

Service Manual

ORDER NO.
RRV1274

CD-ROM DRIVE UNIT

DR-U124X-1

DR-U124X-4

DR-U124X-PA

- Refer to the service manual RRV1273 for DR-UA124X-2/ZUC/WL.

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model			Power Requirement	Remarks
	DR-U124X-1	DR-U124X-4	DR-U124X-PA		
ZUC/WL	○	○	—	DC power supplied from other system component	
Z	—	—	○		

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES :

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10¹ → 561 RD1/8PM $\begin{matrix} 5 & 6 & 1 \\ \square & \square & \square \end{matrix}$ J
 47kΩ → 47 × 10³ → 473 RD1/4PS $\begin{matrix} 4 & 7 & 3 \\ \square & \square & \square \end{matrix}$ J
 0.5Ω → 0R5 RN2H $\begin{matrix} 0 & R & 5 \\ \square & \square & \square \end{matrix}$ K
 1Ω → 010 RS1P $\begin{matrix} 0 & 1 & 0 \\ \square & \square & \square \end{matrix}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 × 10¹ → 5621 RM1/4PC $\begin{matrix} 5 & 6 & 2 & 1 \\ \square & \square & \square & \square \end{matrix}$ F

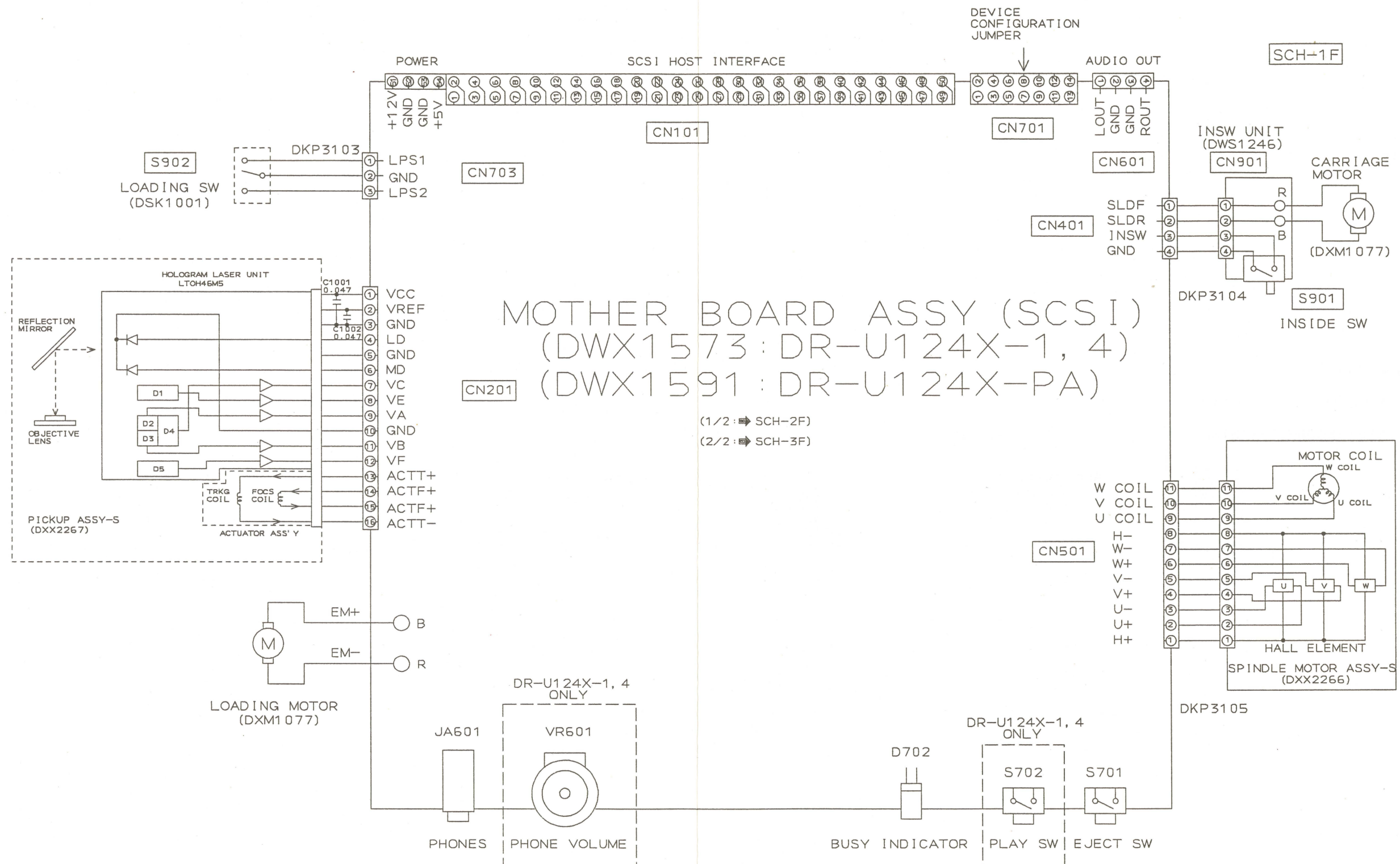
DR-U124X-1/ZUC/WL, DR-U124X-4/ZUC/WL, DR-U124X-PA/Z and DR-UA124X-2/ZUC/WL have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		DR-UA124X-2/ ZUC/WL	DR-U124X-1/ ZUC/WL	DR-U124X-4/ ZUC/WL	DR-U124X-PA/ Z	
	MAINB ASSY	DWM1490	DWM1489	DWM1489	DWM1493	
	MOTHER BOARD ASSY (ATAPI)	DWX1574	Not used	Not used	Not used	
	MOTHER BOARD ASSY (SCSI)	Not used	DWX1573	DWX1573	DWX1591	
	EP-ROM (IC702)	DYW1418	DYW1401	DYW1401	DYW1423	
	Front vessel assy	DXA1748	DXA1749	DXA1749	DXA1748	
	Name plat A	DAH1775	Not used	Not used	Not used	
	Name plate B	Not used	DAH1776	DAH1776	Not used	
	Label	DRW1649	DRW1647	DRW1647	DRW1654	
	Packing case	DHG1646	DHG1637	DHG1652	Not used	No. 1
	Poly bag	Not used	DHL1089	DHL1089	Not used	No. 2
	Operating instructions (English/French)	DRC1021	Not used	Not used	Not used	
	Operating instructions (English/French/Dutch/Japanese)	Not used	DRC1020	DRC1020	Not used	No. 3
	Install manual	Not used	DRB1181	Not used	Not used	No. 4
	Programmed FD (DOS)	Not used	DWX1589	Not used	Not used	No. 5
	Audio cord	Not used	DKP3119	Not used	Not used	No. 6
	Audio cable	Not used	DKP3114	DKP3114	Not used	No. 7
	Pad L	DHA1339	DHA1339	DHA1339	Not used	
	Pad R	DHA1342	DHA1342	DHA1342	Not used	

