

D-NE510/NE511/NE518CK

SERVICE MANUAL

Ver. 1.1 2005.06



Photo: D-NE518CK

US Model
Canadian Model
D-NE510/NE518CK
AEP Model
UK Model
E Model
Australian Model
D-NE511/NE518CK

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM-3325ER2
Optical Pick-up Name	DAX-25E

SPECIFICATIONS

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs
Wavelength: $\lambda = 780 \text{ nm}$
Emission duration: Continuous
Laser output: Less than $44.6 \mu\text{W}$
(This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

D-A conversion

1-bit quartz time-axis control

Frequency response

20 – 20,000 Hz ± 1 dB
(measured by JEITA CP-307)

Output (at 4.5 V input level)

Headphones (stereo minijack)
Approx. 5 mW + Approx. 5 mW at 16 Ω
(Approx. 1.5 mW + Approx. 1.5 mW at 16 Ω)*

*For the customers in Europe

Power requirements

For the area code of the model you purchased, check the upper left side of the bar code on the package.

- Two LR6 (size AA) batteries: 1.5 V DC \times 2
- AC power adaptor (DC IN 4.5 V jack):
US/CND/E92/MX model: 120 V, 60 Hz
AEP/EE model: 220 – 230 V, 50/60 Hz
UK model: 230 V, 50 Hz
AUS model: 240 V, 50 Hz
E18 model: 100 – 240 V, 50/60 Hz

Battery life*1 (approx. hours)

(When you use the CD player on a flat and stable surface)

Playing time varies depending on how the CD player is used.

When using two Sony alkaline batteries
LR6 (SG) (produced in Japan)

	G-PROTECTION function	
	"1"	"2"
Audio CD	50	45
ATRAC3plus files*2	80	80
MP3 files*3	75	75

*1 Measured value by the standard of JEITA
(Japan Electronics and Information Technology Industries Association)

*2 When recorded at 48 kbps or 64 kbps

*3 When recorded at 128 kbps

Operating temperature

5°C – 35°C (41°F – 95°F)

Dimensions (w/h/d) (excluding projecting parts and controls)

Approx. 136.0 \times 26.3 \times 156.3 mm
(5 3/8 \times 1 1/16 \times 6 1/4 in.)

Mass (excluding accessories)

Approx. 202 g (7.2 oz.)

Supplied accessories

D-NE510

- Headphones (1) (US)
- Earphones (1) (CND)
- CD-ROM (SonicStage Simple Burner) (1)
- User's guide for SonicStage Simple Burner (1)

D-NE511

- AC power adaptor (1)
- Earphones (1)
- CD-ROM (SonicStage Simple Burner) (1)
- User's guide for SonicStage Simple Burner (1)

D-NE518CK

- AC power adaptor (1)
- Headphones (1) (US)
- Earphones (1) (Except US)
- Rotary commander (RM-MC25C) (1)
- Car battery cord (1)
- Car connecting pack (1)
- Velcro tapes for the CD player (2)
- Velcro tape for the rotary commander (1)
- CD-ROM (SonicStage Simple Burner) (1)
- User's guide for SonicStage Simple Burner (1)

For US customers

The AC power adaptor supplied is not intended to be serviced. Should the AC power adaptor cease to function in its intended manner, during the warranty period, the adaptor should be returned to your nearest Sony Service Center or Sony Authorized Repair Center for replacement, or after warranty period, it should be discarded.

Design and specifications are subject to change without notice.

• Abbreviation

- CND: Canadian model
- E18 : AC 100 – 240V area in E model
- E92 : AC 120V area in E model
- EE : East European model
- AUS : Australian model
- MX : Mexican model

PORTABLE CD PLAYER

9-877-188-02

2005F04-1

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Sony Corporation

Personal Audio Group

Published by Sony Engineering Corporation

SONY®

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Music sources playable on this CD player

You can play the following 3 music sources on this CD player:

- Audio CDs
- ATRAC3plus/ATRAC3 format files
- MP3 files

Usable disc formats

You can use ISO 9660 Level 1/2, Joliet extension format discs only.

ATRAC3plus and ATRAC3

“ATRAC3plus,” which stands for “Adaptive Transform Acoustic Coding3plus” is audio compression technology, developed from the ATRAC3 format. Though the ATRAC3plus format can compress music content to about 1/20 of its original size, you can still enjoy high quality sound. The available transfer bit rates are 64 kbps and 48 kbps.

“ATRAC3,” which stands for “Adaptive Transform Acoustic Coding3” is audio compression technology that satisfies the demand for high sound quality and high compression rates. The ATRAC3 format can compress music content to about 1/10 of their original size, which contributes to reduction of the media volume. The available transfer bit rates are 132 kbps, 105 kbps and 66 kbps.

The usable number of groups and files

- Maximum number of groups: 255
- Maximum number of files: 999

For details, refer to the supplied booklet “SonicStage Simple Burner.”

MP3 files

MP3, which stands for MPEG-1 Audio Layer3, a standard for audio files compression supported by the Motion Picture Experts Group, an ISO (International Organization for Standardization) working group, enables compression of audio files to about 1/10 of the data size of a standard compact disc. Since the MP3 encoding algorithm is public, there are various encoders/decoders that are compliant with this standard, including freeware that is available for no charge. Thus, the MP3 standard is widely used in the computer field.

TABLE OF CONTENTS

1. SERVICE NOTE	3
2. GENERAL	
Locating the controls	4
3. DISASSEMBLY	
3-1. Lid (Upper) Assy	5
3-2. Cabinet (Front) Assy	6
3-3. Main Board	6
4. ELECTRICAL ADJUSTMENTS	
4-1. Focus Bias Check	7
5. DIAGRAMS	
5-1. IC Pin Descriptions	8
5-2. Block Diagram –CD Section–	15
5-3. Block Diagram –Audio Section–	16
5-4. Block Diagram –Power Supply Section–	17
5-5. Printed Wiring Board –Main Section–	18
5-6. Schematic Diagram –Main Section (1/2)–	20
5-7. Schematic Diagram –Main Section (2/2)–	21
5-8. IC Block Diagrams	22
6. EXPLODED VIEWS	
6-1. Cabinet (Front) Section	23
6-2. Main Board Section	24
6-3. CD Mechanism Deck Section (CDM-3325ER2)	25
7. ELECTRICAL PARTS LIST	26

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 SERVICE NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

Precautions for Checking Emission of Laser Diode

Laser light of the equipment is focused by the object lens in the optical pick-up so that the light focuses on the reflection surface of the disc. Therefore, be sure to keep your eyes more than 30 cm apart from the object lens when you check the emission of laser diode.

Before Replacing the Optical Pick-Up Block

Please be sure to check thoroughly the parameters as per the "Optical Pick-Up Block Checking Procedures" (Part No.: 9-960-027-11) issued separately before replacing the optical pick-up block. Note and specifications required to check are given below.

- FOK output : IC601 ⑥ pin (or TP618 (FOK))
When checking FOK, remove the lead wire to disc motor.
- RF signal P-to-P value : 0.45 ± 0.1 V_{p-p}
- The repairing grating holder is impossible.


Laser Diode Checking Methods

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning ON the S820. (push switch type)

The following two checking methods for the laser diode are operable.

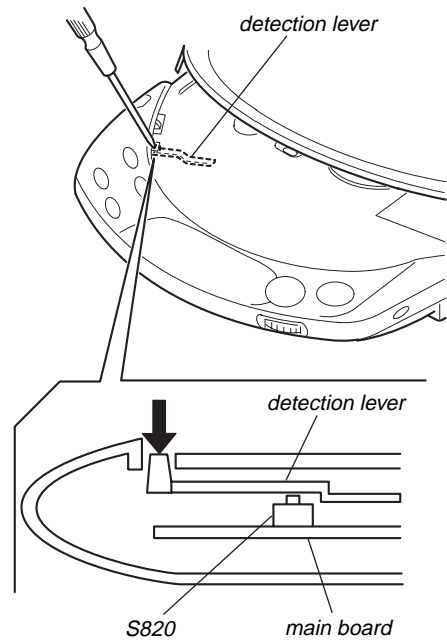
• Method:

Emission of the laser diode is visually checked.

1. Open the upper lid.
 2. With a disc not set, turn on the S820 with a screwdriver having a thin tip as shown in Fig.1.
or TAP805 is shorted as shown in Fig.2.
- Note:** Do not push the detection lever strongly, or it may be bent or damaged.
3. Press the  button.
 4. Observing the objective lens, check that the laser diode emits light.

When the laser diode does not emit light, automatic power control circuit or optical pick-up is faulty.

In this operation, the objective lens will move up and down 5 times along with inward motion for the focus search.



- MAIN BOARD - (SIDE B)

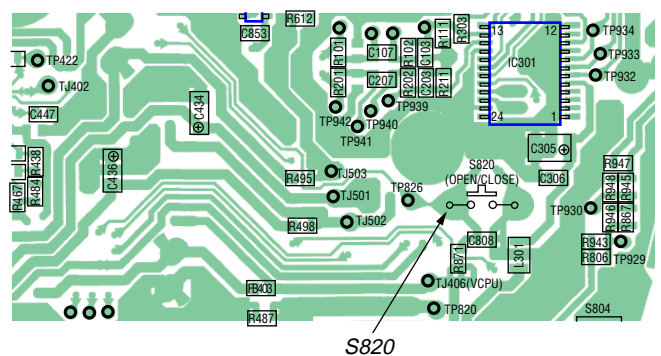
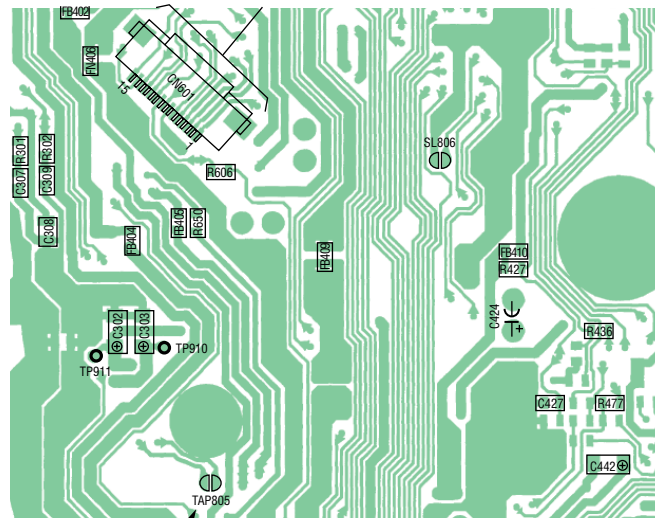


Fig. 1

- MAIN BOARD - (SIDE A)



TAP805

Fig. 2

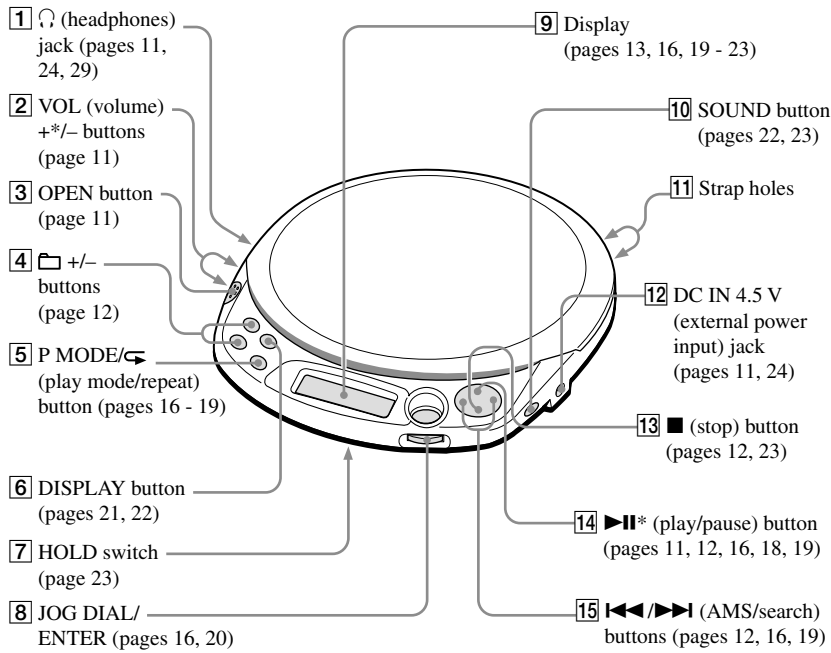
This section is extracted from instruction manual.

Getting started

Locating the controls

For details, see pages in parentheses.

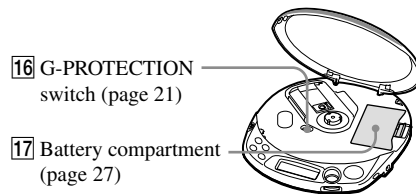
CD player (front)



Getting started

*The button has a tactile dot.

