CD RECEVIER

KDC-8011/7011/ KDC-7012/7071RY

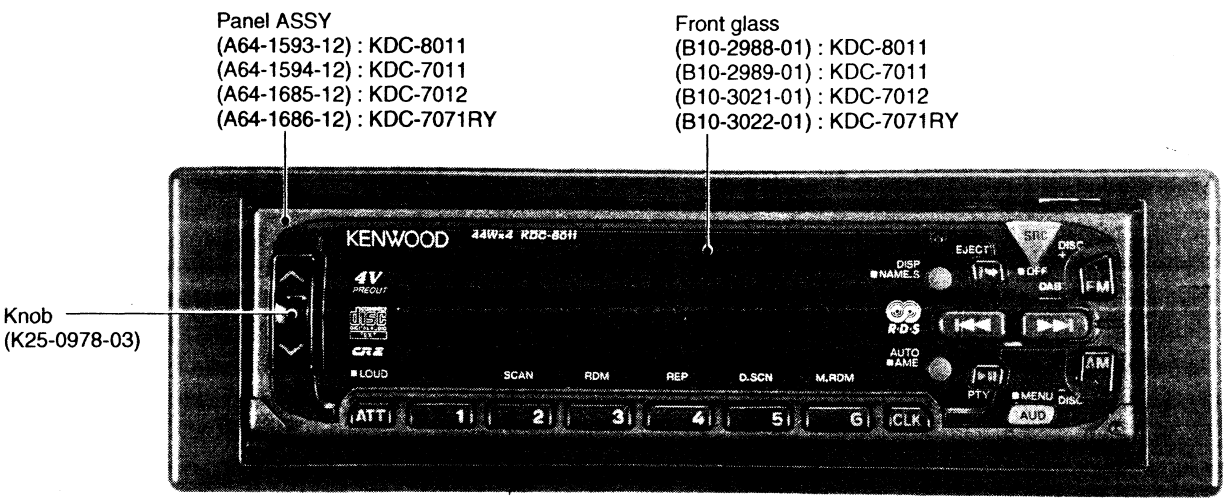
SERVICE MANUAL

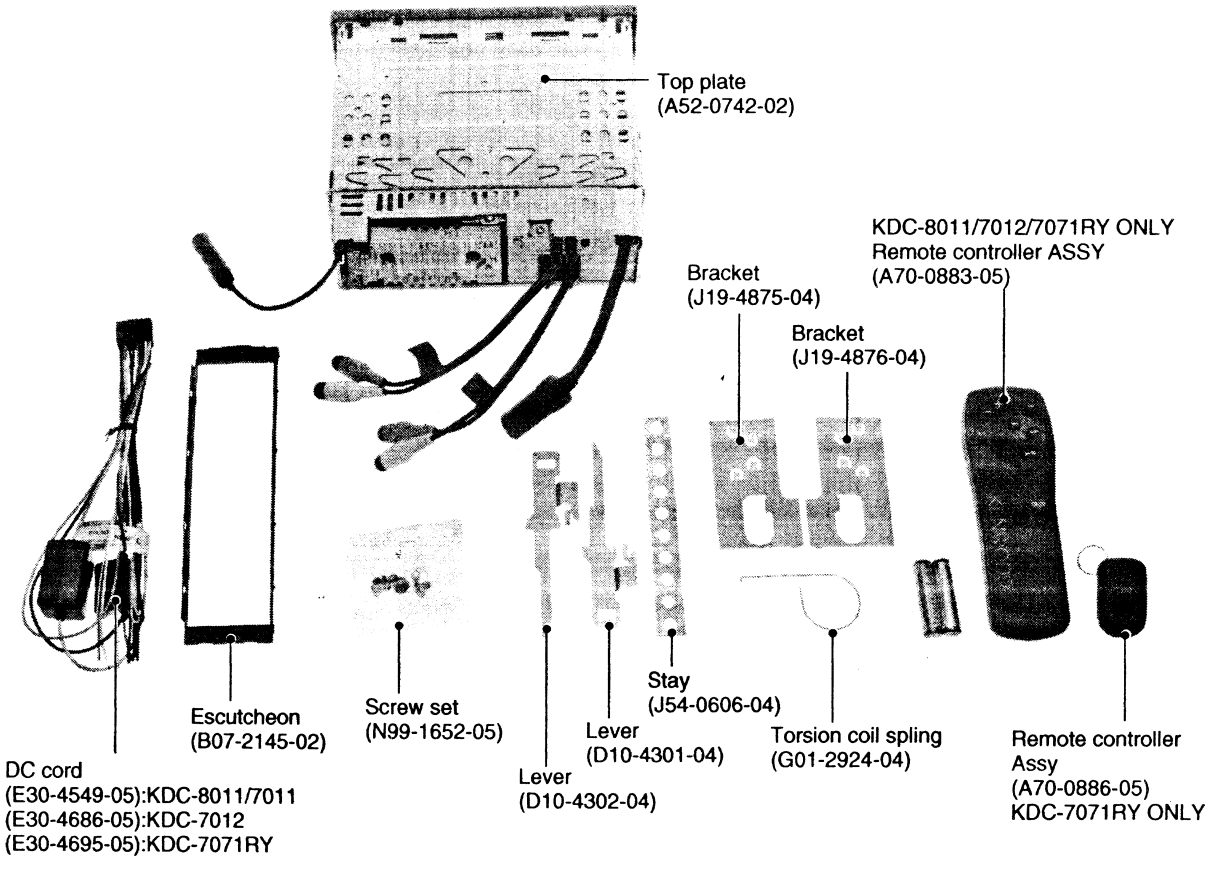
REVKOM

KENWOOD

B51-7418-00(S) 2458

Photo is KDC-8011





The MECHANISM OPERATION DESCRIPTION is the same as model KDC-5007 and KDC-5050RG. Please refer to the service manual of model KDC-5007 (B51-7090-00) or KDC-5050RG (B51-7099-00).

KDC-8011/7011/7012/7071RY

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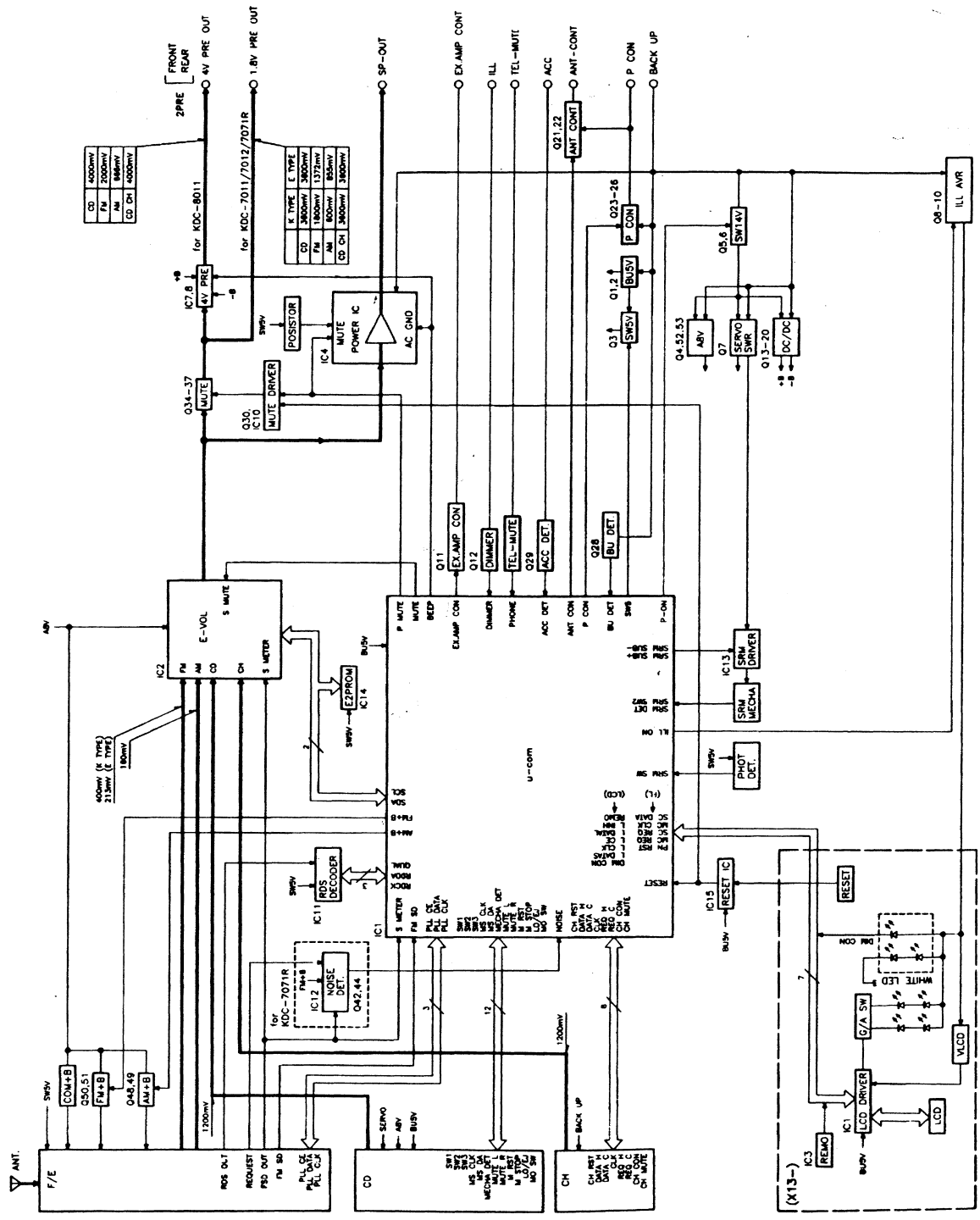
BLOCK DIAGRAM



TEST MODE

● TEST MODE SPECIFICATIONS

① How to Set Test Mode

Reset while holding down the FM and Preset 6 keys. Once in Test Mode, all indicators light up.