Note) The numbers in the remarks column correspond to the numbers on the packing.

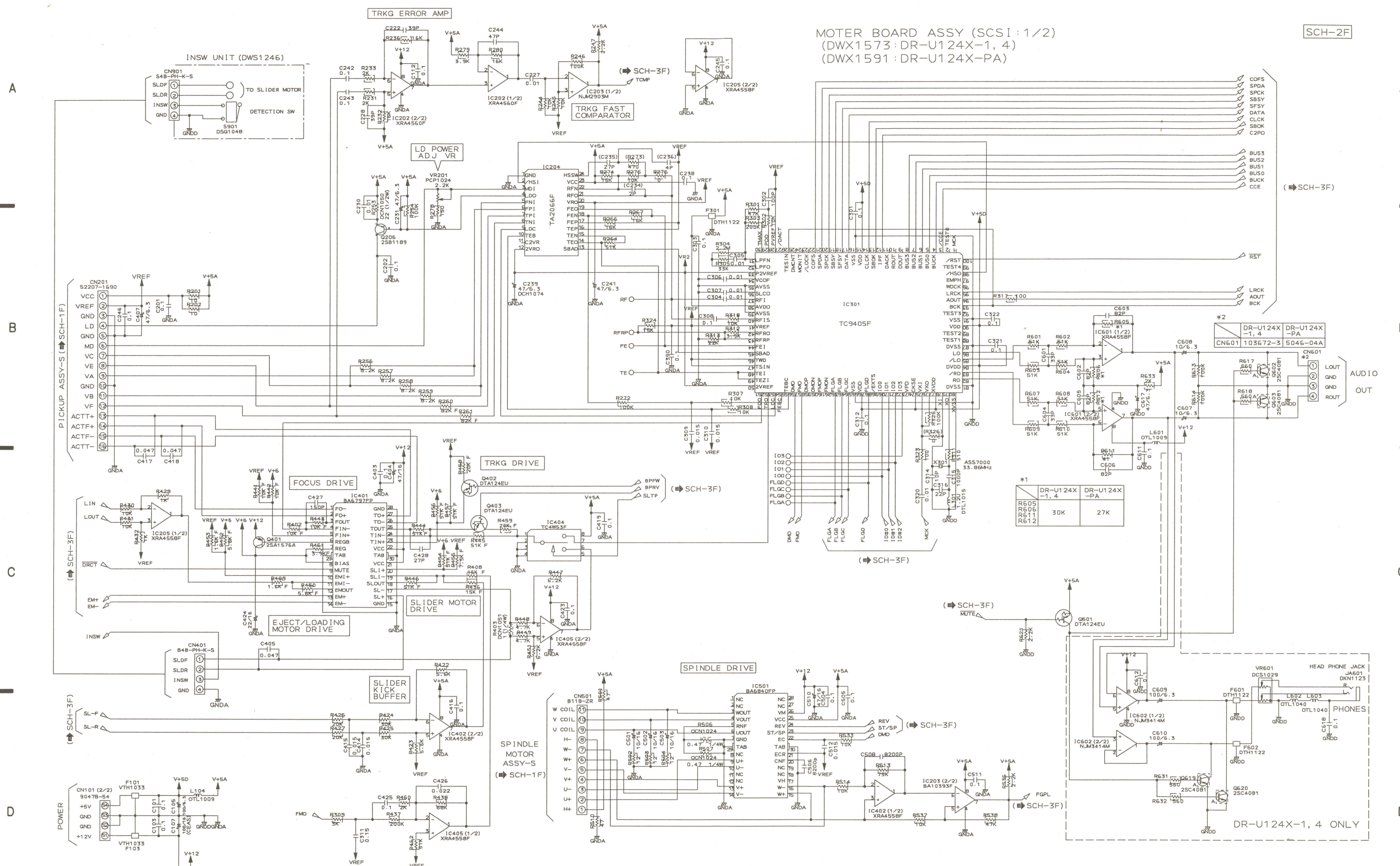
2. SCHEMATIC AND PCB DIAGRAMS

2.1 OVERALL SCHEMATIC DIAGRAM



MOTHER BOARD ASSY (SCSI)
 (DWX1573: DR-U124X-1, 4)
 (DWX1591: DR-U124X-PA)

(1/2 : SCH-2F)
 (2/2 : SCH-3F)



SCH-2F