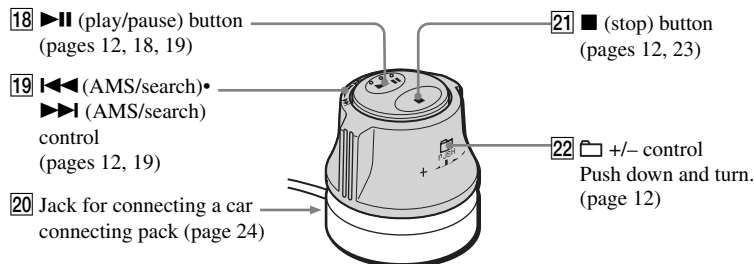
CD player (inside)



(Continued)

9-GB

Rotary commander (D-NE518CK only)

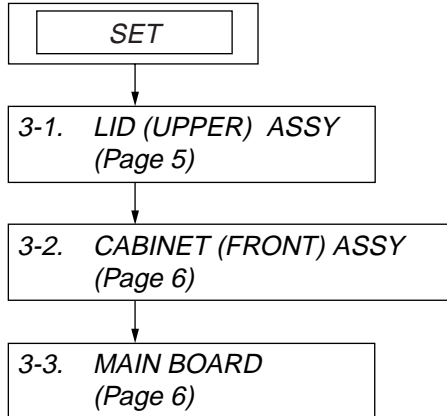


Note

The supplied rotary commander should be used with this player only.

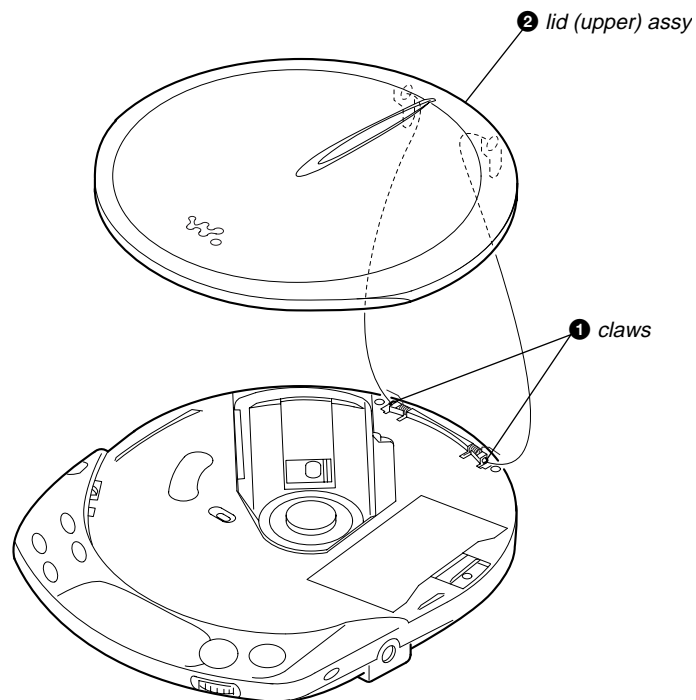
SECTION 3 DISASSEMBLY

- The equipment can be removed using the following procedure.

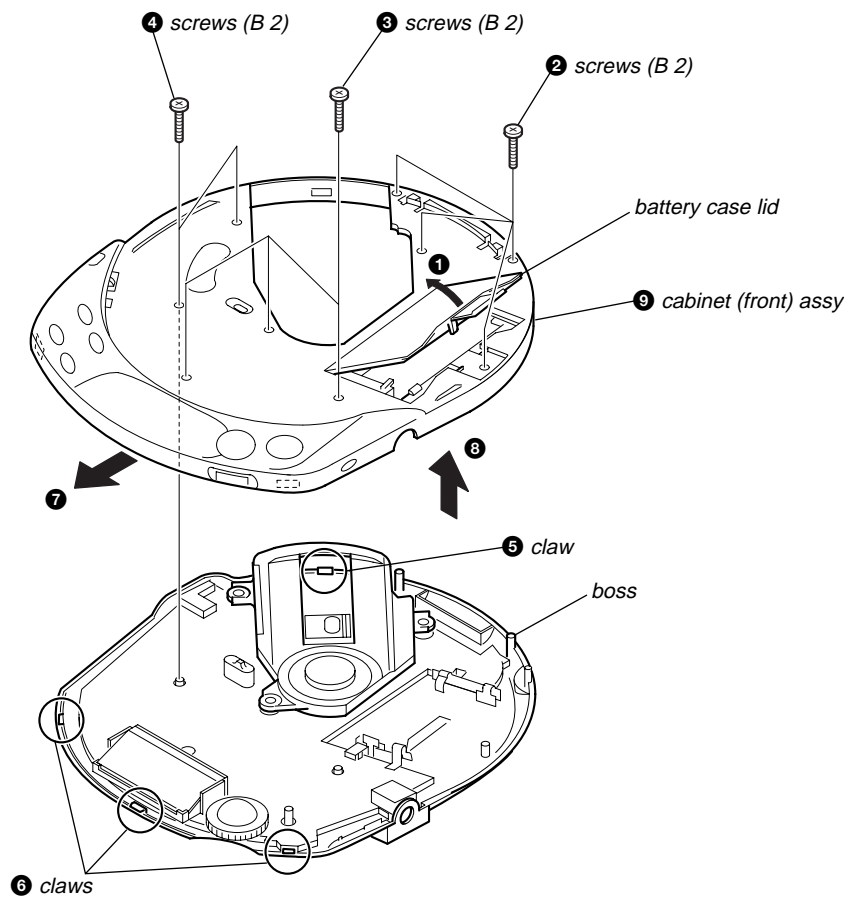


Note : Follow the disassembly procedure in the numerical order given.

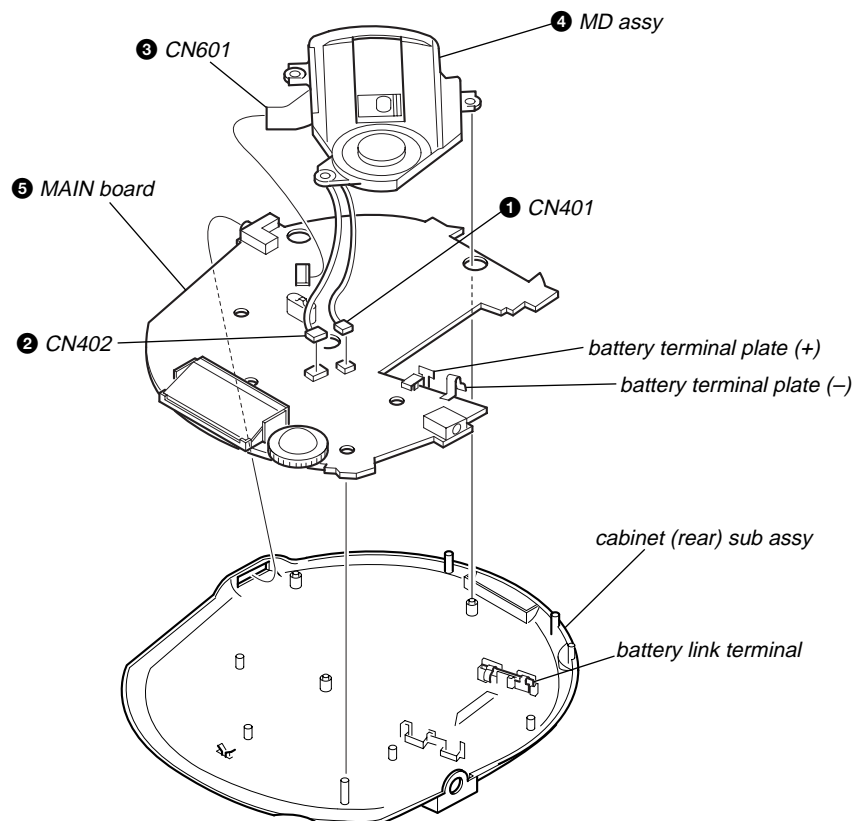
3-1. LID (UPPER) ASSY



3-2. CABINET (FRONT) ASSY




3-3. MAIN BOARD



SECTION 4 ELECTRICAL ADJUSTMENTS

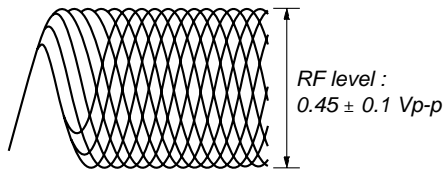
CD section adjustments are done automatically in this set.
In case of operation check, confirm that focus bias.

4-1. FOCUS BIAS CHECK

1. Connect the oscilloscope between TJ601 (RF) and GND on main board.
2. Insert the disc (YEDS-18). (Part No. : 3-702-101-01)
3. Press the  button.
4. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

- RF signal reference waveform (eye pattern)

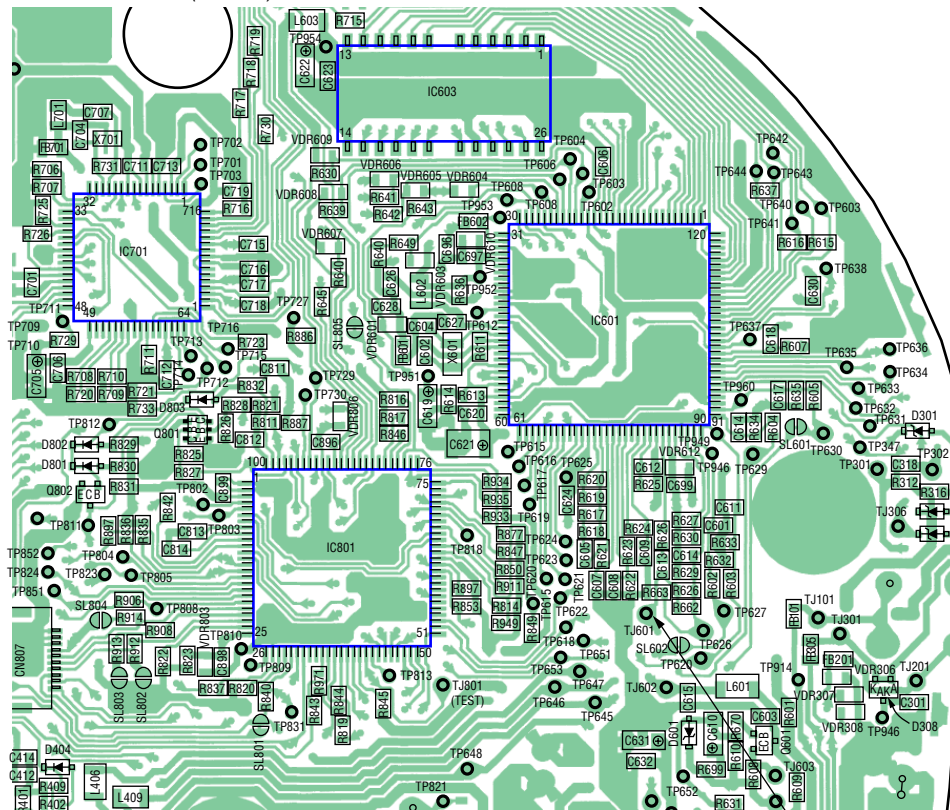
VOLT/DIV : 20 mV (10 : 1 probe in use)
TIME/DIV : 500 nS



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Test Points:

— MAIN BOARD — (SIDE B)



TJ601 (RF)

SECTION 5 DIAGRAMS

5-1. IC PIN DESCRIPTIONS

• IC601 CXD3048R (RF AMP, DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, D-RAM CONTROLLER)

Pin No.	Pin Name	I/O	Pin Description
1	XRAS	O	Low address strobe signal output to the D-RAM
2	XWE	O	Data input enable signal output to the D-RAM
3 to 6	D1, D0, D3, D2	I/O	Two-way data bus with the D-RAM
7	DCLK	O	Not used (open)
8	DCKE	O	Not used (open)
9	XCAS	O	Column address strobe signal output to the D-RAM
10	WFCK/DQM	O	Not used (open)
11 to 13	A9 to A7	O	Address signal output to the D-RAM
14	DVSS	—	Ground
15 to 17	A6 to A4	O	Address signal output to the D-RAM
18	XRDE	I	D-RAM read enable signal input
19	VDD0	—	Power supply
20	CLOK	I	Serial data transfer clock signal input from TMP91CW28FG
21	SDTO	I	Serial data input from TMP91CW28FG
22	SENS	O	Serial data output to TMP91CW28FG
23	XLAT	I	Serial data latch pulse signal input from TMP91CW28FG
24	XSOE	I	Serial data output enable signal input from TMP91CW28FG
25	YSM	I	Analog muting on/off control signal input from TMP91CW28FG "H": muting on
26	WDCK	O	Not used (open)
27	SCOR	O	Subcode sync (S0+S1) detection signal output to TMP91CW28FG
28	XRST	I	Reset signal input from TMP91CW28FG "L": reset
29	PWMI	I	Not used (open)
30	XQOK	I	Not used (open)
31	XWRE	I	Not used (open)
32	R8M	O	System clock output to TMP91CW28FG
33	VSS0	—	Ground
34	SQCK	I	SQSO readout clock signal input Not used (fixed at "H")
35	SCLK	I	SENS serial data read clock signal input Not used (fixed at "H")
36	SQSO	O	Not used (open)
37	XEMP	O	Not used (open)
38	XWIH	O	Not used (open)
39	SBSO	O	Not used (open)
40	EXCK	O	SQSO readout clock signal output Not used (pull down)
41	XTSL	I	Input terminal for the system clock frequency setting (pull down)
42	HVSS	—	Ground
43	HPL	O	Not used (open)
44	HPR	O	Not used (open)
45	HPVDD	—	Power supply
46	XVDD	—	Power supply
47	XTAI	I	System clock input (16.934 MHz)
48	XTAO	O	System clock output (16.934 MHz)
49	XVSS	—	Ground
50	AVDD1	—	Power supply
51	AOUT1	O	L-ch analog audio signal output
52	VREFL	O	L-ch reference voltage output
53, 54	AVSS1, AVSS2	—	Ground
55	VREFR	O	R-ch reference voltage output
56	AOUT2	O	R-ch analog audio signal output
57	AVDD2	—	Power supply

