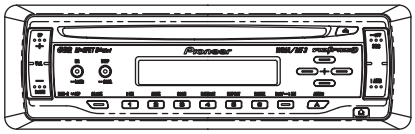
Pioneer sound.vision.soul

Service Manual



DEH-2800MP/XN/UC

ORDER NO.
CRT3554

HIGH POWER CD/MP3/WMA PLAYER WITH FM/AM TUNER

DEH-2800MP/XN/UC
DEH-2850MP/XN/ES

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech. Module	Remarks
CX-3164	CRT3583	S10.5COMP1	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly

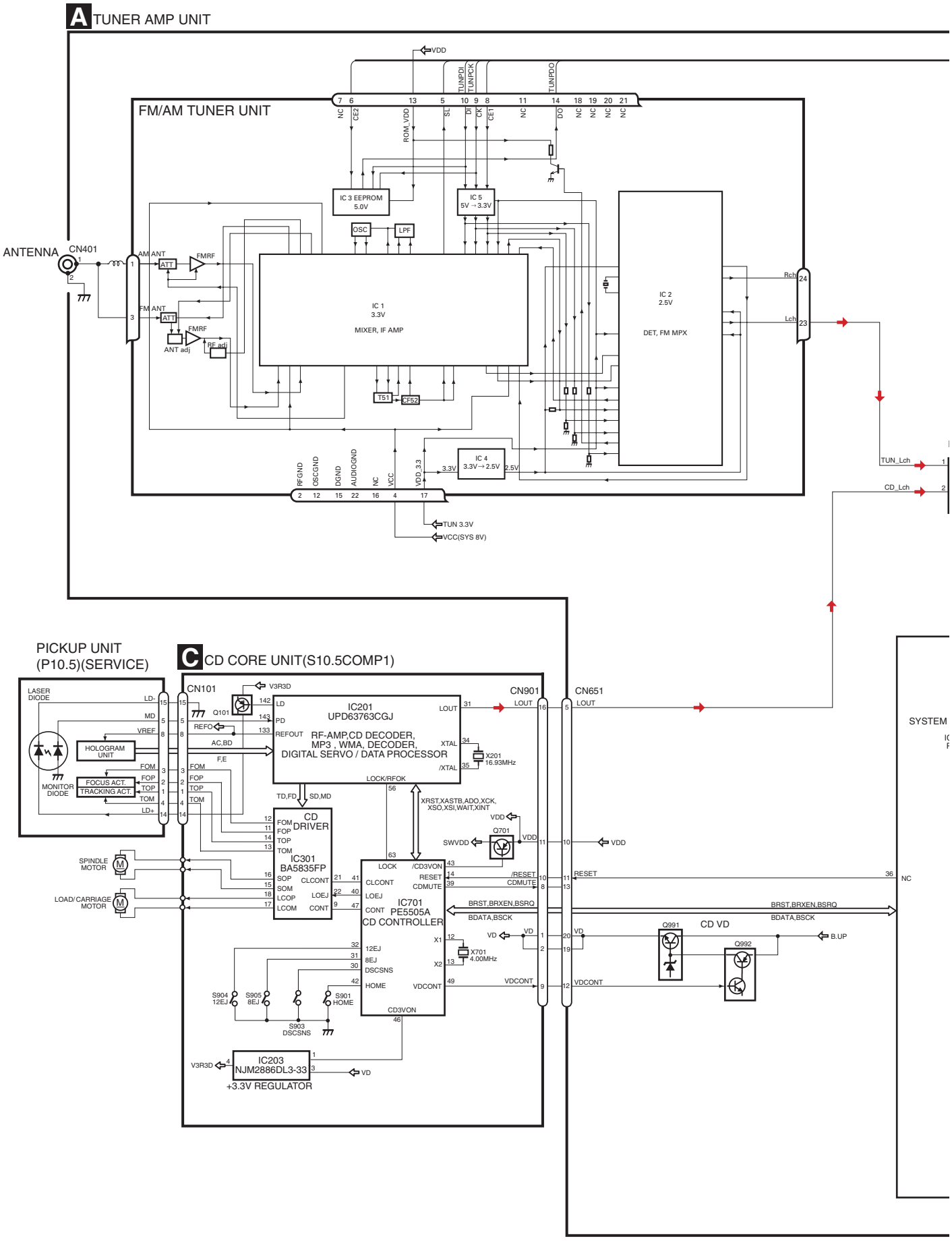
For details, refer to "Important Check Points for Good Servicing".

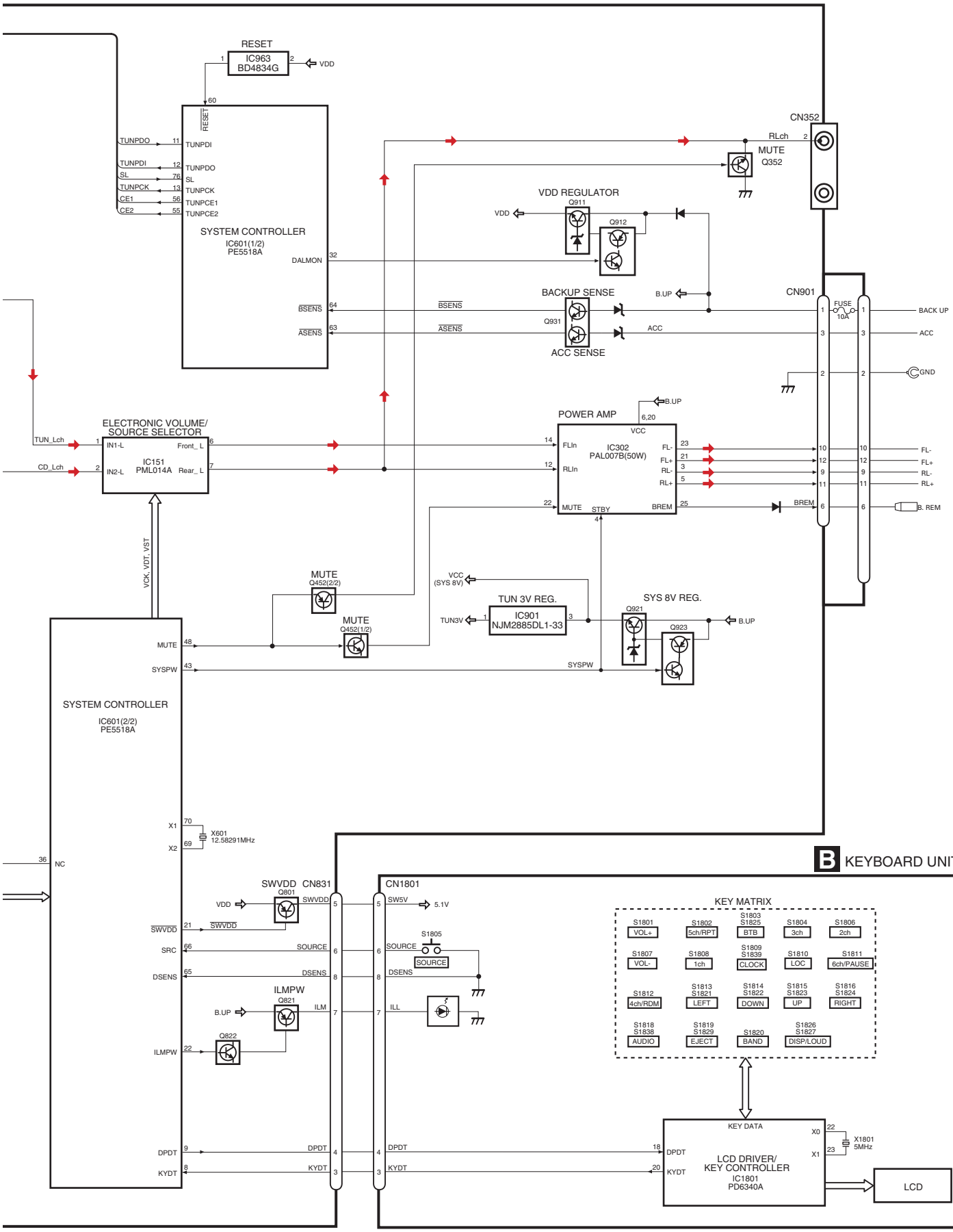
PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

