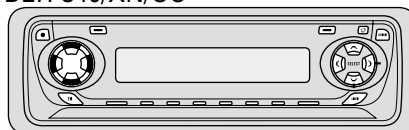


Service Manual

DEH-340/XN/UC



ORDER NO.
CRT2759

HIGH POWER CD PLAYER WITH FM/AM TUNER

DEH-340

XN/UC

DEH-3400

XN/UC

DEH-34

XN/UC



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

Model No.	Order No.	Mech. Module	Remarks
CX-977	CRT2624	S9	CD Mech. Module:Circuit Description, Mech.Description, Disassembly

CONTENTS

1. SAFETY INFORMATION	3	7. GENERAL INFORMATION	45
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For details, refer to "Important symbols for good services" on the next page.

PIONEER CORPORATION

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3.1 BLOCK DIAGRAM

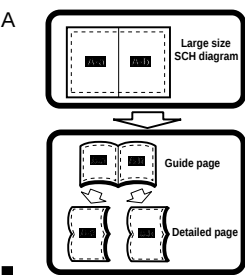
D



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".

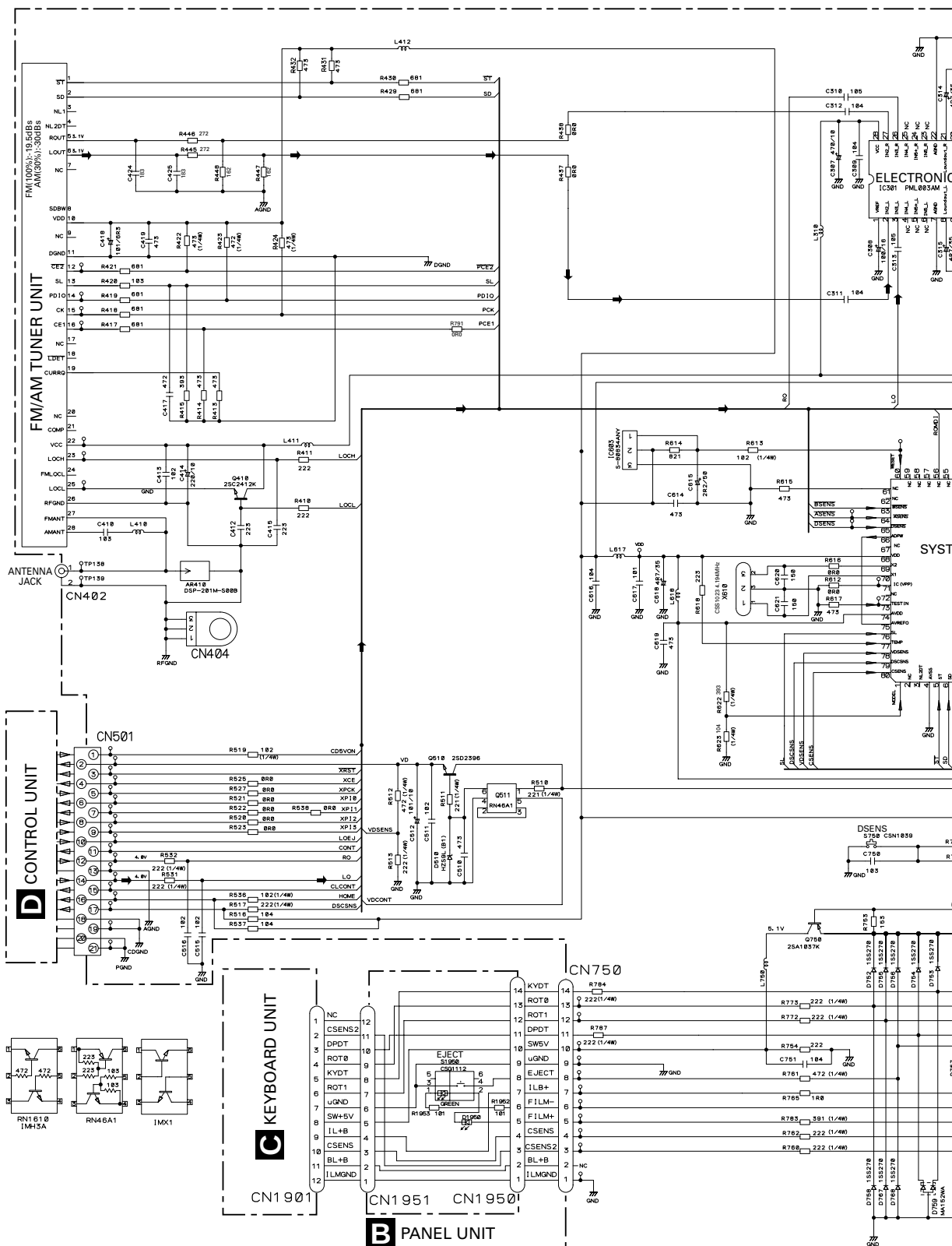
A-a



B

C

D

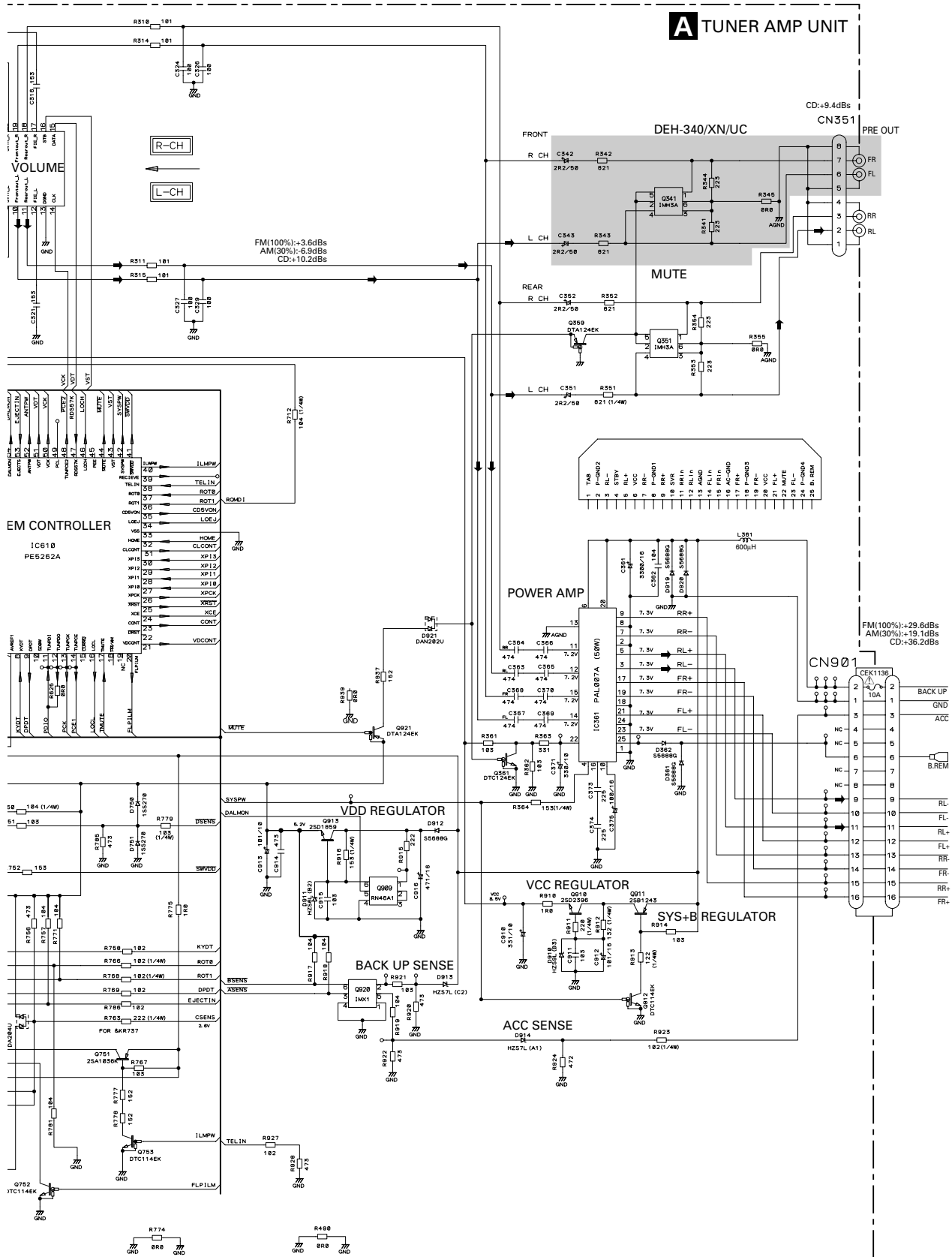


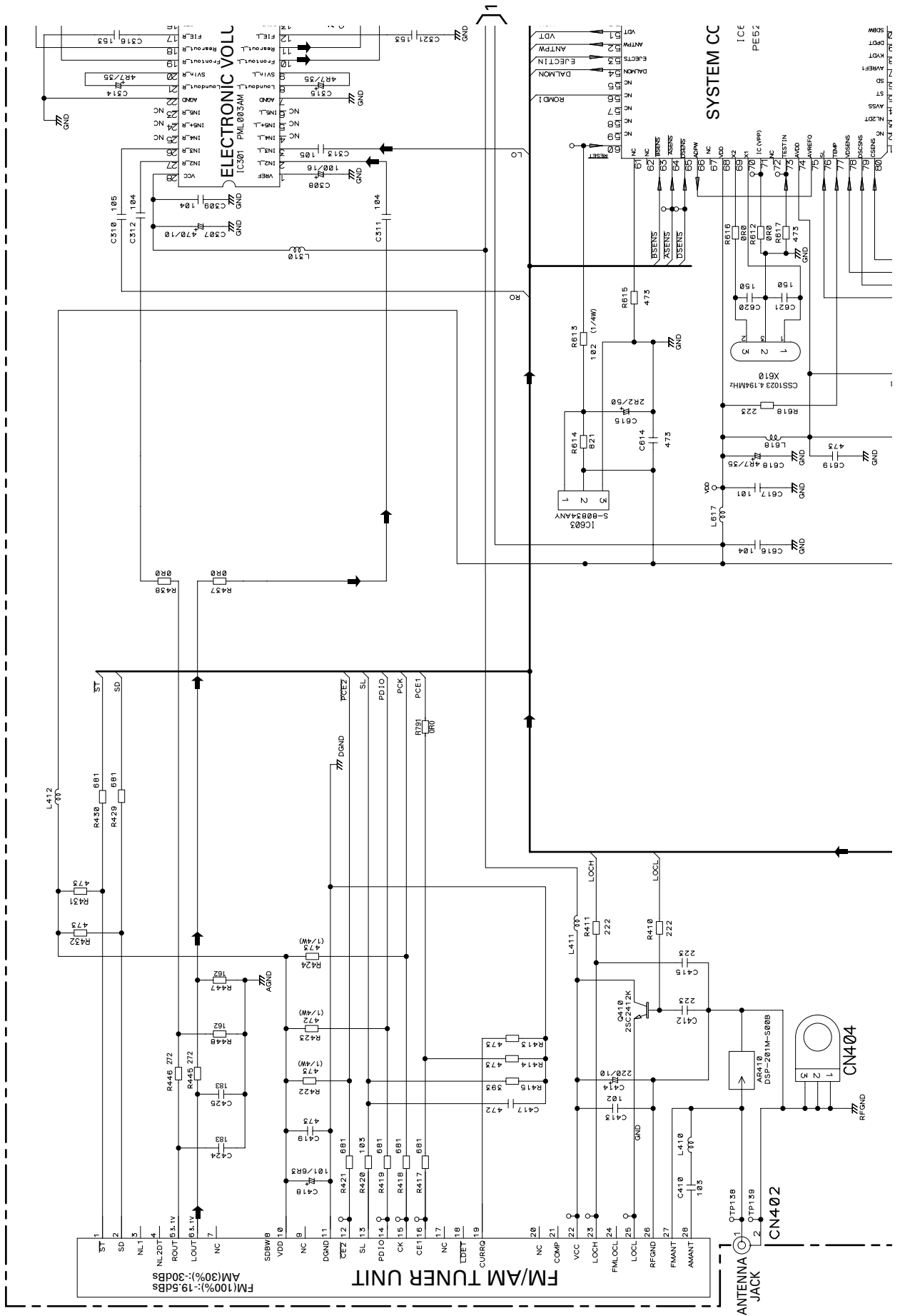
For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:

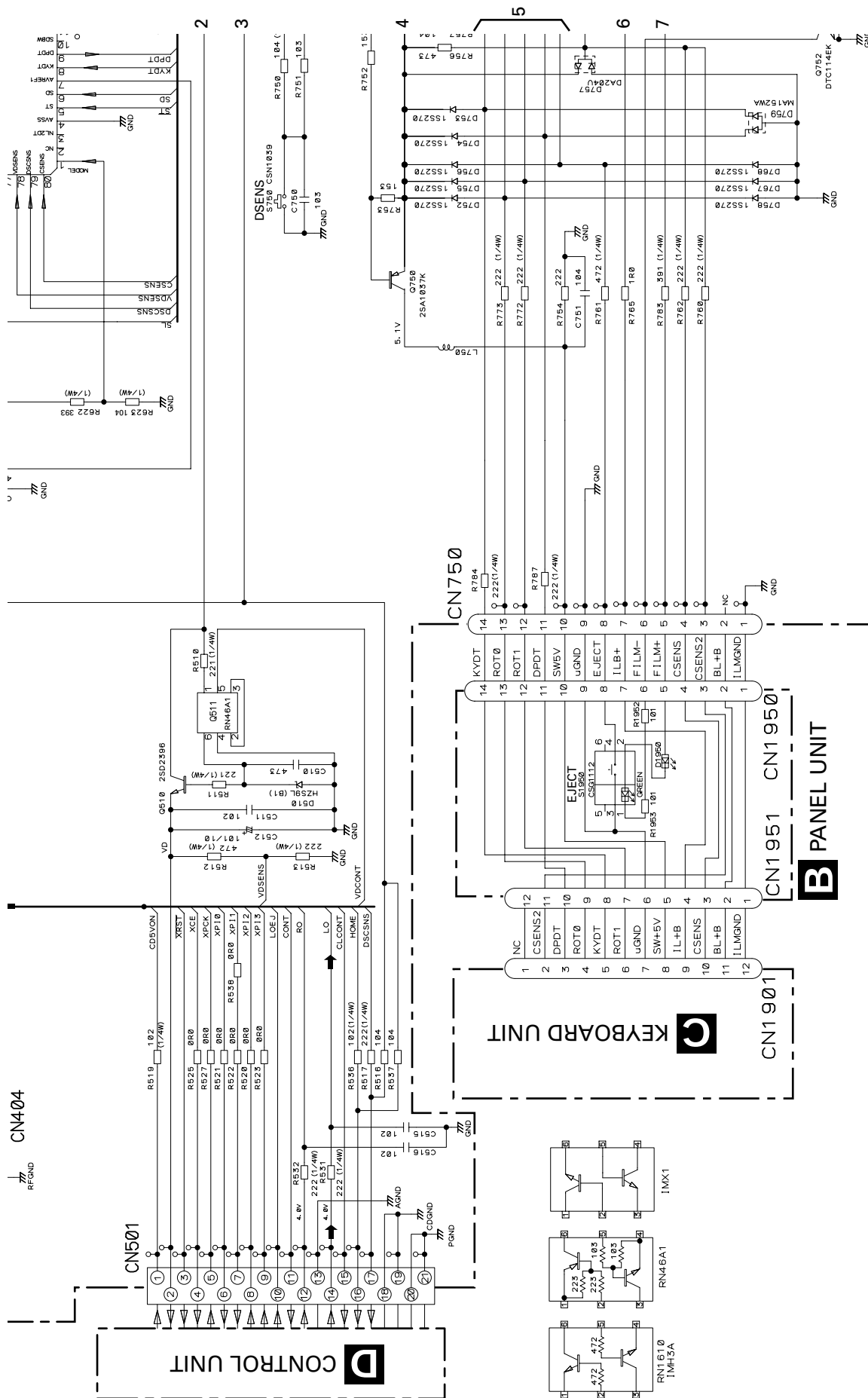
Ex.	*Resistors		*Capacitors	
Code	Code	Practical value	Code	Practical value
123	12k ohms		103	0.01uF
103	10k ohms		101/10	100uF/10V