Pin No.	Pin Name	I/O	Pin Description
58	TES1	I	Input terminal for the test (fixed at "L")
59	TEST	I	Input terminal for the test (fixed at "L")
60	VSS1	—	Ground
61	LRMU	O	Muting on/off control signal output to TA2120FN
62	DOUT	O	Not used (open)
63	ATSK	I/O	Not used (open)
64	DFCT	I/O	Not used (open)
65	FOK	O	Focus OK signal output to TMP91CW28FG
66	MIRR	I/O	Not used (open)
67	COUT	I/O	Not used (open)
68	C2PO	O	Not used (open)
69	GFS	O	GFS signal output to TMP91CW28FG
70	XUGF	O	Not used (open)
71	XPCK	O	Not used (open)
72	VDD1	—	Power supply
73	PCO	O	Charge pump output for master PLL
74	FILI	I	Filter input for master PLL
75	FILO	O	Filter output for master PLL
76	CLTV	I	VCO1 control voltage input for multiplier
77	VCTL	I	VCO2 control voltage input for broad-band EFM PLL
78	VPCO	O	Charge pump output for broad-band EFM PLL
79	AVSS3	—	Ground
80	ASY_O	O	EFM full-swing output
81	ASY_I	I	Asymmetry comparator voltage input
82	BIAS	I	Asymmetry circuit constant current input
83	AVDD3	—	Power supply
84	RFAC	I	EFM signal input from the optical pick-up
85	AVDD0	—	Power supply
86	IGEN	I	Stabilized current input (pull up)
87	AVSS0	—	Ground
88	RFDC	I	RF signal input from the optical pick-up
89	E	I	E signal input from the optical pick-up
90	F	I	F signal input from the optical pick-up
91	B	I	B signal input from the optical pick-up
92	A	I	A signal input from the optical pick-up
93	VC	I	Middle point voltage input Not used (fixed at "L")
94	VSS3	—	Ground
95	FRDR	O	Focus servo drive signal (-) output to the TB2138FG
96	FFDR	O	Focus servo drive signal (+) output to the TB2138FG
97	TRDR	O	Tracking servo drive signal (-) output to the TB2138FG
98	TFDR	O	Tracking servo drive signal (+) output to the TB2138FG
99	SRDR	O	Sled servo drive signal (-) output to the TB2138FG
100	SFDR	O	Sled servo drive signal (+) output to the TB2138FG
101	SSTP	I	Disc inner position detection signal input Not used (fixed at "L")
102	MDS	O	Spindle motor drive signal output
103	MDP	O	Spindle motor servo control signal output
104	C176	O	176.4 kHz clock signal output to TB2138FG
105	VDD2	—	Power supply
106	LRCK_O	O	L/R sampling clock signal output to CXR710
107	LRCKI_I	I	L/R sampling clock signal input from CXR710
108	PCMD_O	O	Serial data output to CXR710

D-NE510/NE511/NE518CK

Pin No.	Pin Name	I/O	Pin Description
109	PCMD_I	I	Serial data input from CXR710
110	BCK_O	O	Bit clock signal output to CXR710
111	BCK_I	I	Bit clock signal input from CXR710
112	DVDD	—	Power supply
113 to 117	A3 to A0, A10	O	Address signal output to the D-RAM
118	A11	O	Not used (open)
119, 120	TEST3, TEST4	O	Not used (open)

• IC701 CXR710 (SOUND PROCESSOR)

Pin No.	Pin Name	I/O	Pin Description
1	LRCH	I	D/A I/F L/R clock input from CXD3048
2	BCK	I	D/A I/F bit clock input from CXD3048
3	VDIOCD0	—	Power supply (+2.0 V)
4	PCMD	I	D/A I/F serial data input from CXD3048
5	DVDD4	—	Power supply (+1.5 V)
6	TAPTDO	O	Debug signal output
7	SCANEN	I	Not used (fixed at “L”)
8	DVDD0	—	Power supply (+1.5 V)
9	DVSS0	—	Ground
10	VDIO0	—	Power supply (+2.0 V)
11	VDIOCD1	—	Power supply (+2.0 V)
12	PF4	I	XRDE monitor signal input from CXD3048
13	PI3	O	D/A I/F bit clock output to CXD3048
14	PI2	O	D/A I/F L/R clock output to CXD3048
15	PI0	O	D/A I/F serial clock output to CXD3048
16	EVA	I	Mode select input terminal
17	KCLK	O	Not used (open)
18	KSC	O	Not used (open)
19	VDIO1	—	Power supply (+2.0 V)
20	KDI	O	Not used (fixed at “L”)
21	KDO	I	Not used (fixed at “L”)
22	KRB	I	Not used (open)
23	DVDD1	—	Power supply (+1.5 V)
24	DVSS3	—	Ground
25	AVDPLL	—	Power supply (PLL) (+2.6 V)
26	AVSPLL	—	Ground (PLL)
27	AVSOSC	—	Ground
28	AVDMO	—	Power supply (+2.6 V)
29	EXTAL	I	System clock input (22 MHz)
30	XTAL	O	System clock output (22 MHz)
31	XIN	I	System clock input (22 MHz)
32	OSSEL	I	Input terminal for clock frequency setting (fixed at “L”)
33	NRST	I	Reset signal input
34	PF0	I	Interrupt signal input to TMP91CW28FG
35	PF1	I	Not used (fixed at “L”)
36	PF2	O	Data latch signal input from TMP91CW28FG
37	PF3	O	REQ signal output to TMP91CW28FG
38	PC0	I	Clock signal input from TMP91CW28FG
39	VDIOCD2	—	Power supply (+2.0 V)
40	PC1	O	Serial data output to TMP91CW28FG
41	PC2	I	Serial data input from TMP91CW28FG
42	PC3	I	Data latch signal input from TMP91CW28FG
43	DVDD2	—	Power supply (+1.5 V)
44	DVSS2	—	Ground
45	PE0	—	Not used (open)
46	PE1	—	Not used (open)
47	PE2	—	Not used (pull down)
48	PE3	—	Not used (pull up)
49	VDIO2	—	Power supply (+2.0 V)
50	TACK (TEST6)	O	Not used (open)
51	XOUT (TEST5)	O	Not used (open)
52	TRST (TEST4)	I	Not used (pull down)

D-NE510/NE511/NE518CK

Pin No.	Pin Name	I/O	Pin Description
53	TEST3	I	Not used (pull down)
54	TEST2	I	Not used (pull down)
55	TEST1	I	Not used (pull down)
56	DVDD3	—	Power supply
57	DVSS1	—	Ground
58	TEST0	I	Not used (pull down)
59	TCK	I	Not used (open)
60	TDI	I	Not used (open)
61	VDIO3	—	Power supply (+2.0 V)
62	TMS	I	Not used (open)
63	TDO	O	Not used (open)
64	NTRST	I	Not used (pull down)

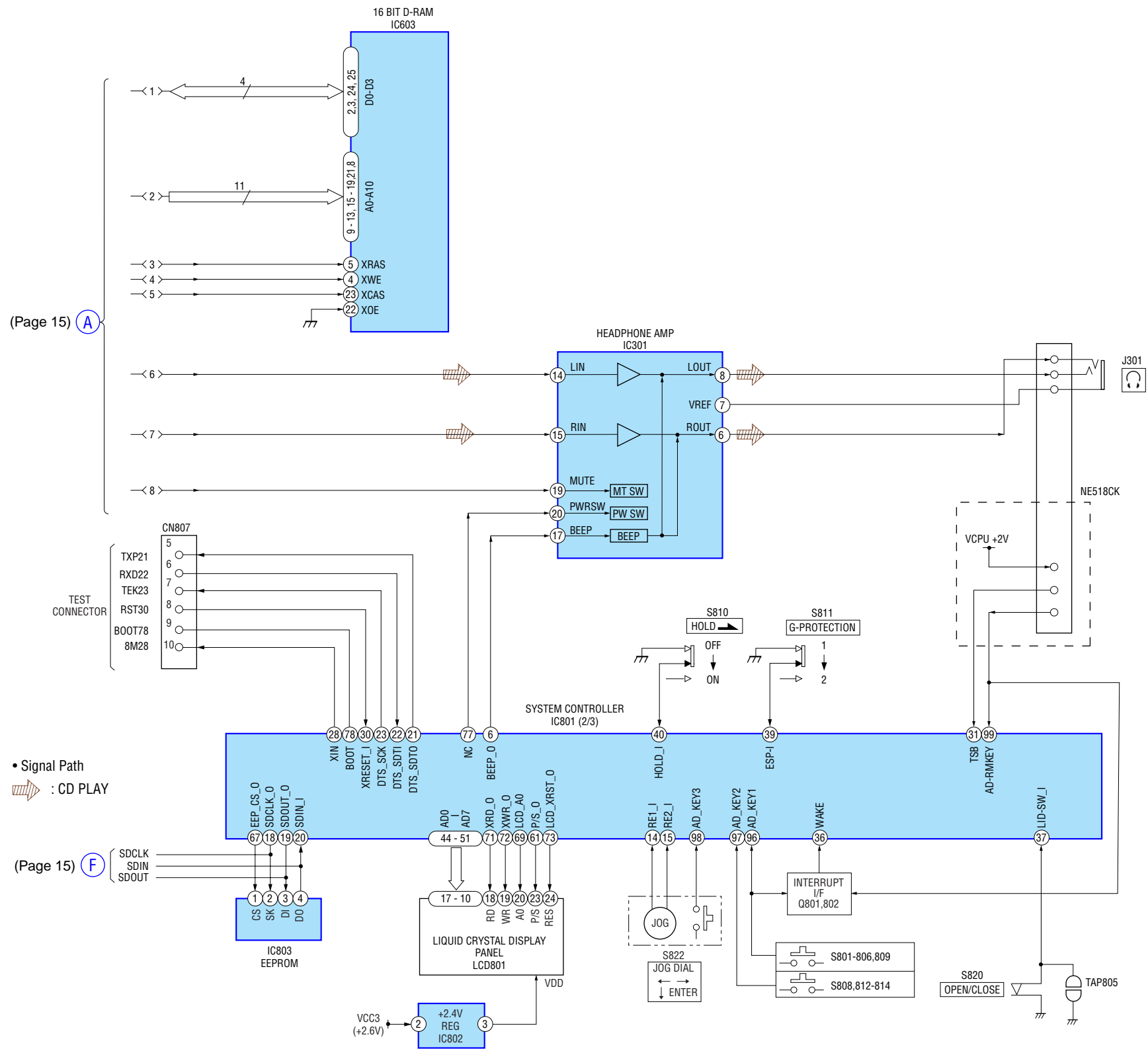
• IC801 TMP91CW28FG (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	GND	—	Ground
2	GND	—	Ground
3	VCPU	—	Power supply (+2.0 V)
4	XRST_O	O	System reset signal output
5	PWM_O	O	Power on/off signal output (Not used)
6	BEEP_O	O	Beep signal output
7	AMUTE_O	O	Mute signal output to CXD3048
8	LINEOUT_I	I	Not used (open)
9	OPTOUT_I	I	Not used (open)
10	FG_I	I	Motor flag monitor input from TB2138FG
11	REQ_I	I	REQ signal input from CXA710
12	HG-XSTB_O	O	Strobe signal output to optical pick up block
13	HG-GUP_O	O	Guide-up signal output to optical pick up block
14	RE1_I	I	Encode signal input from jog dial
15	RE2_I	I	Encode signal input from jog dial
16	LCD_REQ_O	O	Not used (open)
17	SDXLAT_O	O	Data latch signal output to CXD3048
18	SDCLK_O	O	Serial clock output to EEPROM
19	SDOUT_O	O	Serial data output to EEPROM
20	SDIN_I	I	Serial data input from EEPROM
21	DTS_SDTO	O	Serial data output
22	DTS_SDTI	I	Serial data input
23	DTS_SCK	O	Serial data transfer clock output
24	AMO_I	I	Not used (fixed at “L”)
25	VCPU	—	Power supply (+2.0 V)
26	XOUT	O	Not used (open)
27	GND	—	Ground
28	XIN	I	System clock signal input
29	AM1_I	I	Not used (fixed at “H”)
30	XRESET_I	I	System reset signal input from TB2138FG
31	TSB	I	TSB signal input from headphones with remote controller
32	XWAKE_O	O	WAKE-UP signal output to TB2138FG
33	EMU0_O	O	Not used (open)
34	EMU1_O	O	Not used (open)
35	ACKCD_I	I	Not used (pull down)
36	WAKE	I	KEY interrupt signal input
37	LID-SW_I	I	CD lid switch signal input
38	EXTBAT_I	I	Not used (fixed at “L”)
39	ESP_I	I	G-protection switch signal input
40	HOLD_I	I	HOLD switch signal input
41	AVSL_I	I	Not used (fixed at “L”)
42	TEST_I	I	Test mode setting input
43	NC	—	Not used (open)
44 to 51	AD0 to 7	I/O	Address and data input/output to LCD unit
52	FOK_I	I	Focus OK signal input from CXD3039R
53	GFS_I	I	GFS signal input from CXD3039R
54	TUPWRON_O	O	Not used (open)
55	CDON_O	O	Not used (open)
56	AUD_SEL	O	Not used (open)
57	CHGGND_ON_O	O	Not used (pull down)
58	BATT_VCC_ON_O	O	Not used (open)
59	DTS_RST_O	O	Not used (open)