② How to Cancel Test Mode

Reset while holding down the Preset 6 key. Note: Cannot cancel test mode at ACC off, Power off or while flashing.

③ How to Align S Meter Voltage for FM

1. Set Test Mode.
2. Press Preset 6 key for a few seconds while holding down the Preset 1 key.
3. Displays "ADJ OK" when satisfactory. Displays "ADJ NG" when unsatisfactory.

④ How To Writing the SD Voltage for AM

1. Set Test Mode.
2. Press Preset 6 key for a few seconds while holding down the Preset 1 key to write (program) SD.

⑤ Set K2I AUTO/MANUAL Switching

Switch between AUTO and MANUAL by pressing TI key in Tuner Mode.
DUAL dots light up at reset in MANUAL.

⑥ Forced K2I Narrow/Wide Switching

Press the Preset 6 key in Tuner mode to switch forced between Narrow and Wide.
The P/S dot lights up while in at reset in Wide.

⑦ CD Receiver Test Mode Specifications

Jump between the following tracks by using the Track up key.
No 9 → No 15 → No 10 → No 11 → No 12 → No 13 → No 14 → No 9 (sequence starts over)
Move down one track from the track currently being played by using the Track down key.

⑧ MD Test Mode Specifications

Plays No 7 after loading the MD. Then jumps up the tracks as follows. No 2 → No 13 → No 23 → No 30 → No 34 → No 7 (sequence starts over)
Move down one track from the track currently being played by using the Track down key.

⑨ Tape Test Mode Specifications

- Blank-skip is off during reset.

⑩ Audio Items

- Set volume at -10dB (30 on display).
- LOUD is off and CRSC is off depending if function is available or not.
- Adjust Bass/Treble, Balance/Feeder to Full Boost/Full Cut, Full Front/Full Rear with UP/DOWN.
- Adjust the Hi Pass filter to Thru/100Hz/200Hz with UP and to 200Hz/100Hz/Thru with DOWN.
- Other adjustments are performed as usual.

⑪ Measure the Backup Current

The MUTE jack turns off after 15 seconds (not after 2 seconds) when the unit has been reset (backup is on) at ACC off, or when ACC was turned off in Test Mode. (The panel/CD/C/MD mechanical operation is disabled at this time.)

⑫ How to Register Security Codes after Replacing the E2PROM (This is only for M type. Except for RDS model.)

1. Set Test Mode. (See "① How to Set Test Mode".)
2. Press the SRC key. Set to TUNER.
3. Set Menu Mode by pressing the AUDIO key for 1 second or longer.
4. Select "SECURITY" by using the Track up/down keys.
5. Press the FM/AM key for 2 seconds or longer.
6. Input the code by pressing the Preset1/2/3/4 keys.
   For instance: To enter "3510"
   - Press the Preset1 key four times.
   - Press the Preset2 key six times.
   - Press the Preset3 key two times.
   - Press the Preset4 key one time.
7. Press the DISP key three times to display "APPROVED".
8. Cancel Test Mode. (See "② How to Cancel Test Mode".)

⑬ Simple Security Code Clear Procedure (only for K type)

1. During code request, press the VOL UP key for 3 seconds or more while holding down the DISP key. (---- disappears.)
2. Enter "KCAR" with the remote control. (Same as '98 model.)
   Press the 5 number key two times, and press the Track up key. (Enters a "K")
   Press the 2 number key three times, and press the Track up key. (Enters a "C")
   Press the 2 number key one time, and press the Track up key. (Enters an "A")
   Press the 7 number key two times, and press the Track up key. (Enters an "R")
3. Security code is canceled and sets Tuner Mode.

⑭ Programming with MASK KEY on the Line. (E2PROM in reset status)

1. Press RESET while holding down the FM key and Preset 6 key to set Test Mode.
2. Press the AUDIO key for 1 second or more to set Menu Mode.
3. Select "Mask key" with the Track up/down keys.
4. Press the FM key or AM key momentarily to display "TRANSMIT1".
5. Make the MASK KEY face the optical receptor and press for half a second or more.
6. When "TRANSMIT2" appears, press the MASK KEY once again for half a second or longer. The 1st and 2nd counter codes are not compared at this time.
7. Programming is complete when "APPROVED" appears. Demo Mode has been set and Test Mode is now canceled.

TEST MODE

Note: If more than 30 minutes elapse with no code being programmed, then an alarm is issued and the power turns off.

⑮ How to Cancel during MASK KEY request (during reset or backup off when MASK KEY is enabled)

1. Turn on the power and when "TRANSMIT1" appears, the Mask Key request mode is set.
2. Make the MASK KEY face the optical receptor and press for 3 seconds or more(until the level display is full).
3. When "TRANSMIT2" appears, press the MASK KEY for 3 seconds or more. If "TRANSMIT1" appears at this time, redo the procedure from step 2 above.
4. When "APPROVED" appears, the MASK KEY is enable and power turns on.

⑯ How to Reset MASK KEY (To return to factory settings from MASK KEY enabled status.)

1. Press RESET while holding down the FM key and Preset 6 key to set Test Mode.
2. When "TRANSMIT1" appears, the MASK KEY request mode has been set. The display at this time shows a "* *" instead of a "[ ]".
3. Press the MASK KEY cancel remote control for 3 seconds or longer.
4. When "TRANSMIT2" appears, again press the MASK KEY for 3 seconds or more.
5. When "APPROVED" appears, the MASK KEY is canceled, Demo Mode is now set and Test Mode is now canceled. The factory settings have now been restored.

⑰ How to Set MASK KEY All Clear

1. Press RESET while holding down the FM key and Preset 6 key to set Test Mode.
2. Set Menu Mode by pressing the AUDIO key for 1 second or more.
3. Select "Mask Key" with the Track up/down keys.
4. Press the FM key or AM key for 2 seconds or longer to display "TRANSMIT1".
5. Make the MASK KEY cancel remote control face the optical receptor and press for 3 seconds or more (until the level display is full).
6. When "TRANSMIT2" appears, again press the MASK KEY for 3 seconds or more. If "TRANSMIT1" appears at this time, redo the procedure from step 5 above.
7. When "APPROVED" appears, All Clear of the E2PROM is complete and the operation returns to "⑭ Programming with MASK KEY on the Line. (E2PROM in reset status)".

⑱ Others

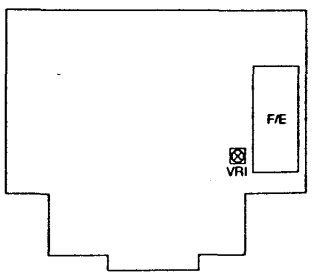
- Auto Panel Close is disabled when a tape/CD/MD has been inserted.
- Use the ATT key to turn the open and close the panel. (Use remote control when ATT is enabled.)
- Use the DNPP/SBF key of the remote control (RC-510) to turn Menu Mode on and off.
- Use the OPEN/CLOSE key of the remote control (RC-510) to turn Audio Alignment Mode on and off.
- The menu only shows required features.
- The operator display communication line will not cut off communications even if not connected.
- During power on, displays such as "CODE OFF" are not shown.
- The dimmer for the FL model and the contrast for the LCD model can only be adjusted to 0/5/10 with the UP/DOWN control.

ADJUSTMENT (KDC-7071RY)

Set the controls and switches as follows.

BALANCE :center position BASS :center position DOLBY NR :OFF
FADER :center position TREBLE :center position

No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER (RECEIVER)	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION							
1	SEPARATION	98.1MHz 1kHz, ±40kHz dev Pilot:±6.0kHz dev Selector:L or R 60dBμ (ANT input)	PRE OUT	FM 98.1MHz	VR1 (X25)	Adjust it so that the crosstalk from L to R and R to L become minimum.	