K-ZZA. NOV. 2005 Printed in Japan

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

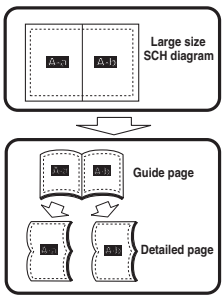
3.1 BLOCK DIAGRAM



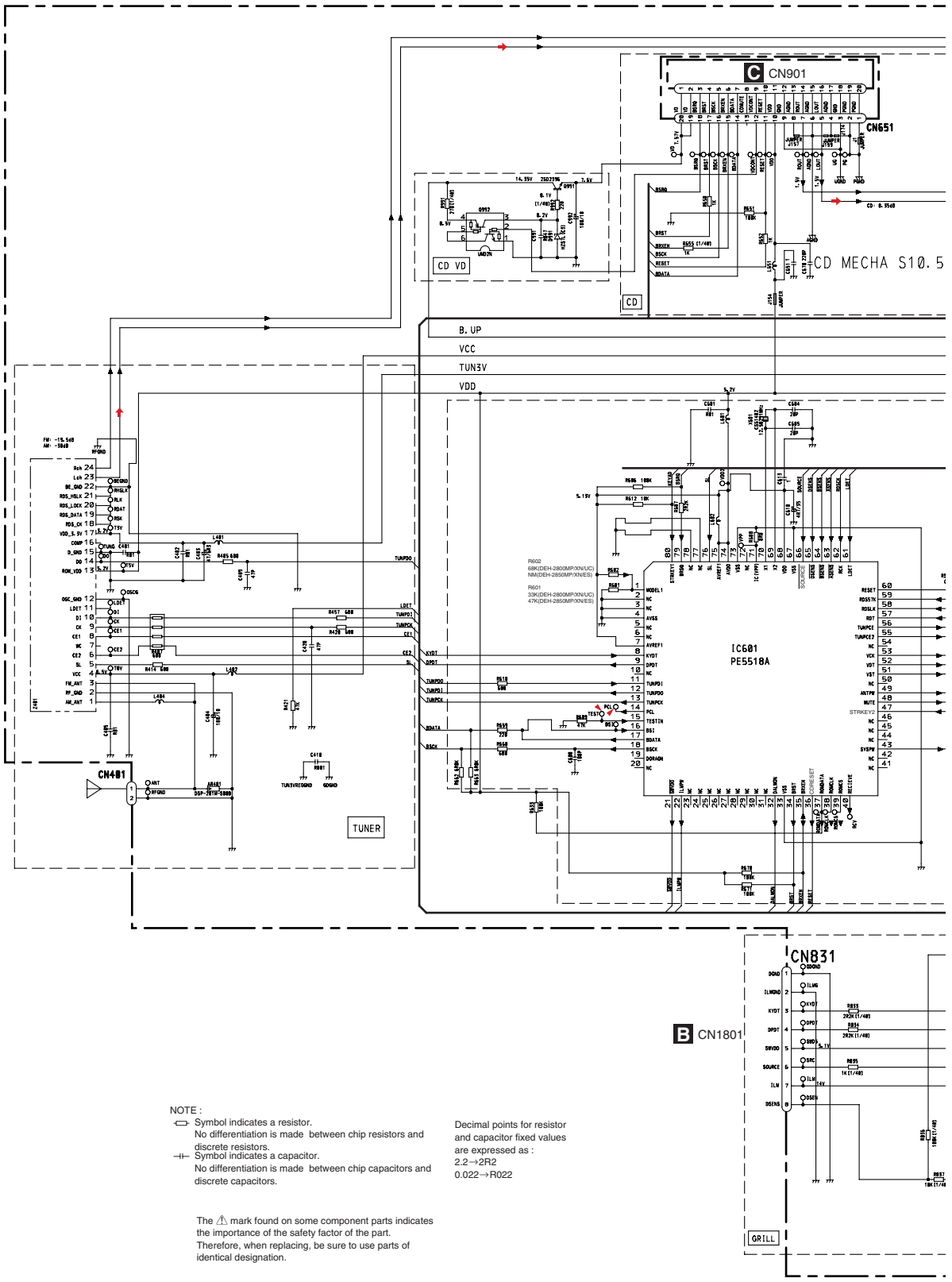

RESET
IC963
BD4834G
VDD
RESET
TUNPDO
TUNPDI
SL
TUNPCK
CE1
CE2
TUNPDI
TUNPDO
SL
TUNPCK
TUNPCE1
TUNPCE2
SYSTEM CONTROLLER
IC601(1/2)
PE5518A
DALMON
BSENS
ASENS
CN352
RLch
MUTE
Q352
VDD REGULATOR
Q911
Q912
BACKUP SENSE
Q931
ACC SENSE
B.UP
CN901
FUSE
10A
BACK UP
ACC
GND
FL-
FL+
RL-
RL+
B. REM
BREM
POWER AMP
IC302
PAL007B(50W)
FLIn
RLIn
MUTE
STBY
ELECTRONIC VOLUME/
SOURCE SELECTOR
IC151
PML014A
TUN_Lch
CD_Lch
IN1-L
IN2-L
Front_ L
Rear_ L
VCK, VDT, VST
MUTE
Q452(2/2)
Q452(1/2)
VCC
(SYS 8V)
TUN 3V REG.
IC901
NJM2885DL1-33
TUN3V
SYS 8V REG.
Q921
Q923
SYSPW
SYSTEM CONTROLLER
IC601(2/2)
PE5518A
X1
X2
X601
12.58291MHz
NC
SWVDD
CN831
Q801
SRC
SOURCE
DSENS
ILMPW
Q821
Q822
DPDT
KYDT
CN1801
SW5V
5.1V
S1805
ILL
B KEYBOARD UNIT
KEY MATRIX
S1801 VOL+
S1802 5ch/RPT
S1803 S1825 BTB
S1804 3ch
S1806 2ch
S1807 VOL-
S1808 1ch
S1809 S1839 CLOCK
S1810 LOC
S1811 6ch/PAUSE
S1812 4ch/RDM
S1813 S1821 LEFT
S1814 S1822 DOWN
S1815 S1823 UP
S1816 S1824 RIGHT
S1818 S1838 AUDIO
S1819 S1829 EJECT
S1820 BAND
S1826 S1827 DISP/LOUD
KEY DATA
LCD DRIVER/
KEY CONTROLLER
IC1801
PD6340A
X1801
5MHz
LCD

3.2 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-a



NOTE :
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

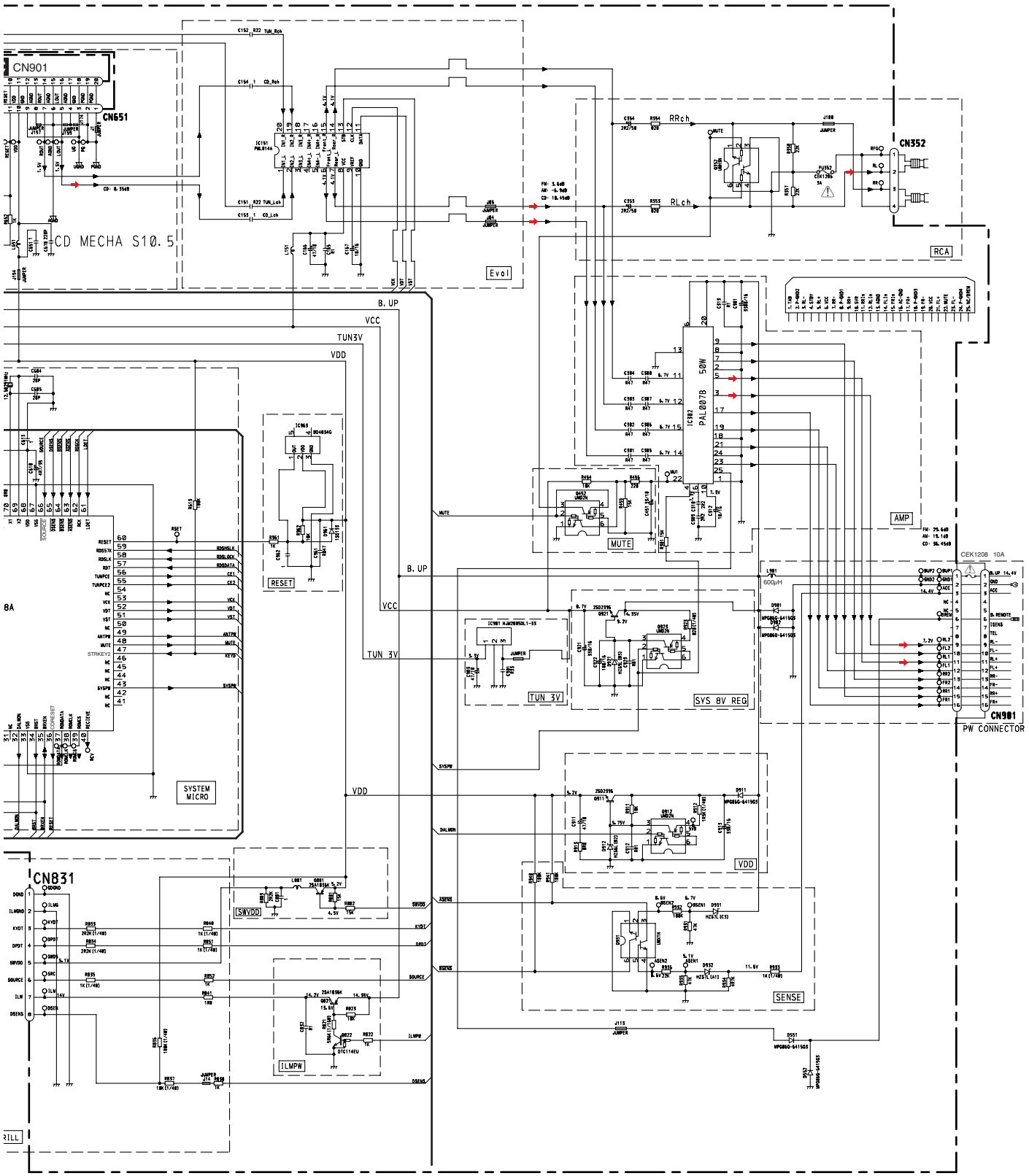
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

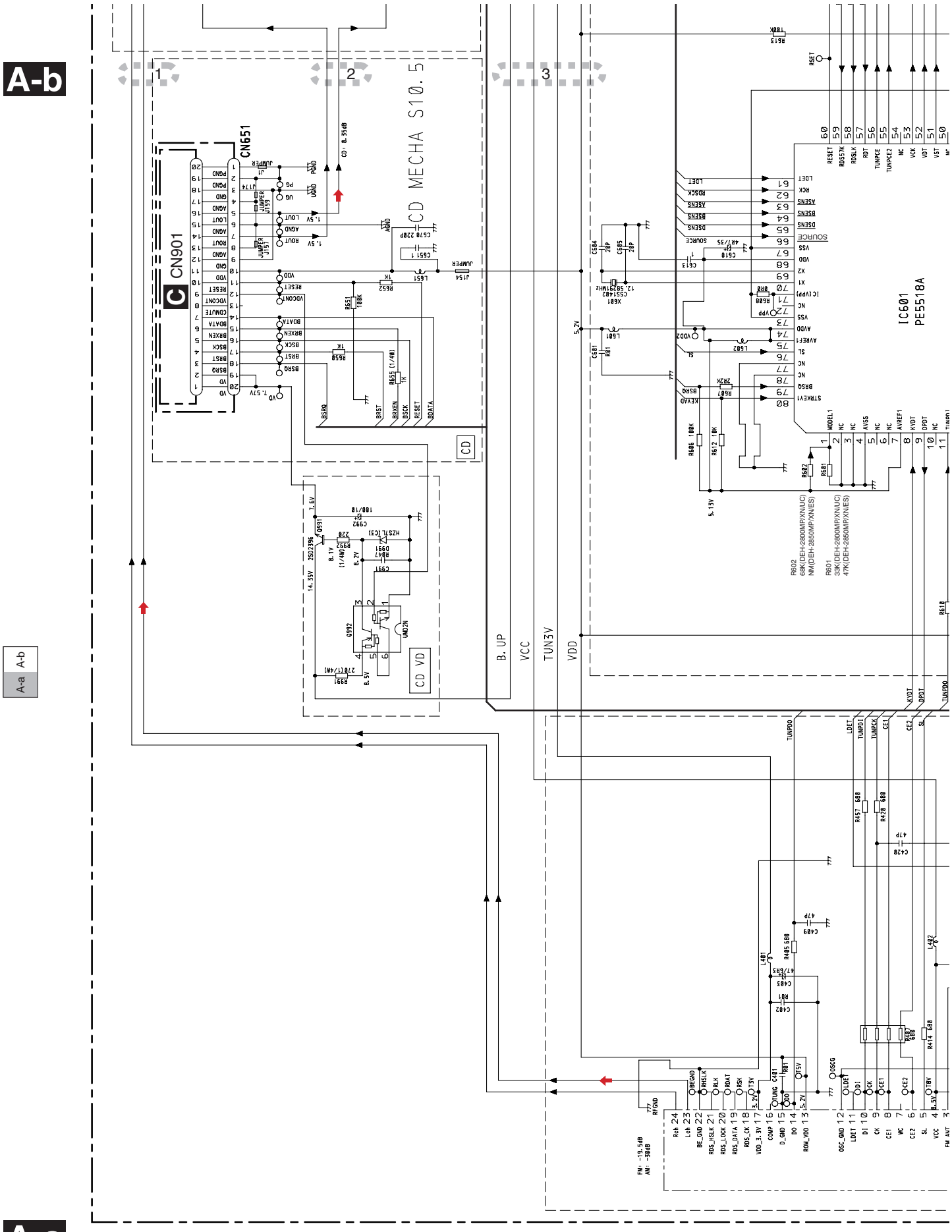
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

