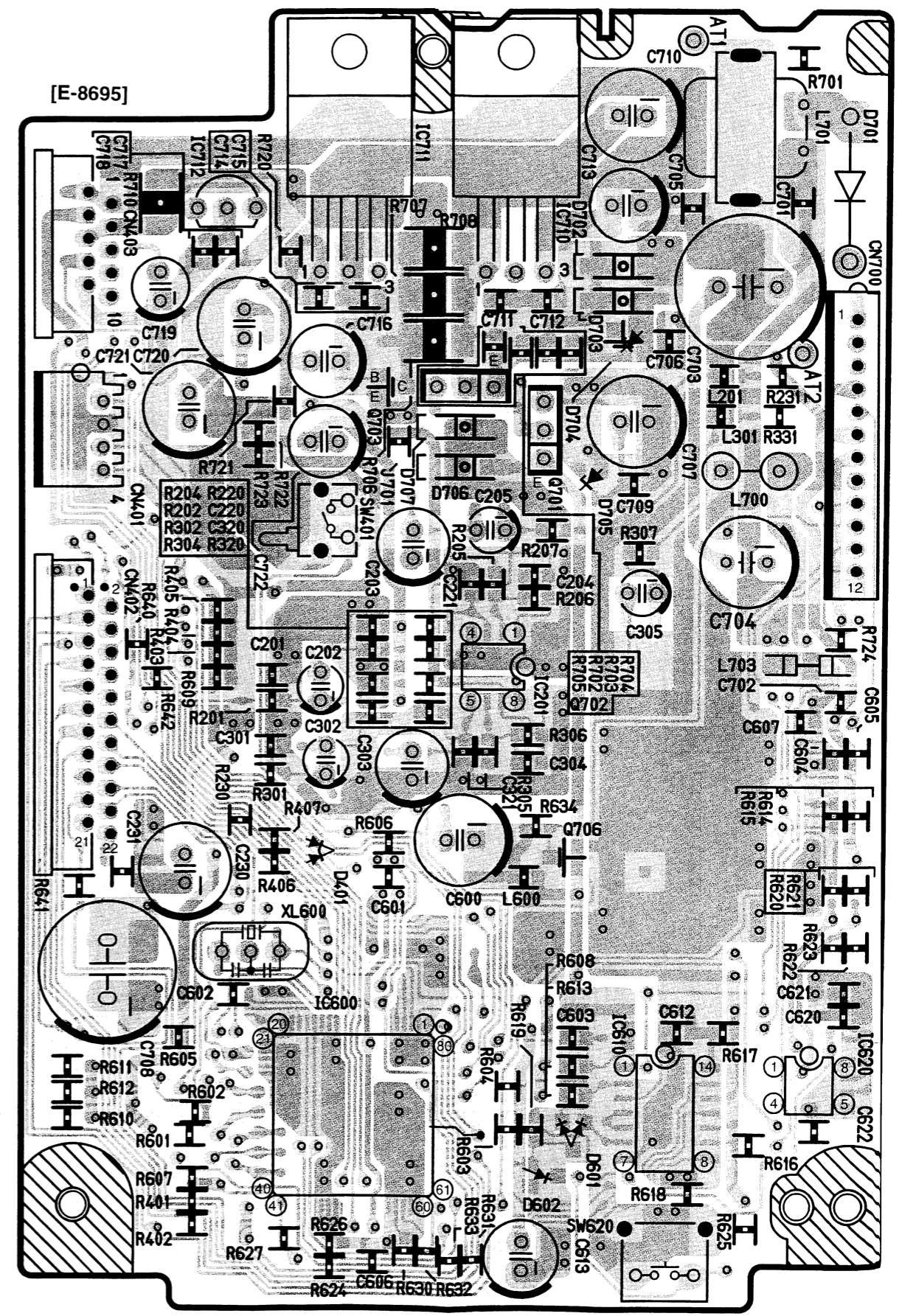
- .....This mark shows a Ref. No. of connector
- .....This mark shows a mounting position of connector.

WIRING DIAGRAM (Main Block) MODELS CX-CV1811F/1820L/CX-CA1821/1822L

BLOCK DIAGRAM MODELS CX-CV1811F/1820L/CX-CA1821/1822L

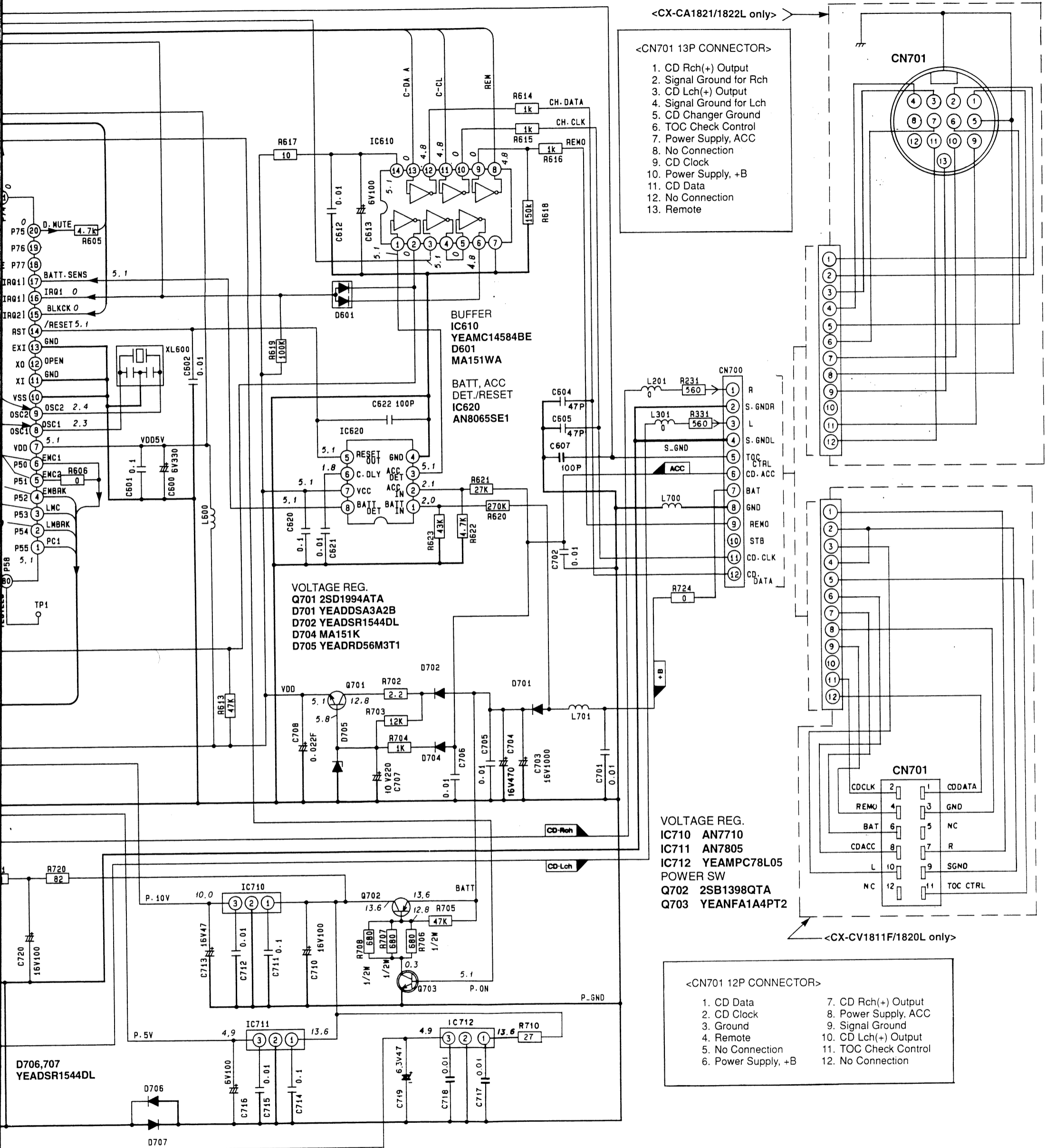


- <CN701 13P DIN CONNECTOR>
1. CD Rch(+) Output
  2. Signal Ground for Rch
  3. CD Lch(+) Output
  4. Signal Ground for Lch
  5. CD Change Ground
  6. TOC Check Control
  7. Power Supply -ACC
  8. No Connection
  9. CD Clock
  10. Power Supply -B
  11. Power Supply -ACC
  12. No Connection
  13. Remote
- <CN701 12P CONNECTOR>
1. CD Data
  2. CD Clock
  3. Ground
  4. Remote
  5. No Connection
  6. Power Supply -B
  7. Power Supply -ACC
  8. Power Supply -ACC
  9. Signal Ground
  10. CD Lch(+) Output
  11. TOC Check Control
  12. No Connection