MOTHER BOARD ASSY (SCSI) (1/2)

SCH-2F

MOTHER BOARD ASSY (SCSI) (1/2)

A

B

C

D

A

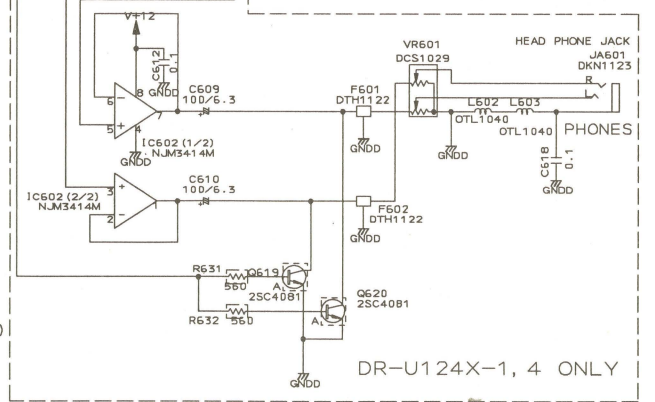
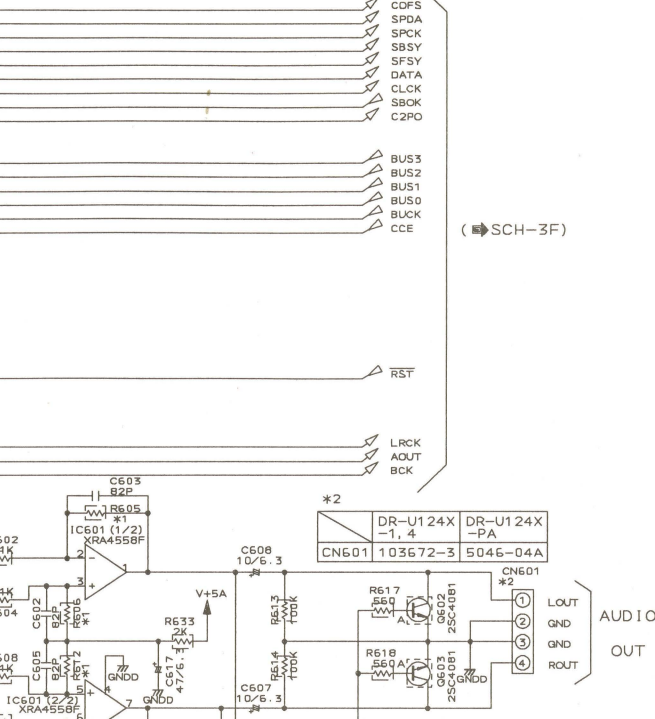
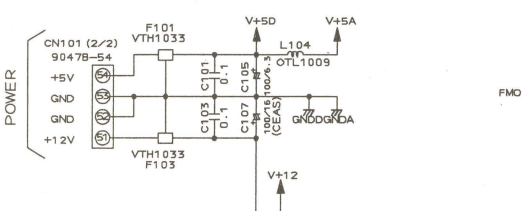
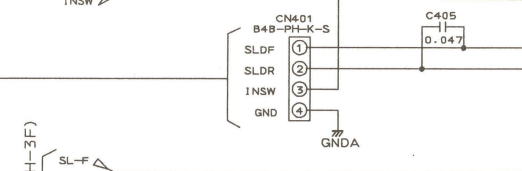
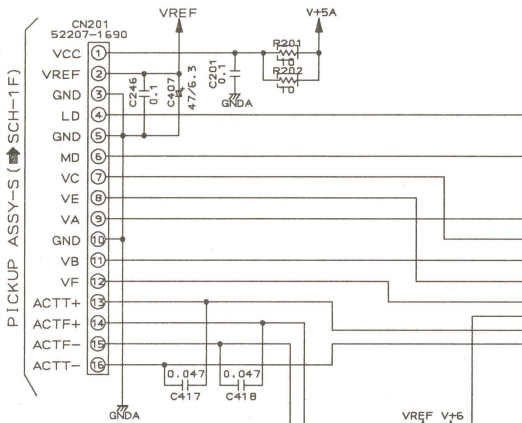
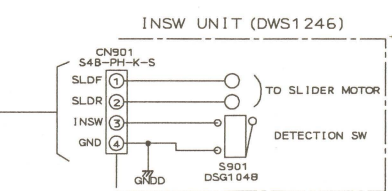
B