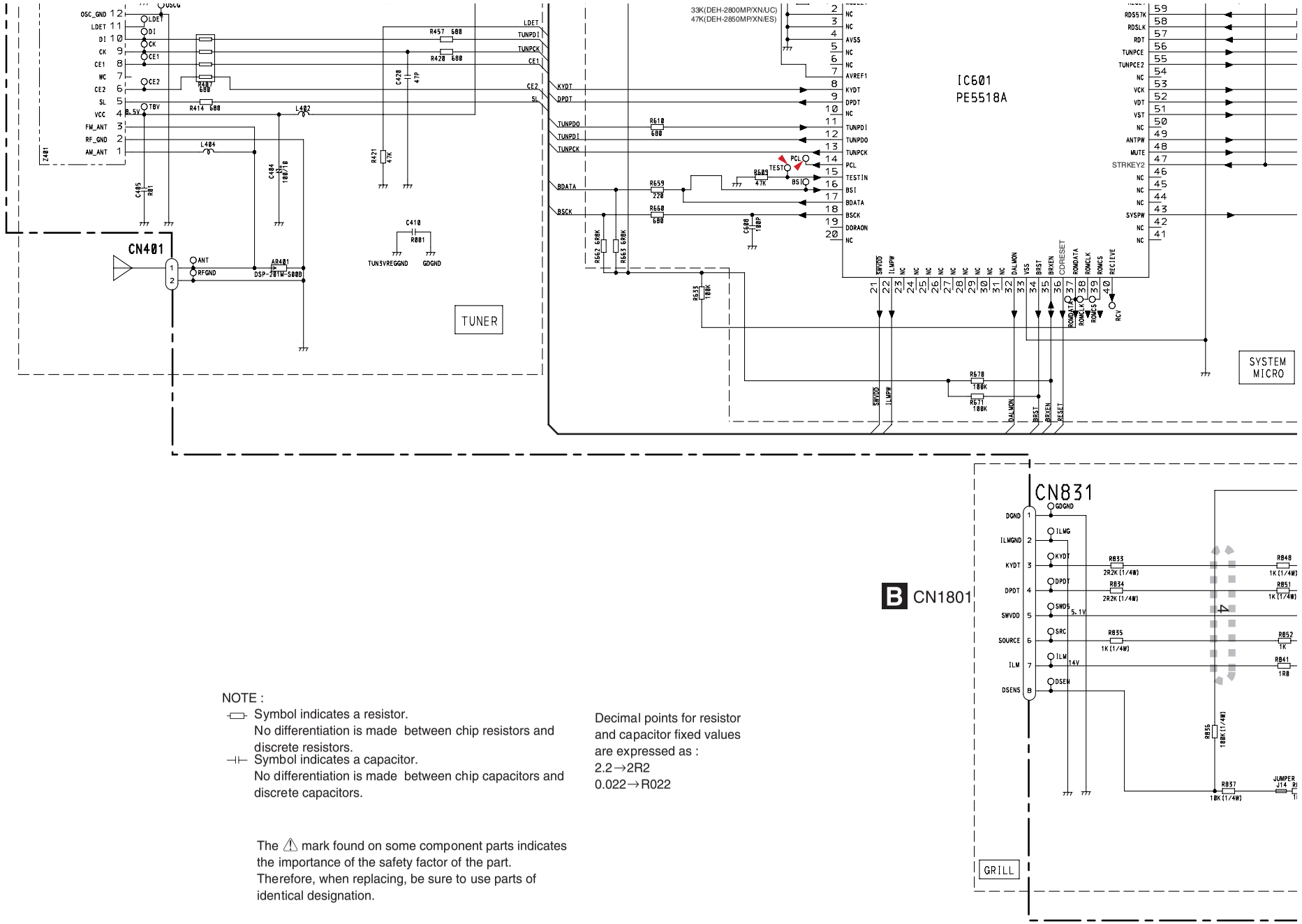
A

A-b

A TUNER AMP UNIT




A-b
A-a
A-b
CD MECHA S10.5
CN651
CN901
CD
CD VD
B. UP
VCC
TUN3V
VDD
IC601
PE5518A
R602
68K(DEH-2800MP/XNUC)
NM(DEH-2850MP/XNES)
R601
33K(DEH-2800MP/XNUC)
47K(DEH-2850MP/XNES)
A-a



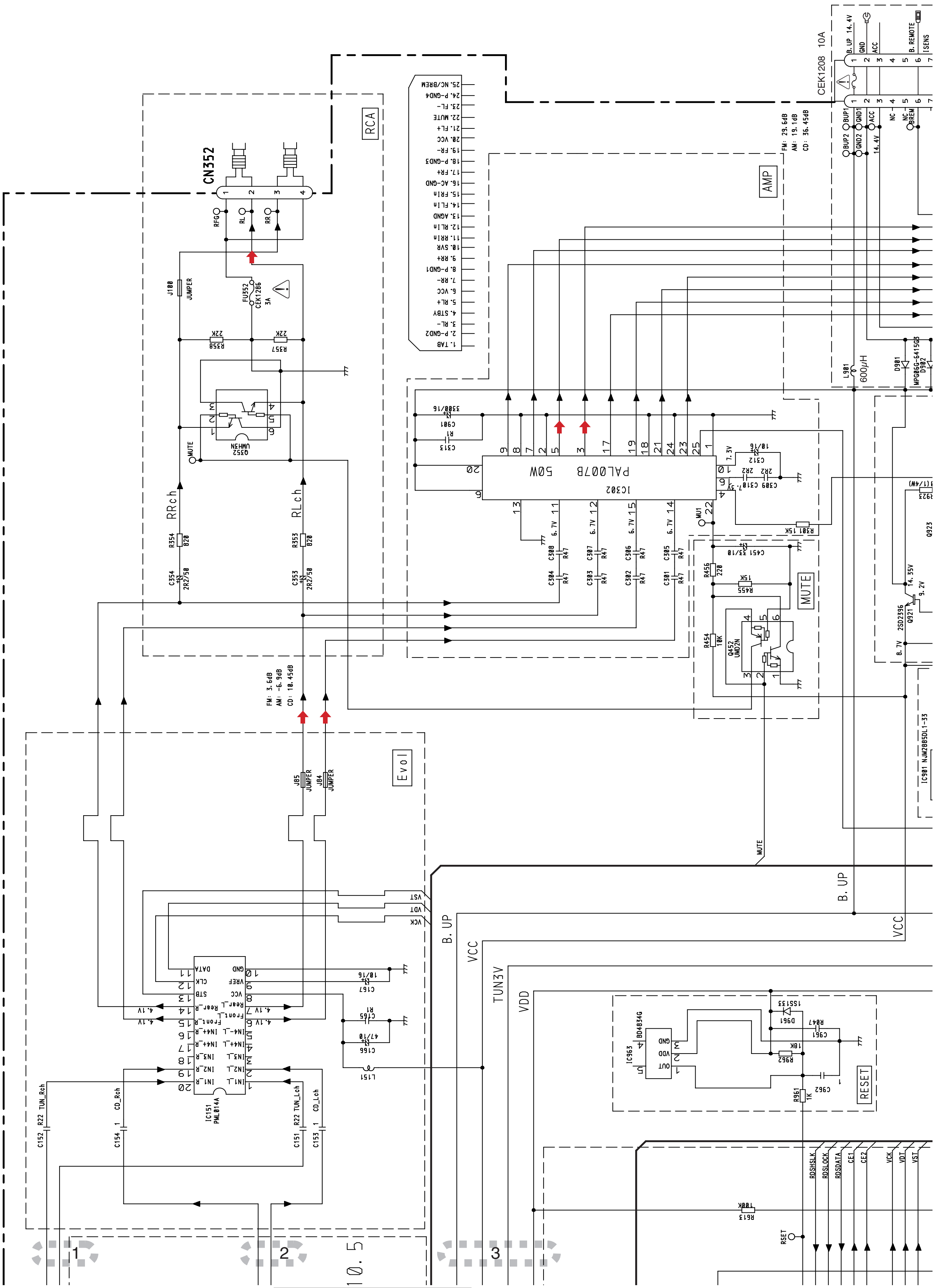
NOTE :

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

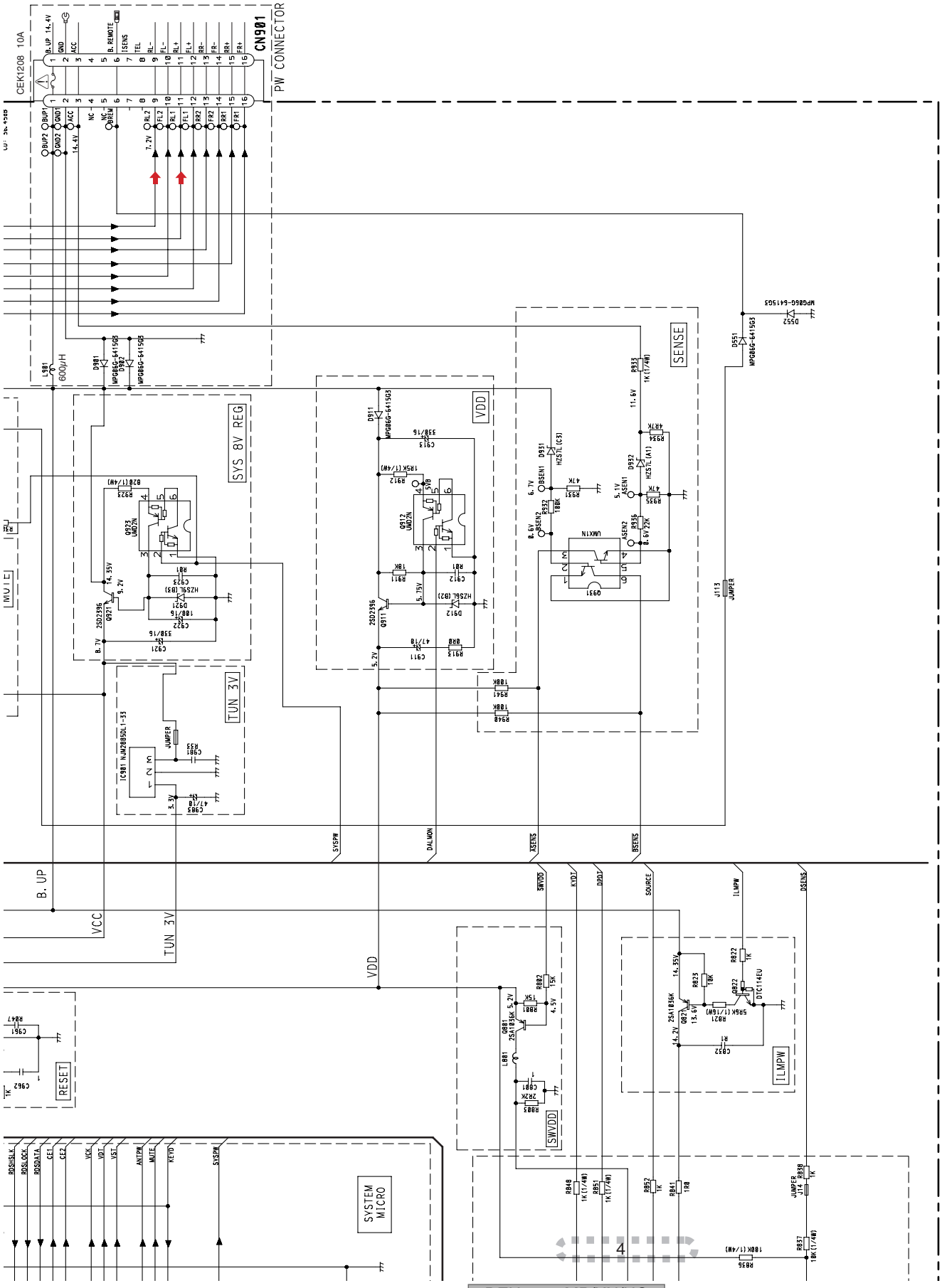
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

The ⚠ 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.