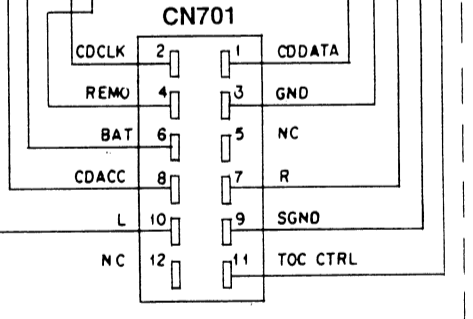
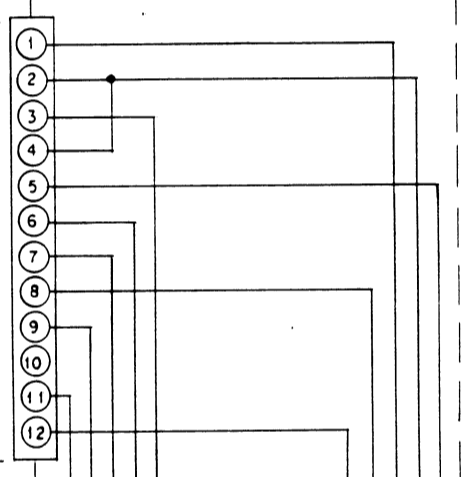
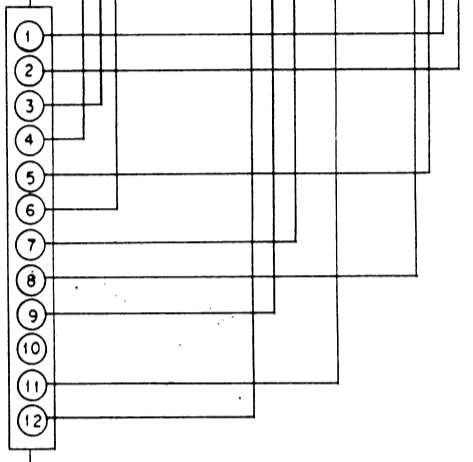
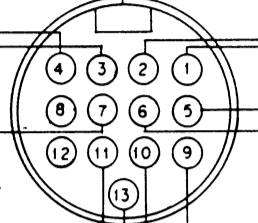


<CX-CA1821/1822L only>

<CN701 13P CONNECTOR>

1. CD Rch(+) Output
2. Signal Ground for Rch
3. CD Lch(+) Output
4. Signal Ground for Lch
5. CD Changer Ground
6. TOC Check Control
7. Power Supply, ACC
9. CD Clock
10. Power Supply, +B
11. CD Data
12. No Connection
13. Remote