MICROCOMPUTER'S TERMINAL DESCRIPTION

System μ-com : UPD784215GC (X25- : IC1)

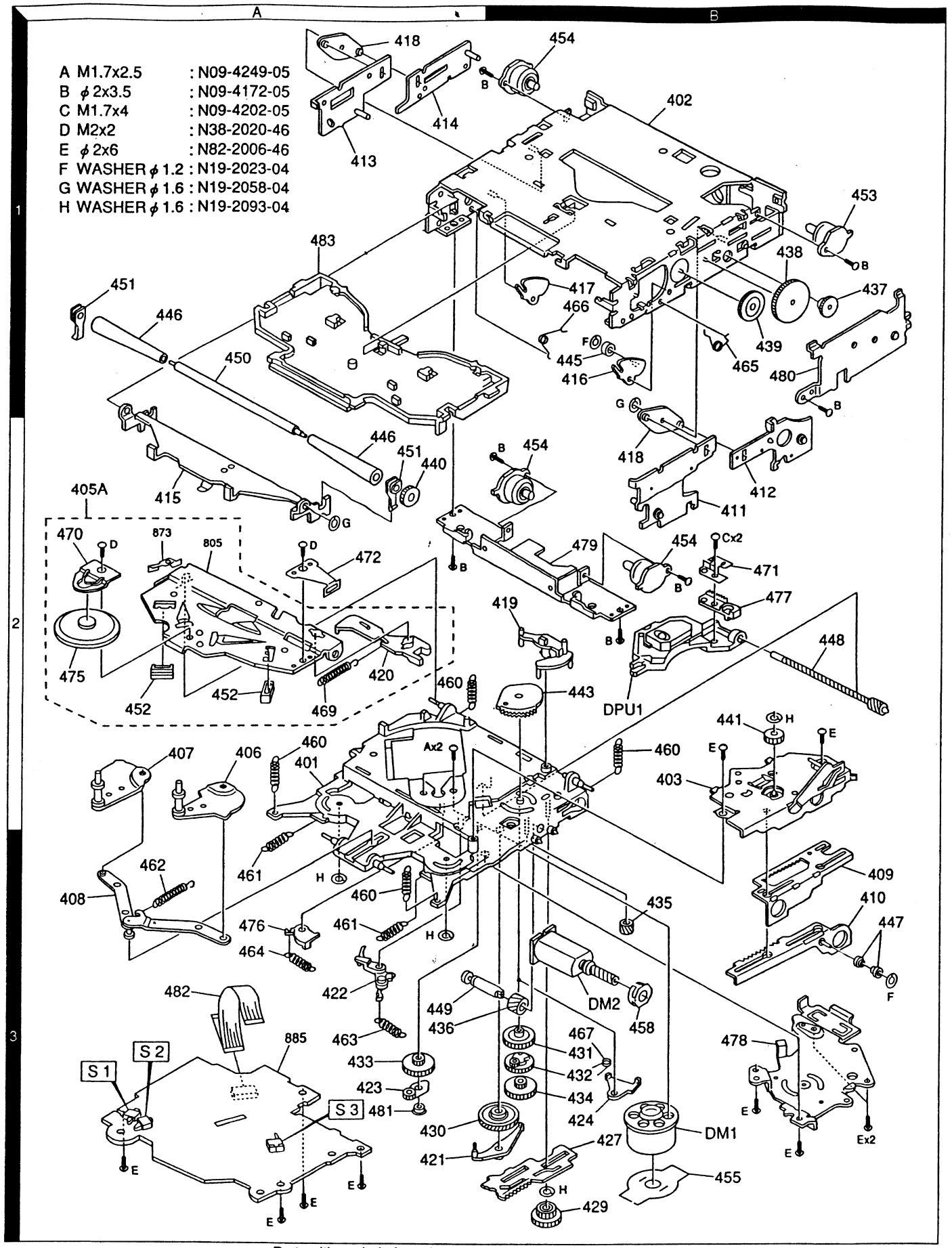
● **Terminal description**

Pin	Pin Name	Function	I/O	Description	Processing operation
1	P120/RTP0	CHCON1	O	Changer 1 control	Active : Hi
2	P121/RTP1	CH_MUTE	I	Changer muting input	MUTE requested : Hi
3	P122/RTP2	REQH	O	Handshake request to changer	Active : Lo
4	P123/RTP3	ILL_ON	O	Illumination output	Active : Hi
5	P124/RTP4	NC	O	Open	
6	P125/RTP5	CD_SW2	I	12cm DISC detection	ON : Lo
7	P126/RTP6	CD_SW1	I	Loading detection	ON : Lo
8	P127/RTP7	NC	O	Open	
9	Vdd	Vdd	-	Positive power supply	
10	X2	X2	-	Main clock connection	
11	X1	X1	-	Main clock connection	
12	Vss	Vss	-	GND	
13	XT2	XT2	-	Sub clock connection	
14	XT1	XT1	-	Sub clock connection	
15	RESET	RESET	I	Reset input	Active : Lo
16	P00/INTP0	CH_RST	O	Changer reset output	Active : Hi
17	P01/INTP1	R_CLK	I	RDS clock input	
18	P02/INTP2/NMI	REQC	I	Handshake request from changer	Active : Lo
19	P03/INTP3	O_CS	I/O	OPEL DATA CHIP SELECT	
20	P04/INTP4	O_CLK	I/O	OPEL DATA CLOCK	
21	P05/INTP5	O_DATA	I/O	OPEL DATA LINE	
22	P06/INTP6	SC_REQ	I	Handshake request from panel μ-com	
23	AVdd	AVdd	-	A/D analog power supply	
24	AVref0	AVref	-	A/D reference voltage input	
25	P10/ANI0	PHONE	I	PHONE detection	1V or less : PHONE/2.5V or more: NAVI MUTE
26	P11/ANI1	SRM_SW1	I	SRM position detect	Open : Hi
27	P12/ANI2	NOISE	I	FM noise detect	Analog input
28	P13/ANI3	SMETER	I	FM signal meter detect	Analog input
29	P14/ANI4	IF_MODE	I	K2I IF selector	WIDE : Hi/NARROW : Lo
30	P15/ANI5	NC	I	GND	
31	P16/ANI6	M_MUTE_R	I	Mute request from mechanism	Mute request : Lo
32	P17/ANI7	M_MUTE_L	I	Mute request from mechanism	Mute request : Lo
33	AVss	AVss	-	A/D GND	
34	P130/ANO0	EXT_AMP	O	EXT.Amp control	
35	P131/ANO1	M_RST	O	Reset output to mechanism	RESET : Lo
36	AVref1		-	D/A reference voltage input	
37	P70/RxD2/SI2	DATAC	I	Data line from changer	
38	P71/TxD2/SO2	DATAH	O	Data line to changer	
39	P72/ASCK2/SCK2	CH_CLK	I/O	Clock line from/to changer	
40	P20/RxD1/SI1	L_DATAL/SC_DATA	I	Data line from LCD driver	
41	P21/TxD1/SO1	L_DATAS/MC_DATA	O	Data line to LCD driver	
42	P22/ASCK1/SCK1	L_CLK/MC_CLK	O	Clock line to LCD driver	
43	P23/PCL	M_STOP	O	Stop request to mechanism	STOP request : Lo
44	P24/BUZ	BEEP	O	BEEP output	Active : Hi
45	P25/SI0	PLL_CE	I/O	CE output to PLL	
46	P26/SO0	PLL_DATA	O	Data in/out with PLL	
47	P27/SCK0	PLL_CLK	O	Clock output to PLL	
48	P80/A0	CD_SW3	I	DOWN switch detection	ON : Hi
49	P81/A1	LO/EJ	O	Loading/Eject control	Loading : Lo/Eject : Hi
50	P82/A2	MOSW	O	Motor output	Loading : Hi/Eject : Lo
51	P83/A3	MECH_DET	I	Mechanism detection	ON : H OFF : L