A-b

A TUNER AMP UNIT



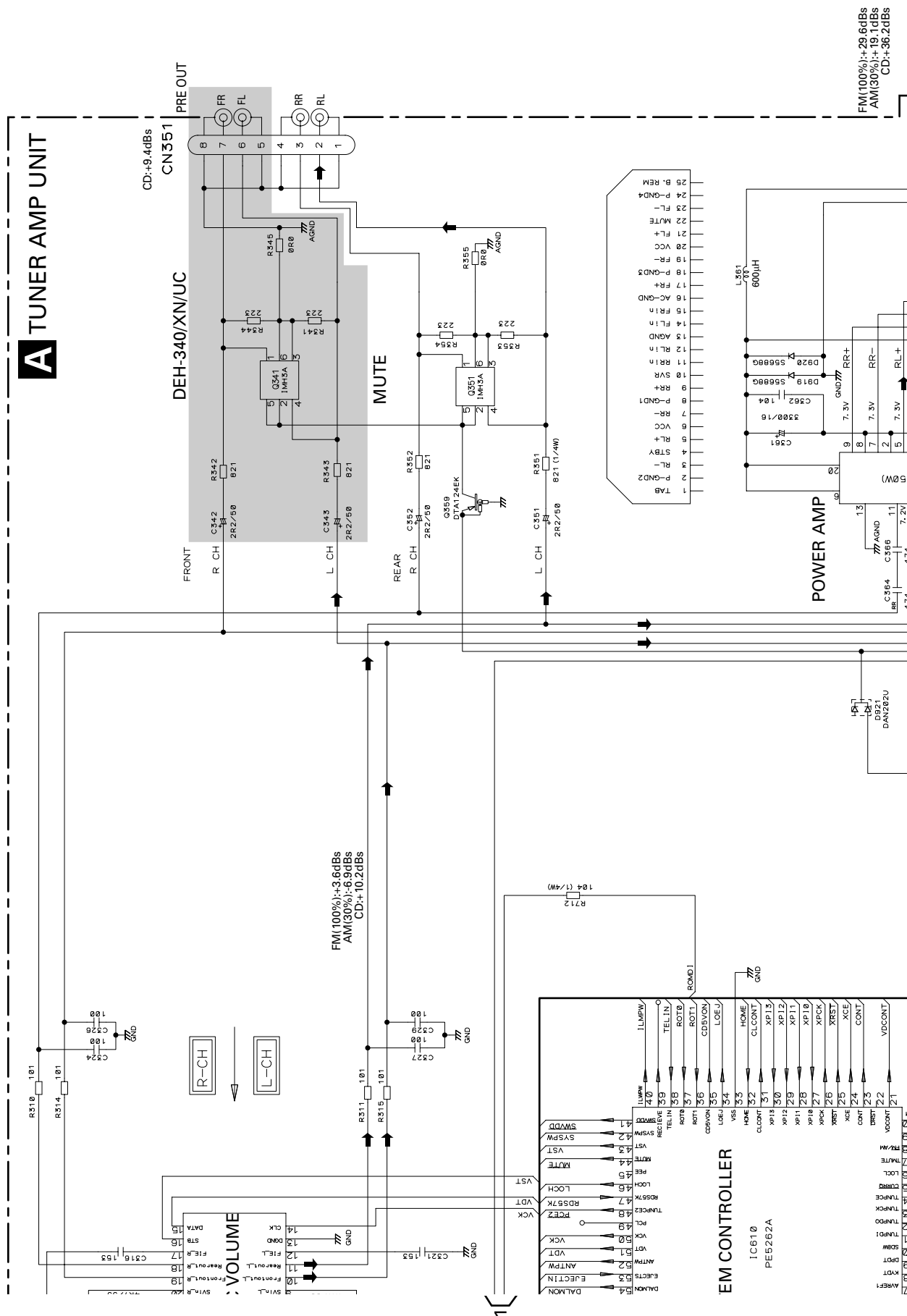




For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:

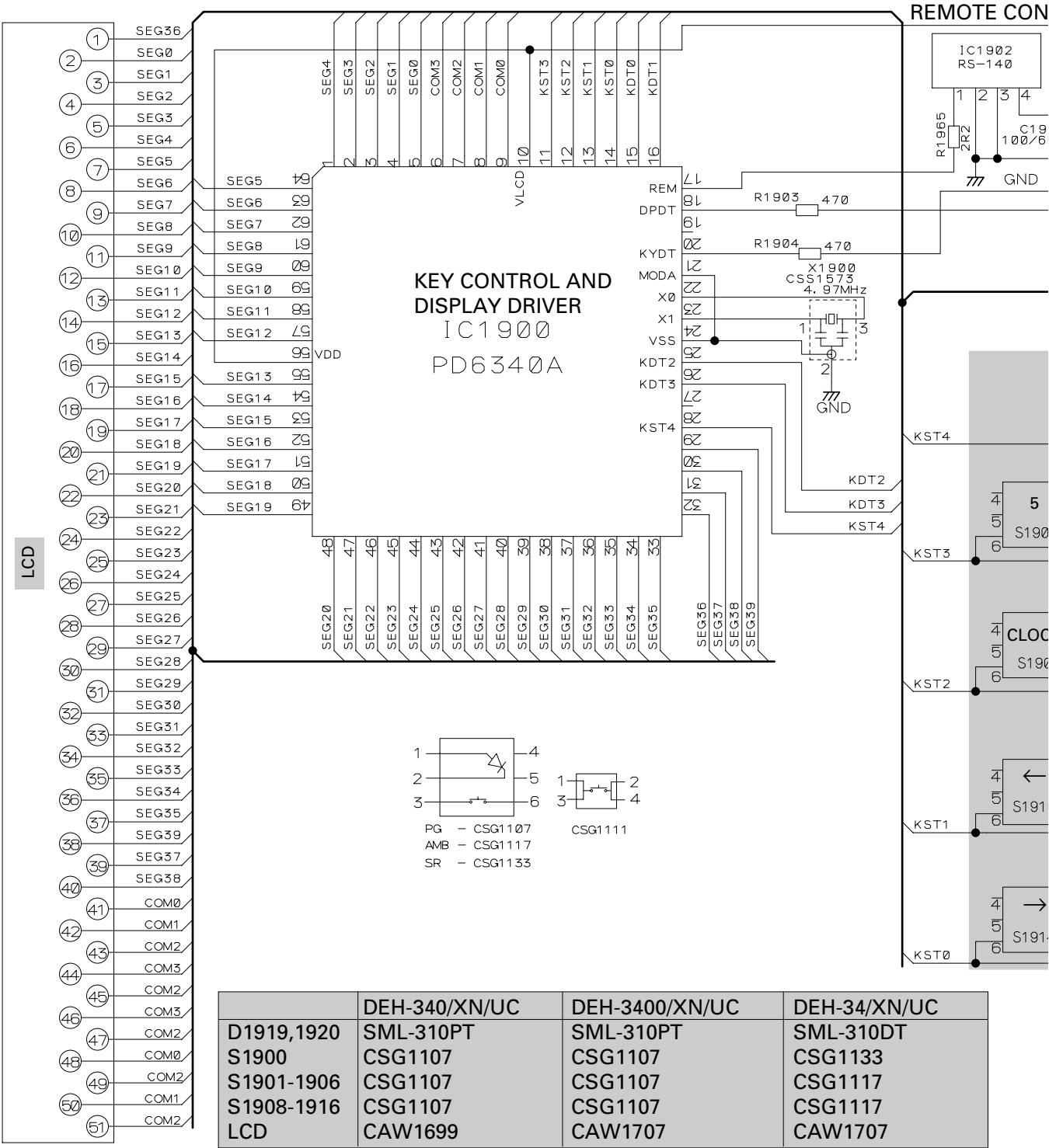
Ex.	*Resistors	*Capacitors
	Code	Code
	123	103
	Practical value	Practical value
	12k ohms	0.01uF
	103	101/10
	10k ohms	100uF/10V

A-a A-b



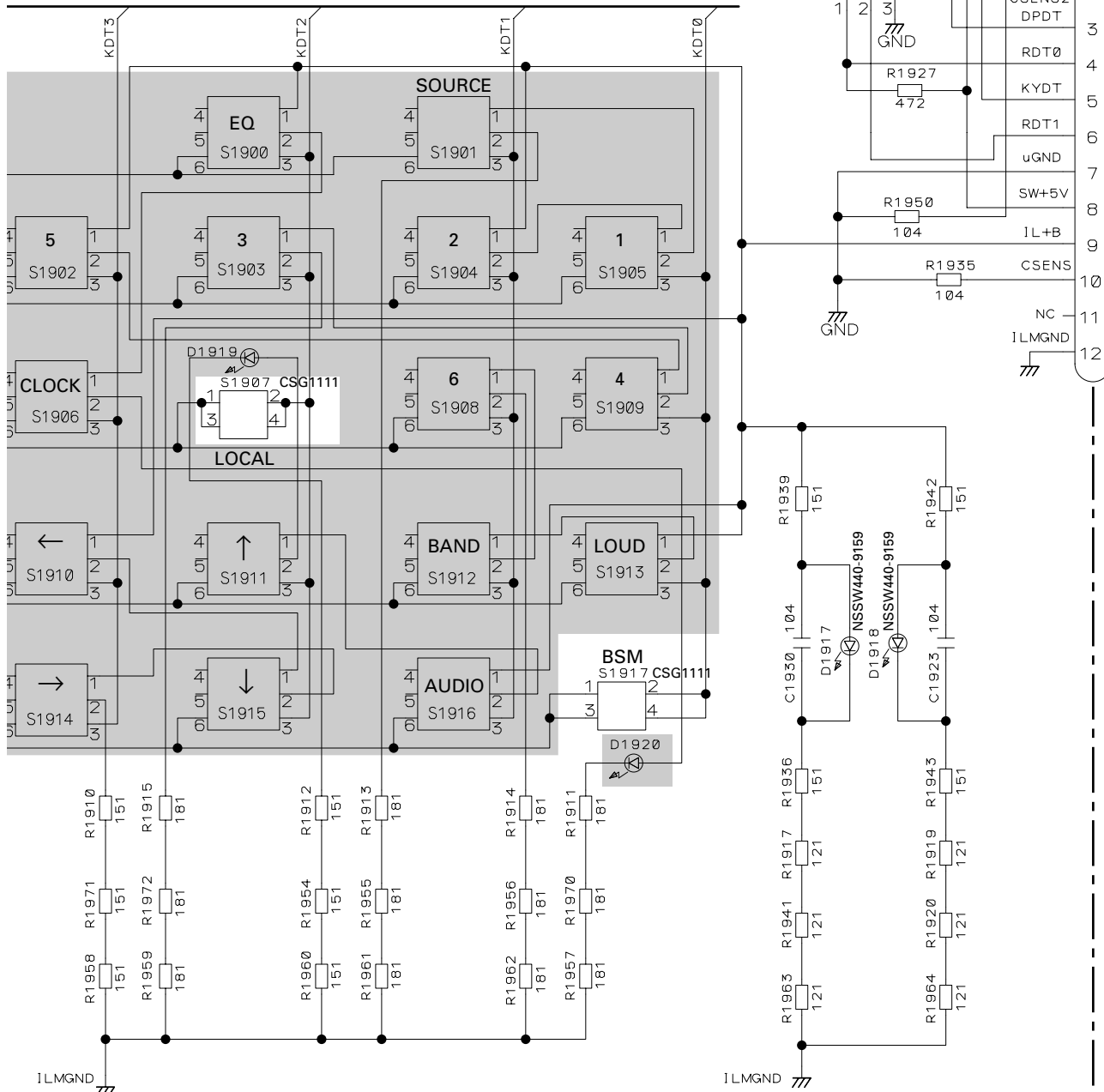
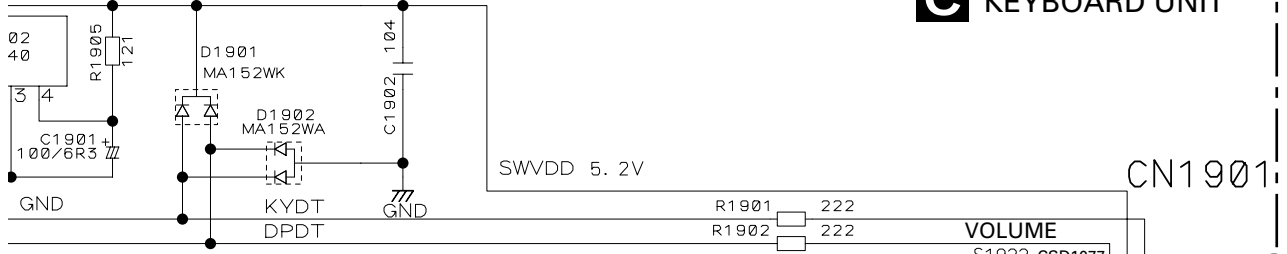