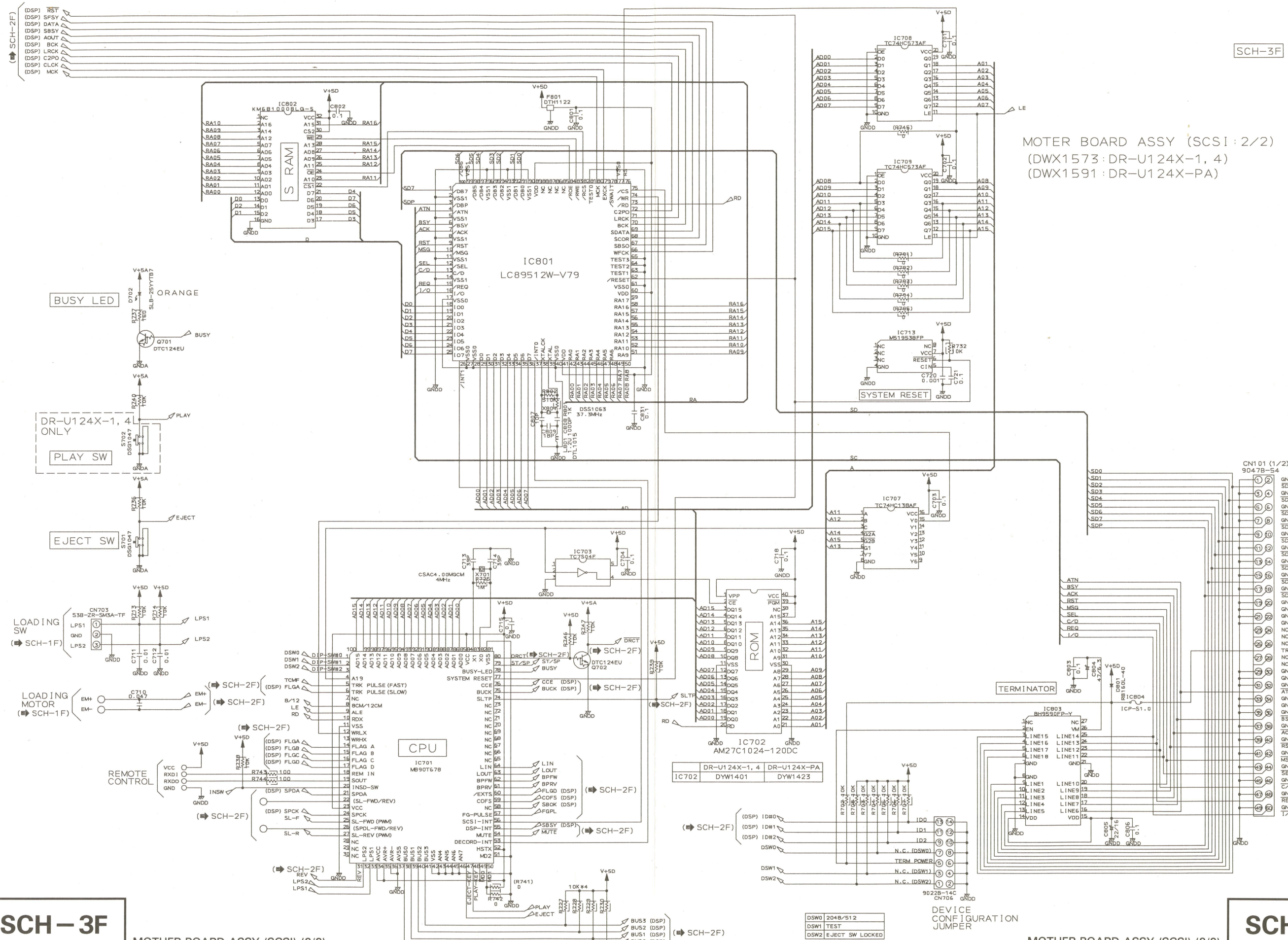
C

D

MOTER BOARD ASSY (SCSI : 1/2)
(DWX1573 : DR-U124X-1, 4)
(DWX1591 : DR-U124X-PA)

DR-U124X-1, 4 ONLY





SCH-3F

MOTHER BOARD ASSY (SCSI: 2/2)
(DWX1573: DR-U124X-1, 4)
(DWX1591: DR-U124X-PA)