A TUNER AMP UNIT

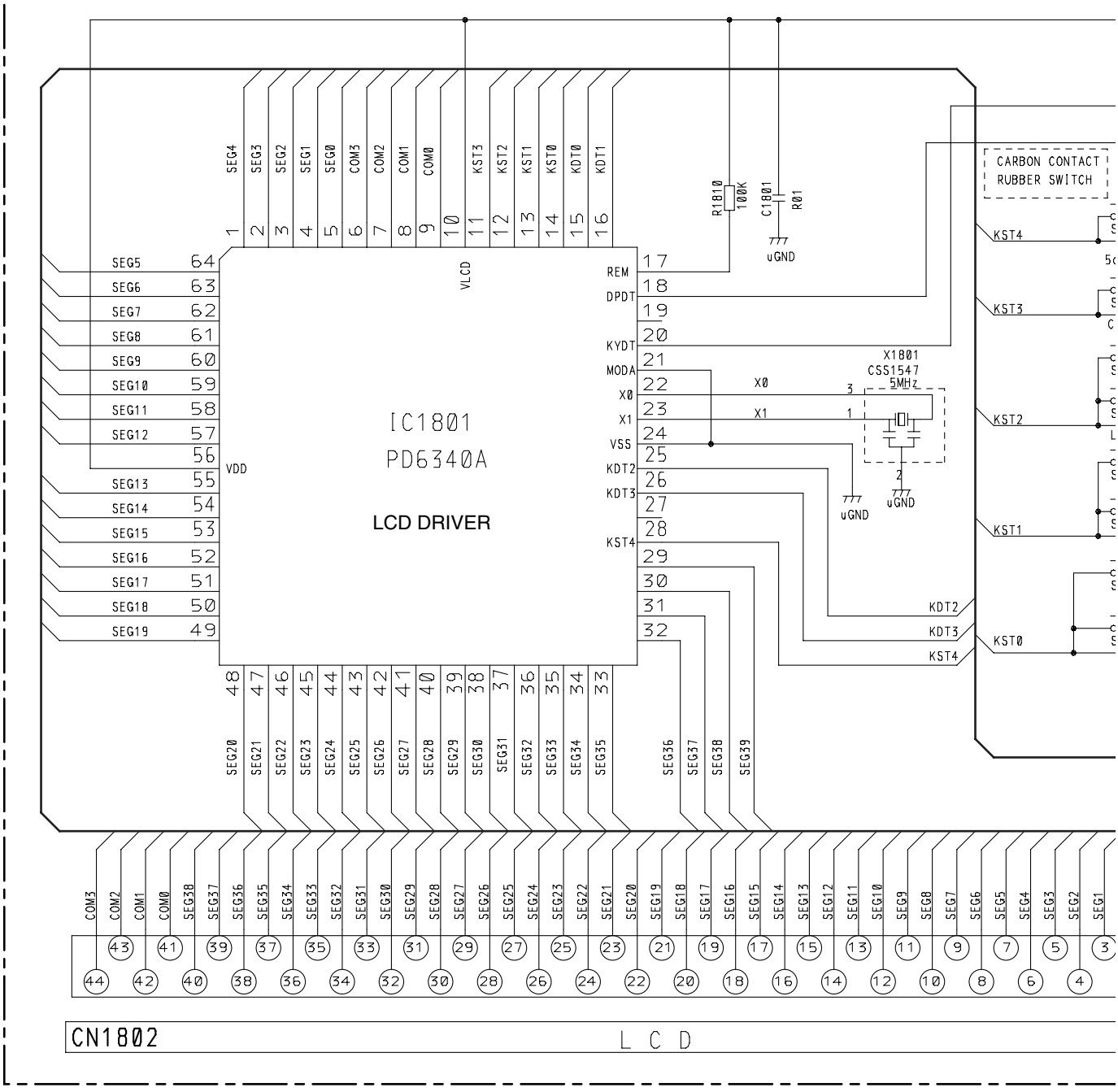


A-b

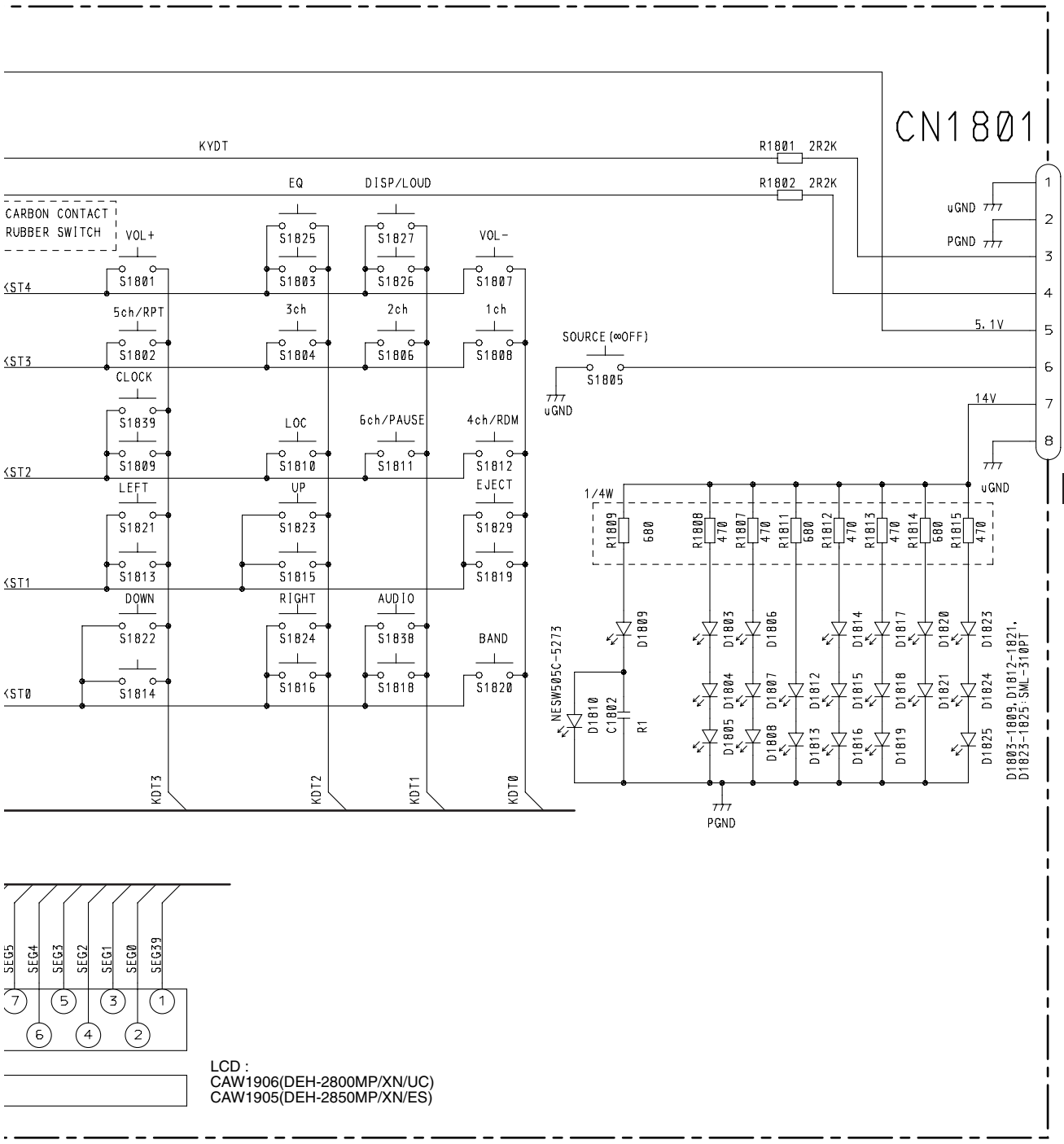

CN901
PW CONNECTOR
CEK1208 10A
SYS 8V REG
TUN 3V
VDD
SENSE
1LMPW
SWVDD
RESET
SYSTEM MICRO
B. UP
VCC
TUN 3V
VDD
SYSPW
DALMON
ASENS
BSENS
SWVDD
KYD1
DDD1
SOURCE
1LMPW
DSENS
RDSCLK
RDSLOCK
RDSDATA
CE1
CE2
VCK
VDT
VST
ANTPW
MUTE
KEYD1
SYSPW

3.3 KEYBOARD UNIT

B KEYBOARD UNIT



B


CN1801
KYDT
R1801 2R2K
R1802 2R2K
EQ
DISP/LOUD
CARBON CONTACT
RUBBER SWITCH
VOL+
VOL-
S1801
S1825
S1827
S1803
S1826
S1807
5ch/RPT
3ch
2ch
1ch
S1802
S1804
S1806
S1808
CLOCK
S1839
LOC
6ch/PAUSE
4ch/RDM
S1809
S1810
S1811
S1812
LEFT
UP
EJECT
S1821
S1823
S1829
S1813
S1815
S1819
DOWN
RIGHT
AUDIO
S1822
S1824
S1838
BAND
S1814
S1816
S1818
S1820
KST4
KST3
KST2
KST1
KST0
KDT3
KDT2
KDT1
KDT0
SOURCE (∞OFF)
S1805
uGND
PGND
5.1V
14V
1 uGND
2 GND
3 KYDT
4 DPDT
5 SW5V
6 SOURCE
7 ILL
8 DSENS
A CN831
1/4W
R1809 680
R1808 470
R1807 470
R1811 680
R1812 470
R1813 470
R1814 680
R1815 470
D1809
D1803
D1806
D1814
D1817
D1820
D1823
D1804
D1807
D1812
D1815
D1818
D1821
D1824
D1805
D1808
D1813
D1816
D1819
D1825
NESW505C-5273
D1810
C1802
R1
D1803-1809, D1812-1821,
D1823-1825: SML-310PT
SEG5
SEG4
SEG3
SEG2
SEG1
SEG0
SEG39
7
5
3
1
6
4
2
LCD :
CAW1906(DEH-2800MP/XN/UC)
CAW1905(DEH-2850MP/XN/ES)