3.3 KEYBOARD UNIT



CONTROL SENSOR

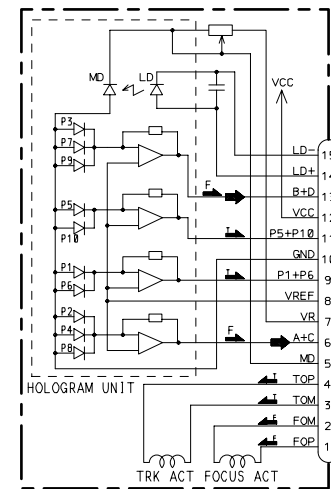
C KEYBOARD UNIT

B
CN1951

3.4 CD MECHANISM MODULE

D CONTROL UNIT

PICKUP UNIT(SERVICE)(P9)



CN101

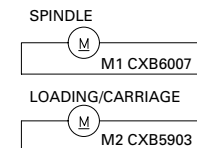
RF AMP

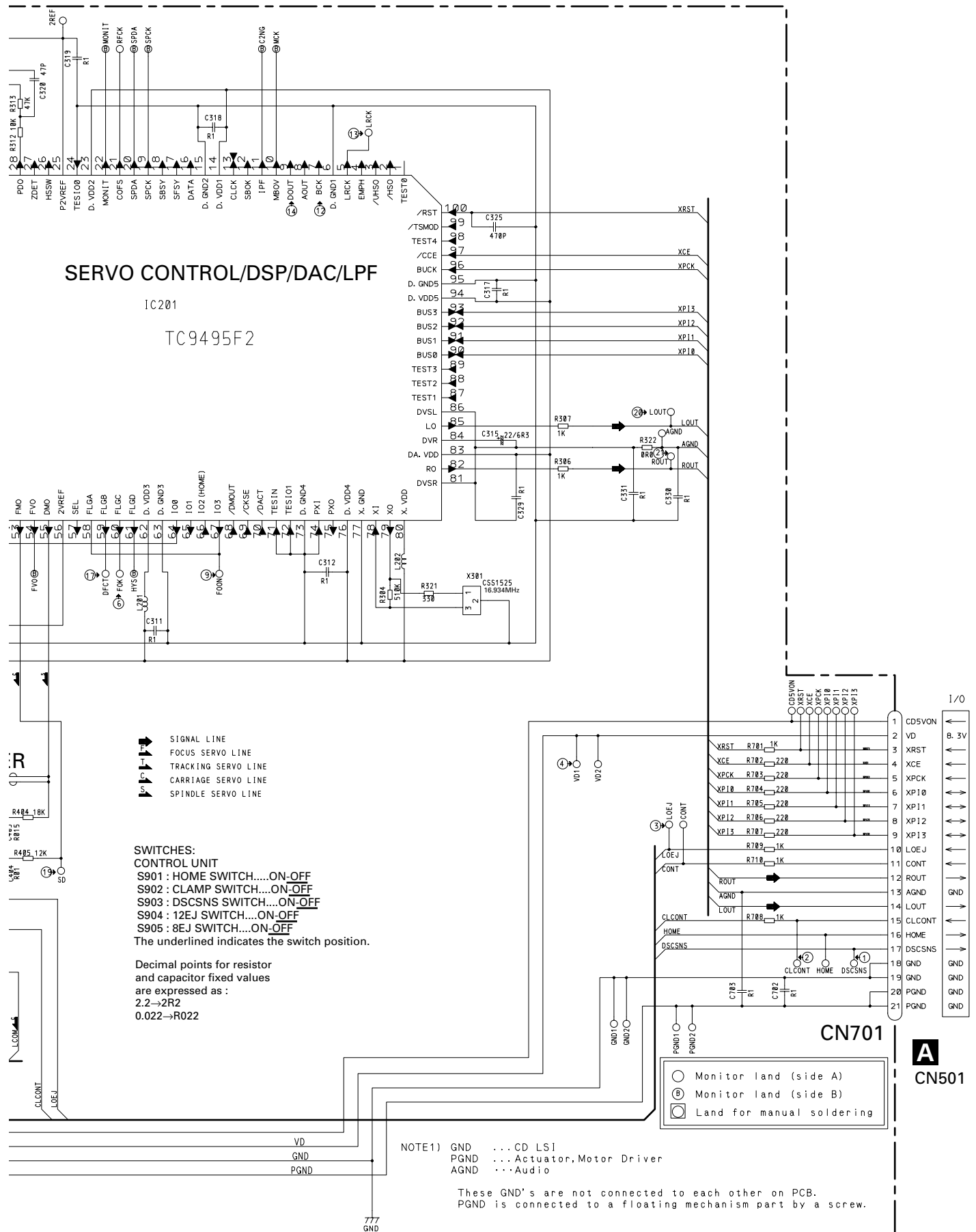
IC101
TA2153FN

ACT/MOTOR DRIVER

	LOAD	EJ	PLAY	OFF
CLCONT	H	H	L	L
LOEJ	H	L	-	-
CONT	L	L	H	L

5V REGULATOR





A

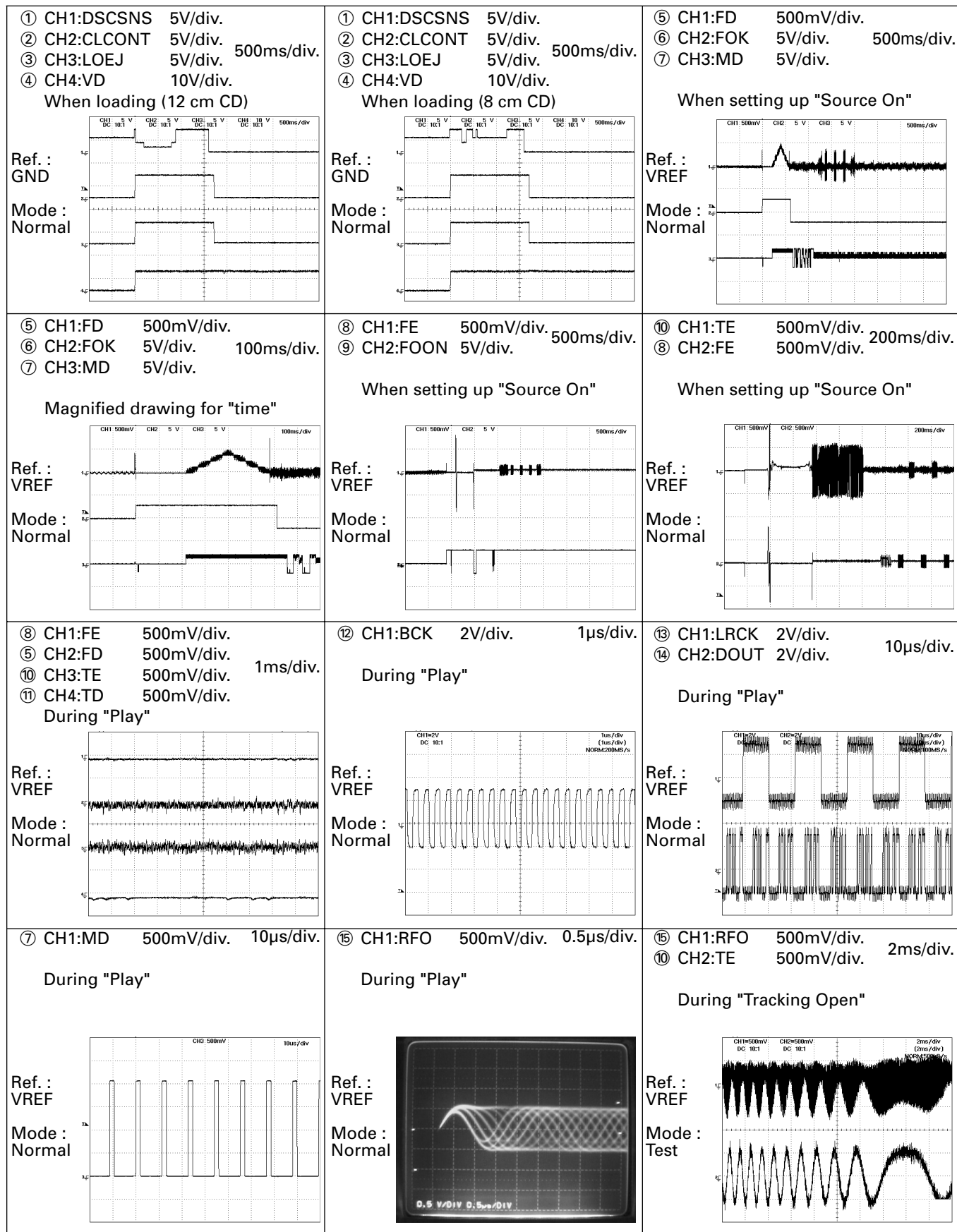
B

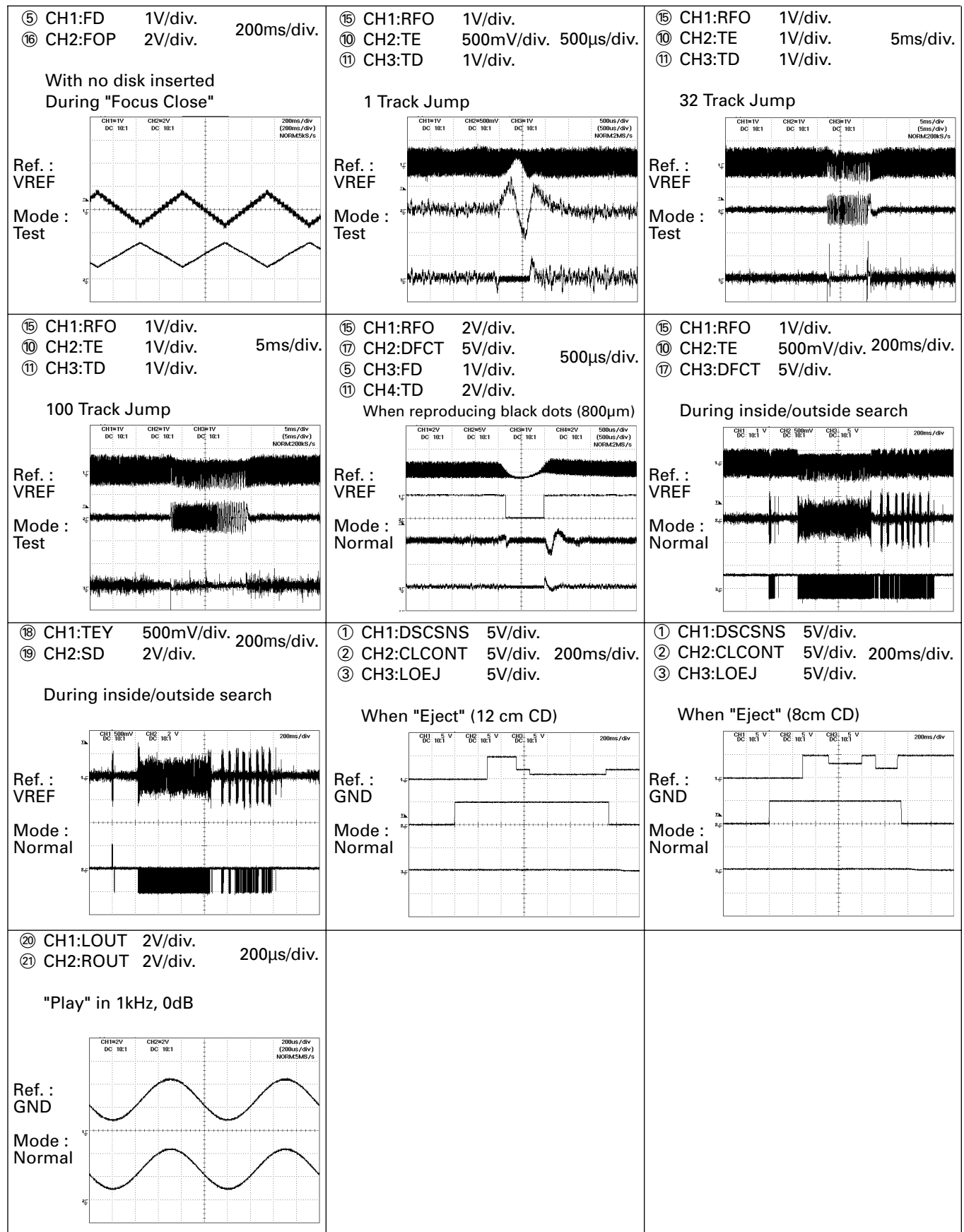
C

D

Note:1. The encircled numbers denote measuring points in the circuit diagram.
2. Reference voltage
VREF:2.1V

● Waveforms





6.3 ERROR MODE

● Error Messages

If a CD is not operative or stopped during operation due to an error, the error mode is turned on and cause(s) of the error is indicated with a corresponding number. This arrangement is intended at reducing nonsense calls from the users and also for facilitating trouble analysis and repair work in servicing.

(1) Basic Indication Method

1) When SERRORM is selected for the CSMOD (CD mode area for the system), error codes are written to DMIN (minutes display area) and DSEC (seconds display area). The same data is written to DMIN and DSEC. DTNO remains in blank as before.

2) Head unit display examples

Depending on display capability of LCD used, display will vary as shown below. xx contains the error number.

8-digit display	6-digit display	4-digit display