SCH-3F

MOTHER BOARD ASSY (SCSI) (2/2)

SCH-3F

MOTHER BOARD ASSY (SCSI) (2/2)

DSW0	2048/512
BUS3 (DSP)	
BUS2 (DSP)	
BUS1 (DSP)	
BUS0 (DSP)	
DSW1	TEST
DSW2	EJECT SW LOCKED

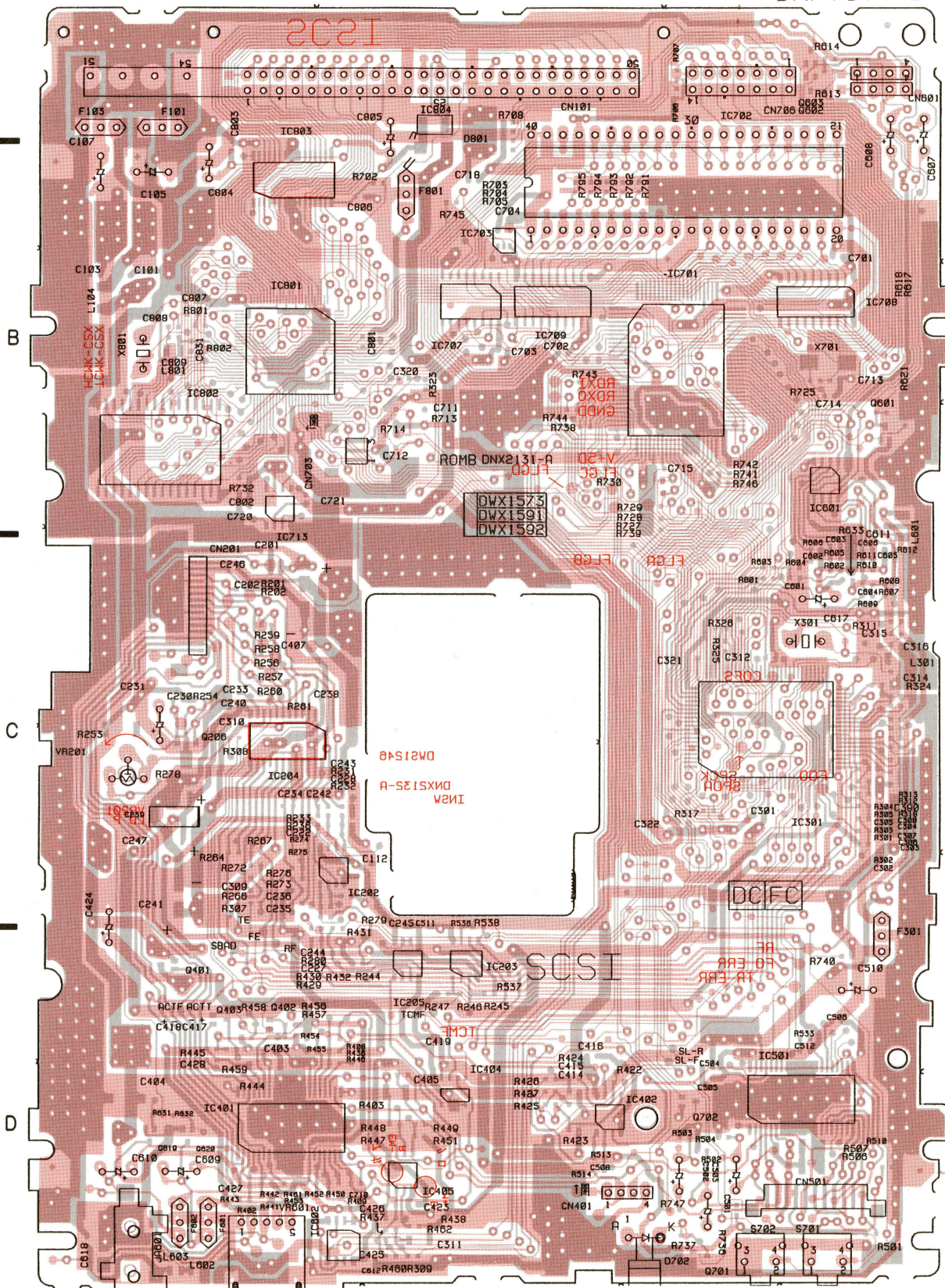
DEVICE CONFIGURATION JUMPER

The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the pink colored foil side.
- This PCB is double sided.