CN701



- VOLTAGE REG.  
 IC710 AN7710  
 IC711 AN7805  
 IC712 YEAMPC78L05  
 POWER SW  
 Q702 2SB1398QTA  
 Q703 YEANFA1A4PT2

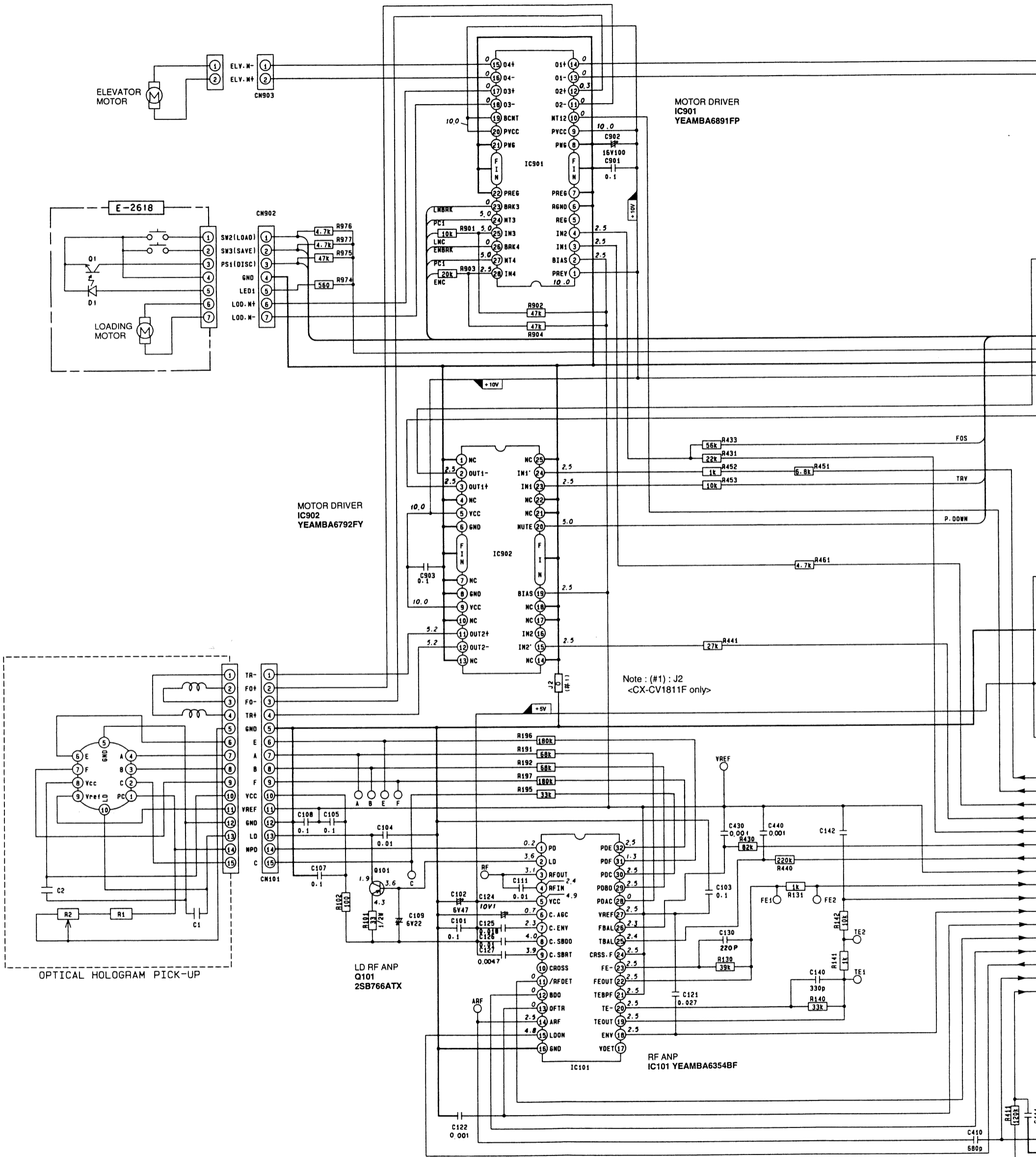
<CX-CV1811F/1820L only>

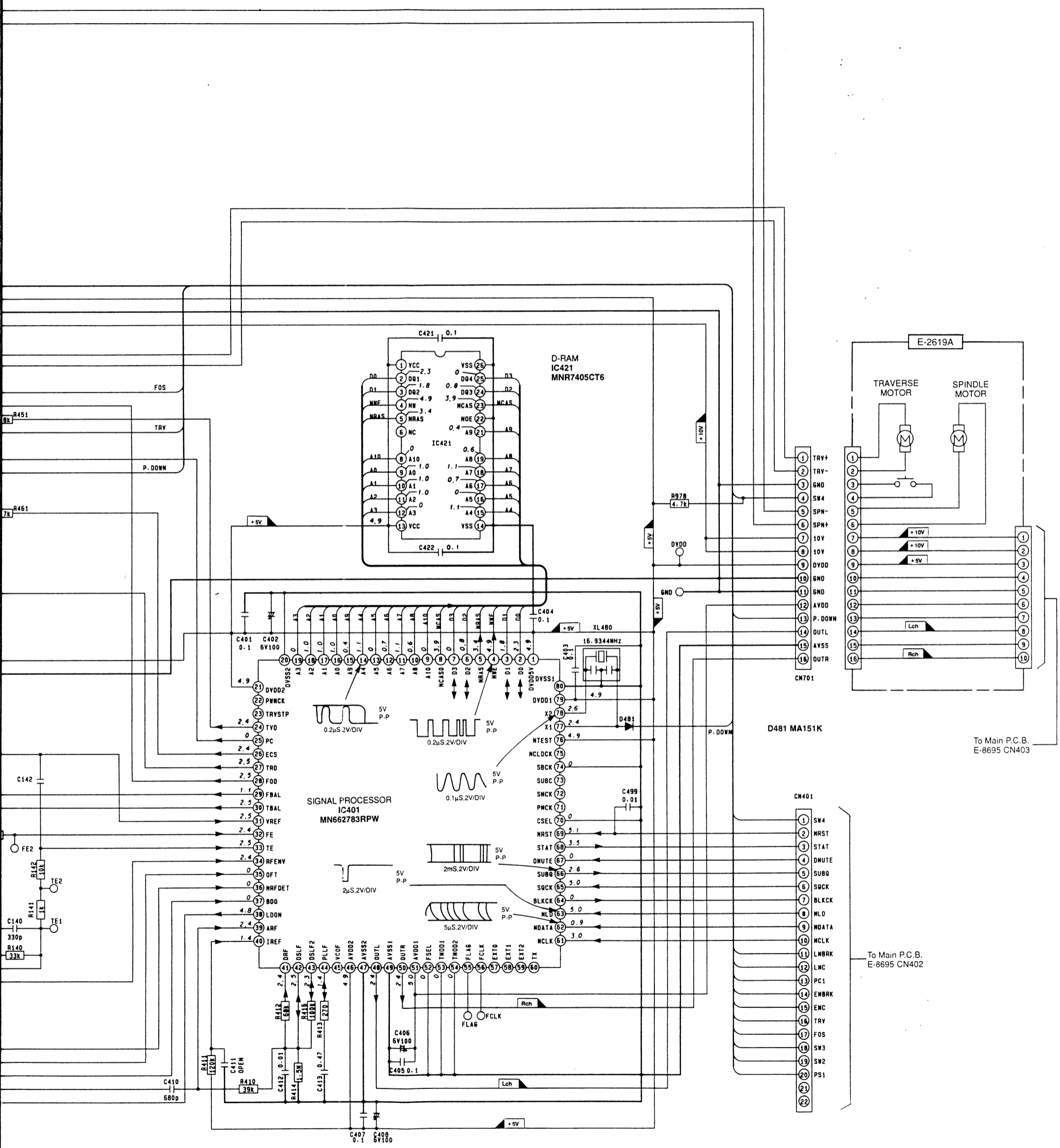
<CN701 12P CONNECTOR>

1. CD Data
2. CD Clock
3. Ground
4. Remote
5. No Connection
6. Power Supply, +B
7. CD Rch(+) Output
8. Power Supply, ACC
9. Signal Ground
10. CD Lch(+) Output
11. TOC Check Control
12. No Connection



# SCHEMATIC DIAGRAM (CD Servo Block) MODELS CX-CV1811F/1820L/CX-CA1821/1822L





## TERMINALS DESCRIPTION

<CD Servo Block>

■ IC401 MN662783RPW

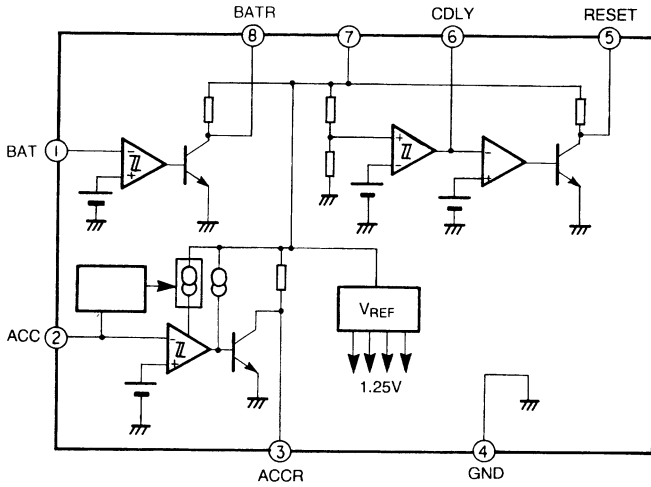
Pin No.	Port	Description	I/O	Vol.(V)
1	VDD	+5V power supply	—	5.0
2	D0	D-RAM data	I/O	2.3
3	D1	D-RAM data	I/O	1.8
4	/WE	D-RAM data write	O	4.9
5	/RAS	D-RAM row address strobe	O	3.4
6	D2	D-RAM data	I/O	0.8
7	D3	D-RAM data	I/O	0
8	/CAS0	D-RAM column address strobe	O	3.9
9	A10	D-RAM address	O	0
10	A8	D-RAM address	O	0.6
11	A7	D-RAM address	O	1.1
12	A6	D-RAM address	O	0.7
13	A5	D-RAM address	O	0
14	A4	D-RAM address	O	1.1
15	A9	D-RAM address	O	0.4
16	A0	D-RAM address	O	1.0
17	A1	D-RAM address	O	1.0
18	A2	D-RAM address	O	1.0
19	A3	D-RAM address	O	0
20	V <sub>SS2</sub>	Ground	—	0
21	VDD2	+5V power supply	—	5.0
22,23	—	Not used	—	—
24	TVD	Traverse motor control	O	2.5
25	PC	Not used	—	—
26	ECS	Spindle motor control	O	2.4
27	TRD	Tracking coil drive	O	2.5
28	FOD	Focus coil drive	O	2.4
29	FBAL	Focus balance	O	1.9
30	TBAL	Tracking balance	O	3.0
31	V <sub>REF</sub>	Reference voltage	I	2.5
32	FE	Focus error	I	2.5
33	TE	Tracking error	I	2.5
34	RFENV	RF envelope	I	2.5
35	OFT	Off track signal	I	0
36	/RFDET	RF detecting signal	I	0
37	BDO	Drop-out signal	I	0
38	LDON	Laser on signal	O	4.5
39	ARF	RF signal	I	2.5

Pin No.	Port	Description	I/O	Vol.(V)
40	IREF	Reference current input	I	1.2
41	DRF	Bias for DSL	I	2.4
42	DSLFL	Loop filter for DSL	I/O	2.5
43	DSLFL2	Loop filter for DSL	I/O	2.2
44	PLLFL	Loop filter for PLL	I/O	1.4
45	VCOF	Not used	—	—
46	AVDD2	+5V power supply	—	5.0
47	AVSS2	Ground	—	0
48	OUTL	L channel output	O	2.3
49	AVSS1	Ground	—	0
50	OUTR	R channel output	O	2.3
51	AVDD1	+5V power supply	—	4.7
52-54	—	(Connecting to ground)	—	0
55	FLAG	Flag output	O	0
56	FCLK	Frame clock	O	0
57-59	—	Not used	—	—
60	TX	Not used	—	—
61	MCLK	Clock for I/F command	I	1.0
62	MDATA	Date for I/F command	I	3.1
63	MLD	I/F command load	I	5.0
64	BLKCK	Subcode block clock	O	0
65	SQCK	Ext.clock for sub code-Q	I	5.0
66	SUBQ	Code for sub. code-Q	O	3.8
67	DMUTE	Mute input	I	0
68	STAT	Status signal	O	5.0
69	/RST	Reset input	I	5.0
70	CSEL	(Connecting to ground)	—	0
71	PMCK	Not used	—	—
72	SMCK	Not used	—	—
73	SUBC	Not used	—	—
74	SBCK	(Connecting to ground)	—	0
75	/CLDCK	Not used	—	—
76	/TEST	(Connecting to VDD)	—	5.0
77	X1	Crystal oscillator	—	0.4
78	X2	Crystal oscillator	—	3.2
79	VDD1	+5V power supply	—	5.0
80	VSS1	Ground	—	0