B

3.4 CD MECHANISM MODULE(GUIDE PAGE)

A

B

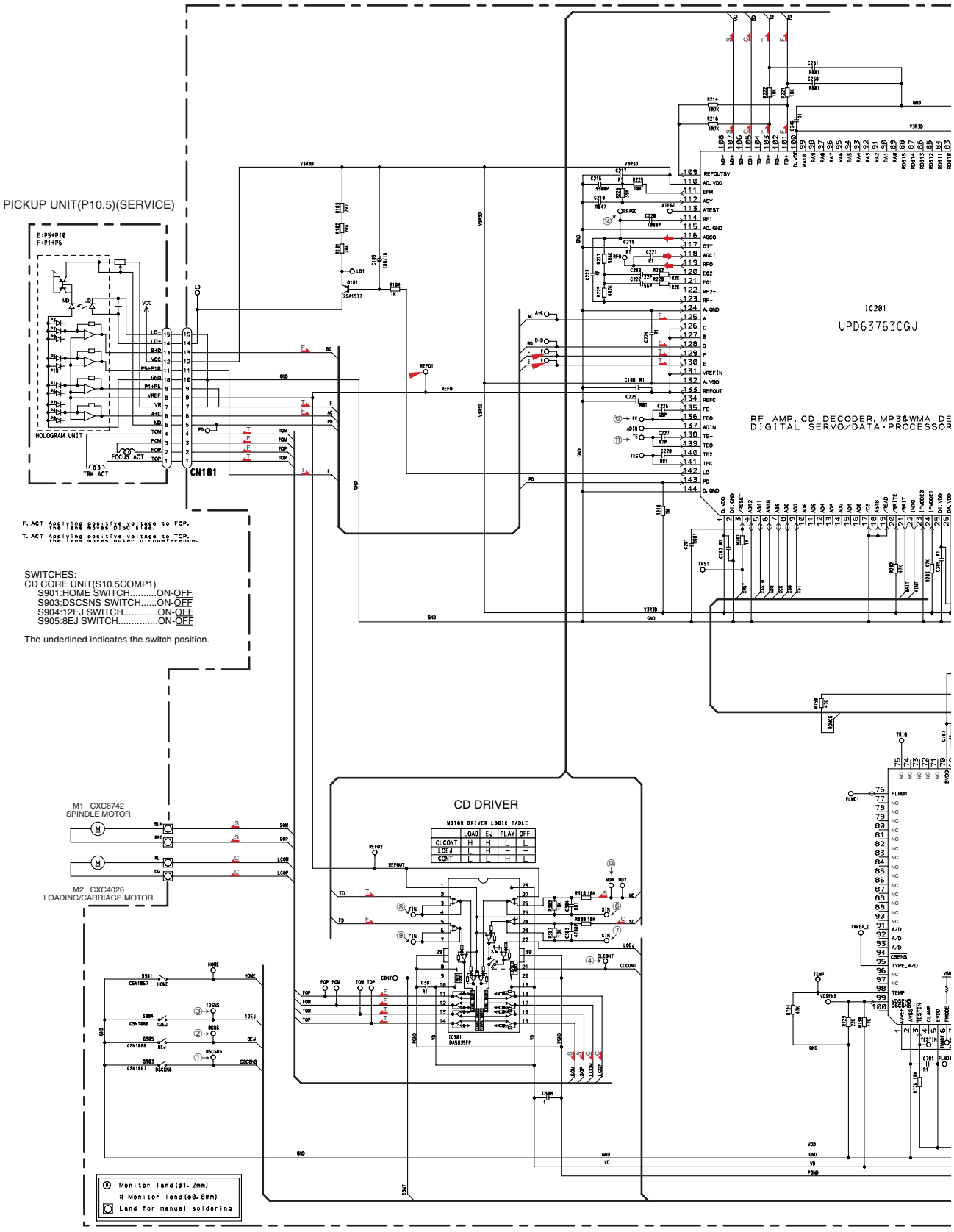
C

D

E

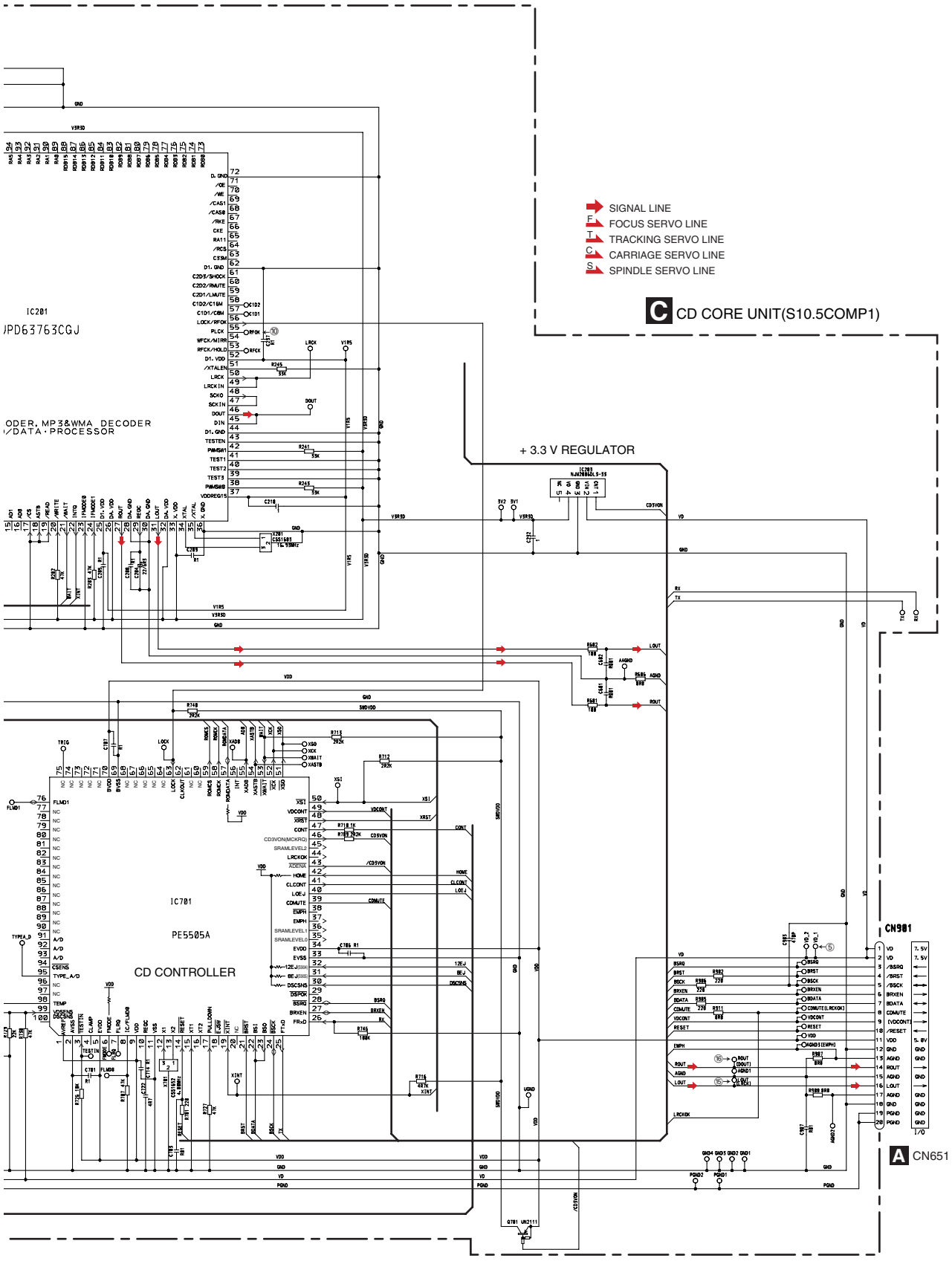
F

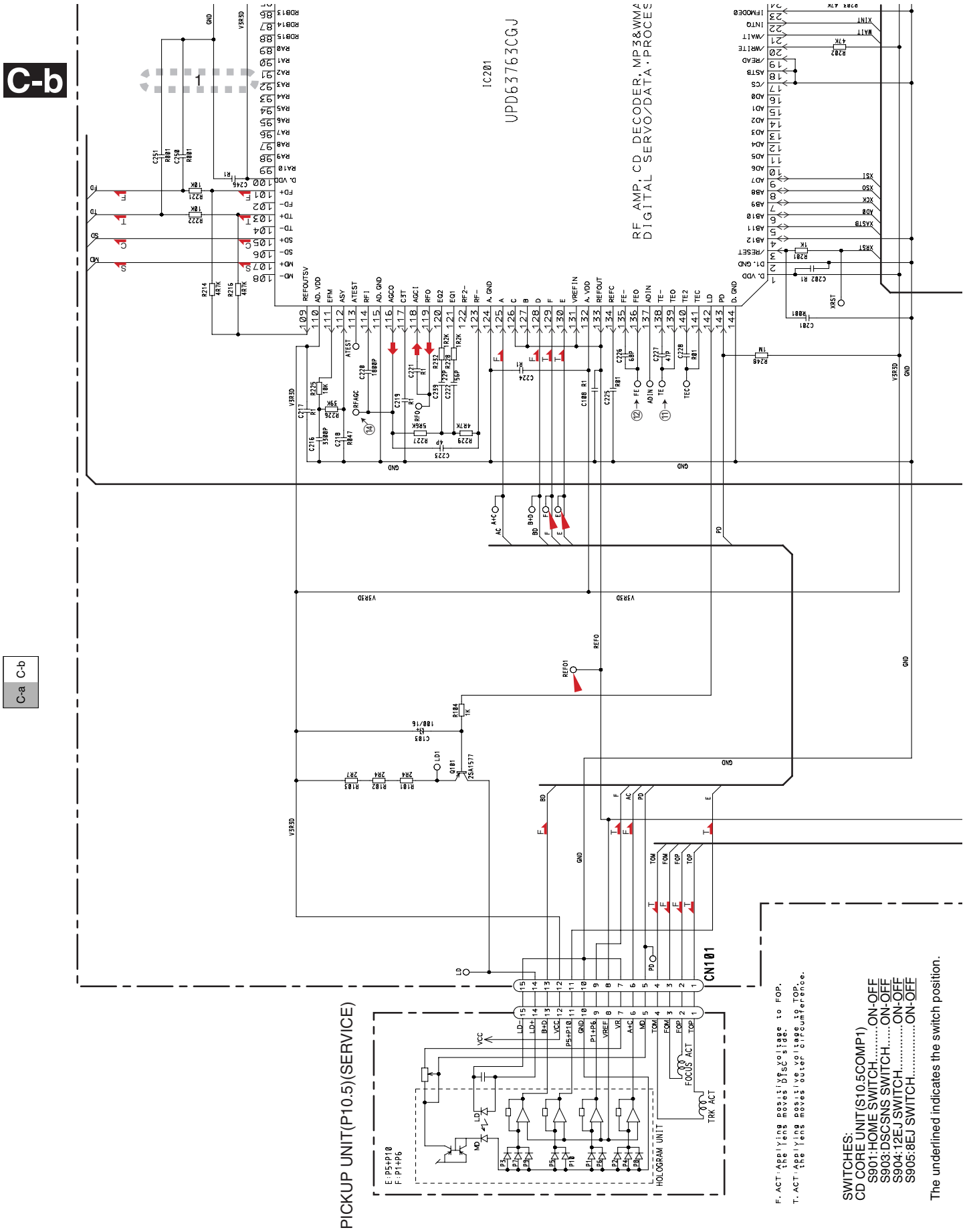
C-a



C

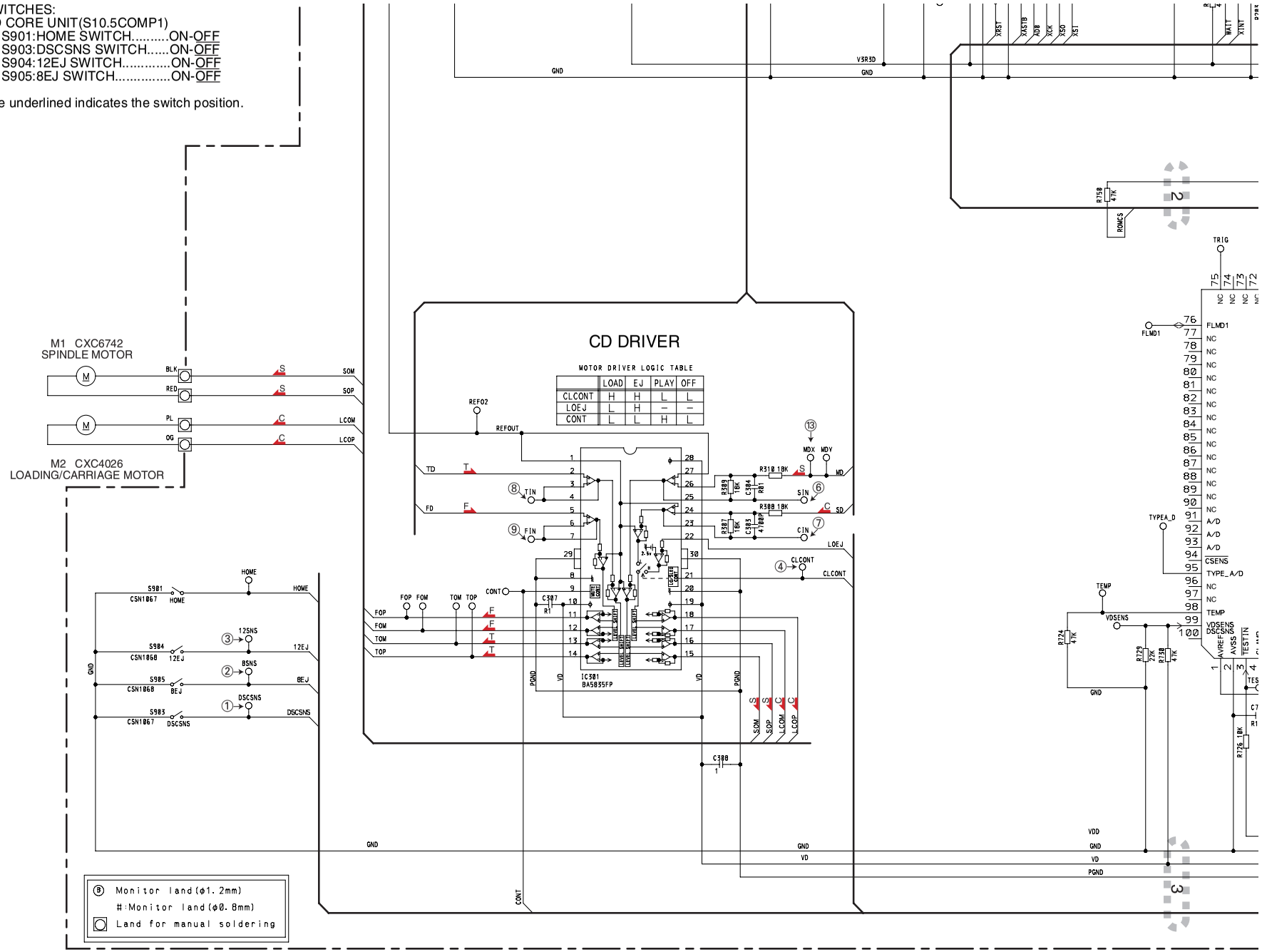
C-b


SIGNAL LINE
F FOCUS SERVO LINE
T TRACKING SERVO LINE
C CARRIAGE SERVO LINE
S SPINDLE SERVO LINE
C CD CORE UNIT(S10.5COMP1)
+ 3.3 V REGULATOR
IC201
PD63763CGJ
ODER, MP3&WMA DECODER
/DATA PROCESSOR
IC701
PE5505A
CD CONTROLLER
CN901
A CN651