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin	Pin Name	Functions	I/O	Description	Processing operation
52	P84/A4	NC	O	Open	
53	P85/A5	L_CE/P_RST	O	CE to LCD driver/panel μ-com reset	
54	P86/A6	L_INH/MC_REQ	O	Reset to LCD driver	
55	P87/A7	DIM_CON	O	DIM control output	
56	P40/AD0	QUAL	I	RDS receiving condition	Good : Hi
57	P41/AD1	R_DATA	I	RDS data input	
58	P42/AD2	SRM_SUB–	O	SRM sub motor output	
59	P43/AD3	SRM_SUB+	O	SRM sub motor output	
60	P44/AD4	SRM_DET	I	SRM mechanism detection	ON : Lo/OFF : Hi
61	P45/AD5	SRM_SW2	I	SRM eject detection	⏏ : Eject
62	P46/AD6	FM_SD	I	FM SD input	Station detected : Hi/ Not detected : Lo
63	P47/AD7	NC	O	Open	
64	P50/A8	AFC	O	Noise detection time constant switching	During reception : Hi/ During search : Lo
65	P51/A9	LO/DX	O	LOCA output	LOCAL : Hi/Normal : Lo
66	P52/A10	WIDE	O	K2I WIDE output	Active : Hi
67	P53/A11	NARROW	I/O	K2I NARROW output	Active : Hi
68	P54/A12	AM+B	O	AM power supply	Active : Hi
69	P55/A13	FM+B	O	FM power supply	Active : Hi
70	P56/A14	NC	O	Open	
71	P57/A15	NC	O	Open	
72	Vss		-	GND	
73	P60/A16	TYPE0	I		Destination type switch
74	P61/A17	TYPE1	I		Destination type switch
75	P62/A18	TYPE2	I		Destination type switch
76	P63/A19	ST_TYPE0	I	IC2 Ver. 3 destination type 0	Initial value : Lo
77	P64/RD	ST_TYPE1	I	IC2 Ver. 3 destination type 1	Initial value : Lo
78	P65/WR	NC	O	Open	
79	P66/WAIT	NC	O	Open	
80	P67/ASTB	NC	O	Open	
81	Vdd		-	Positive power supply	
82	P100/TI5/TO5	NC	O	Open	
83	P101/TI6/TO6	SVR	O	Power IC reset	Power ON : Lo
84	P102/TI7/TO7	NC	O	Open	
85	P103/TI8/TO8	P_MUTE	O	Power IC muting	Active : Lo
86	P30/TO0	ANT_CON	O	Antenna control	Active : Hi
87	P31/TO1	IC2_SCK	O	IC2, IC5, E2PROM clock line	
88	P32/TO2	DIMMER	I	Dimmer detection	Active : Lo
89	P33/TI1	P_CON	O	Power control	Active : Hi
90	P34/TI2	ACC_DET	I	ACC detection	ACC OFF : Hi
91	P35/TI00	REMO	I	Remote control input	
92	P36/TI01	P_ON	O	μ-com peripheral power supply	Active : Hi
93	P37	BU_DET	I	Momentary power down detection	Momentary power down : Hi
94	TEST		-	Test	GND
95	P90	IC2_SDA	I/O	IC2, IC5, E2PROM data line	
96	P91	MUTE	O	Muting output	Active : Hi
97	P92	SW5	O	5V power supply	Active : Lo
98	P93	MS_CL	O	CD mechanism clock line	
99	P94	MS_DA	I/O	CD mechanism data line	
100	P95	CHCON2	O	Changer 2 control	Active : Lo

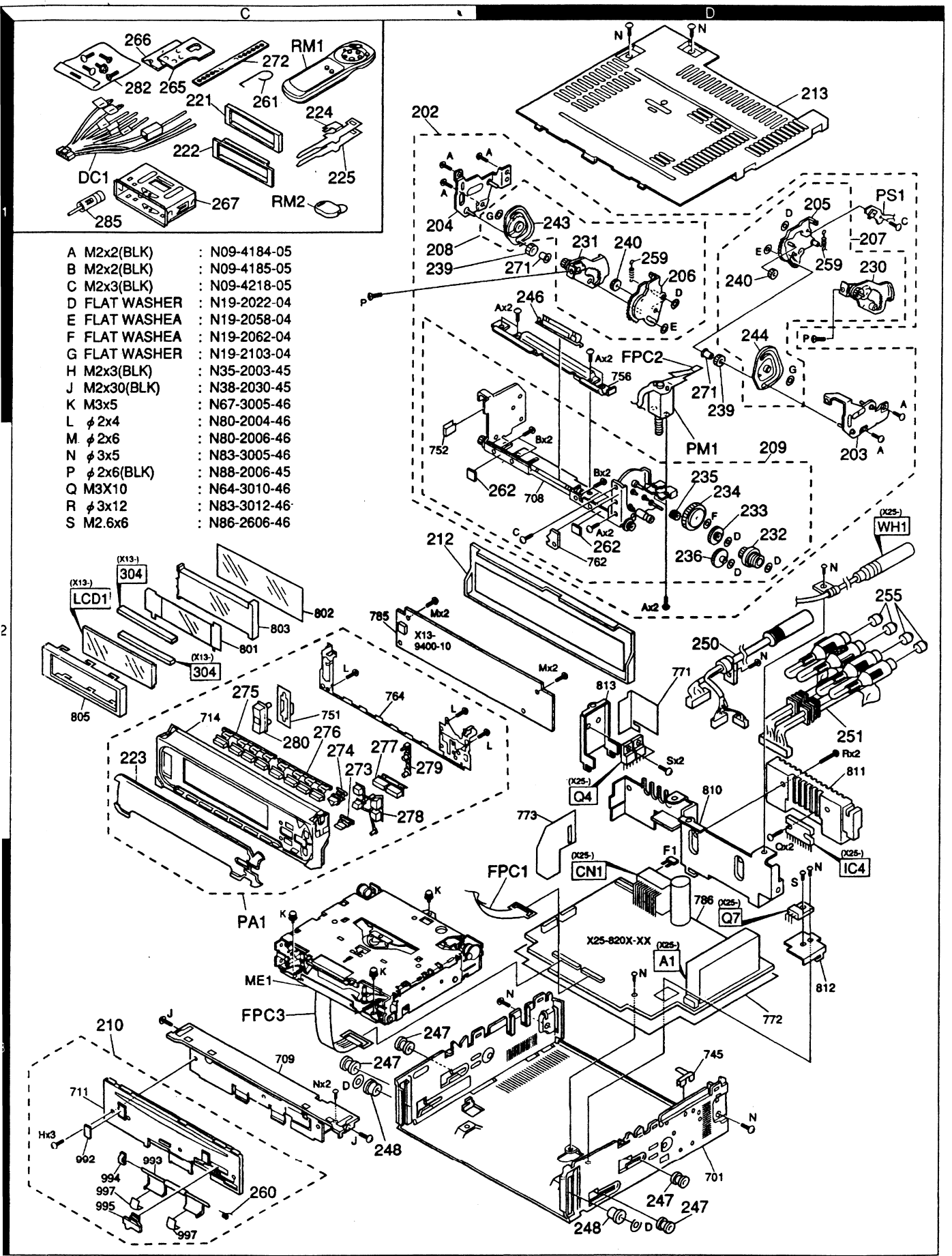
EXPLODED VIEW (CD MECHANISM)



Parts with exploded numbers larger than 700 are not suppied.