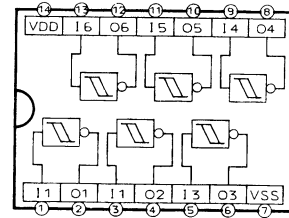
## IC BLOCK DIAGRAM

<Main Block>

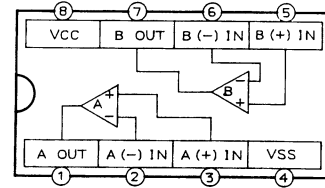
● IC620 AN8065SE1



● IC610  
YEAMC14584BE

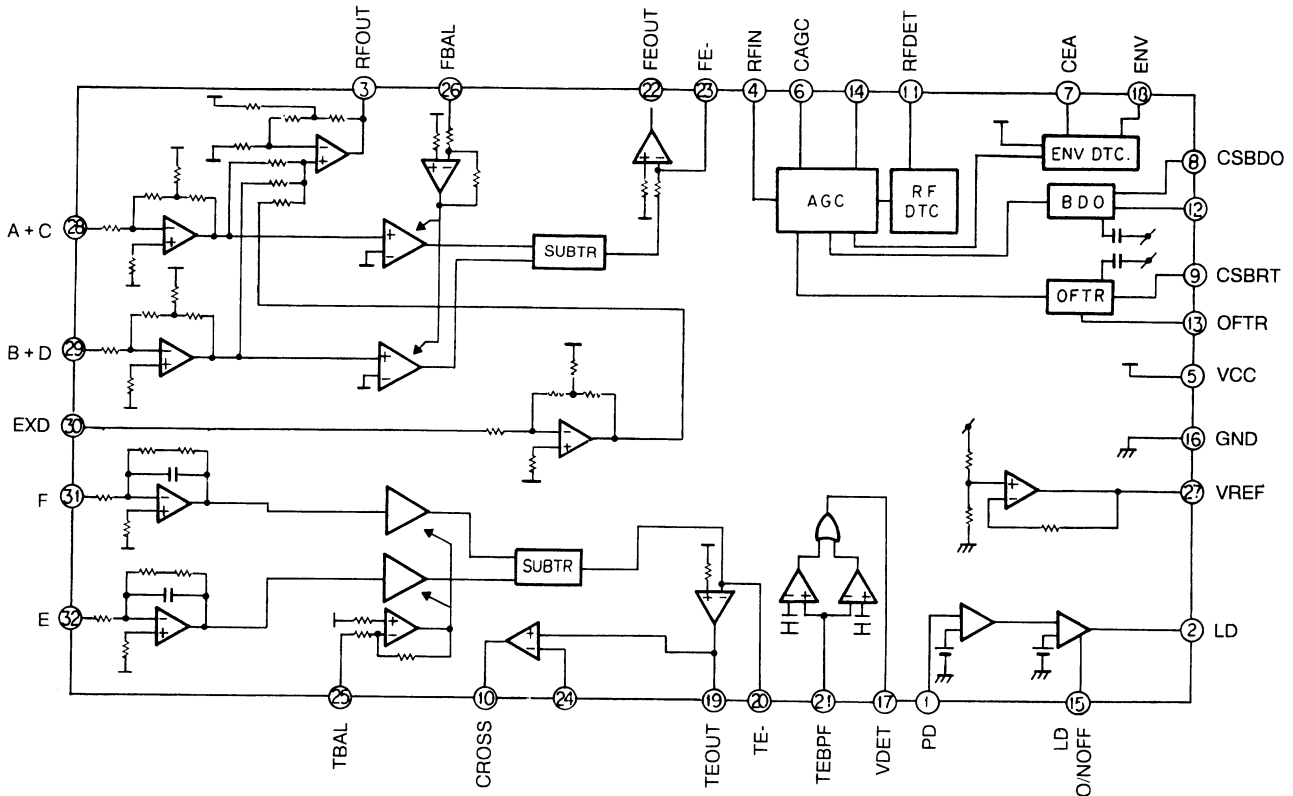


● IC201  
YEAMPC4570T1

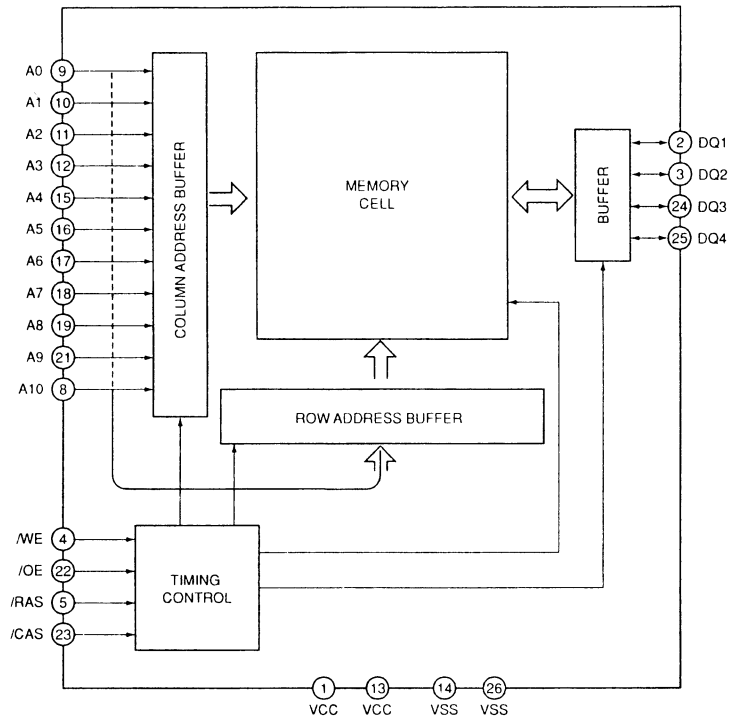


<CD Servo Block>

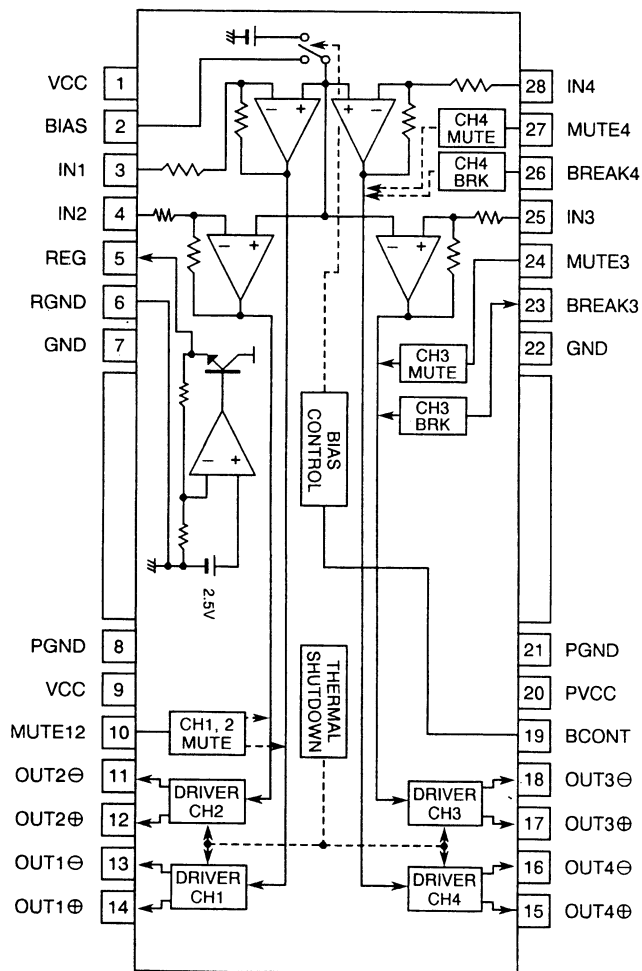
● IC101 YEAMBA6354BF



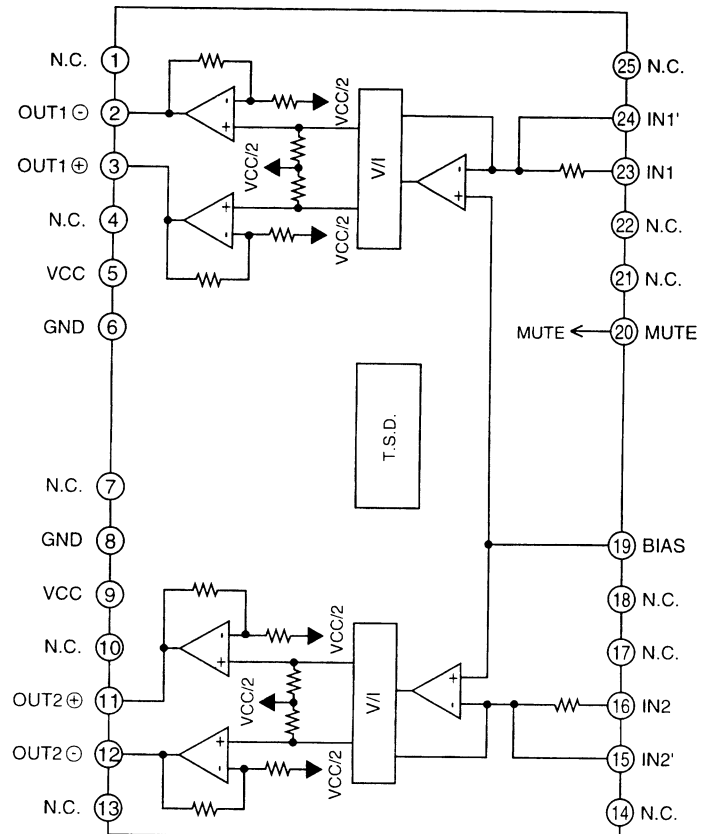
● IC421 MNR7405CT6



● IC901 YEAMBA6891FP



● IC902 YEAMBA6792FY



# 1 Replacement Parts List

Note :

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by  $\Delta$  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 road 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.
5. "MCC" marks in remarks column are indicated supply parts of Matsushita Communication Industrial Corp. of America (MCC).

## 1.1. IC's and Transistors

MAIN BLOCK [E8695]

Ref. No.	Part No.	Part Name & Description	Remarks
IC201	YEAMPC4570T1	IC	
IC600	MN1883220AB1	IC	
IC610	YEAMC14584BE	IC	
IC620	AN8065SE1	IC	
IC710	AN7710	IC	
IC711	AN7805	IC	
IC712	YEAMPC78L05T	IC	
Q701	2SD1994ATA	Transistor	
Q702	2SB1398QTA	Transistor	
Q703	YEANFALA4PT2	Transistor	

## 1.2. Diodes

MAIN BLOCK [E8695]

Ref. No.	Part No.	Part Name & Description	Remarks
D401	MA151WKT	Diode	
D601	MA151WA	Diode	
D602	MA151K	Diode	
D701	YEADDS3A2B	Diode	
D702	YEADSR1544DL	Diode	
D704	MA151K	Diode	
D705	YEADRD56M3T1	Diode	
D706	YEADSR1544DL	Diode	
D707	YEADSR1544DL	Diode	

## 1.3. Capacitors

MAIN BLOCK [E8695]

Ref. No.	Part No.	Part Name & Description	Remarks
C201	YECUS1H332KX	Ceramic, 0.0033 $\mu$ F 50WV	
C202	ECEA1CKS100I	Electrolytic, 10 $\mu$ F 16WV	
C203	ECEA1AKS470I	Electrolytic, 47 $\mu$ F 10WV	
C204	YECUS1H221JM	Ceramic, 220PF 50WV	
C205	ECEA1CKS100I	Electrolytic, 10 $\mu$ F 16WV	
C220	YECUS1H271JM	Ceramic, 270PF 50WV	
C221	YECUS1H221JM	Ceramic, 220PF 50WV	
C230	ECEA1AKS221	Electrolytic, 220 $\mu$ F 10WV	
C231	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C301	YECUS1H332KX	Ceramic, 0.0033 $\mu$ F 50WV	