ERROR-xx	ERR-xx	E-xx

(2) Error Code List

Code	Class	Displayed error code	Description of the code and potential cause(s)
10	Electricity	Carriage Home NG SERVO LSI Communication Error	CRG can't be moved to inner diameter. CRG can't be moved from inner diameter. → Failure on home switch or CRG move mechanism. Communication error between microcomputer and SERVO LSI.
11	Electricity	Focus Servo NG	Focusing not available. → Stains on rear side of disc or excessive vibrations on REWRITABLE.
12	Electricity	Spindle Lock NG Subcode NG	Spindle not locked. Sub-code is strange (not readable). → Failure on spindle, stains or damages on disc, or excessive vibrations. A disc not containing CD-R data is found. Turned over disc are found, though rarely. CD signal error.
17	Electricity	Setup NG	AGC protection doesn't work. Focus can be easily lost. → Damages or stains on disc, or excessive vibrations on REWRITABLE.
30	Electricity	Search Time Out	Failed to reach target address. → CRG tracking error or damages on disc.
44	Electricity	ALL Skip	Skip setting for all track. (CD-R/RW)
50	Mechanism	CD On Mech Error	Mechanical error during CD ON. → Defective loading motor, mechanical lock and mechanical sensor.
A0	System	Power Supply NG	Power (VD) is ground faulted. → Failure on SW transistor or power supply (failure on connector).

Remarks: Mechanical errors are not displayed (because a CD is turned off in these errors).