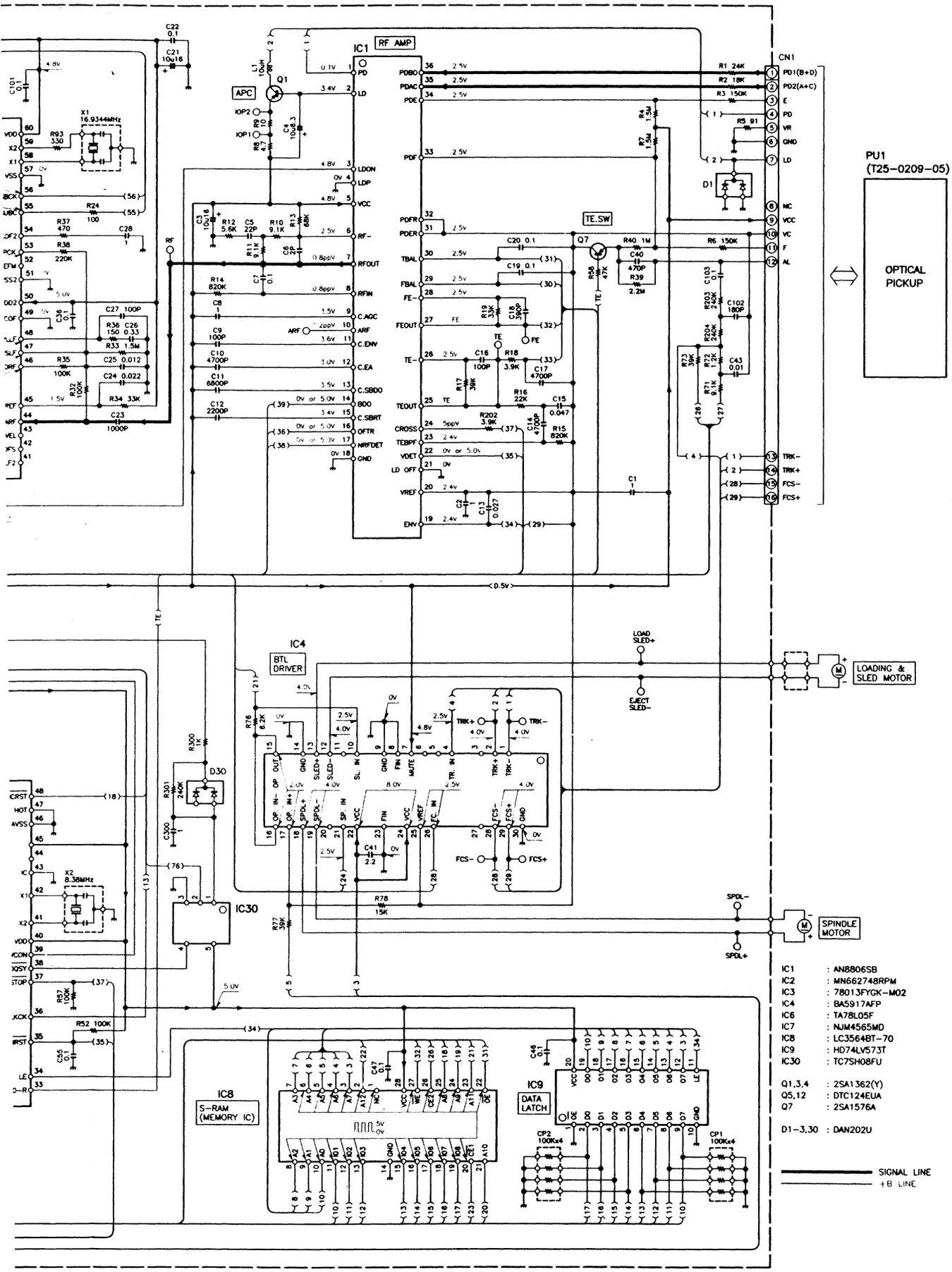
KDC-8011/7011/7012/7071RY

EXPLODED VIEW (UNIT)



A	M2x2(BLK)	: N09-4184-05
B	M2x2(BLK)	: N09-4185-05
C	M2x3(BLK)	: N09-4218-05
D	FLAT WASHER	: N19-2022-04
E	FLAT WASHEA	: N19-2058-04
F	FLAT WASHEA	: N19-2062-04
G	FLAT WASHER	: N19-2103-04
H	M2x3(BLK)	: N35-2003-45
J	M2x30(BLK)	: N38-2030-45
K	M3x5	: N67-3005-46
L	ϕ2x4	: N80-2004-46
M	ϕ2x6	: N80-2006-46
N	ϕ3x5	: N83-3005-46
P	ϕ2x6(BLK)	: N88-2006-45
Q	M3X10	: N64-3010-46
R	ϕ3x12	: N83-3012-46
S	M2.6x6	: N86-2606-46

Parts with exploded numbers larger than 700 are not suppied.

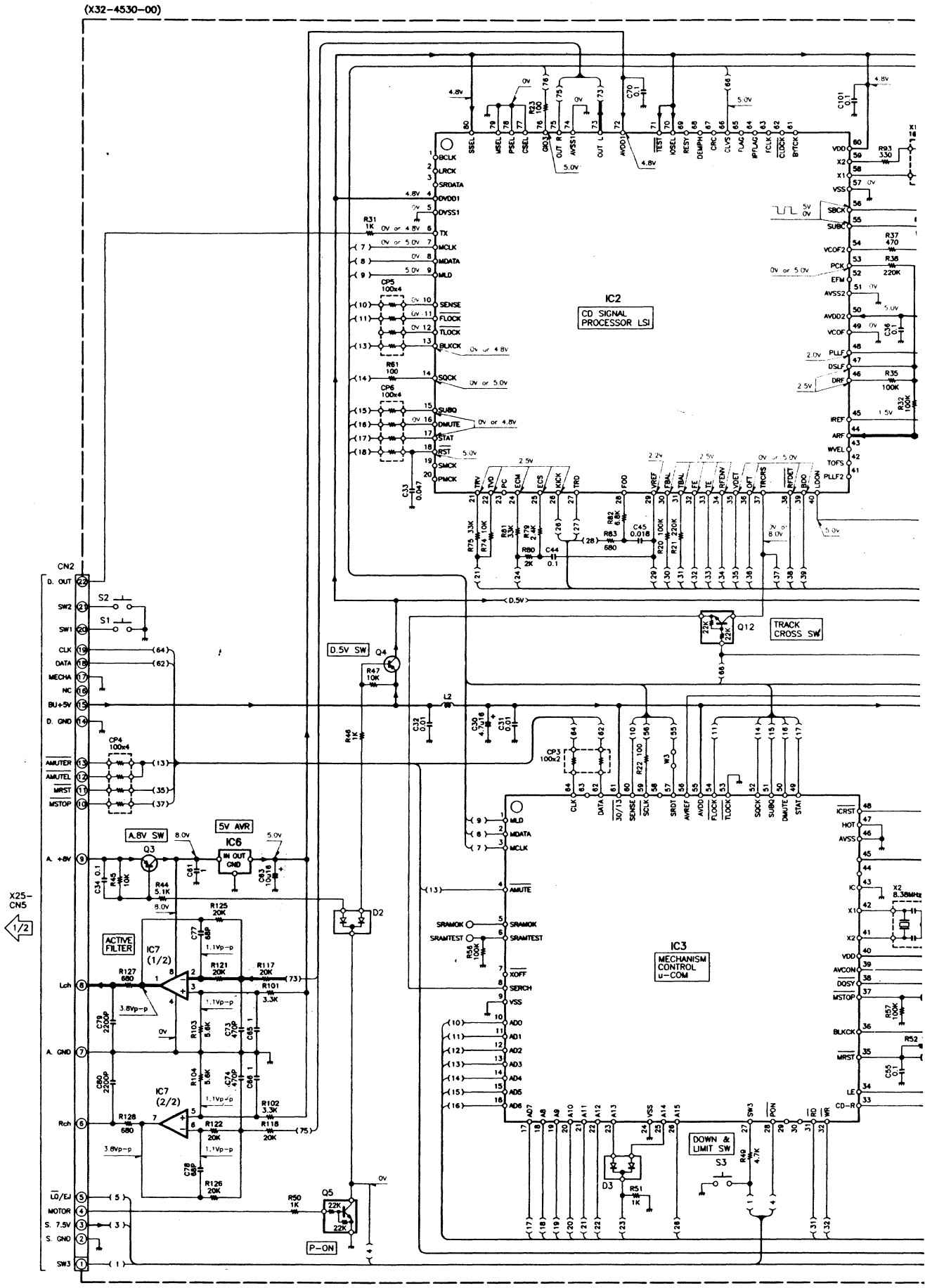


measured with a high impedance voltmeter.
ightly due to variations between individual
units.