C-b
C-a
IC201
UPD63763CGJ
RF AMP, CD DECODER, MP3&WMA
DIGITAL SERVO/DATA PROCES
CN101
PICKUP UNIT(P10.5)(SERVICE)
HOLOGRAM UNIT
E:P5+P10
F:P1+P6
F. ACT Applying positive voltage to FOP.
the lens moves DISC side.
T. ACT Applying positive voltage to TOP.
the lens moves outer circumference.
SWITCHES:
CD CORE UNIT(S10.5COMP1)
S901:HOME SWITCH.....ON-OFF
S903:DSCSNS SWITCH.....ON-OFF
S904:12EJ SWITCH.....ON-OFF
S905:8EJ SWITCH.....ON-OFF
The underlined indicates the switch position.

SWITCHES:
CD CORE UNIT(S10.5COMP1)
S901:HOME SWITCH.....ON-OFF
S903:DSCSNS SWITCH.....ON-OFF
S904:12EJ SWITCH.....ON-OFF
S905:8EJ SWITCH.....ON-OFF

The underlined indicates the switch position.



C-a C-b

C-a

C-b

DEH-2800MP/XN/UC

SIGNAL LINE
F FOCUS SERVO LINE
T TRACKING SERVO LINE
C CARRIAGE SERVO LINE
S SPINDLE SERVO LINE

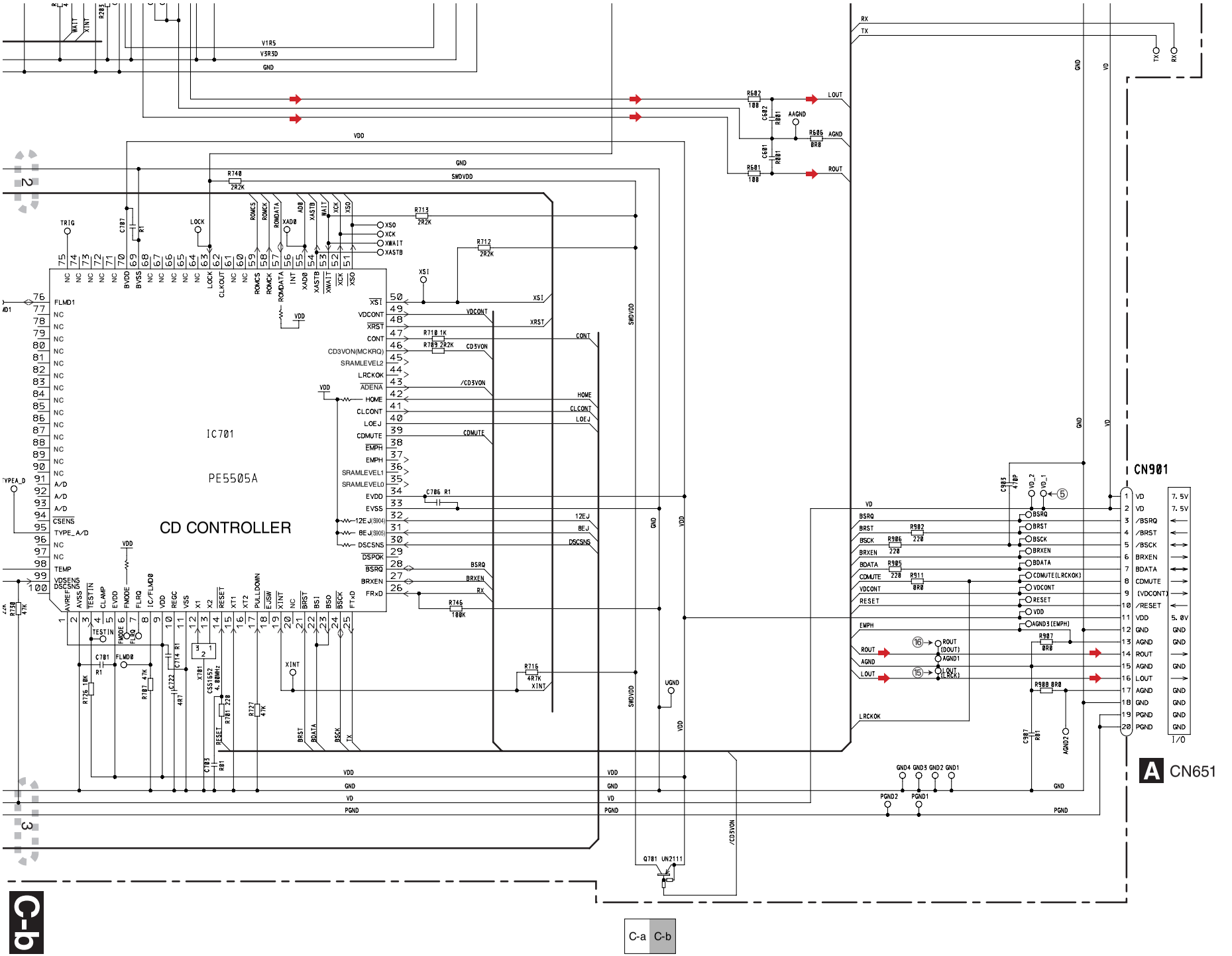
C CD CORE UNIT(S10.5COMP1)

IC201
D63763CGJ

DER, MP3&WMA DECODER
DATA·PROCESSOR

+ 3.3 V REGULATOR

IC203
NJM2886DL3-33


DEH-2800MP/XN/UC
C-b
C-a
C-b
IC701
PE5505A
CD CONTROLLER
CN901
A
CN651
V1R5
V3R5D
GND
VDD
SWDVDD
LOUT
ROUT
AGND
AAGND
TRIG
LOCK
XSO
XCK
XWAIT
XASTB
XSI
VDCONT
XRST
CONT
CD3VON
/CD3VON
HOME
CLCONT
LOEJ
CDMUTE
12EJ
BEJ
DSCSNS
BSRQ
BRXEN
RX
TX
XINT
RESET
BRST
BDATA
BSCK
LRCKOK
PGND
VD
Q701 UN2111
UGND
GND4 GND3 GND2 GND1
PGND2
PGND1

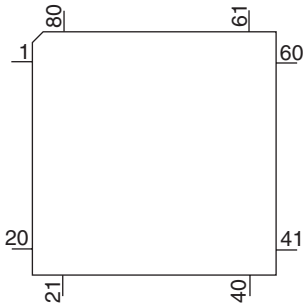
7.2 PARTS
7.2.1 IC

● **Pin Functions (PE5518A)**

Pin No.	Pin Name	I/O	Function and Operation
1	MODEL1	I	Model select input
2,3	NC		Not used
4	AVSS		GND
5,6	NC		Not used
7	AREF1		VDD
8	KYDT	I	Display microcomputer data input
9	DPDT	O	Display microcomputer communication data output
10	NC		Not used
11	TUNPDI	I	PLL data input
12	TUNPDO	O	PLL data output
13	TUNPCK	O	PLL clock output
14	PCL	O	Clock adjustment output
15	TESTIN	I	Test program input
16	BSI	I	Bus serial data input
17	BDATA	O	Bus serial output data
18	BSCK	O	Bus serial clock output
19	DORAON		Not used
20	NC		Not used
21	$\overline{\text{SWVDD}}$	O	Display microcomputer chip select output
22	ILMPW	O	Illumination power output
23-31	NC		Not used
32	DALMON	O	Output for dark current reduction circuit / Stand-by mode : L output
33	VSS		GND
34	BRST	O	Bus reset output
35	BRXEN	I/O	Bus RX enable input/output
36	CDRESET	O	CD microcomputer reset signal output
37	ROMDATA	O	ROM collection data output
38	ROMCLK	O	ROM collection clock output
39	ROMCS	O	ROM collection chip select output
40	RECEIVE	O	RDS decoder receiving output
41,42	NC		Not used
43	SYSPW	O	System power output
44-46	NC		Not used
47	STRKEY2	I	Wired remote control input 2
48	MUTE	O	System mute output
49	ANTPW	O	Auto antenna control output
50	NC		Not used
51	VST	O	E.VOL strobe output
52	VDT	O	E.VOL data output
53	VCK	O	E.VOL clock output
54	NC		Not used
55	TUNPCE2	O	PLL chip enable output 2
56	TUNPCE	O	PLL chip enable output
57	RDT	I	RDS LK input
58	RDSLK	I	RDS clock input
59	RDS57K	I	RDS 57K input
60	RESET		Reset
61	LDET	I	PLL lock detection input
62	RCK	I	RDS clock input
63	$\overline{\text{ASENS}}$	I	ACC sense input
64	$\overline{\text{BSENS}}$	I	Back up sense input
65	$\overline{\text{DSENS}}$	I	Grille detach sense input
66	$\overline{\text{SOURCE}}$	I	Source sense input
67	VSS		GND
68	VDD		VDD

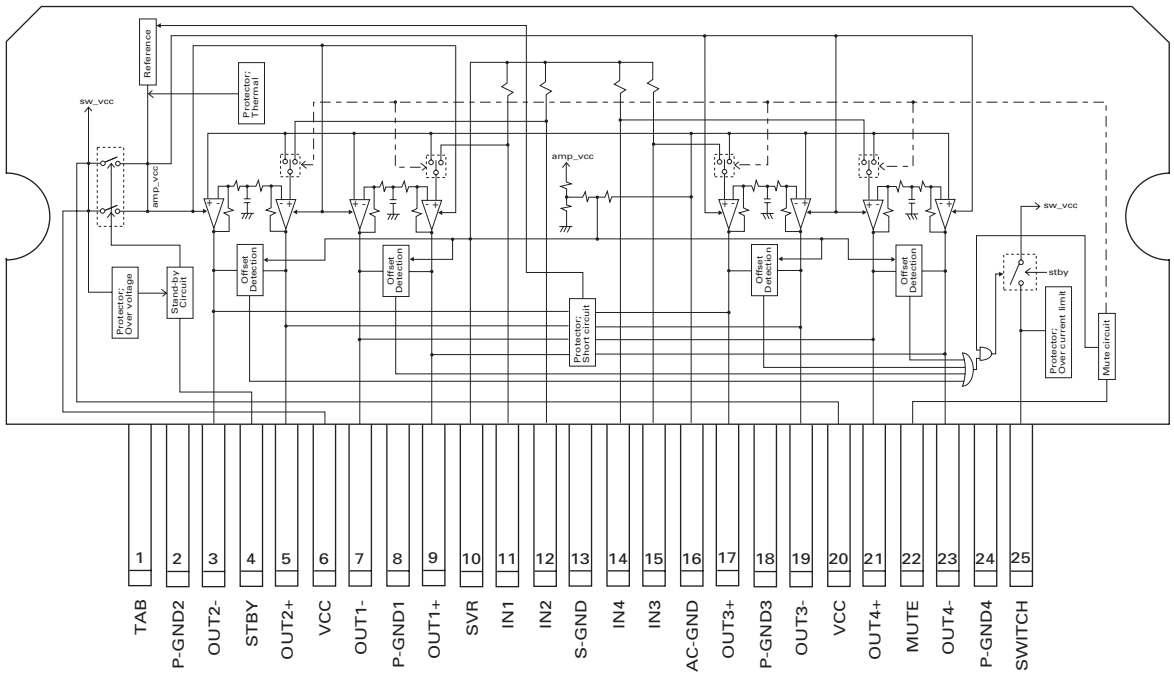
Pin No.	Pin Name	I/O	Function and Operation
69,70	X2,1		Crystal oscillator connection pin
71	IC(VPP)		GND
72	NC		Not used
73	VSS		VSS
74	AVDD		VDD
75	AVREF1		VDD
76	SL	I	Signal level input
77,78	NC		Not used
79	BSRQ	I	Bus slave service request
80	STRKEY1	I	Wired remote control input 1