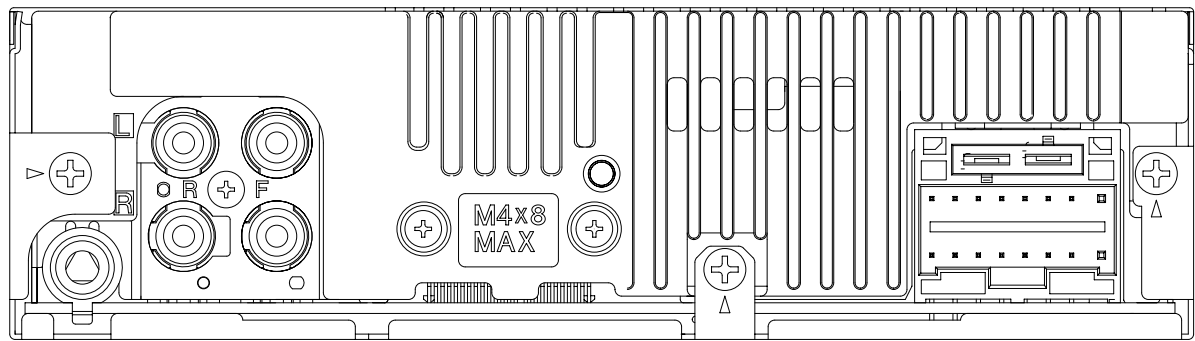
Unreadable TOC does not constitute an error. An intended operation continues in this case.

Upper digits of an error code are subdivided as shown below:

1x: Setup relevant errors, 3x: Search relevant errors, Ax: Other errors.

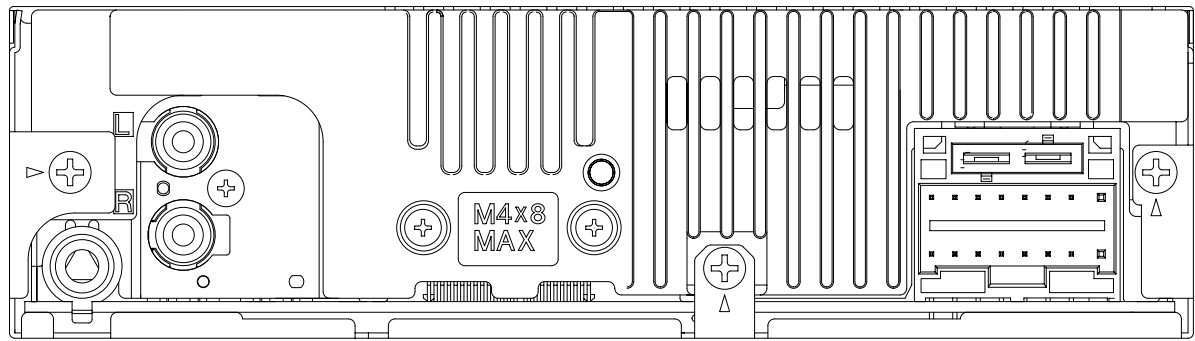
7.1.2 CONNECTOR FUNCTION DESCRIPTION

● DEH-340/XN/UC

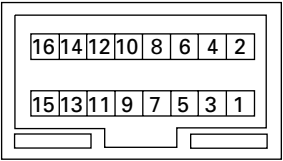


ANTENNA PRE OUT

● DEH-3400/XN/UC, DEH-34/XN/UC



ANTENNA PRE OUT



- 1. GND
- 2. BACK UP
- 3. ACC
- 4. NC
- 5. NC
- 6. B.REM
- 7. NC
- 8. NC
- 9. RL-
- 10. FL-
- 11. RL+
- 12. FL+
- 13. RR-
- 14. FR-
- 15. RR+
- 16. FR+

7.2 PARTS

7.2.1 IC

● Pin Functions(PE5262A)

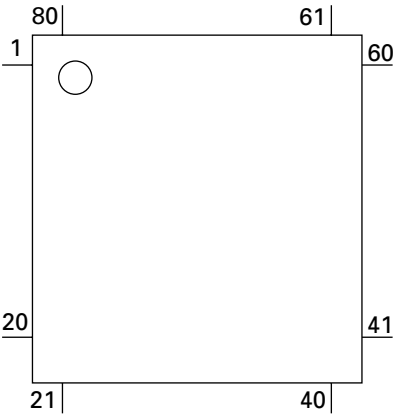
Pin No.	Pin Name	I/O	Format	Function and Operation
1	MODEL1	I		Model select input
2,3	NC			Not used
4	AVSS	I		A/D GND
5	ST	I		FM stereo input
6	SD	I		SD input
7	AVREF1			A/D converter reference voltage
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	SDBW	I		SDBW input
11	TUNPDI	I		PLL IC data input
12	TUNPDO	O	C	PLL IC data output
13	TUNPCK	O	C	PLL IC clock output
14	TUNPCE	O	C	PLL IC chip enable output
15	CURRO	O		Tuner voltage FIX output
16	LOCL	O	C	Local L output
17	NC			Not used
18	FM/AM	O	C	FM/AM power select output
19	NC			Not used
20	FLPILM	O	C	Inside of flap illumination output
21	VDCONT	O	C	VD control output
22	NC			Not used
23	CONT	O	C	Servo driver power supply control output
24	XCE	O	C	CD LSI chip enable output
25	XRST	O	C	CD LSI reset output
26	XPCK	O	C	CD LSI clock output
27-30	XPIO-3	I/O	C	CD LSI data input/output
31	CLCONT	O	C	Driver input select output
32	HOME	I	C	Home position detector input
33	VSS			GND
34	LOEJ	O	C	CD load motor LOAD/EJECT direction exchange output
35	CD5VON	O	C	CD +5V power supply control output
36,37	ROT1-0	I		Rotary encoder data input
38	TELIN	I		Telephone mute input
39	NC			Not used
40	ILMPW	O	C	Illumination power supply control output
41	SWVDD	O	C	Keyboard unit power supply control output
42	SYSPW	O	C	System power supply control output
43	VST	O	C	Strobe pulse output for electronic volume
44	MUTE	O	C	System mute output
45	PEE	O	C	Beep tone output
46	LOCH	O	C	Local H output
47	NC			Not used
48	TUNPCE2	O	C	EEPROM chip enable output
49	PCL	O	C	Clock adjustment output
50	VCK	O	C	Clock output for electronic volume
51	VDT	O	C	Data output for electronic volume
52	ANTPW	O		Antenna output
53	EJECTS	I		Eject key input pin
54	DALMON	O	C	Stand-by output
55-59	NC			Not used
60	RESET	I		Reset input
61,62	NC			Not used
63	BSENS	I		Back up power sense input
64	ASENS	I		ACC power sense input
65	DSENS	I		Grille detach sense
66	ADPW	O	C	A/D converter power supply output
67	NC			Not used

Pin No.	Pin Name	I/O	Format	Function and Operation
68	VDD			Power supply
69	X2			Crystal oscillator connection pin
70	X1	I		Crystal oscillator connection pin
71	IC(VPP)			Connect to GND
72	NC			Not used
73	TESTIN	I		Test program mode input
74	AVDD			Positive power supply terminal for analog circuit
75	AVREF0			A/D converter reference voltage
76	SL	I		SD level input from tuner
77	TEMP	I		CD temperature sense input
78	VDSSENS	I		VD power supply voltage sense input
79	DISCSNS	I		CD DISC sense input
80	CSENS	I		Flap open/close sense input