CD MECHANISM

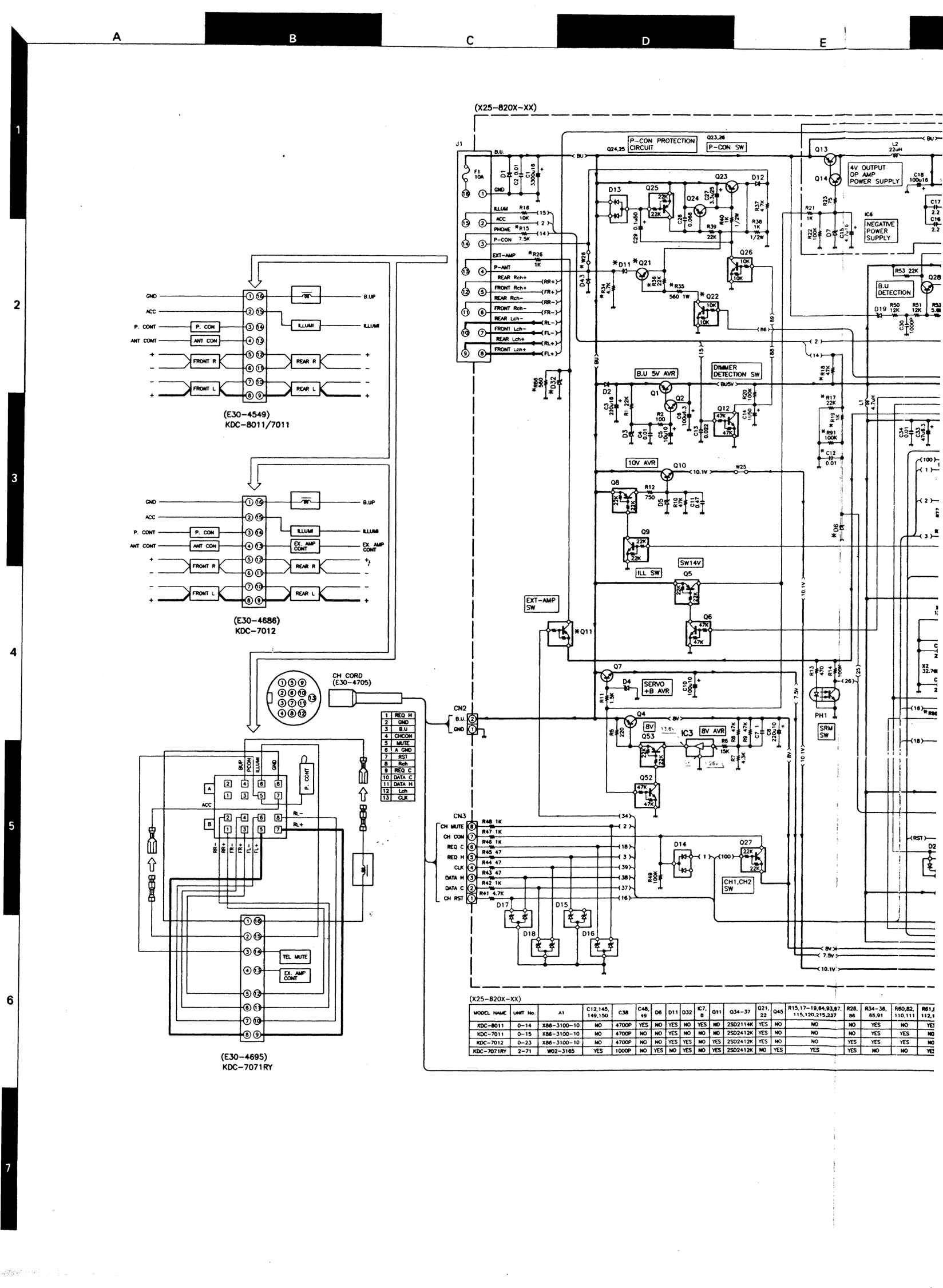
KDC-8011/7011/7012/7071RY

KENWOOD



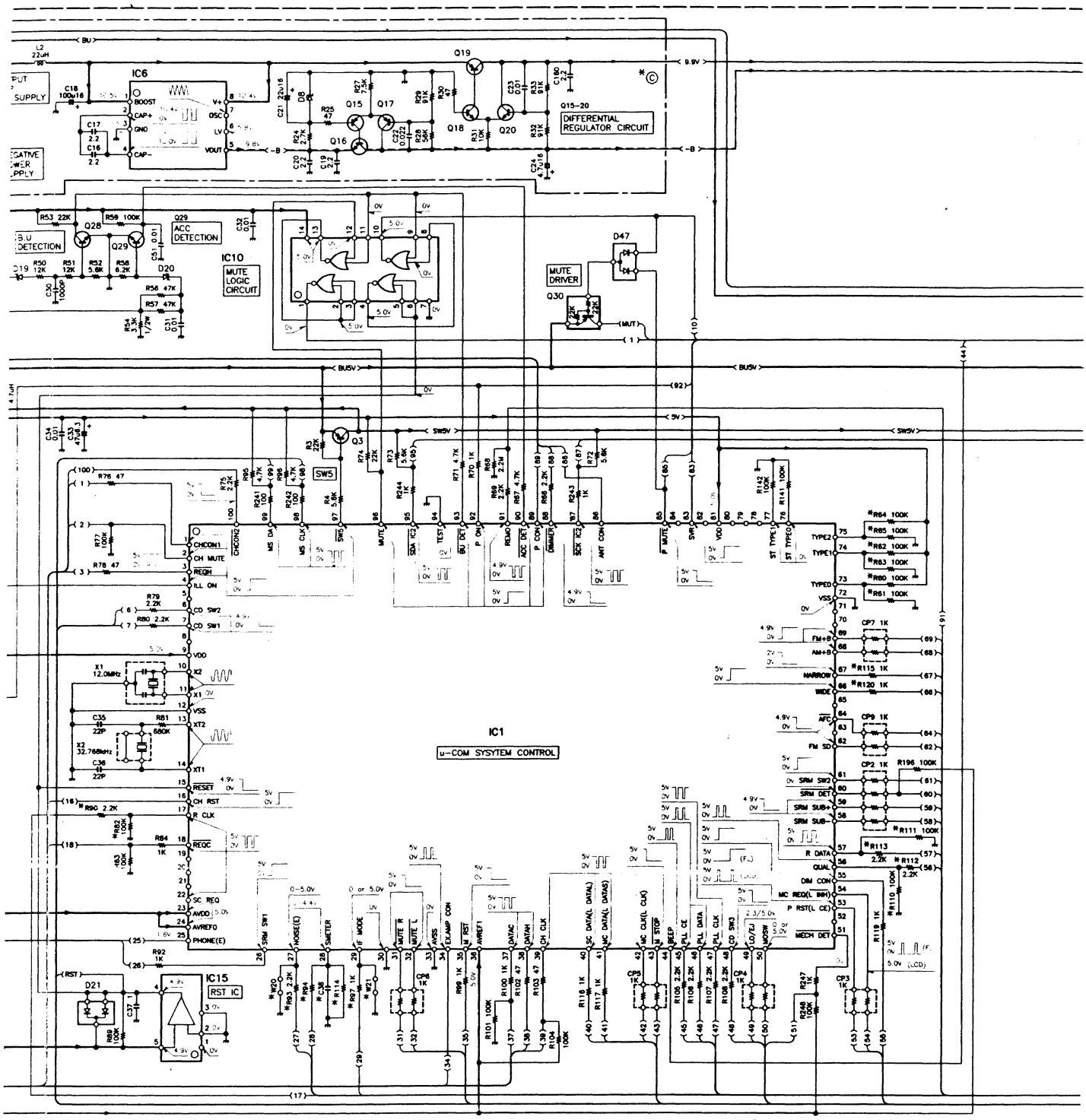
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to, parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured wi
Values may vary slightly due to
instruments or/and units.

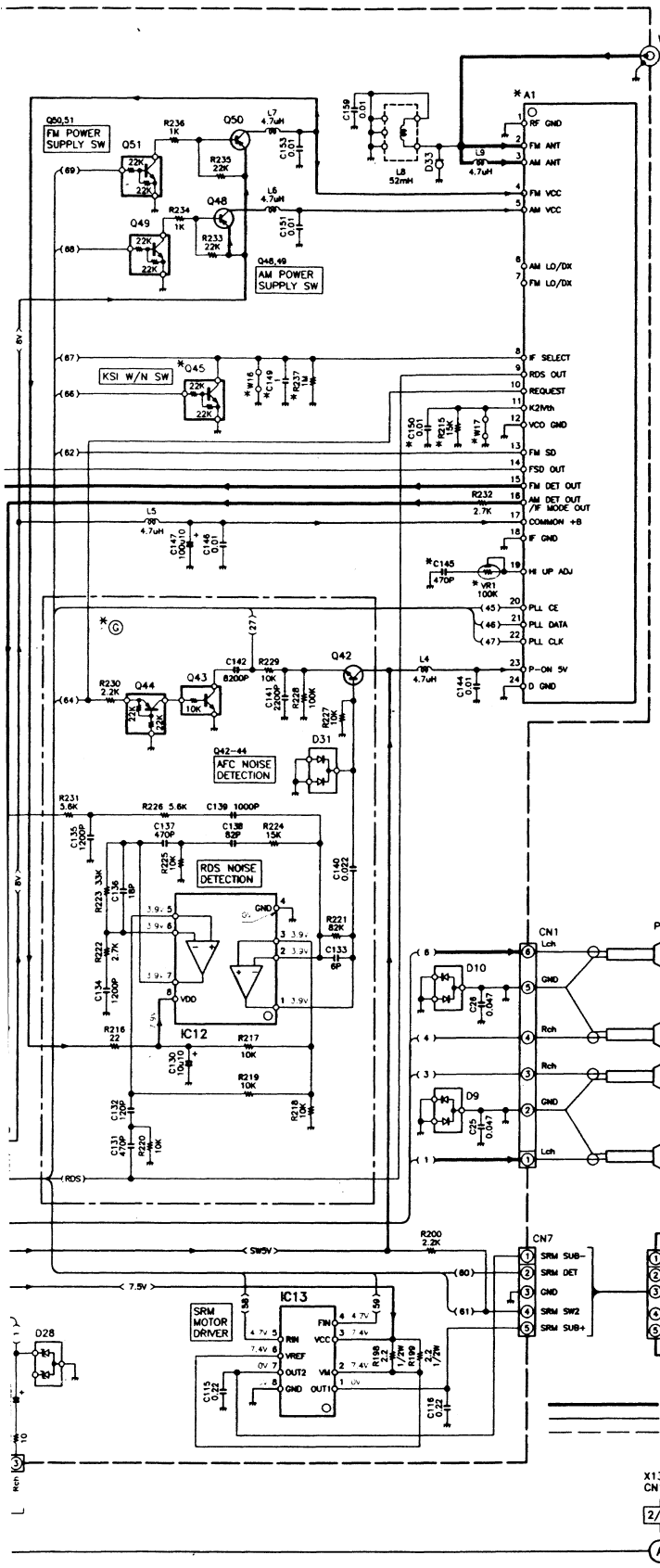


(X25-820X-XX)