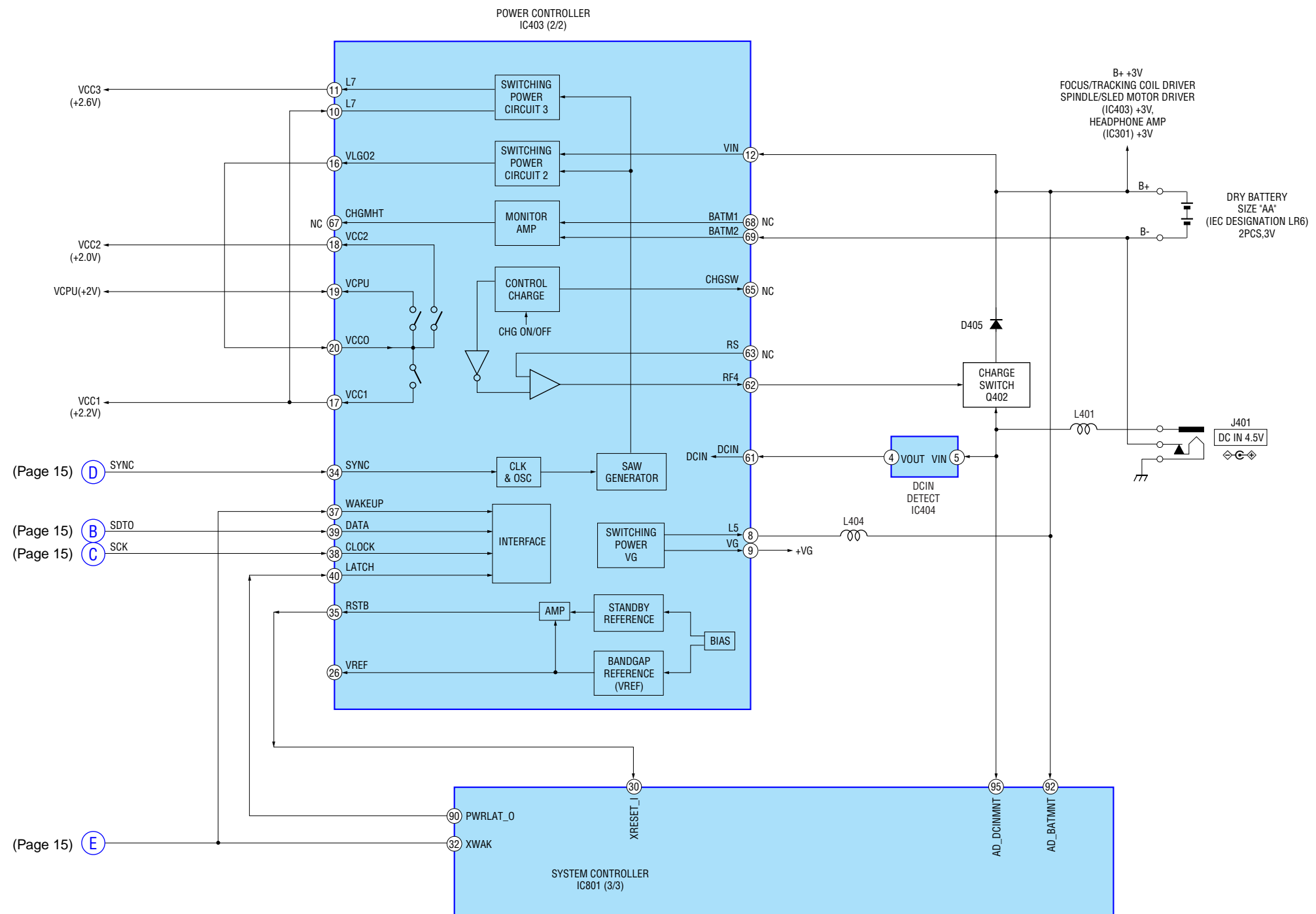
D-NE510/NE511/NE518CK

Pin No.	Pin Name	I/O	Pin Description
60	AT3_MP3_V_O	O	IC701 reset
61	P/S_O	O	P/S signal output to LCD unit
62	GND	—	Ground
63	XNMI_I	I	Not used (fixed at “H”)
64	VCPU	—	Power supply (+2.0 V)
65	HP_LIN_SEL_I	I	HP/LINE select input (fixed at “H”)
66	WAKEUP_K_O	O	Interrupt signal output to CXR710
67	EEP_CS_O	O	Chip select signal output to EEPROM
68	TUON_I	I	Not used (pull up)
69	LCD_A0	O	A0 signal output to LCD
70	OPTWRCTL_O	O	Not used (open)
71	XRD_O	O	Read signal output to LCD unit
72	XWR_O	O	Write signal output to LCD unit
73	LCD-XRST_O	O	Reset signal output to LCD unit
74	XLCD-BL_O	O	Not used (open)
75	DISPLAY_TYPE	I	DISPLAY type setting input (fixed at “L”) (pull down)
76	TUNER_TYPE	I	TUNER type setting input (fixed at “L”) (pull down)
77	NC	—	H/P power switch control
78	BOOT	—	Not used (open)
79	DRAM0_I	I	4M/16M select input to DRAM (fixed at “L”)
80	DRAM1_I	I	Not used (fixed at “L”)
81	XCEX_I	I	Fixed at “L” (AEP, UK model)
82	XLED-DSP_O	O	Not used (open)
83	MSCK0_O	O	Serial data transfer clock output to CXD3048 and TB2138FG
84	MSDTO0_O	O	Serial data output to CXD3048 and TB2138FG
85	MSDTIO_I	I	SENS signal input from CXD3048
86	SCOR_I	I	Sub-code sync (S0+S1) detect signal input from CXD3048
87	XLAT0_O	O	Latch signal output to CXD3048
88	XSOE_O	O	Serial data enable signal output to CXD3048
89	VCPU	—	Power supply (+2.0 V)
90	PWRLAT_O	O	Data Latch signal output to TB2138FG
91	GND	—	Ground
92	AD-BATMNT	I	Battery voltage level monitor input
93	AD-CHGMNT	I	Not used (pull up)
94	AD-CHGSTMNT	I	Not used (fixed at “L”)
95	AD-DCINMNT	I	DC IN voltage level monitor input
96	AD-KEY1	I	Key input from switch unit
97	AD-KEY2	I	Key input from switch unit
98	AD-KEY3	I	Key input from jog switch
99	AD-RMKEY	I	Key input from headphones with remote controller
100	VCPU	—	Power supply (+2.0 V)

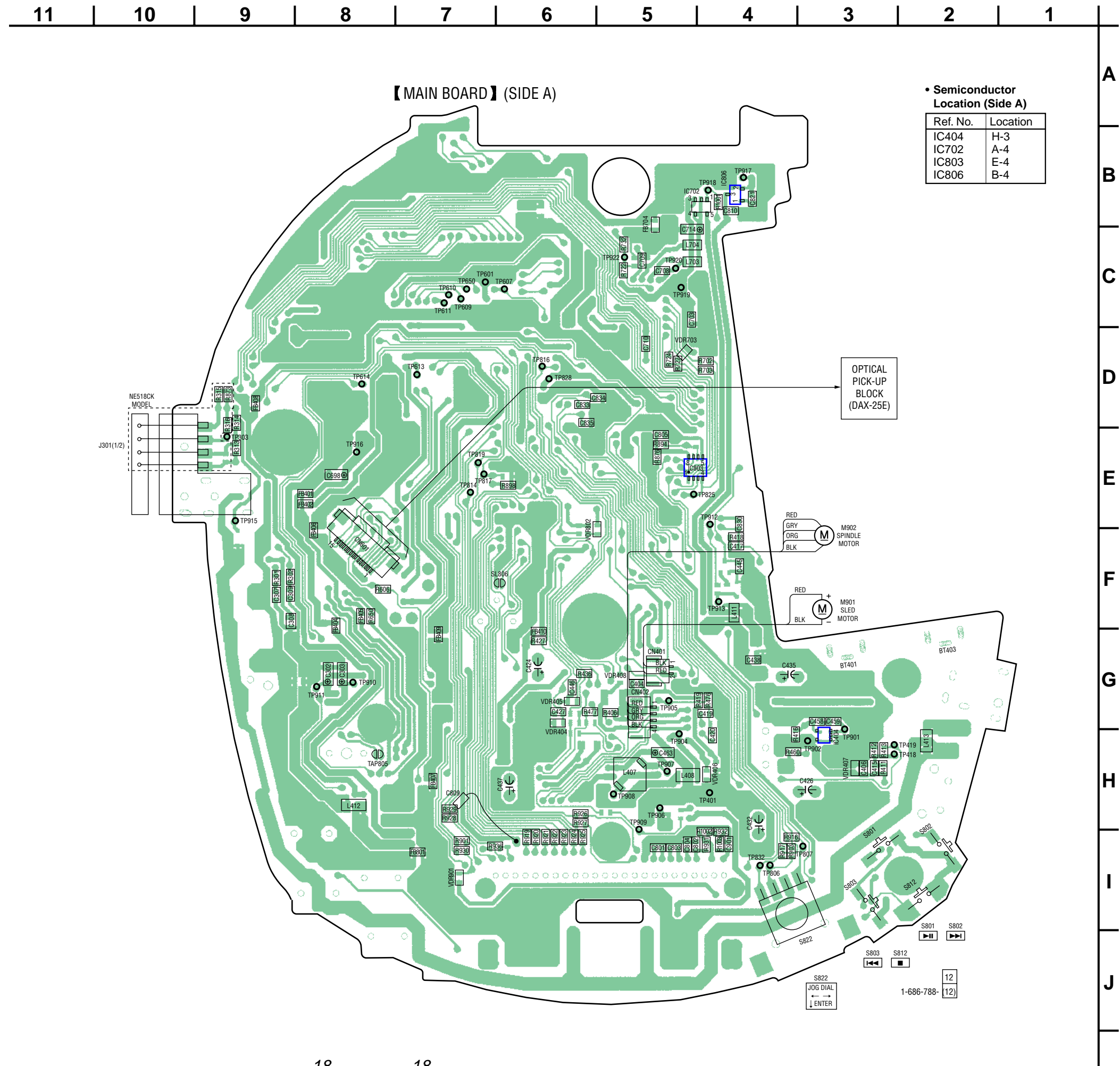
5-3. BLOCK DIAGRAM — AUDIO SECTION —



5-4. BLOCK DIAGRAM — POWER SUPPLY SECTION —



5-5. PRINTED WIRING BOARD — MAIN SECTION —



Common Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4 W$ or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- : panel designation.

<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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- : B+ Line.
- Total current is measured with CD installed.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from external power voltage jack.
- Voltagess and waveforms are dc with respect to ground in playback mode.
- no mark : CD PLAY
- * : Impossible to measure
- Voltagess are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \Rightarrow : CD
- Abbreviation
- CND : Canadian model.
- E18 : AC 100 – 240V area in E model.
- E92 : AC 120V area in E model.
- EE : East European model.
- AUS : Australian model.
- MX : Mexican model.

Common Note on Printed Wiring Boards:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- \circ : Through hole.
- Δ : internal component.
- : Pattern from the side which enables seeing.

Caution:
 Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
 Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

- Abbreviation
- CND : Canadian model.
- E18 : AC 100 – 240V area in E model.
- E92 : AC 120V area in E model.
- EE : East European model.
- AUS : Australian model.
- MX : Mexican model.