C302	ECEA1CKS100I	Electrolytic, 10 $\mu$ F 16WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C303	ECEA1AKS470I	Electrolytic, 47 $\mu$ F 10WV	
C304	YECUS1H221JM	Ceramic, 220PF 50WV	
C305	ECEA1CKS100I	Electrolytic, 10 $\mu$ F 16WV	
C320	YECUS1H271JM	Ceramic, 270PF 50WV	
C321	YECUS1H221JM	Ceramic, 220PF 50WV	
C600	ECEA0JKS331I	Electrolytic, 330 $\mu$ F 6.3WV	
C601	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C602	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C603	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C604	YECUS1H470JM	Ceramic, 47PF 50WV	
C605	YECUS1H470JM	Ceramic, 47PF 50WV	
C606	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C607	YECUS1H101JM	Ceramic, 100PF 50WV	
C612	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C613	ECEA0JKS101	Electrolytic, 100 $\mu$ F 6.3WV	
C620	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C621	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C622	YECUS1H101JM	Ceramic, 100PF 50WV	
C701	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C702	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C703	ECA1CSS102YB	Electrolytic, 1000 $\mu$ F 16WV	
C704	ECA1CM471	Electrolytic, 470 $\mu$ F 16WV	
C705	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C706	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C707	ECEA1AKS221	Electrolytic, 220 $\mu$ F 10WV	
C708	YEECFYH0H223	Electrolytic, 0.022FD 5WV	
C710	ECEA1CKS101	Electrolytic, 100 $\mu$ F 16WV	
C711	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C712	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C713	ECEA1CKS470I	Electrolytic, 47 $\mu$ F 16WV	
C714	YECUS1C104KX	Ceramic, 0.1 $\mu$ F 16WV	
C715	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C716	ECEA0JKS101	Electrolytic, 100 $\mu$ F 6.3WV	
C717	YECUS1E104ZF	Ceramic, 0.1 $\mu$ F 25WV	
C718	YECUS1H103KX	Ceramic, 0.01 $\mu$ F 50WV	
C719	ECEA0JKS470	Electrolytic, 47 $\mu$ F 6.3WV	
C720	ECEA1CKS101	Electrolytic, 100 $\mu$ F 16WV	
C721	ECEA1CKS101	Electrolytic, 100 $\mu$ F 16WV	
C722	ECEA1AKS470I	Electrolytic, 47 $\mu$ F 10WV	

## 1.4. Resistors

MAIN BLOCK [E8695]