MODEL NAME	UNIT No.	A1	C12,145, 149,150	C38	C48, 49	D6	D11	D32	IC7, 8	Q11	Q34-37	Q21, 22	Q45	R15,17-19,84,93,97, 115,120,215,237	R26, 86	R34-36, 65,91	R60,82, 110,111	R61,8 112,1
KDC-8011	0-14	X86-3100-10	NO	4700P	YES	NO	YES	NO	YES	NO	2SD2114K	YES	NO	NO	NO	YES	NO	YES
KDC-7011	0-15	X86-3100-10	NO	4700P	NO	NO	YES	NO	NO	NO	2SD2412K	YES	NO	NO	NO	YES	YES	NO
KDC-7012	0-23	X86-3100-10	NO	4700P	NO	NO	YES	YES	NO	NO	2SD2412K	YES	NO	NO	YES	YES	YES	NO
KDC-7071RY	2-71	W02-3165	YES	1000P	NO	YES	NO	YES	NO	YES	2SD2412K	NO	YES	YES	YES	NO	NO	YES



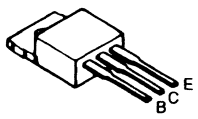
E34-36, 65,91	R60,82, 110,111	R81,90, 112,113	R62	R63	R94	R114	R155,156, 161,162	R167-170, 175-178	VR1	W8-15	W18,17, 20,21	W26	Ⓒ	Ⓔ	Ⓗ
YES	NO	YES	YES	NO	22K	160K	22K	YES	NO	NO	YES	NO	YES	NO	YES
YES	YES	NO	NO	YES	22K	160K	4.7K	NO	NO	YES	YES	NO	NO	NO	NO
YES	YES	NO	YES	NO	22K	160K	4.7K	NO	NO	YES	YES	NO	NO	NO	NO
NO	NO	YES	YES	NO	27K	120K	4.7K	NO	YES	YES	NO	YES	NO	YES	YES



(X25-)

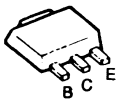
IC1	: UPD784215GC079
IC2	: TDA7400
IC3	: M5237ML
IC4	: TDA7386
IC6	: ICL7660SIBA
IC7-9,12,16	: NJM4565M-TE2
IC10	: TC74HC02AF
IC11	: TDA7479D
IC13	: BA6287F
IC14	: BR24C01AF
IC15	: PST9130NR
Q1,4	: 2CB1565F(E,F)
Q2,14,16,18,20,28,29,32,42,55	: 2SC2412K
Q3,15,17,19,24	: 2SA1037K
Q5,8,25,27,30,44,53,54	: DTA124EK
Q6,12,38,52	: DTC144EK
Q9,33,45,49,51	: 2SD2396F40
Q10	: DTC124EK
Q11	: 2SD1760
Q13,56	: DTA123JK
Q21,23	: 2SB1443
Q22,26	: 2SB1277(Q,R)
Q34-37	: DTC114EK
Q39,40	: *
Q43	: 2SD2114K
Q48,50	: DTC114TK
	: 2SB1188(Q,R)
D1	: RM10ZLF
D2,11,12	: AM01Z
D3,8,19,20	: MA4056(N)-M
D4	: MA4082(N)-L
D5	: MA4110-L
D6	: HZM4.7(B2)
D7	: MA4110(N)-M
D9,10,22	: DA204K
D13,25-27,44,47	: DAP202K
D14,21,30,31,34	: DAN202K
D15-18	: MA3062WA
D23,24	: RD6.8M(B2)
D28,29	: RD6.8MW
D32	: MA3056-M
D33	: SA-C2012-101TB
D35-43	: DIF60
D50	: MA3220-H

2SB1565



DTA114EK
DTA123JK
DTA124EK
DTC114EK
DTC114TK
DTC114YK
DTC124EK
DTC144EK
2SA1362
2SB1218A
2SB709A
2SC2412K
2SD2114K

2SB1188



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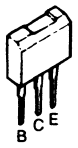
2SB1443



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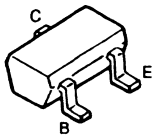

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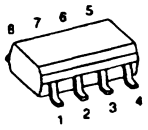
NJM5532MD



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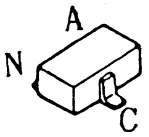

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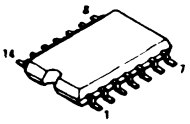

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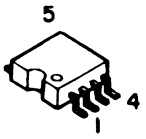

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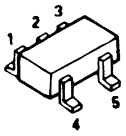
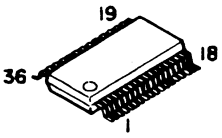


M5237ML

AN8806SB



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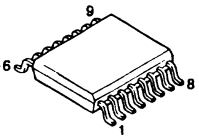
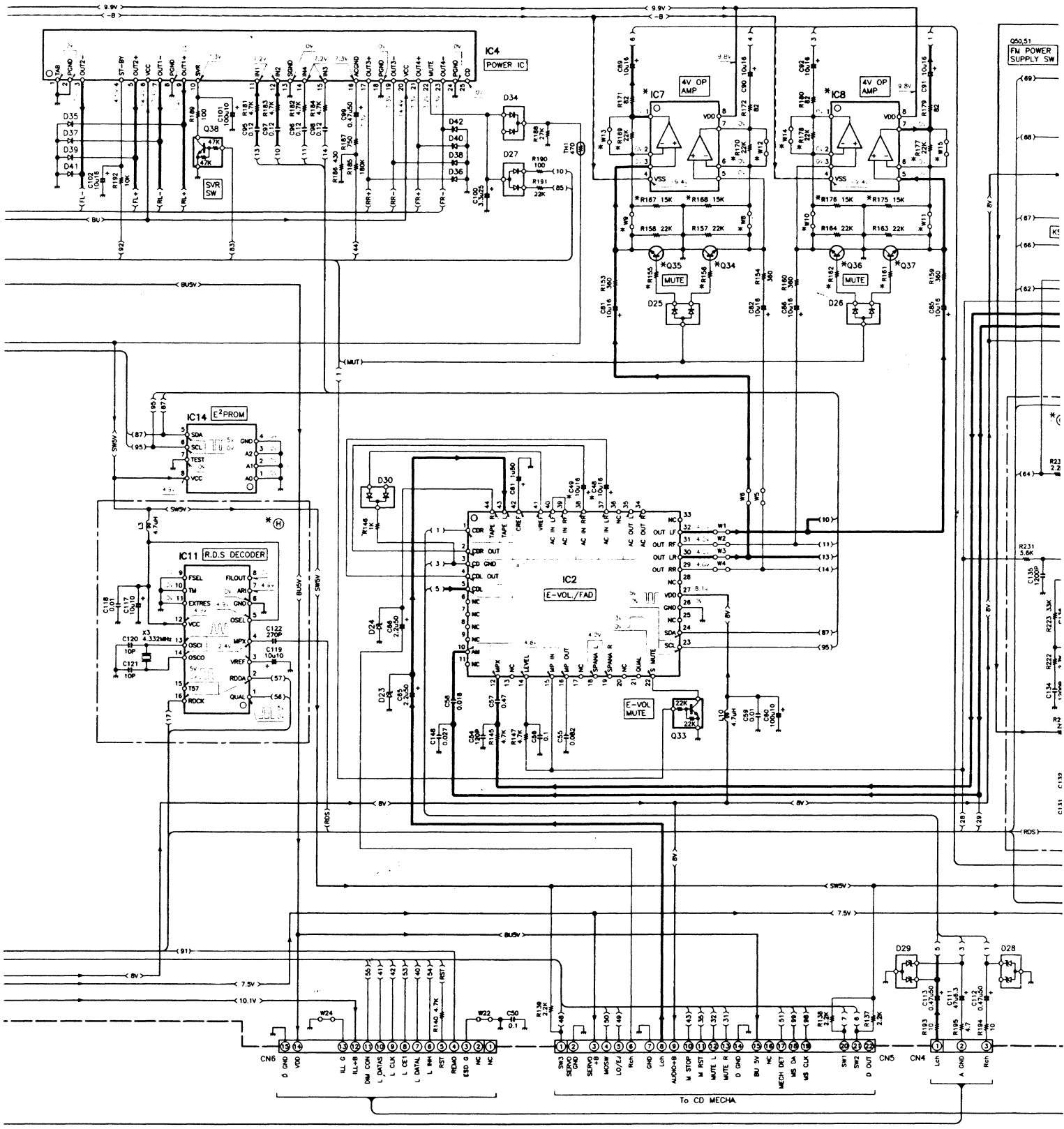


e as measured with a high impedance voltmeter.
ıry slightly due to variations between individual
and units.