• Semiconductor Location (Side A)

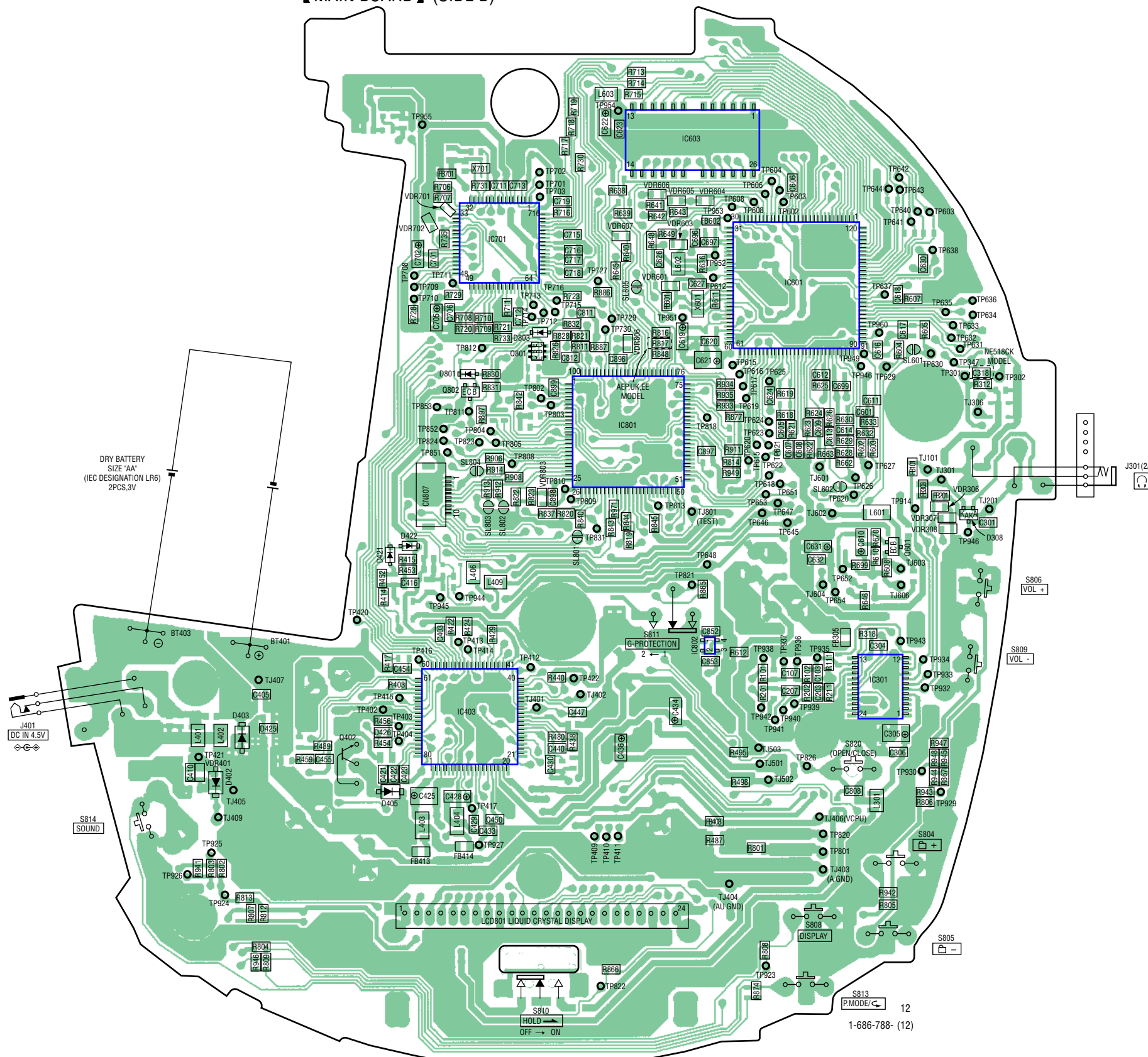
Ref. No.	Location
IC404	H-3
IC702	A-4
IC803	E-4
IC806	B-4

• Refer to page 18 for Common note on Printed Wiring Board.

1 2 3 4 5 6 7 8 9 10 11

A
B
C
D
E
F
G
H
I
J

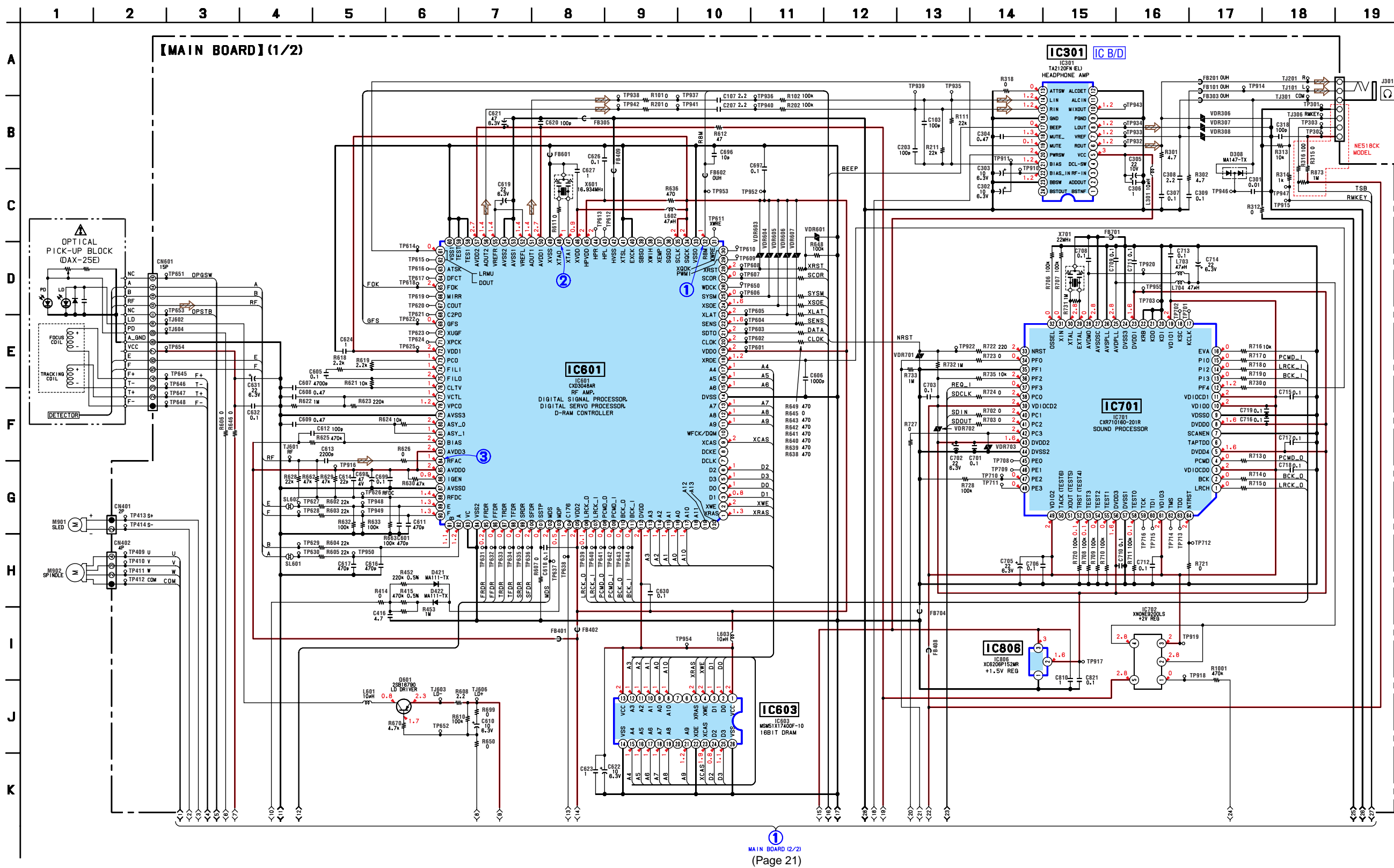
【MAIN BOARD】 (SIDE B)



• Semiconductor Location (Side B)

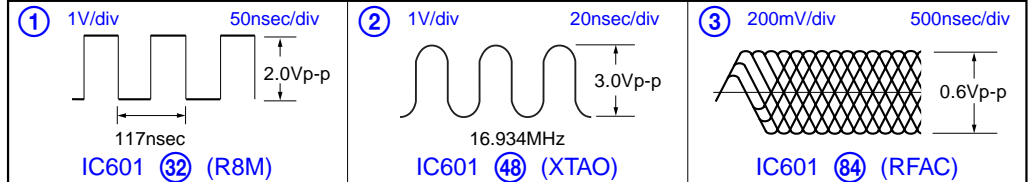
Ref. No.	Location
D303	E-9
D304	F-9
D305	F-9
D308	F-9
D402	H-3
D403	G-3
D405	H-4
D421	F-4
D422	F-4
D801	D-5
D803	D-5
IC301	G-8
IC403	F-5
IC601	D-8
IC603	B-7
IC701	C-5
IC801	E-6
IC802	G-7
Q402	H-4
Q601	F-8
Q801	D-5
Q802	E-5

5-6. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 22 for IC Block Diagram.
 • Refer to page 18 for Common Note on Schematic Diagram.

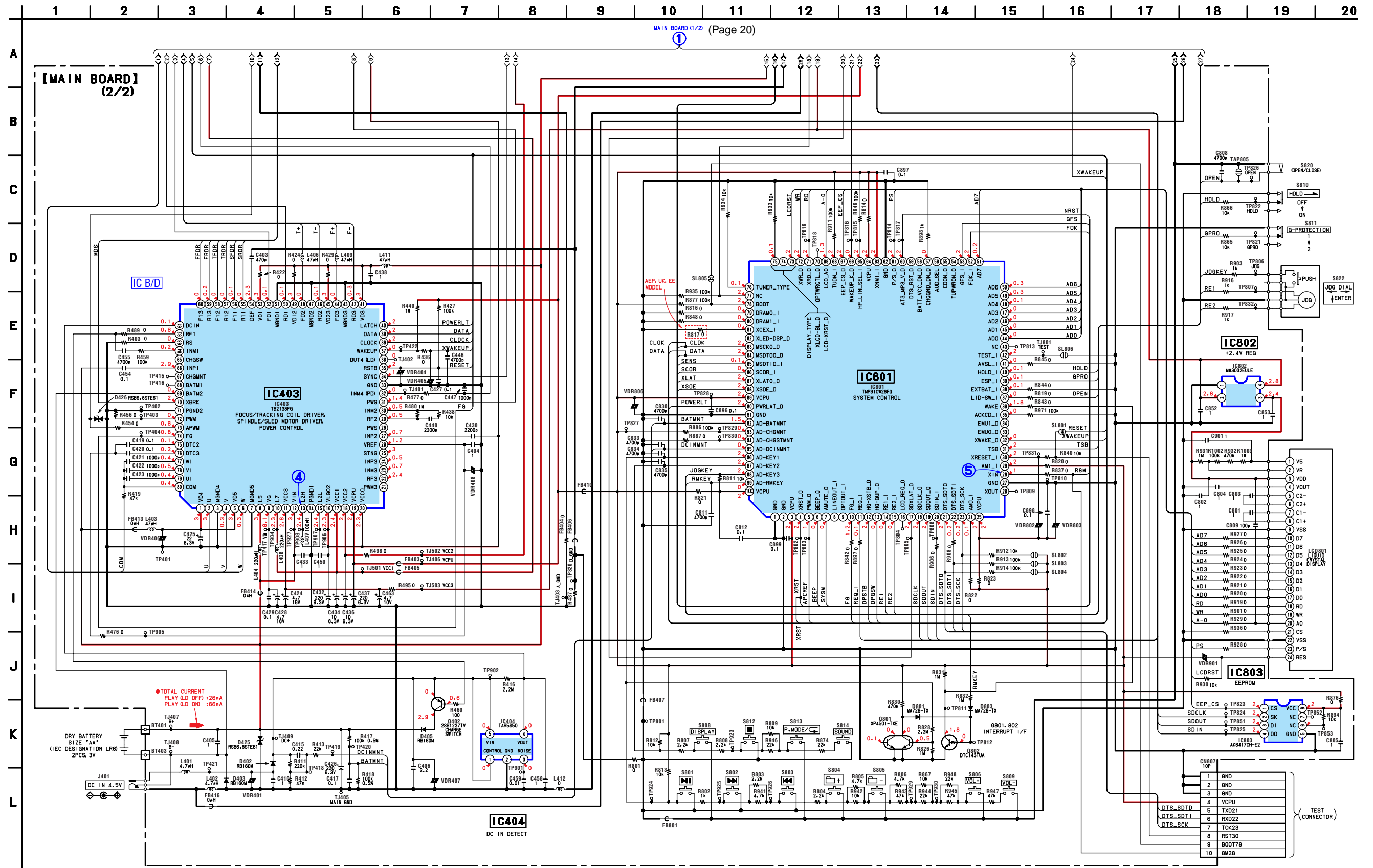


① MAIN BOARD (2/2)
(Page 21)

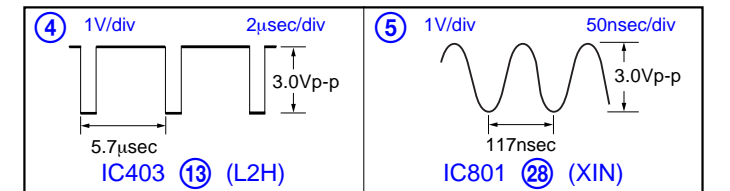
• Waveforms (CD play mode)