Ref. No.	Part No.	Part Name & Description	Remarks
L201	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	
L301	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	
R201	ERJ6GEYJ102	Chip, 1k $\Omega$ 1/10W	
R202	ERJ6GEYJ103	Chip, 10k $\Omega$ 1/10W	
R204	ERJ6GEYJ223	Chip, 22k $\Omega$ 1/10W	
R205	ERJ6GEYJ153	Chip, 15k $\Omega$ 1/10W	
R206	ERJ6GEYJ103	Chip, 10k $\Omega$ 1/10W	
R207	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	
R220	ERJ6GEYJ103	Chip, 10k $\Omega$ 1/10W	
R231	ERJ6GEYJ561	Chip, 560 $\Omega$ 1/10W	
R301	ERJ6GEYJ102	Chip, 1k $\Omega$ 1/10W	
R302	ERJ6GEYJ103	Chip, 10k $\Omega$ 1/10W	
R304	ERJ6GEYJ223	Chip, 22k $\Omega$ 1/10W	
R305	ERJ6GEYJ153	Chip, 15k $\Omega$ 1/10W	
R306	ERJ6GEYJ103	Chip, 10k $\Omega$ 1/10W	
R307	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	
R320	ERJ6GEYJ103	Chip, 10k $\Omega$ 1/10W	
R331	ERJ6GEYJ561	Chip, 560 $\Omega$ 1/10W	
R401	ERJ6GEYJ473	Chip, 47k $\Omega$ 1/10W	
R402	ERJ6GEYJ472	Chip, 4.7k $\Omega$ 1/10W	
R403	ERJ6GEYJ472	Chip, 4.7k $\Omega$ 1/10W	
R404	ERJ6GEYJ472	Chip, 4.7k $\Omega$ 1/10W	
R405	ERJ6GEYJ472	Chip, 4.7k $\Omega$ 1/10W	
R406	ERJ6GEYJ104	Chip, 100k $\Omega$ 1/10W	
R407	ERJ6GEYJ472	Chip, 4.7k $\Omega$ 1/10W	
R601	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	
R602	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	
R603	ERJ6GEY0R00V	Chip, 0 $\Omega$ 1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R604	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R605	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R606	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R607	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R608	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R609	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R610	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R611	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R612	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R613	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R614	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R615	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R616	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R617	ERJ6GEYJ100	Chip, 10Ω 1/10W	
R618	ERJ6GEYJ154	Chip, 150kΩ 1/10W	
R619	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R620	YER122R2703D	Metal Film, 270kΩ 1/10W	
R621	YER122P2702D	Metal Film, 27kΩ 1/10W	
R622	YER122P4701D	Metal Film, 4.7kΩ 1/10W	
R623	YER122P4302D	Metal Film, 43kΩ 1/10W	
R624	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R625	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R627	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R631	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R632	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R640	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R641	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R642	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R702	ERJ6GEYJ2R2	Chip, 2.2Ω 1/10W	
R703	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R704	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R705	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R706	ERJ12YJ681H	Chip, 680Ω 1/2W	
R707	ERJ12YJ681H	Chip, 680Ω 1/2W	
R708	ERJ12YJ681H	Chip, 680Ω 1/2W	
R710	ERJ12YJ270H	Chip, 27Ω 1/2W	
R720	ERJ6GEYJ820	Chip, 82Ω 1/10W	
R721	ERJ6GEYJ680	Chip, 68Ω 1/10W	
R722	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R723	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R724	ERJ6GEY0R00V	Chip, 0Ω 1/10W	

### 1.5. Connectors

#### MAIN BLOCK [E8695]

Ref. No.	Part No.	Part Name & Description	Remarks
AE1	YEAES22B038A	Flat Cable, 22P	
CN401	YEAEM2004L	Connector, 4P	
CN402	YEAESLW22R1	Connector, 22P	
CN403	YEAESLW10R1	Connector, 10P	
CN700	EMCS1250Z	Connector, 12P	

### 1.6. Electric Parts

#### SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW401	YEAS08042	Switch	
SW620	EVQ3PB05K	Switch	

#### CRYSTAL

Ref. No.	Part No.	Part Name & Description	Remarks
XL600	YEXLCST737MT	Crystal OSC	

#### COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L600	YELTBLM21A10	Coil	
L700	YELTB2R2RT	Coil	
L701	YETQ012G126	Coil	

### 1.7. Accessories

#### INSTALLATION PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEP9FZ2516	Magazine Ass'y	

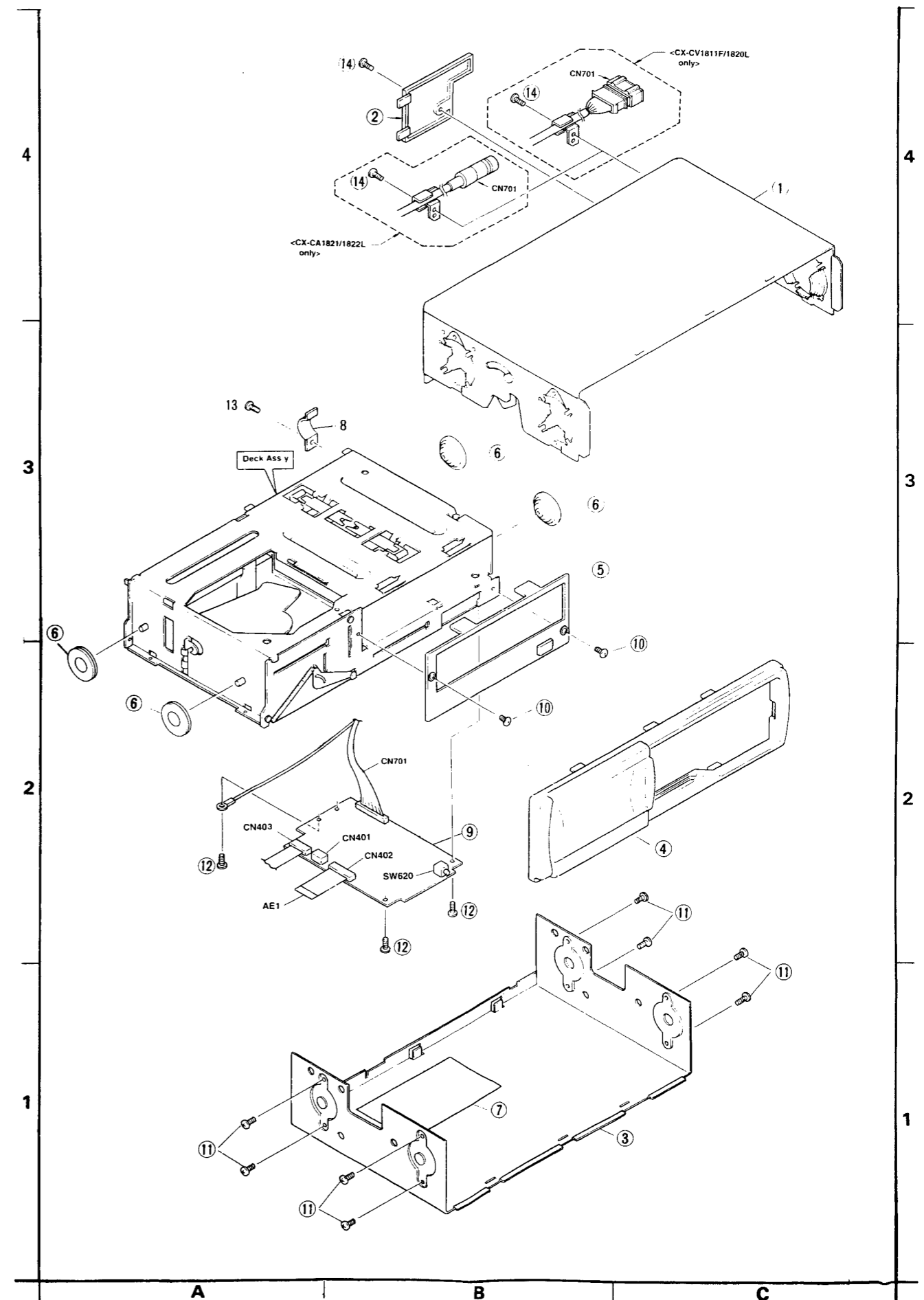
### 1.8. Mechanical Parts

#### MISCELLANEOUS


Ref. No.	Part No.	Part Name & Description	Remarks
AT1	YEAT03324	Terminal	
AT2	YEAT03324	Terminal	
CN701	YEAJ011593	Cord	CV1811F/1820L
CN701	YEAJ011594	Cord	CA1821L/1822L
1	YEFA031640	Upper Cover	(4-C)
2	YEFA05735	Connector Cover	(4-B)
3	YEFA05736	Bottom Cover	(1-C)
4	YEF025376B	Escutcheon Ass'y	CV1811F/1820L/CA1821L
4	YEF025846	Escutcheon Ass'y	CA1822L
5	YEF025295	Escutcheon,Deck	(3-B)
6	YEPS04670	Rubber Packing	(2-A) (3-B)
7	YEFV011819	Insulator	(1-B)
8	YEFX007590	Clamper	(3-B)
9	YEP0PT8695A0	PCB w/Component	RTL
10	XYN2+C4FZ	Screw, 2mm * 4mm	
11	YEJS06228	Screw,	
12	YEJT03149	Tapping Screw,	
13	YEJT03170	Tapping Screw,	
14	XTB3+5FFZ	Tapping Screw, 3mm * 5mm	