MOTHER BOARD ASSY (SCSI)

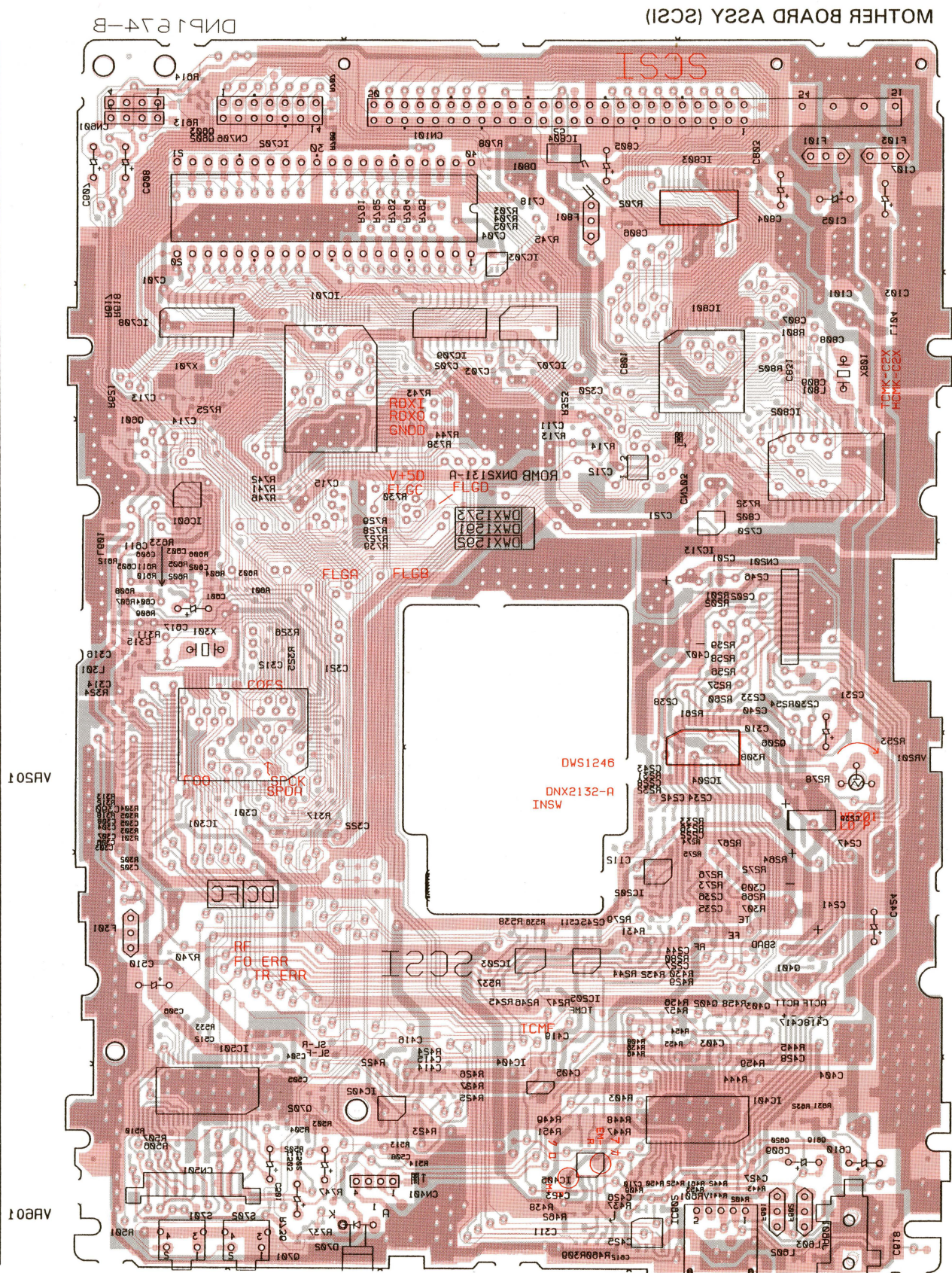
DNP1674-B



- Q603
- Q602
- IC804
- IC803
- IC702
- IC703
- IC707
- IC709
- IC801
- IC701
- Q601
- IC802
- IC601
- IC713
- IC301
- Q206
- IC204
- VR201
- IC202
- IC205
- IC203
- Q401
- Q403
- IC404
- IC501
- IC402
- IC401
- Q702
- Q619
- Q620
- IC405
- VR601
- IC602
- Q701

PCB-1F

- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.