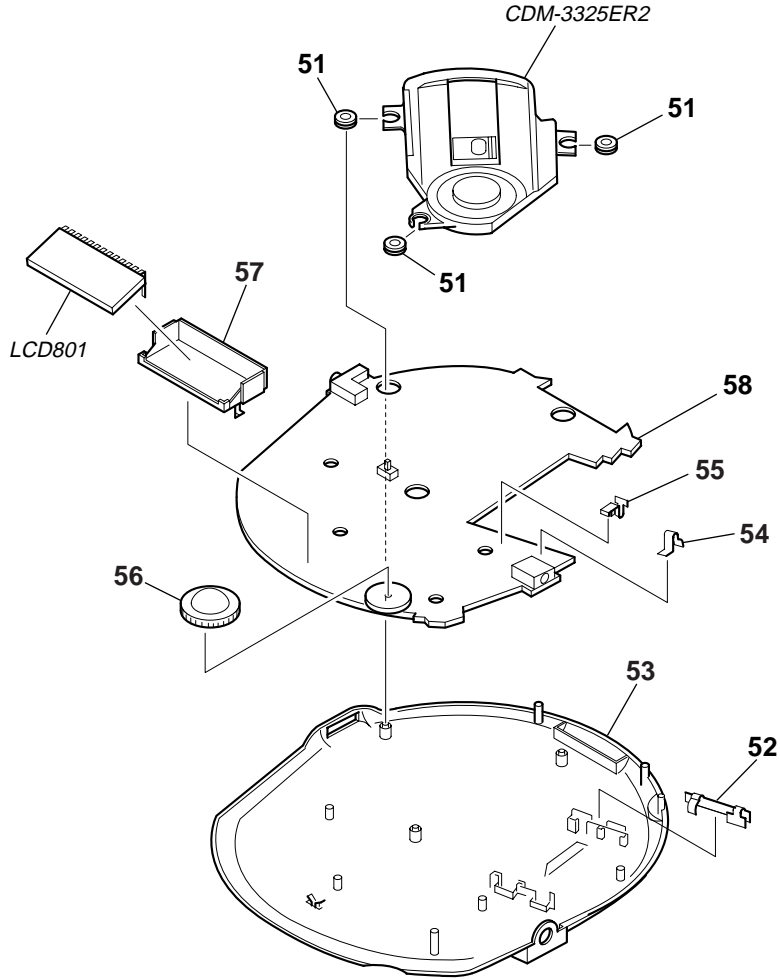
5-7. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 22 for IC Block Diagram.
 • Refer to page 18 for Common Note on Schematic Diagram.



• Waveforms (CD play mode)

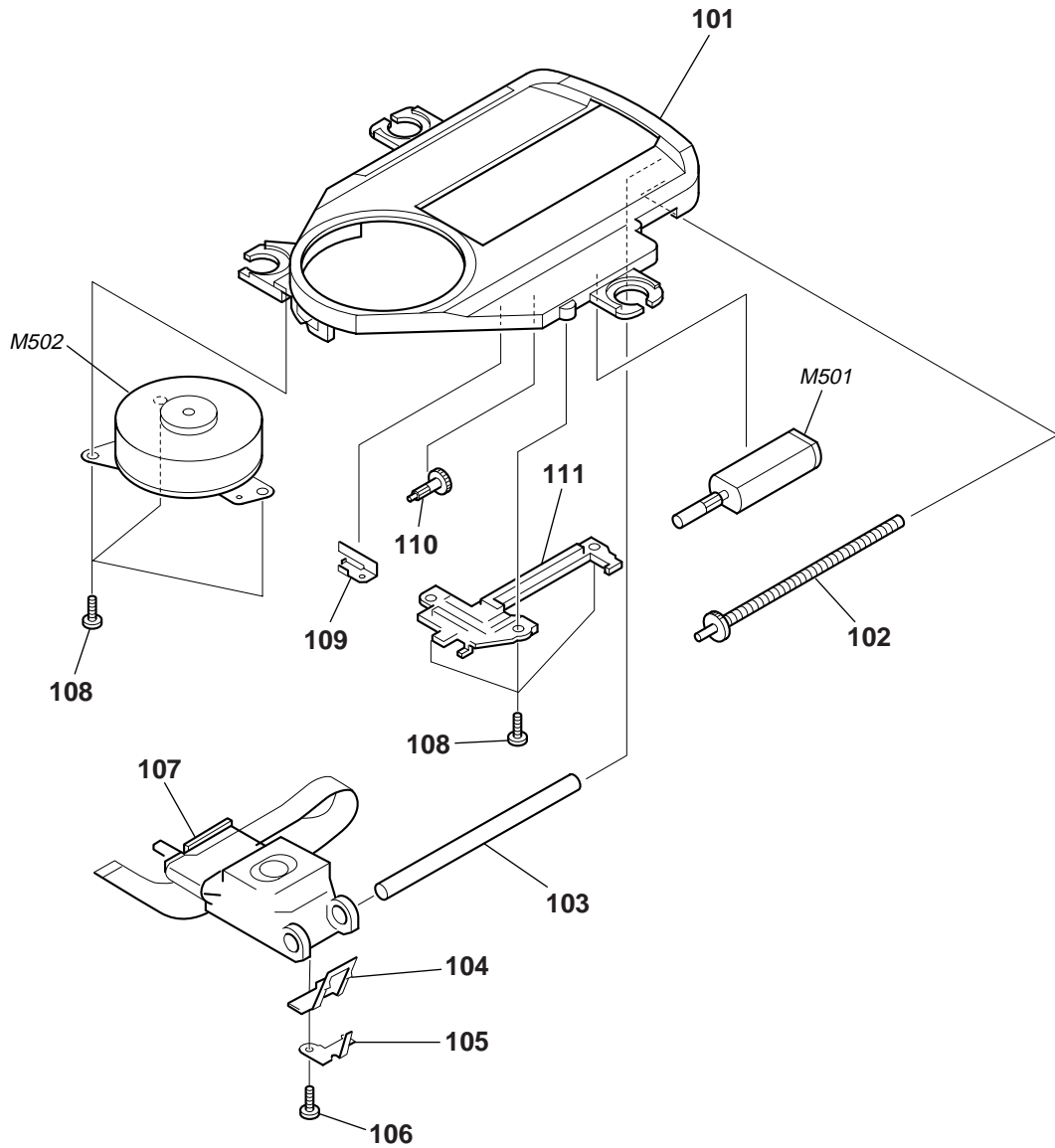


6-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-245-331-01	INSULATOR		54	3-249-876-01	BOARD (-), TERMINAL, BATTERY	
52	3-245-557-01	TERMINAL, BATTERY LINK		55	3-249-875-01	BOARD (+), TERMINAL, BATTERY	
53	X-3383-337-1	CABINET (REAR) SUB ASSY (SILVER)...(SILVER) (NE510:US)		56	4-223-609-21	KNOB (JOGGABLE)	
53	X-3383-340-1	CABINET (REAR) SUB ASSY (BLACK)...(BLACK) (NE518CK)		57	3-250-782-01	HOLDER (LCD)	
53	X-3383-342-1	CABINET (REAR) SUB ASSY (SILVER)...(SILVER) (NE510:CND/NE511)		* 58	A-3683-479-B	MAIN BOARD, COMPLETE (NE510/NE511:E18,E92,AUS,MX)	
53	X-3383-345-1	CABINET (REAR) SUB ASSY (BLUE)...(BLUE) (NE511)		* 58	A-3683-490-B	MAIN BOARD, COMPLETE (NE518CK:US,CND,E92,AUS,MX)	
53	X-3383-348-1	CABINET (REAR) SUB ASSY (RED)...(RED) (NE511)		* 58	A-3683-500-B	MAIN BOARD, COMPLETE (NE511:AEP,UK,EE)	
53	X-3383-357-1	CABINET (REAR) SUB ASSY (SILVER)...(SILVER) (NE518CK)		* 58	A-3683-506-B	MAIN BOARD, COMPLETE (NE518CK:AEP,UK)	
				LCD801	1-805-092-11	DISPLAY PANEL, LIQUID CRYSTAL	

6-3. CD MECHANISM DECK SECTION
(CDM-3325ER2)



<p>The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-221-472-02	CHASSIS		108	3-318-203-61	SCREW (B1.7X4), TAPPING	
102	A-3331-663-A	SCREW (FEED) ASSY		109	3-221-474-01	SPRING, SLED	
103	3-221-475-01	SHAFT, STANDARD		110	3-221-268-01	GEAR (B)	
104	3-222-298-01	RACK		111	3-221-473-01	COVER, GEAR	
105	3-222-299-01	SPRING, RACK RETAINER		M501	A-3174-850-A	MOTOR ASSY, SLED (SLED)	
106	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN		M502	A-3608-777-A	MOTOR ASSY, TURNTABLE (SPINDLE)	
\triangle 107	X-3380-950-1	DAX-25E RP ASSY					

SECTION 7
ELECTRICAL PARTS LIST

MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
CND : Canadian model
E18 : AC 100 – 240V area in E model
E92 : AC 120V area in E model
EE : East European model
AUS : Australian model
MX : Mexican model