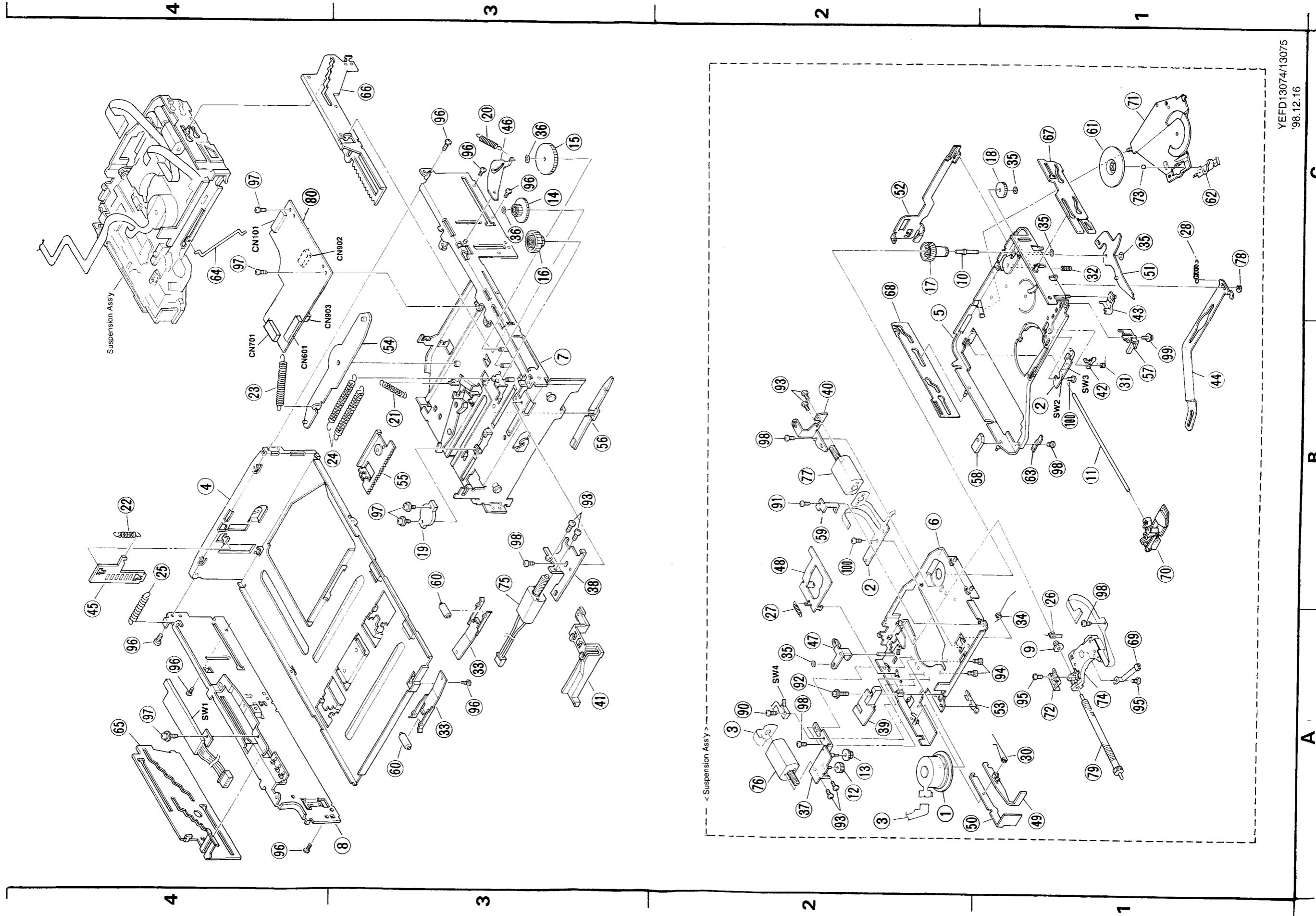
### EXPLODED VIEW (Unit)

Numbers in ○ are indicated REF.NO. in the REPLACEMENT PARTS LIST



**EXPLODED VIEW (CD Deck)**

Numbers in  are indicated REF.NO. in the REPLACEMENT PARTS LIST



YEFD13074/13075  
'98.12.16



## 2.7. Mechanical Parts

### MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
1	YEP0FX3094	Spidle Motor	(2-A)
2	YEAP2618	Loading FPC	(1-B, 2-B)
3	YEAP2619A	Traverse FPC	(2-A)
4	YEFA011642B	Upper Chassis Ass'y	(4-B)
5	YEFA011643B	Elevator Chassis Ass'y	(1-B)
6	YEFA011644A	Traverse Chassis Ass'y	(2-A)
7	YEFA011645C	Front Chassis Ass'y	(3-B)
8	YEFA011647A	Rear Chassis	(4-A)
9	YEFW04137A	Lead Screw Housing(A)	(1-A)
10	YEFW062186	Load Gear Shaft(1)	(2-C)
11	YEFW062204	Chuck Guide Shaft	(1-B)
12	YEFX003776	Worm Wheel	(2-A)
13	YEFX003777	Traverse Gear	(2-A)
14	YEFX003807	Elevator Gear(2)	(3-C)
15	YEFX003806	Elevator Gear(3)	(3-C)
16	YEFX003808	Elevator Gear(1)	(3-C)
17	YEFX003811	Loading Gear(1)	(2-C)
18	YEFX003813	Loading Gear(2)	(1-C)
19	YEFX003816	Rotary Dumper	(3-B)
20	YEFX0051970	Anti-Vibration Lever Spring(F)	(3-C)
21	YEFX0052157A	Magazine Lock Spring	(3-B)
22	YEFX0052160	Anti-Vibration Lever Spring(R)	(4-B)
23	YEFX0052161	Elevator Link Spring	(4-B)
24	YEFX0052162	Eject Spring	(3-B)
25	YEFX0052171	Anti-Vibration Spring(S)	(4-A)
26	YEFX0051992	Thrust Spring	(1-A)
27	YEFX0052159	Anti-Vibration Slider Spring	(2-A)
28	YEFX0052158	Load Lever Spring	(1-C)
30	YEFX0052164	Disc Spring	(1-A)
31	YEFX0052165	Load Detect Lever Spring	(1-B)
32	YEFX0052167	Clamp Spring	(1-C)
33	YEFX0052168	Magazine Hold Spring	(3-A)
34	YEFX0052172	Lifter	(1-A)
35	YEFX014041	Retaining Ring,@Snap Ring 2.5mm	
36	YEFX014047	Retaining Ring 2.6mm	(3-C)
37	YEFX018512	Traverse Motor Retainer	(2-A)
38	YEFX018514	Elevator Motor Retainer	(3-B)
39	YEFX018515	Lead Screw Housing(A)	(2-A)
40	YEFX018519	Load Motor Retainer	(2-B)
41	YEFX0214230	Lead Guide	(3-A)
42	YEFX0461813	Position Detect Lever	(1-B)
43	YEFX0461814	Position Detect Lever	(1-C)
44	YEFX0461816	Load Lever	(1-B)
45	YEFX0461817	Anti-Vibration Lever(R)	(4-B)
46	YEFX0461819	Anti-Vibration Lever(F)	(3-C)
47	YEFX0461821A	Traverse Cam Link(R)	(2-A)
48	YEFX0461823A	Anti-Vibration Slider	(2-B)
49	YEFX0461825	Lifter(R)	(1-A)
50	YEFX0461826	Prevention Plate	(1-A)
51	YEFX0461829	Traverse Cam Link(F)	(1-C)
52	YEFX0461831A	Traverse Cam Plate	(2-C)
53	YEFX0461832	Chuck Plate	(2-A)
54	YEFX0461836	Elevator Cam Joint Level	(3-B)
55	YEFX0461873	Magazine Eject Slider Ass'y	(3-B)
56	YEFX206131	Magazine Guide	(3-B)
57	YEFX206132	Disc Guide(F)	(1-B)
58	YEFX206133	Disc Guide(R)	(1-B)
59	YEFX206134	Disc Guide(FU)	(2-B)
60	YEFX218292	Magazine Hold Roller	(3-A)
61	YEFX233494	Clamper	(1-C)
62	YEFX233495	Clamper Holder	(1-C)
63	YEFX233496	Chuck Guide Holder	(1-B)
64	YEFX233497	Disc Holder	(4-C)
65	YEFX234186	Elevator Cam Plate(R)	(4-A)
66	YEFX234187	Elevator Cam Plate(F)	(3-C)
67	YEFX234189	Traverse Cam Plate(F)	(1-C)
68	YEFX234190A	Traverse Cam Plate(R)	(2-B)