A

A

B

B

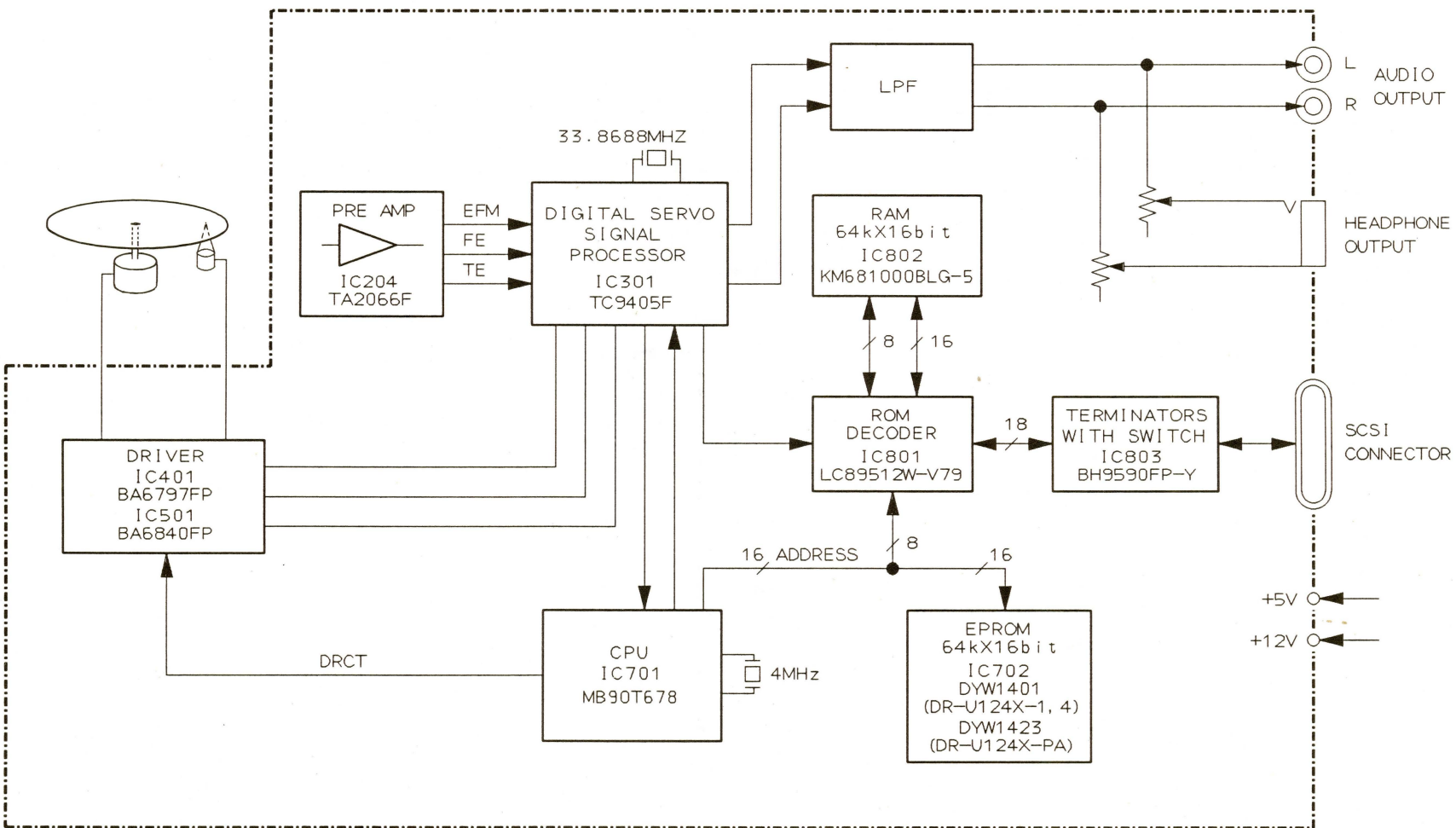
C

C

D

D

3. BLOCK DIAGRAM

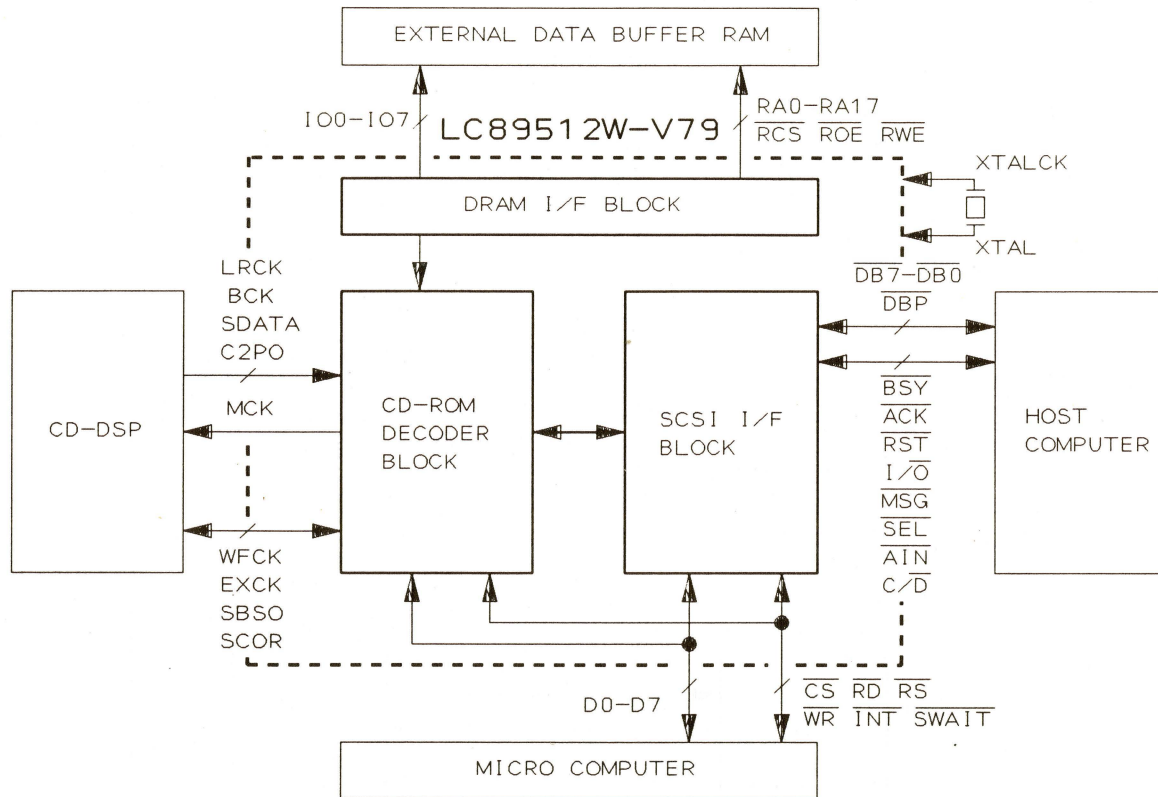


4. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ LC89512W-V79 [IC801: MOTHER BOARD ASSY (SCSI)]

- ROM Decoder
- Block Diagram



● Pin Function

No.	Pin Name	I/O	Description
1	$\overline{DB7}$	I/O	SCSI terminal
2	Vss1	-	GND for SCSI I/F driver
3	\overline{DBP}	I/O	SCSI terminal
4	\overline{ATN}		
5	Vss1	-	GND for SCSI I/F driver
6	\overline{BSY}	I/O	SCSI terminal
7	\overline{ACK}		
8	Vss1	-	GND for SCSI I/F driver

No.	Pin Name	I/O	Description
9	\overline{RST}	I/O	SCSI terminal
10	\overline{MSG}		
11	Vss1	-	GND for SCSI I/F driver
12	\overline{SEL}	I/O	SCSI terminal
13	C/D		
14	Vss1	-	GND for SCSI I/F driver
15	\overline{REQ}	I/O	SCSI terminal
16	I/O		

No.	Pin Name	I/O	Description
17	Vsso	—	GND (Logic part)
18 25	IO0 IO7	I/O	Data buffer RAM data signal (built-in pull-up resistor)
26	$\overline{\text{INT1}}$	O	SCSI block interrupt/request signal output (setting at register)
27	Vsso	—	GND (Logic part)
28	Vsso	—	GND (Logic part)
29 36	D0 D7	I/O	Micro-computer data signal (Built-in pull-up resistor)
37	$\overline{\text{INT0}}$	O	Interrupt/request signal output to micro-computer
38	XTALCK	I	X'tal oscillation circuit input
39	XTAL	O	X'tal oscillation circuit output
40	Vsso	—	GND (Logic part)
41	VDD	—	Power supply
42 59	RA0 RA17	O	Address signal output to data buffer RAM (built-in pull-up resistor)
60	VDD	—	Power supply