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-3683-479-B	MAIN BOARD, COMPLETE (NE510/NE511:E18,E92,AUS,MX)		C426	1-126-369-11	ELECT 220uF 20%	6.3V
*	A-3683-490-B	MAIN BOARD, COMPLETE (NE518CK:US,CND,E92,AUS,MX)		C427	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
*	A-3683-500-B	MAIN BOARD, COMPLETE (NE511:AEP,UK,EE)		C428	1-107-686-11	TANTAL. CHIP 4.7uF 20%	16V
*	A-3683-506-B	MAIN BOARD, COMPLETE (NE518CK:AEP,UK)		C429	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		*****		C430	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V
	3-245-557-01	TERMINAL, BATTERY LINK		C432	1-124-635-00	ELECT 220uF 20%	6.3V
	3-249-875-01	PLATE (+), TERMINAL, BATTERY		C433	1-115-156-11	CERAMIC CHIP 1uF	10V
	3-249-876-01	PLATE (-), TERMINAL, BATTERY		C434	1-165-851-11	TANTAL. CHIP 10uF 20%	6.3V
	3-250-782-01	HOLDER (LCD)		C435	1-124-589-11	ELECT 47uF 20%	16V
	3-250-855-01	ORNAMENT (JOG)		C436	1-135-259-11	TANTAL. CHIP 10uF 20%	6.3V
	4-223-609-21	KNOB (JOGGABLE)		C437	1-124-635-00	ELECT 220uF 20%	6.3V
		< CAPACITOR >		C438	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C103	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C440	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V
C107	1-125-838-11	CERAMIC CHIP 2.2uF 10%	6.3V	C445	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C203	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C446	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C207	1-125-838-11	CERAMIC CHIP 2.2uF 10%	6.3V	C447	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C301	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	C450	1-115-156-11	CERAMIC CHIP 1uF	10V
C302	1-135-259-11	TANTAL. CHIP 10uF 20%	6.3V	C454	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C303	1-135-259-11	TANTAL. CHIP 10uF 20%	6.3V	C455	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C304	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V	C458	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C305	1-104-852-11	TANTAL. CHIP 22uF 20%	10V	C459	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C306	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V	C463	1-135-210-11	TANTAL. CHIP 4.7uF 20%	10V
C307	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C601	1-162-962-11	CERAMIC CHIP 470PF 10%	50V
C308	1-125-838-11	CERAMIC CHIP 2.2uF 10%	6.3V	C605	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C309	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C606	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C318	1-162-927-11	CERAMIC CHIP 100PF 5%	50V (NE518CK)	C607	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C403	1-162-962-11	CERAMIC CHIP 470PF 10%	50V	C608	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C404	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V	C609	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C405	1-115-156-11	CERAMIC CHIP 1uF	10V	C610	1-135-259-11	TANTAL. CHIP 10uF 20%	6.3V
C406	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C611	1-162-962-11	CERAMIC CHIP 470PF 10%	50V
C410	1-115-156-11	CERAMIC CHIP 1uF	10V	C612	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C415	1-115-467-11	CERAMIC CHIP 0.22uF 10%	10V	C613	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V
C416	1-127-760-11	CERAMIC CHIP 4.7uF 10%	6.3V	C614	1-162-919-11	CERAMIC CHIP 22PF 5%	50V
C417	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C616	1-162-962-11	CERAMIC CHIP 470PF 10%	50V
C419	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C617	1-162-962-11	CERAMIC CHIP 470PF 10%	50V
C420	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C618	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C421	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	C619	1-119-750-11	TANTAL. CHIP 22uF 20%	6.3V
C422	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	C620	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C423	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	C621	1-110-569-11	TANTAL. CHIP 47uF 20%	6.3V
C424	1-124-259-11	ELECT 4.7uF 20%	16V	C622	1-135-259-11	TANTAL. CHIP 10uF 20%	6.3V
C425	1-104-852-11	TANTAL. CHIP 22uF 20%	10V	C623	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
				C624	1-115-156-11	CERAMIC CHIP 1uF	10V
				C626	1-164-156-11	CERAMIC CHIP 0.1uF	25V
				C627	1-115-156-11	CERAMIC CHIP 1uF	10V
				C630	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C631	1-119-750-11	TANTAL. CHIP	22uF 20% 6.3V	D422	8-719-404-50	DIODE MA111-TX	
C632	1-164-156-11	CERAMIC CHIP	0.1uF 25V	D425	8-719-083-04	DIODE RSB6.8STE61	
C696	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	D426	8-719-083-04	DIODE RSB6.8STE61	
C697	1-164-156-11	CERAMIC CHIP	0.1uF 25V	D801	8-719-421-27	DIODE MA728	
C698	1-131-862-11	TANTAL. CHIP	47uF 20% 4V	D803	8-719-421-27	DIODE MA728	
C699	1-164-156-11	CERAMIC CHIP	0.1uF 25V	< FERRITE BEAD >			
C701	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB101	1-500-234-22	BEAD, FERRITE (CHIP)	
C702	1-119-750-11	TANTAL. CHIP	22uF 20% 6.3V	FB201	1-500-234-22	BEAD, FERRITE (CHIP)	
C703	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB303	1-414-813-11	FERRITE, EMI (SMD)	
C705	1-119-750-11	TANTAL. CHIP	22uF 20% 6.3V	FB305	1-414-813-11	FERRITE, EMI (SMD)	
C706	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB401	1-414-760-21	FERRITE, EMI (SMD)	
C708	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB402	1-414-760-21	FERRITE, EMI (SMD)	
C709	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB403	1-414-760-21	FERRITE, EMI (SMD)	
C710	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB404	1-216-864-11	METAL CHIP 0	5% 1/10W
C711	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB405	1-414-760-21	FERRITE, EMI (SMD)	
C712	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB406	1-414-760-21	FERRITE, EMI (SMD)	
C713	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB407	1-414-760-21	FERRITE, EMI (SMD)	
C714	1-119-750-11	TANTAL. CHIP	22uF 20% 6.3V	FB408	1-414-760-21	FERRITE, EMI (SMD)	
C715	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	FB409	1-414-760-21	FERRITE, EMI (SMD)	
C716	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB410	1-414-760-21	FERRITE, EMI (SMD)	
C717	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB413	1-469-234-21	INDUCTOR (EMI FERRITE)	
C718	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB414	1-469-234-21	INDUCTOR (EMI FERRITE)	
C719	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB416	1-414-813-11	FERRITE, EMI (SMD)	
C801	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	FB601	1-414-760-21	FERRITE, EMI (SMD)	
C802	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	FB602	1-414-760-21	FERRITE, EMI (SMD)	
C803	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	FB701	1-500-245-11	FERRITE, EMI (SMD)	
C804	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	FB704	1-414-760-21	FERRITE, EMI (SMD)	
C805	1-115-156-11	CERAMIC CHIP	1uF 10V	FB801	1-414-760-21	FERRITE, EMI (SMD)	
C808	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	< IC >			
C809	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	IC301	8-759-681-65	IC AN7531SA	
C810	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	IC403	6-703-902-01	IC TB2138FG	
C811	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	IC404	6-704-186-01	IC TAR5S50U	
C812	1-164-156-11	CERAMIC CHIP	0.1uF 25V	IC601	8-752-419-91	IC CXD3048R	
C821	1-164-360-11	CERAMIC CHIP	0.1uF 16V	IC603	6-702-737-01	IC MSM51X17400F-10TFSR1	
C830	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	IC701	8-752-935-69	IC CXR710160-201R	
C833	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	IC801	6-802-813-01	IC TMP91CW28FG	
C834	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	IC802	6-703-892-01	IC MM3032EULE	
C835	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	IC803	Not supplied		
C852	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	IC806	6-703-916-01	IC XC6206P152MR	
C853	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	< TRANSISTOR >			
C896	1-164-156-11	CERAMIC CHIP	0.1uF 25V	IC702	6-550-559-01	TRANSISTOR XNONE9200LSO	
C897	1-164-156-11	CERAMIC CHIP	0.1uF 25V	< JACK >			
C898	1-164-156-11	CERAMIC CHIP	0.1uF 25V	J301	1-815-088-41	JACK, HEADPHONE (⊘) (NE518CK)	
C899	1-164-156-11	CERAMIC CHIP	0.1uF 25V	J301	1-817-380-11	JACK, HEADPHONE (⊘) (NE510/NE511)	
C901	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	J401	1-778-153-51	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 4.5V)
< CONNECTOR >				< COIL >			
CN401	1-784-342-21	HOUSING, CONNECTOR 2P		L301	1-400-389-11	INDUCTOR 10uH	
* CN402	1-785-877-21	HOUSING, CONNECTOR 4P		L401	1-400-373-21	INDUCTOR 4.7uH	
CN601	1-816-419-21	CONNECTOR, FPC (ZIF) 15P		L402	1-400-373-21	INDUCTOR 4.7uH	
CN807	1-794-743-21	CONNECTOR, FFC (LIF(NON-ZIF)) 10P		L403	1-400-387-11	INDUCTOR 47uH	
< DIODE >				L404	1-400-388-11	INDUCTOR 220uH	
D308	8-719-421-33	DIODE MA147		L406	1-400-145-21	INDUCTOR 47uH	
D402	8-719-081-34	DIODE RB160M-30TR					
D403	8-719-081-34	DIODE RB160M-30TR					
D405	8-719-081-34	DIODE RB160M-30TR					
D421	8-719-404-50	DIODE MA111-TX					

D-NE510/NE511/NE518CK

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L407	1-456-178-21	COIL, CHOKE	100uH	R456	1-216-864-11	METAL CHIP	0 5% 1/10W
L408	1-400-388-11	INDUCTOR	220uH	R459	1-216-845-11	METAL CHIP	100K 5% 1/10W
L409	1-400-145-21	INDUCTOR	47uH	R460	1-216-809-11	METAL CHIP	100 5% 1/10W
L411	1-400-387-11	INDUCTOR	47uH	R476	1-216-864-11	METAL CHIP	0 5% 1/10W
L412	1-216-296-11	SHORT CHIP	0	R477	1-216-864-11	METAL CHIP	0 5% 1/10W
L601	1-400-389-11	INDUCTOR	10uH	R480	1-216-857-11	METAL CHIP	1M 5% 1/10W
L602	1-400-390-11	INDUCTOR	47uH	R487	1-216-864-11	METAL CHIP	0 5% 1/10W
L603	1-400-386-11	INDUCTOR	10uH	R489	1-216-864-11	METAL CHIP	0 5% 1/10W
L703	1-400-390-11	INDUCTOR	47uH	R495	1-216-864-11	METAL CHIP	0 5% 1/10W
L704	1-400-390-11	INDUCTOR	47uH	R498	1-216-864-11	METAL CHIP	0 5% 1/10W
< LIQUID CRYSTAL DISPLAY >				R602	1-216-837-11	METAL CHIP	22K 5% 1/10W
LCD801	1-805-092-11	DISPLAY PANEL, LIQUID CRYSTAL		R603	1-216-837-11	METAL CHIP	22K 5% 1/10W
< TRANSISTOR >				R604	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q402	6-550-070-01	TRANSISTOR	2SB1237TV2PQR	R605	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q601	8-729-054-79	TRANSISTOR	2SB167900LSO	R606	1-216-864-11	METAL CHIP	0 5% 1/10W
Q801	8-729-427-72	TRANSISTOR	XP4501	R607	1-216-864-11	METAL CHIP	0 5% 1/10W
Q802	8-729-029-10	TRANSISTOR	DTC143TUA-T106	R608	1-216-789-11	METAL CHIP	2.2 5% 1/10W
< RESISTOR >				R610	1-216-845-11	METAL CHIP	100K 5% 1/10W
R101	1-216-864-11	METAL CHIP	0 5% 1/10W	R611	1-216-864-11	METAL CHIP	0 5% 1/10W
R102	1-216-845-11	METAL CHIP	100K 5% 1/10W	R612	1-216-805-11	METAL CHIP	47 5% 1/10W
R111	1-216-837-11	METAL CHIP	22K 5% 1/10W	R618	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R201	1-216-864-11	METAL CHIP	0 5% 1/10W	R619	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R202	1-216-845-11	METAL CHIP	100K 5% 1/10W	R621	1-216-833-11	METAL CHIP	10K 5% 1/10W
R211	1-216-837-11	METAL CHIP	22K 5% 1/10W	R622	1-216-857-11	METAL CHIP	1M 5% 1/10W
R301	1-216-793-11	METAL CHIP	4.7 5% 1/10W	R623	1-216-849-11	METAL CHIP	220K 5% 1/10W
R302	1-216-793-11	METAL CHIP	4.7 5% 1/10W	R624	1-216-833-11	METAL CHIP	10K 5% 1/10W
R312	1-216-864-11	METAL CHIP	0 5% 1/10W	R625	1-216-853-11	METAL CHIP	470K 5% 1/10W
R313	1-218-871-11	METAL CHIP	10K 0.5% 1/10W	R626	1-216-864-11	METAL CHIP	0 5% 1/10W
R314	1-216-821-11	METAL CHIP	1K 5% 1/10W	R628	1-216-837-11	METAL CHIP	22K 5% 1/10W
R315	1-216-864-11	METAL CHIP	0 5% 1/10W	R629	1-216-841-11	METAL CHIP	47K 5% 1/10W
R316	1-216-809-11	METAL CHIP	100 5% 1/10W	R630	1-216-841-11	METAL CHIP	47K 5% 1/10W
R318	1-216-864-11	METAL CHIP	0 5% 1/10W	R632	1-216-845-11	METAL CHIP	100K 5% 1/10W
R403	1-216-864-11	METAL CHIP	0 5% 1/10W	R633	1-216-845-11	METAL CHIP	100K 5% 1/10W
R406	1-216-861-11	METAL CHIP	2.2M 5% 1/10W	R636	1-216-817-11	METAL CHIP	470 5% 1/10W
R411	1-218-903-11	METAL CHIP	220K 0.5% 1/10W	R638	1-216-817-11	METAL CHIP	470 5% 1/10W
R412	1-218-887-11	METAL CHIP	47K 0.5% 1/10W	R639	1-216-817-11	METAL CHIP	470 5% 1/10W
R413	1-216-837-11	METAL CHIP	22K 5% 1/10W	R640	1-216-817-11	METAL CHIP	470 5% 1/10W
R414	1-216-864-11	METAL CHIP	0 5% 1/10W	R641	1-216-817-11	METAL CHIP	470 5% 1/10W
R415	1-218-911-11	METAL CHIP	470K 0.5% 1/10W	R642	1-216-817-11	METAL CHIP	470 5% 1/10W
R416	1-216-861-11	METAL CHIP	2.2M 5% 1/10W	R643	1-216-817-11	METAL CHIP	470 5% 1/10W
R417	1-218-895-11	METAL CHIP	100K 0.5% 1/10W	R645	1-216-864-11	METAL CHIP	0 5% 1/10W
R418	1-218-895-11	METAL CHIP	100K 0.5% 1/10W	R646	1-216-864-11	METAL CHIP	0 5% 1/10W
R419	1-216-841-11	METAL CHIP	47K 5% 1/10W	R648	1-216-845-11	METAL CHIP	100K 5% 1/10W
R422	1-216-864-11	METAL CHIP	0 5% 1/10W	R649	1-216-817-11	METAL CHIP	470 5% 1/10W
R424	1-216-864-11	METAL CHIP	0 5% 1/10W	R650	1-216-864-11	METAL CHIP	0 5% 1/10W
R427	1-216-845-11	METAL CHIP	100K 5% 1/10W	R662	1-216-841-11	METAL CHIP	47K 5% 1/10W
R429	1-216-864-11	METAL CHIP	0 5% 1/10W	R663	1-216-845-11	METAL CHIP	100K 5% 1/10W
R436	1-216-864-11	METAL CHIP	0 5% 1/10W	R670	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R438	1-216-833-11	METAL CHIP	10K 5% 1/10W	R699	1-216-864-11	METAL CHIP	0 5% 1/10W
R440	1-216-857-11	METAL CHIP	1M 5% 1/10W	R702	1-216-864-11	METAL CHIP	0 5% 1/10W
R452	1-218-903-11	METAL CHIP	220K 0.5% 1/10W	R703	1-216-864-11	METAL CHIP	0 5% 1/10W
R453	1-216-857-11	METAL CHIP	1M 5% 1/10W	R706	1-216-845-11	METAL CHIP	100K 5% 1/10W
R454	1-216-864-11	METAL CHIP	0 5% 1/10W	R707	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R708	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R709	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R710	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R711	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R713	1-216-864-11	METAL CHIP	0 5% 1/10W