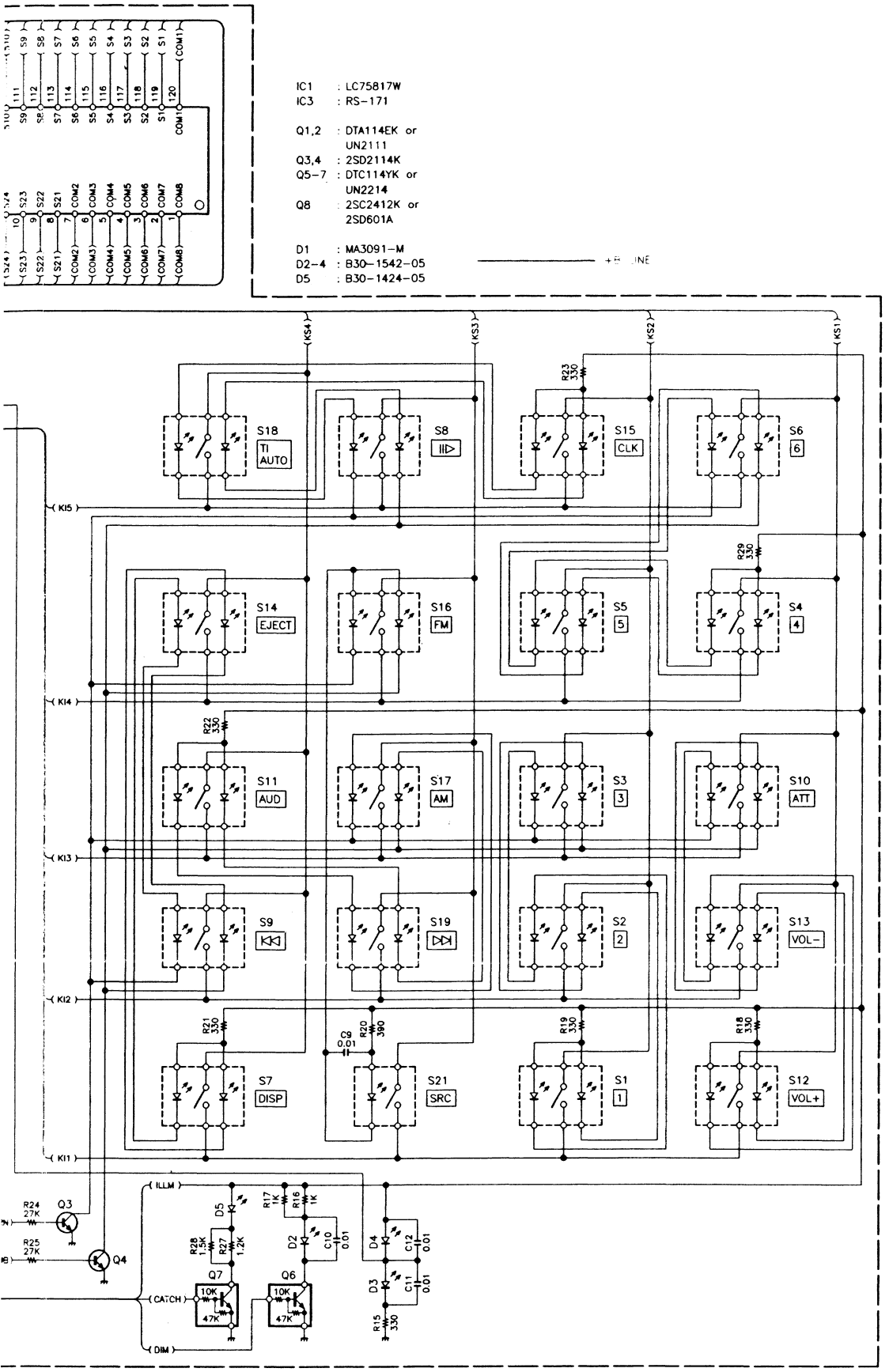
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to, parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measur
Values may vary slightly d
instruments or/and units.

IC1 : LC75817W
IC3 : RS-171

Q1,2 : DTA114EK or UN2111
Q3,4 : 2SD2114K
Q5-7 : DTC114YK or UN2214
Q8 : 2SC2412K or 2SD601A

D1 : MA3091-M
D2-4 : B30-1542-05
D5 : B30-1424-05

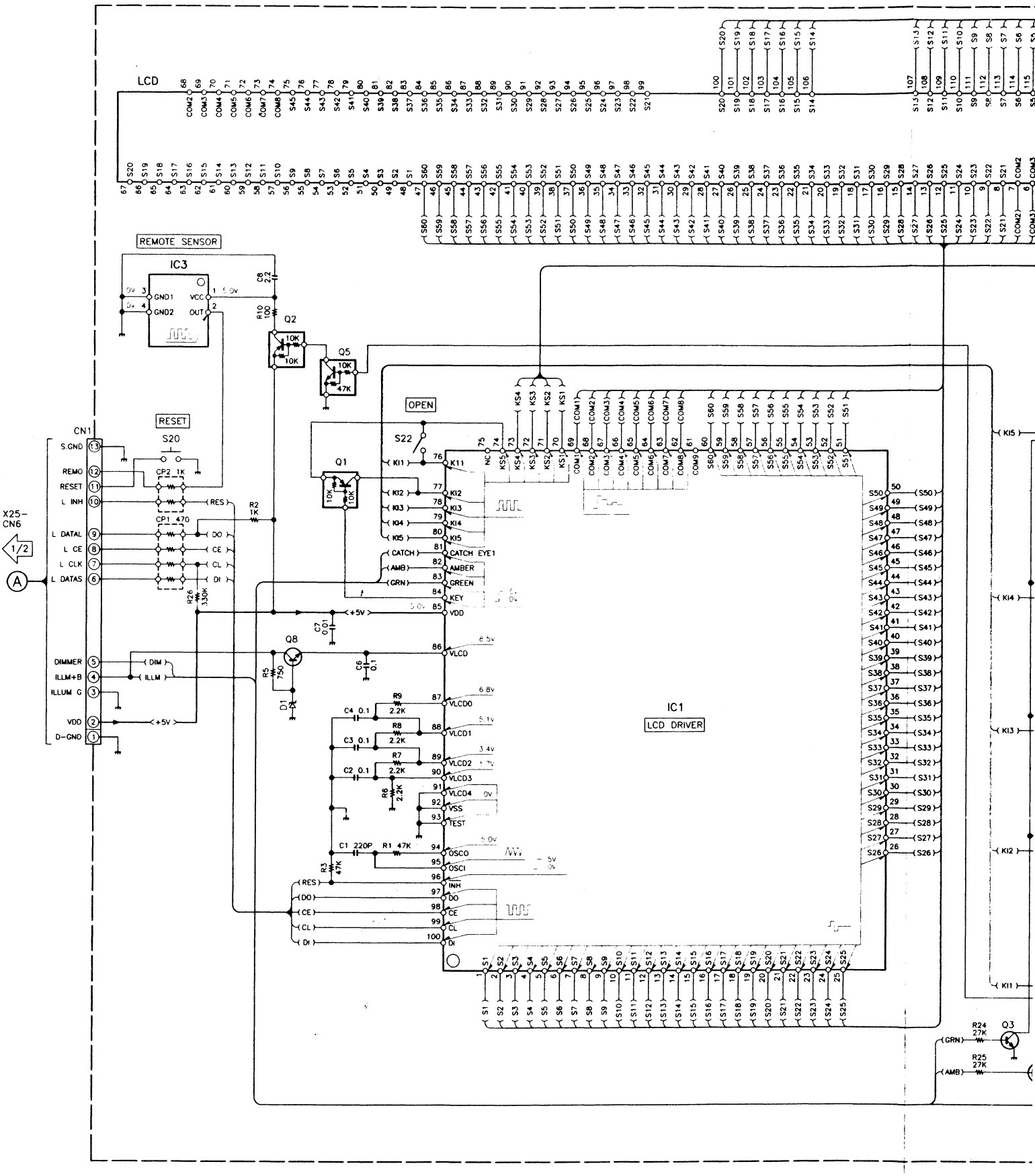


edance voltmeter.
etween individual

KDC-8011/7011/7012/7071RY

KENWOOD

(X13-9400-10)



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DC voltages are as measured with a high impedance voltm
Values may vary slightly due to variations between indiv
instruments or/and units.