Ref. No.	Part No.	Part Name & Description	Remarks
69	YEFX236150B	Traverse Guide	(1-A)
70	YEFX249426	Chuck Arm	(1-B)
71	YEFX249428A	Clamp Arm	(1-C)
72	YEFX9991544A	Lead Screw Guide	(1-A)
73	YEFX999957	Steel Ball	(1-C)
74	YEP0FX3100	Optical Pick-up Ass'y	(1-A)
75	YEP0FX3233S	Elevator Motor Ass'y	(3-A)
76	YEP0FX3234S	Traverse Motor Ass'y	(2-A)
77	YEP0FX3235S	Loading Motor Ass'y	(2-B)
78	XUC2V	Retaining Ring,@2mm	(1-C)
79	YEJT03201	Lead Screw Ass'y	(1-A)
80	YEP0PT8681A0	PCB w/Component	RTL
90	YEJS02018FZ	Screw,@1.6mm * 7mm	(2-A)
91	XYN2+C4FX	Screw,@2mm * 4mm	(2-B)
92	XYN2+J8FX	Screw,@2mm * 8mm	(2-A)
93	XQN2+A25FX	Screw,@2mm * 25mm	
94	XQN17+A25FX	Screw,@1.7mm * 2.5mm	(1-A)
95	YEJS02037	Screw,@1.6mm * 4mm	(1-A)
96	YEJT03132	Tapping Screw,@2.6mm * 4mm	
97	YEJT03135	Tapping Screw,@2mm * 5mm	
98	YEJS06097A	Screw,@2mm * 2.5mm	
99	XYN2+J5FX	Screw,@2mm * 5mm	(1-B)
100	XYN2+C3FX	Screw,@2mm * 3mm	(1-B)

## 2 CD Changer Parts List

### 2.1. IC's and Transistors

MAIN BLOCK [E8681]

Ref. No.	Part No.	Part Name & Description	Remarks
IC101	YEAMBA6354BF	IC	
IC401	MN662783RPW	IC	
IC421	MNR7405CT6	IC	
IC901	YEAMBA6891FP	IC	
IC902	YEAMBA6792FY	IC	
Q101	2SB766ATX	Transistor	

LOADING FPC BLOCK [E2618]

Ref. No.	Part No.	Part Name & Description	Remarks
Q1	PN147-S	Transistor	

### 2.2. Diodes

MAIN BLOCK [E8681]

Ref. No.	Part No.	Part Name & Description	Remarks
D481	MA151K	Diode	

LOADING FPC BLOCK [E2618]

Ref. No.	Part No.	Part Name & Description	Remarks
D1	LN01201C-2TA	LED	

### 2.3. Capacitors

MAIN BLOCK [E8681]

Ref. No.	Part No.	Part Name & Description	Remarks
C101	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C102	ECEV0JA470SR	Electrolytic, 47µF 6.3WV	
C103	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C104	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C105	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C107	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C108	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C109	ECSH0JC226CR	Tantalum, 22µF 6.3WV	
C111	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C121	YECUZ1E273KX	Ceramic, 0.027µF 25WV	
C122	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C124	F3E0J475A001	Tantalum, 4.7µF 6.3WV	
C125	YECUZ1E183KX	Ceramic, 0.018µF 25WV	
C126	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C127	YECUZ1H472KX	Ceramic, 0.0047µF 50WV	
C130	YECUZ1H221JC	Ceramic, 220PF 50WV	
C140	YECUZ1H331JC	Ceramic, 330PF 50WV	
C142	YECUZ1E681JC	Ceramic, 680PF 25WV	
C401	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C402	ECEV0JA101SP	Electrolytic, 100µF 6.3WV	
C403	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C404	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C405	YECUZ1E104ZF	Ceramic, 0.1µF 25WV	
C406	ECEV0JA101SP	Electrolytic, 100µF 6.3WV	
C407	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C408	ECEV0JA101SP	Electrolytic, 100µF 6.3WV	
C410	YECUZ1E681JC	Ceramic, 680PF 25WV	
C412	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C413	YECUS1C474KX	Ceramic, 0.47µF 16WV	
C421	F1H0J1050010	Ceramic, 1µF 6.3WV	
C422	F1H0J1050010	Ceramic, 1µF 6.3WV	
C430	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C440	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C499	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C901	YECUZ1E104ZF	Ceramic, 0.1µF 25WV	
C902	ECEV1CA101P	Electrolytic, 100µF 16WV	
C903	YECUZ1E104ZF	Ceramic, 0.1µF 25WV	

### 2.4. Resistors

MAIN BLOCK [E8681]

Ref. No.	Part No.	Part Name & Description	Remarks
J2	ERJ8GEY0R00V	Chip, 0Ω 1/8W	CV1811F
J3	ERJ8GEY0R00V	Chip, 0Ω 1/8W	CV1811F
R101	ERJ12YJ330H	Chip, 33Ω 1/2W	
R102	ERJ6GEYJ101	Chip, 100Ω 1/10W	
R130	ERJ3GEYJ393V	Chip, 39kΩ 1/16W	
R131	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R140	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R141	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R142	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R191	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R192	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R195	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R196	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R197	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R410	ERJ3GEYJ393V	Chip, 39kΩ 1/16W	
R411	ERJ3GEYJ124V	Chip, 120kΩ 1/16W	
R412	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R413	ERJ3GEYJ271V	Chip, 270Ω 1/16W	
R414	ERJ3GEYJ155V	Chip, 1.5MΩ 1/16W	
R416	ERJ3GEYJ104V	Chip, 100kΩ 1/16W	
R430	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R431	ERJ3GEYJ223V	Chip, 22kΩ 1/16W	
R433	ERJ3GEYJ563V	Chip, 56kΩ 1/16W	
R440	ERJ3GEYJ224V	Chip, 220kΩ 1/16W	
R441	ERJ3GEYJ273V	Chip, 27kΩ 1/16W	
R451	ERJ3GEYJ682V	Chip, 6.8kΩ 1/16W	
R452	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R453	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R461	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R901	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R902	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R903	ERJ3GEYJ203V	Chip, 20kΩ 1/16W	
R904	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R974	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R975	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R976	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R977	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R978	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	

### 2.5. Connectors

MAIN BLOCK [E8681]

Ref. No.	Part No.	Part Name & Description	Remarks
CN101	YEAESFW15R2E	Connector, 15P	
CN401	YEAESFW22R2E	Connector, 22P	
CN701	YEAES220716	Connector, 16P	
CN902	YEAES220707	Connector, 7P	
CN903	YEAES326102	Connector, 2P	
AE1	YEAEO12670	Connector, 2P	

### 2.6. Electric Parts

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW1	YEAS07193	Position Switch	
SW2	YEAS09263R	Switch	
SW3	YEAS09275	Switch	
SW4	YEAS23151A	Reef Switch	

CRYSTAL

Ref. No.	Part No.	Part Name & Description	Remarks
XL480	H2D169500001	Ceramic OSC	