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R714	1-216-864-11	METAL CHIP	0	5%	1/10W	R877	1-216-845-11	METAL CHIP	100K	5%	1/10W
R715	1-216-864-11	METAL CHIP	0	5%	1/10W	R886	1-216-845-11	METAL CHIP	100K	5%	1/10W
R716	1-216-833-11	METAL CHIP	10K	5%	1/10W	R887	1-216-864-11	METAL CHIP	0	5%	1/10W
R717	1-216-864-11	METAL CHIP	0	5%	1/10W	R894	1-216-833-11	METAL CHIP	10K	5%	1/10W
R718	1-216-864-11	METAL CHIP	0	5%	1/10W	R897	1-216-864-11	METAL CHIP	0	5%	1/10W
R719	1-216-864-11	METAL CHIP	0	5%	1/10W	R898	1-216-821-11	METAL CHIP	1K	5%	1/10W
R720	1-216-845-11	METAL CHIP	100K	5%	1/10W	R901	1-216-864-11	METAL CHIP	0	5%	1/10W
R721	1-216-864-11	METAL CHIP	0	5%	1/10W	R903	1-216-821-11	METAL CHIP	1K	5%	1/10W
R722	1-216-813-11	METAL CHIP	220	5%	1/10W	R906	1-216-864-11	METAL CHIP	0	5%	1/10W
R723	1-216-864-11	METAL CHIP	0	5%	1/10W	R908	1-216-864-11	METAL CHIP	0	5%	1/10W
R724	1-216-864-11	METAL CHIP	0	5%	1/10W	R911	1-216-845-11	METAL CHIP	100K	5%	1/10W
R727	1-216-864-11	METAL CHIP	0	5%	1/10W	R912	1-216-833-11	METAL CHIP	10K	5%	1/10W
R728	1-216-845-11	METAL CHIP	100K	5%	1/10W	R913	1-216-845-11	METAL CHIP	100K	5%	1/10W
R730	1-216-864-11	METAL CHIP	0	5%	1/10W	R914	1-216-845-11	METAL CHIP	100K	5%	1/10W
R731	1-216-857-11	METAL CHIP	1M	5%	1/10W	R916	1-216-821-11	METAL CHIP	1K	5%	1/10W
R732	1-216-857-11	METAL CHIP	1M	5%	1/10W	R917	1-216-821-11	METAL CHIP	1K	5%	1/10W
R733	1-216-857-11	METAL CHIP	1M	5%	1/10W	R919	1-216-864-11	METAL CHIP	0	5%	1/10W
R735	1-216-833-11	METAL CHIP	10K	5%	1/10W	R920	1-216-864-11	METAL CHIP	0	5%	1/10W
R801	1-216-295-11	SHORT CHIP	0			R921	1-216-864-11	METAL CHIP	0	5%	1/10W
R802	1-216-821-11	METAL CHIP	1K	5%	1/10W	R922	1-216-864-11	METAL CHIP	0	5%	1/10W
R803	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R923	1-216-864-11	METAL CHIP	0	5%	1/10W
R804	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R924	1-216-864-11	METAL CHIP	0	5%	1/10W
R805	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R925	1-216-864-11	METAL CHIP	0	5%	1/10W
R806	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R926	1-216-864-11	METAL CHIP	0	5%	1/10W
R807	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R927	1-216-864-11	METAL CHIP	0	5%	1/10W
R808	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R928	1-216-864-11	METAL CHIP	0	5%	1/10W
R809	1-216-833-11	METAL CHIP	10K	5%	1/10W	R929	1-216-864-11	METAL CHIP	0	5%	1/10W
R811	1-218-871-11	METAL CHIP	10K	0.5%	1/10W	R930	1-216-833-11	METAL CHIP	10K	5%	1/10W
R812	1-218-871-11	METAL CHIP	10K	0.5%	1/10W	R931	1-216-857-11	METAL CHIP	1M	5%	1/10W
R813	1-218-871-11	METAL CHIP	10K	0.5%	1/10W	R932	1-216-853-11	METAL CHIP	470K	5%	1/10W
R814	1-216-864-11	METAL CHIP	0	5%	1/10W	R933	1-216-833-11	METAL CHIP	10K	5%	1/10W
R816	1-216-864-11	METAL CHIP	0	5%	1/10W	R934	1-216-833-11	METAL CHIP	10K	5%	1/10W
R817	1-216-864-11	METAL CHIP	0	5%	1/10W	R935	1-216-845-11	METAL CHIP	100K	5%	1/10W
R819	1-216-864-11	METAL CHIP	0	5%	1/10W	R936	1-216-864-11	METAL CHIP	0	5%	1/10W
R820	1-216-864-11	METAL CHIP	0	5%	1/10W	R941	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R821	1-216-864-11	METAL CHIP	0	5%	1/10W	R942	1-216-833-11	METAL CHIP	10K	5%	1/10W
R822	1-216-864-11	METAL CHIP	0	5%	1/10W	R943	1-216-841-11	METAL CHIP	47K	5%	1/10W
R823	1-216-864-11	METAL CHIP	0	5%	1/10W	R944	1-216-837-11	METAL CHIP	22K	5%	1/10W
R826	1-216-857-11	METAL CHIP	1M	5%	1/10W	R945	1-216-841-11	METAL CHIP	47K	5%	1/10W
R828	1-216-861-11	METAL CHIP	2.2M	5%	1/10W	R946	1-216-837-11	METAL CHIP	22K	5%	1/10W
R830	1-216-853-11	METAL CHIP	470K	5%	1/10W	R947	1-216-841-11	METAL CHIP	47K	5%	1/10W
R831	1-216-857-11	METAL CHIP	1M	5%	1/10W	R948	1-216-837-11	METAL CHIP	22K	5%	1/10W
R832	1-216-857-11	METAL CHIP	1M	5%	1/10W	R949	1-216-845-11	METAL CHIP	100K	5%	1/10W
R837	1-216-864-11	METAL CHIP	0	5%	1/10W	R971	1-216-845-11	METAL CHIP	100K	5%	1/10W
R840	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1001	1-218-985-11	RES-CHIP	470K	5%	1/16W
R842	1-216-864-11	METAL CHIP	0	5%	1/10W	R1002	1-216-845-11	METAL CHIP	100K	5%	1/10W
R843	1-216-864-11	METAL CHIP	0	5%	1/10W	R1003	1-216-857-11	METAL CHIP	1M	5%	1/10W
R844	1-216-864-11	METAL CHIP	0	5%	1/10W			< SWITCH >			
R845	1-216-864-11	METAL CHIP	0	5%	1/10W	S801	1-786-442-11	SWITCH, TACT (▶▶)			
R848	1-216-864-11	METAL CHIP	0	5%	1/10W	S802	1-786-442-11	SWITCH, TACT (▶▶▶)			
R865	1-216-833-11	METAL CHIP	10K	5%	1/10W	S803	1-786-442-11	SWITCH, TACT (◀◀)			
R866	1-216-833-11	METAL CHIP	10K	5%	1/10W	S804	1-692-014-11	SWITCH, KEYBOARD (☐ +)			
R867	1-216-833-11	METAL CHIP	10K	5%	1/10W	S805	1-692-014-11	SWITCH, KEYBOARD (☐ -)			
R873	1-216-857-11	METAL CHIP	1M	5%	1/10W						
R874	1-216-837-11	METAL CHIP	22K	5%	1/10W	S806	1-786-211-21	SWITCH, KEYBOARD (VOL +)			
R876	1-216-864-11	METAL CHIP	0	5%	1/10W	S808	1-692-014-11	SWITCH, KEYBOARD (DISPLAY)			
						S809	1-786-211-21	SWITCH, KEYBOARD (VOL -)			
						S810	1-762-078-11	SWITCH, SLIDE (HOLD)			

D-NE510/NE511/NE518CK

Ver. 1.1

MAIN

Ref. No.	Part No.	Description	Remark
S811	1-553-977-00	SWITCH, SLIDE (G-PROTECTION)	
S812	1-786-442-11	SWITCH, TACT (■)	
S813	1-692-014-11	SWITCH, KEYBOARD (P.MODE/↔)	
S814	1-786-211-21	SWITCH, KEYBOARD (SOUND)	
S820	1-762-003-11	SWITCH, PUSH (OPEN/CLOSE)	
S822	1-477-651-11	ENCODER, ROTARY (JOG DIAL/ENTER)	
< VARISTOR >			
VDR306	1-801-862-11	VARISTOR, CHIP (1608)	
VDR307	1-801-862-11	VARISTOR, CHIP (1608)	
VDR308	1-801-862-11	VARISTOR, CHIP (1608)	
VDR401	1-801-864-21	VARISTOR, CHIP (1608)	
VDR404	1-801-862-11	VARISTOR, CHIP (1608)	
VDR405	1-801-862-11	VARISTOR, CHIP (1608)	
VDR406	1-801-862-11	VARISTOR, CHIP (1608)	
VDR407	1-801-862-11	VARISTOR, CHIP (1608)	
VDR408	1-801-862-11	VARISTOR, CHIP (1608)	
VDR601	1-801-862-11	VARISTOR, CHIP (1608)	
VDR603	1-801-862-11	VARISTOR, CHIP (1608)	
VDR604	1-801-923-11	VARISTOR, CHIP (1608)	
VDR605	1-801-923-11	VARISTOR, CHIP (1608)	
VDR606	1-801-923-11	VARISTOR, CHIP (1608)	
VDR607	1-801-923-11	VARISTOR, CHIP (1608)	
VDR701	1-801-862-11	VARISTOR, CHIP (1608)	
VDR702	1-801-862-11	VARISTOR, CHIP (1608)	
VDR703	1-801-862-11	VARISTOR, CHIP (1608)	
VDR802	1-801-862-11	VARISTOR, CHIP (1608)	
VDR803	1-801-862-11	VARISTOR, CHIP (1608)	
VDR806	1-801-862-11	VARISTOR, CHIP (1608)	
VDR901	1-801-862-11	VARISTOR, CHIP (1608)	
< VIBRATOR >			
X601	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)	
X701	1-795-891-11	VIBRATOR, CERAMIC (22MHz)	

MISCELLANEOUS			

△107	X-3380-950-1	DAX-25E RP ASSY	
M501	A-3174-850-A	MOTOR ASSY, SLED (SLED)	
M502	A-3608-777-A	MOTOR ASSY, TURNTABLE (SPINDLE)	

Ref. No.	Part No.	Description	Remark
		ACCESSORIES	

	1-251-824-41	CONNECTING PACK, CAR (CPA-7) (NE518CK)	
△	1-477-500-11	ADAPTOR, AC (AC-ES455K) (AEP,E18,EE)	
△	1-477-501-11	ADAPTOR, AC (AC-ES455K) (UK)	
△	1-477-502-11	ADAPTOR, AC (AC-ES455K) (NE511:E92,MX/ NE518CK:US,CND,E92,MX)	
△	1-477-503-11	ADAPTOR, AC (AC-ES455K) (AUS)	
	1-477-629-11	REMOTE COMMANDER (RM-MC25C) (NE518CK)	
	1-792-970-41	CORD, CAR BATTERY (DCC-E2455) (NE518CK)	
	3-252-232-11	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (ENGLISH,SPANISH,PORTUGUESE) (AEP,UK,E92,AUS,MX)	
	3-252-232-21	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (FRENCH,DUTCH,SWEDISH) (AEP)	
	3-252-232-31	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (GERMAN,ITALIAN,FINNISH) (AEP)	
	3-252-232-41	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (ENGLISH,HUNGARIAN,RUSSIAN) (EE)	
	3-252-232-51	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (POLISH,CZECH,SLOVAKIAN) (EE)	
	3-252-232-71	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (ENGLISH) (US)	
	3-252-232-81	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (ENGLISH,FRENCH) (CND)	
	3-252-419-11	MANUAL, INSTRUCTION (ENGLISH,SPANISH, PORTUGUESE) (NE511:AEP,UK,E92,AUS,MX)	
	3-252-419-21	MANUAL, INSTRUCTION (FRENCH,DUTCH, SWEDISH) (NE511:AEP)	
	3-252-419-31	MANUAL, INSTRUCTION (GERMAN,ITALIAN, FINNISH) (NE511:AEP)	
	3-252-419-41	MANUAL, INSTRUCTION (ENGLISH,HUNGARIAN, RUSSIAN) (NE511:EE)	
	3-252-419-51	MANUAL, INSTRUCTION (POLISH,CZECH, SLOVAKIAN) (NE511:EE)	
	3-252-419-61	MANUAL, INSTRUCTION (ENGLISH) (NE510:US)	
	3-252-419-71	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (NE510:CND)	
	3-252-420-11	MANUAL, INSTRUCTION (ENGLISH, SIMPLIFIED CHINESE) (NE511:E18)	
	3-252-421-11	MANUAL, INSTRUCTION (ENGLISH,SPANISH, PORTUGUESE) (NE518CK:AEP,UK,E92,AUS,MX)	
	3-252-421-21	MANUAL, INSTRUCTION (FRENCH,DUTCH, SWEDISH) (NE518CK:AEP)	
	3-252-421-31	MANUAL, INSTRUCTION (GERMAN,ITALIAN, FINNISH) (NE518CK:AEP)	
	3-252-421-41	MANUAL, INSTRUCTION (ENGLISH) (NE518CK:US)	
	3-252-421-51	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (NE518CK:CND)	
	3-253-976-11	MANUAL, INSTRUCTION (SONICSTAGE SIMPLE BURNER) (ENGLISH,SIMPLIFIED CHINESE, TRADITIONAL CHINESE) (NE511:E18)	
	8-954-007-92	RECEIVER, EAR MDR-027LP (US)	
	8-954-008-93	RECEIVER, EAR MDR-E808LP (EXCEPT US)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MEMO