61	Vsso	—	GND (Logic part)
62	$\overline{\text{RESET}}$	I	Reset terminal
63	TEST1	I	Input terminal for test (Vsso)
64	TEST2		
65	TEST3		
66	WFCK	I	SUB-CODE input (connected to CD-DSP)
67	SBSO		
68	SCOR		
69	SDATA	I	CD-ROM, CD-DA serial data input
70	BCK	I	CD-ROM, CD-DA serial data input clock
71	LRCK	I	44.1 (88.2) kHz strobe signal input
72	C2PO	I	C2 pointer input

No.	Pin Name	I/O	Description
73	$\overline{\text{RD}}$	I	Data read signal input of micro-computer
74	$\overline{\text{WR}}$	I	Data write signal input of micro-computer
75	$\overline{\text{CS}}$	I	Chip select signal input from micro-computer
76	RS	I	Register select signal
77	Vsso	—	GND (Logic part)
78	$\overline{\text{SWAIT}}$	O	SUB-CPU wait signal
79	EXCK	O	SUB-CODE output (connected to CD-DSP)
80	MCK	O	Oscillation frequency output of XTALCK
81	TEST0	I	Input terminal for test (Vsso)
82	$\overline{\text{RCS}}$	O	Chip select signal to RAM
83	$\overline{\text{RWE}}$	O	Data write signal to RAM
84	$\overline{\text{ROE}}$	O	Data read signal from RAM
85 88	NC	NC	Not connect
89	VDD	—	Power supply
90	Vss1	—	GND for SCSI I/F driver
91	$\overline{\text{DB0}}$	I/O	SCSI terminal
92	$\overline{\text{DB1}}$		
93	Vss1	—	GND for SCSI I/F driver
94	$\overline{\text{DB2}}$	I/O	SCSI terminal
95	$\overline{\text{DB3}}$		
96	Vss1	—	GND for SCSI I/F driver
97	$\overline{\text{DB4}}$	I/O	SCSI terminal
98	$\overline{\text{DB5}}$		
99	Vss1	—	GND for SCSI I/F driver
100	$\overline{\text{DB6}}$	I/O	SCSI terminal