*PE5518A



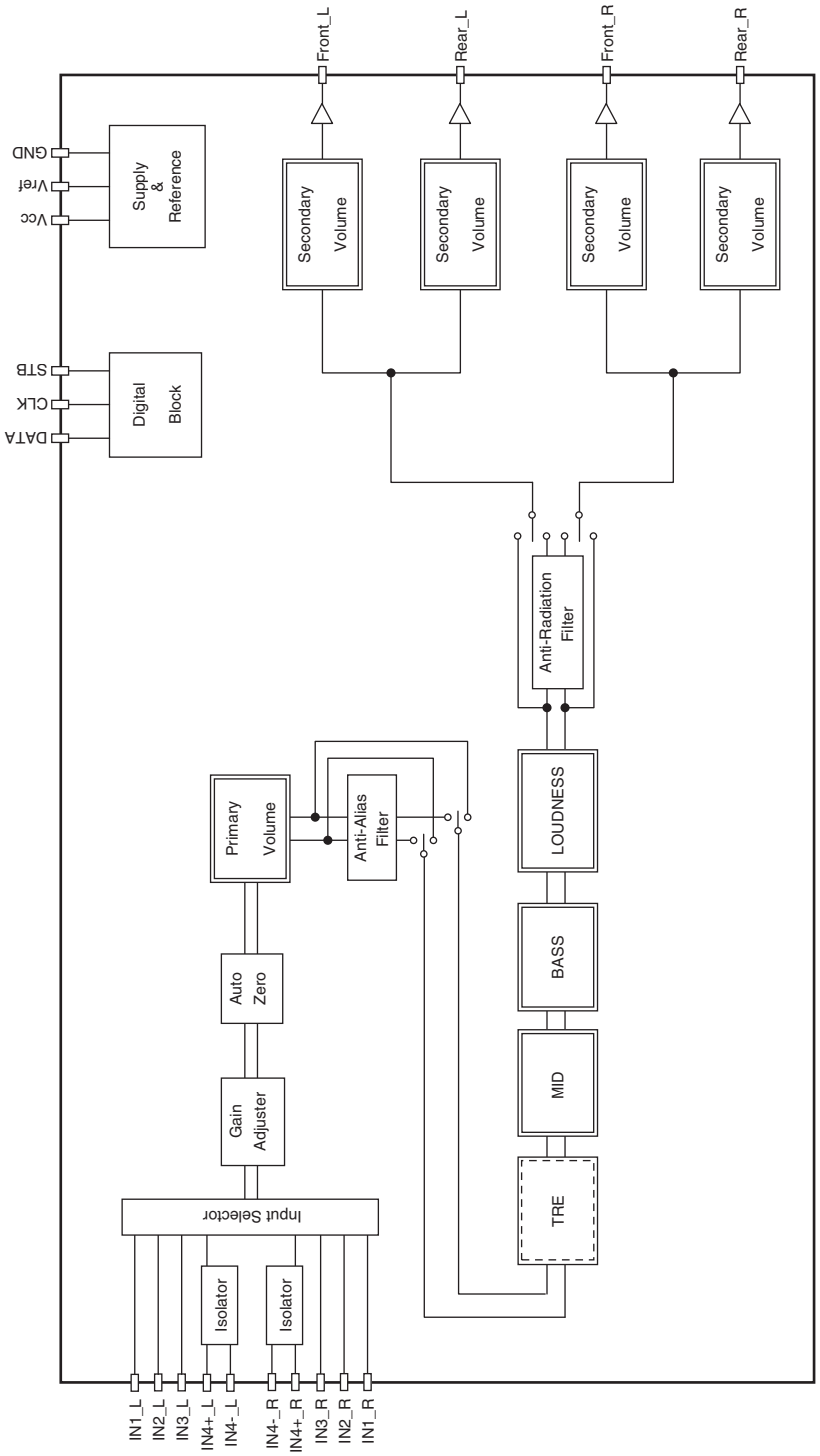
IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

PAL007B

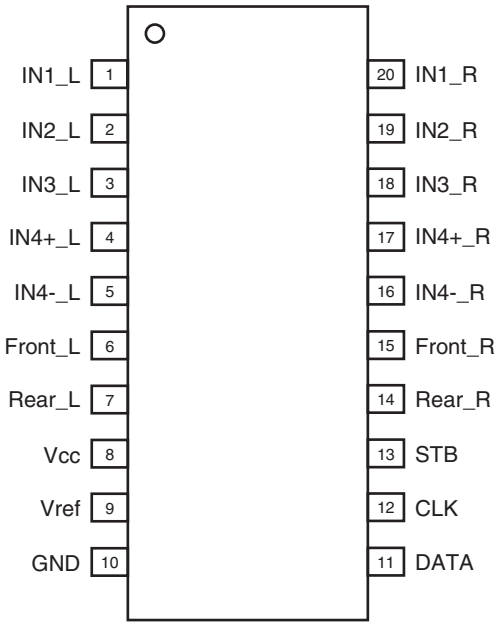


PML014A

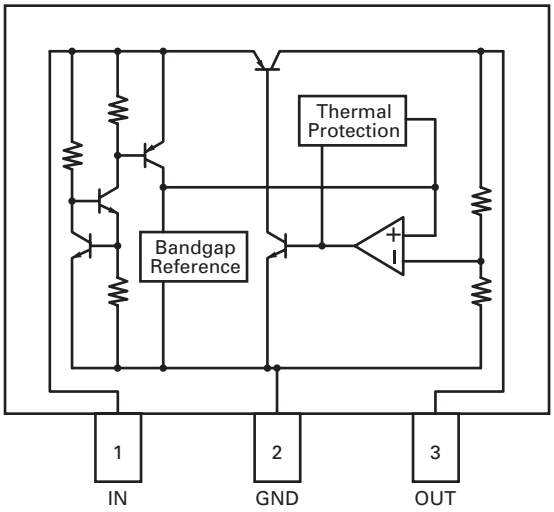
● Block Diagram



● Pin Layout



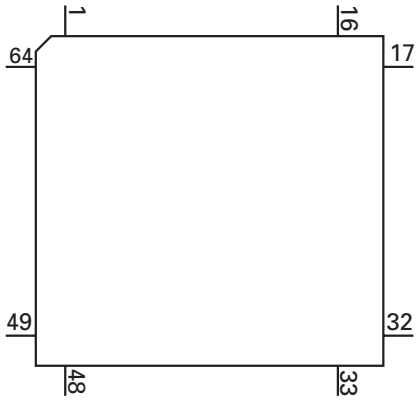
NJM2885DL1-33



● Pin Functions(PD6340A)

Pin No.	Pin Name	I/O	Function and Operation
1-5	SEG4-0	O	LCD segment output
6-9	COM3-0	O	LCD common output
10	VLCD		LCD drive power supply
11-14	KST3-0	O	Key strobe output
15,16	KDT0,1	I	Key data input (analogue input)
17	REW	I	Remote control reception input
18	DPDT	I	Display data input
19	NC		Not used
20	KYDT	O	Key data output
21	MODA		GND
22	X0		Crystal oscillator connection pin
23	X1		Crystal oscillator connection pin
24	VSS		GND
25,26	KDT2,3	I	Key data input
27	NC		Not used
28	KST4	O	Key strobe output
29-32	NC		Not used
33-55	SEG35-13	O	LCD segment output
56	VDD		Power supply
57-64	SEG12-5	O	LCD segment output

* PD6340A

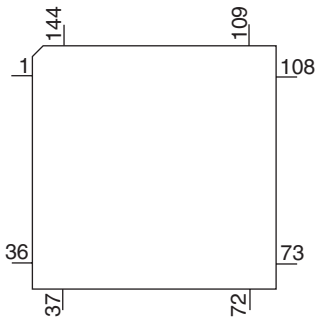


● Pin Functions (UPD63763CGJ)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Power supply for digital circuits
2	D1.GND		Ground for 1.6 V digital circuits
3	$\overline{\text{RESET}}$	I	Input of reset
4-8	AB12-8	I	Address bus 12-8 from the microcomputer
9-16	AD7-0	I/O	Address/data bus 7-0 to the microcomputer
17	$\overline{\text{CS}}$	I	Chip selection
18	ASTB	I	Address strobe
19	$\overline{\text{READ}}$	I	Control signals(read)
20	$\overline{\text{WRITE}}$	I	Control signals(write)
21	$\overline{\text{WAIT}}$	O	Control signals(wait)
22	INTQ	O	Interruption signals to the external microcomputer
23,24	IFMODE0,1	I	Switching the microcomputer I/F 0, 1
25	D1.VDD		Power supply for 1.6 V digital circuits
26	DA.VDD		Power supply for DAC
27	ROUT	O	Output of audio for the right channel
28	DA.GND		Ground for DAC
29	REGC		Connected to the capacitor for band gap
30	DA.GND		Ground for DAC
31	LOUT	O	Output of audio for the left channel
32	DA.VDD		Power supply for DAC
33	X.VDD		Power supply for the crystal oscillator
34	XTAL	I	Connected to the crystal oscillator(16.9344 MHz)
35	$\overline{\text{XTAL}}$	O	Connected to the crystal oscillator(16.9344 MHz)
36	X.GND		Ground for the crystal oscillator
37	VDDREG15		Control of 1.6 V regulator
38	PWMSW0	I	Setup 0 for PWM output(SD, MD)
39-41	TEST3-1	I	Connected to Ground
42	PWMSW1	I	Setup 1 for PWM output(FD, TD)
43	TESTEN	I	Connected to Ground
44	D1.GND		Ground for 1.6 V digital circuits
45	DIN	I	Input of audio data
46	DOUT	O	Output of audio data
47	SCKIN	I	Clock input for audio data
48	SCKO	O	Clock output for audio data
49	LRCKIN	I	Input of LRCK for audio data
50	LRCK	O	Output LRCK for audio data
51	$\overline{\text{XTALEN}}$	I	Permission to oscillate 16.9344 MHz
52	D1.VDD		Power supply for 1.6 V digital circuits
53	RFCK/HOLD	O	Output of RFCK/HOLD signal
54	WFCK/MIRR	O	Output of WFCK/MIRR signal
55	PLCK/RFOK	O	Output of PLCK/Output of RFOK
56	LOCK/RFOK	O	Output of LRCK/Output of RFOK
57	C1D1/C8M/(RA13)	O	Information on error correction/C8M : 8 MHz
58	C1D2/C16M/(RA12)	O	Information on error correction/C16M : 16 MHz
59	C2D1/RMUTE	O	Information on error correction/Mute for Rch
60	C2D2/LMUTE	O	Information on error correction/Mute for Lch
61	C2D3/SHOCK	O	Information on error correction/Detection of vibration
62	D1.GND		Ground for 1.6 V digital circuits
63	C33M	O	Output of 33.8688 MHz(CLK for SDRAM)
64	($\overline{\text{RCS}}$)	O	DRAM $\overline{\text{CS}}$
65	RA11	O	Output of DRAM address 11
66	(CKE)	O	Output of DRAM CKE
67	$\overline{\text{RAS}}$	O	Output of DRAM $\overline{\text{RAS}}$
68	$\overline{\text{CAS0}}$(LDQM)	O	Output of DRAM lower $\overline{\text{CAS}}$(LDQM)
69	$\overline{\text{CAS1}}$(UDQM)	O	Output of DRAM upper $\overline{\text{CAS}}$(UDQM)

Pin No.	Pin Name	I/O	Function and Operation
70	$\overline{WE}$	O	Output of DRAM $\overline{WE}$
71	$\overline{OE}$($\overline{CAS}$)	O	Output of DRAM $\overline{OE}$($\overline{CAS}$)
72	D.GND		Ground for digital circuits
73-88	RDB0-15	I/O	Input/output of DRAM data0-15
89-99	RA0-10	O	Output of DRAM address0-10
100	D.VDD		Power supply for digital circuits
101	FD+	O	Output of focus drive PWM +
102	FD-	O	Output of focus drive PWM -
103	TD+	O	Output of tracking drive PWM +
104	TD-	O	Output of tracking drive PWM -
105	SD+	O	Output of thread drive PWM +
106	SD-	O	Output of thread drive PWM -
107	MD+	O	Output of spindle drive PWM +
108	MD-	O	Output of spindle drive PWM -
109	REFOUTSV	O	REFOUT for servo
110	AD.VDD		Power supply for ADC
111	EFM	O	Output of EFM signals
112	ASY	I	Input of asymmetry
113	ATEST	O	Analog tests
114	RFI	I	Input of RF
115	AD.GND		Ground for the analog system
116	AGCO	O	Output of RF
117	C3T	O	Connection to the capacitor for detecting 3T
118	AGCI	I	Input of AGC
119	RFO	O	Output of RF(AGC)
120,121	EQ2,1	I	Equalizer 2, 1
122	RF2-	I	Reversal input of RF2
123	RF-	I	Reversal input of RF
124	A.GND		Ground for the analog system
125	A	I	Input of A
126	C	I	Input of C
127	B	I	Input of B
128	D	I	Input of D
129	F	I	Input of F
130	E	I	Input of E
131	VREFIN	I	Input of reference voltage
132	A.VDD		Power supply for the analog system
133	REFOUT	O	Output of reference voltage
134	REFC	I	Connected to the capacitor for output of REFOUT
135	FE-	I	Reversal input of FE
136	FEO	O	Output of FE
137	ADIN	I	Input of FE, TE A/D converter
138	TE-	I	Reversal input of TE
139	TEO	O	Output of TE
140	TE2	O	TE2
141	TEC	I	TEC
142	LD	O	Output of LD
143	PD	I	Input of PD
144	D.GND		Ground for digital circuits

* UPD63763CGJ

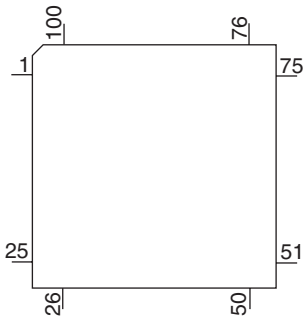


● Pin Functions (PE5505A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	AVREF			A power supply / Positive power supply(5V)
2	AVSS			A power supply GND
3	$\overline{\text{TESTIN}}$	I		Chip check test program starting input
4	CLAMP			Not used
5	EVDD			E power supply / Positive power supply
6	FMODE			For flash rewriting / L : flash rewriting mode
7	FLRQ			For flash rewriting / Reset voltage control
8	IC/FLMD0			IC : VSS direct connection/FLMOD0 : Pull-down
9	VDD			Positive power supply(5V)
10	REGC			Connected to the capacity stabilizing output of the regulator
11	VSS			GND
12	X1	I		Oscillator connection for mainclock
13	X2			Oscillator connection for mainclock
14	$\overline{\text{RESET}}$	I		System reset input
15	XT1	I		Connected to the oscillator for subclock(connected to VSS via the resistor)
16	XT2			Connected to the oscillator for subclock(Open)
17	PULLDOWN	I		Connected to EVDD or EVSS via the resistor
18	$\overline{\text{EJSW}}$			Not used
19	$\overline{\text{XINT}}$	I	C	CD LSI interruption signal input
20	NC			Not used
21	$\overline{\text{BRST}}$	I		Bus reset input
22	BSI	I		Bus serial data input
23	BSO	O	C	Bus serial data output
24	$\overline{\text{BSCK}}$	I/O	/C	Bus serial clock input/output
25	FTxD	O	C	For flash rewriting(transmitted signal)
26	FRxD	I		For flash rewriting(received signal)
27	BRXEN	I/O	/C	Bus RX enable input/output
28	$\overline{\text{BSRQ}}$	I/O	/C	Bus serial clock input/output
29	$\overline{\text{DSPOK}}$			Not used
30	DSCSNS	I	C	Disc state sense input
31	8EJ(S905)	I	C	input of detection of 8 cm disc ejection
32	12EJ(S904)	I	C	input of detection of 12 cm disc ejection
33	EVSS			E power supply GND
34	EVDD			E power supply / Positive power supply
35,36	SRAMLEVEL0,1	O		SRAM level meter output
37	EMPH	O	C	Emphasis information output
38	$\overline{\text{EMPH}}$			Not used
39	CDMUTE			Not used
40	LOEJ			Not used
41	CLCONT	O		Driver input switching output
42	HOME	I		Home SW sense input
43	$\overline{\text{ADENA}}$	O	C	A/D reference voltage supply control output
44	LRCKOK	O	C	(DOUT mute output)
45	SRAMLEVEL2	O	C	SRAM level meter output
46	CD3VON(MCKRQ)	O	C	CD + 3.3 V power supply control output(Digital output : MCKRQ)
47	CONT	O	C	Servo driver power supply control output
48	$\overline{\text{XRST}}$	O	C	CD LSI reset control output
49	VDCONT	O	C	VD power supply control output
50	$\overline{\text{XSI}}$	I		CD LSI serial data input
51	$\overline{\text{XSO}}$	O	C	CD LSI serial data output
52	$\overline{\text{XCK}}$	O	C	CD LSI serial clock output
53	$\overline{\text{XWAIT}}$	I	C	CD LSI wait control signal input
54	XASTB	O	C	CD LSI address strobe output
55	AD0	O	C	Address/data Bus 0
56	INT			Not used

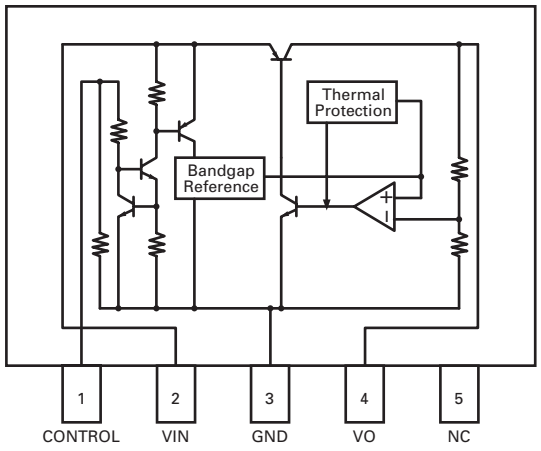
Pin No.	Pin Name	I/O	Format	Function and Operation
57	ROMDATA	I/O		E2PROM data input/output
58	ROMCK	O		E2PROM clock output
59	ROMCS	O	C	E2PROM chip selection output
60,61	NC			Not used
62	CLKOUT			Not used
63	LOCK	I		Spindle lock input
64-68	NC			Not used
69	BVSS			B power supply GND
70	BVDD			B power supply / Positive power supply
71-75	NC			Not used
76	FLMD1	I/O	/C	Address/Data Bus 5
77-90	NC			Not used
91-93	A/D			Not used
94	$\overline{\text{CSENS}}$			Not used
95	TYPE_A/D			Not used
96,97	NC			Not used
98	TEMP			Not used
99	VDSENS	I		VD power supply short sense input
100	DSCSNS			Not used

* PE5505A

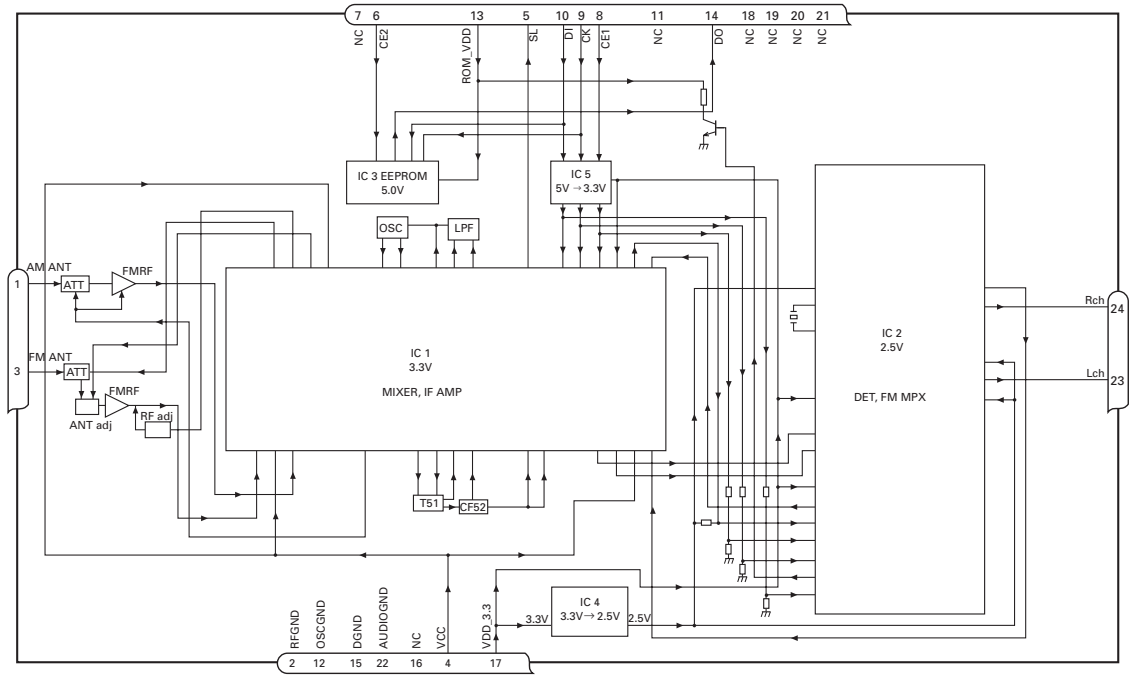


Format	meaning
C	C MOS

NJM2886DL3-33



● FM/AM Tuner Unit



No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7μH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75Ω Surge absorber(DSP-201M-S00B) is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4V ± 0.3V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM "Low" active
7	NC		non connection	Not used
8	CE1	I	chip enable-1	Chip enable for AF•RF "High" active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	NC		non connection	Not used
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3V ± 0.2V
18	NC		non connection	Not used
19	NC		non connection	Not used
20	NC		non connection	Not used
21	NC		non connection	Not used
22	AUDIOGND		audio ground	Ground of audio block
23	L ch	O	L channel output	FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output	FM stereo "R-ch" signal output or AM audio output