Output Format	Meaning
C	C MOS output

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

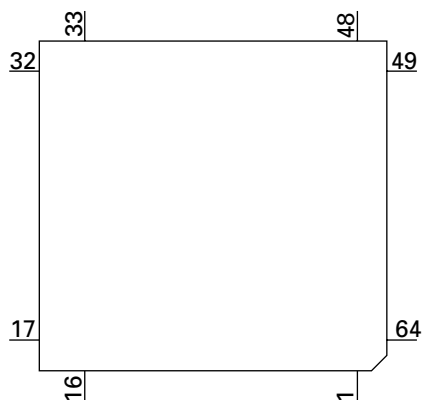
*PE5262A



● 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	REM	I	Remote control reception
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

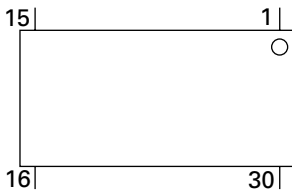
*PD6340A



● Pin Functions(TA2153FN)

Pin No.	Pin Name	I/O	Function and Operation
1	VCC		Power supply voltage terminal
2	RFGC	I	RF amplitude adjustment control signal terminal
3	GMAD	I	AGC amplifier frequency characteristic adjustment terminal
4	FNI	I	Main beam amplifier input terminal
5	FPI	I	Main beam amplifier input terminal
6	TPI	I	Sub beam amplifier input terminal
7	TNI	I	Sub beam amplifier input terminal
8	MDI	O	Monitor photodiode amplifier input terminal
9	LDO	I	Laser diode amplifier output terminal
10	SEL	I	APC circuit ON/OFF signal, LDO terminal control input terminal and bottom and peak detection frequency switching terminals
11	TEB	I	Tracking error balance adjustment signal input terminal
12	2VRO	O	Reference voltage (2VRO) output terminal
13	TEN	I	Tracking error signal generation amplifier reverse phase input terminal
14	TEO	O	Tracking error signal generation amplifier output terminal
15	SBAD	O	Sub beam addition signal output terminal
16	FEO	O	Focus error signal generation amplifier output terminal
17	FEN	I	Focus error signal generation amplifier reverse phase input terminal
18	SEB	I	RFRP generation circuit mode switching terminal
19	VRO	O	Reference voltage (VREF) output terminal
20	RFRP	O	Signal generation amplifier output terminal for track count
21	BTC	I	Bottom detection time constant adjustment terminal for RFCT signal generation
22	RFCT	O	RFRP signal center level output terminal
23	PKC	I	Peak detection time constant adjustment signal for RFCT signal generation
24	RFRPIN	I	Signal generation amplifier input terminal for track count
25	RFGO	O	RF signal amplitude adjustment amplifier output terminal
26	GVSW	I	AGC, FE or TE amplifier gain switching terminal
27	AGCIN	I	RF signal amplitude adjustment amplifier input terminal
28	RFO	O	RF signal generation amplifier output terminal
29	GND	I	GND terminal
30	RFN2	I	RF signal generation amplifier input terminal

TA2153FN

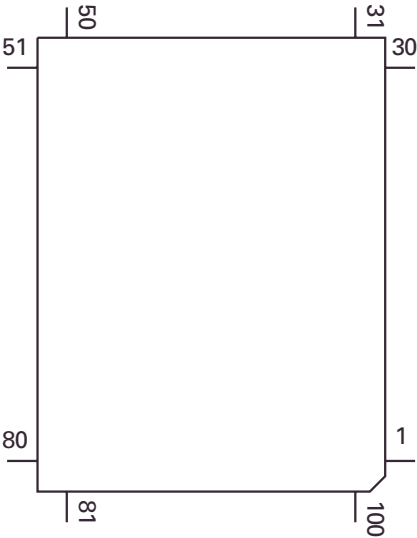


● Pin Functions(TC9495F2)

Pin No.	Pin Name	I/O	Function and Operation
1	TESTO		Test mode terminal
2	HSO	O	Replay speed flag output terminal
3	UHSO	O	Replay speed flag output terminal
4	EMPH	O	Emphasis flag output terminal for sub code Q data
5	LRCK	O	Channel clock (44.1 kHz) output terminal
6	VSS		Digital ground terminal
7	BCK	O	Bit clock output terminal
8	AOUT	O	Digital audio data output terminal
9	DOUT	O	Digital out output terminal
10	MBOV	O	Buffer memory over signal output terminal
11	IPF	O	Correction flag output terminal
12	SBOK	O	CRCC decision result output for sub code Q data
13	CLKK	I/O	Clock input/output terminal for sub code P-W data read
14	VDD		Digital + power supply terminal (5 V)
15	VSS		Digital ground terminal
16	DATA	O	Sub code P-W data output terminal
17	SFSY	O	Replay-system frame sync signal output terminal
18	SBSY	O	Sub code block sync output terminal
19	SPCK	O	Clock for processor status signal read
20	SPDA	O	Processor status signal output terminal
21	COFS	O	Correction-system frame clock (7.35 kHz) output terminal
22	MONIT	O	LSI internal signal output terminal
23	VDD		Digital + power supply terminal (5 V)
24	TESIO0	I	Test input/output terminal
25	P2VREF		PLL-system only 2VREF terminal
26	HSSW	O	The VREF voltage is reached for double or quad speed.
27	ZDET	O	One-bit DAC zero detection flag output terminal
28	PDO	O	Phase error signal issue between the EFM and PLCK signals
29	TMAXS	O	TMAX detection result output terminal
30	TAMX	O	TMAX detection result output terminal
31	LPFN	I	Reverse input terminal of amplifier for lowpass filter
32	LPFO	O	Output terminal of amplifier for lowpass filter
33	PVREF		PLL-system only VREF terminal
34	VCOREF	I	VCO center frequency reference level terminal
35	VCOF	O	Filter terminal for VCO
36	AVSS		Analog-system ground terminal
37	SLCO	O	Output terminal of DAC for data slice level generation
38	RFI	I	RF signal input terminal
39	AVDD		Analog-system power supply terminal (5 V)
40	RFCT	I	RFRP signal center level input terminal
41	RFZI	I	Input terminal for RFRP signal zero cross
42	RFRP	I	RF ripple signal input terminal
43	FEI	I	Focus error signal input terminal
44	SBAD	I	Sub beam addition signal input terminal
45	TSIN	I	Test input terminal
46	TEI	I	Tracking error input terminal
47	TEZI	I	Input terminal for tracking error or zero cross
48	FOO	O	Focus equalizer output terminal
49	TRO	O	Tracking equalizer output terminal
50	VREF		Analog reference power supply terminal
51	RFGC	O	RF amplitude adjustment control signal output terminal
52	TEBC	O	Tracking balance control signal output terminal
53	FMO	O	Feed equalizer output terminal
54	FVO	O	Speed error signal or feed search EQ output
55	DMO	O	Disc equalizer output terminal
56	2VREF		Analog reference power supply terminal
57	SEL	O	APC circuit ON/OFF signal output terminal

Pin No.	Pin Name	I/O	Function and Operation
58-61	FLGA-D	O	External flag output terminal for internal signal monitor
62	VDD		Digital + power supply terminal (5 V)
63	VSS		Digital ground terminal
64	IO0	O	RF amplifier gain switching terminal
65	IO1	O	Not used
66	IO2	I	HOME detection switch input terminal
67	IO3	O	FocusDrv and signal output terminal
68	DMOUT	I	Field equalizer PWM output terminal for IO0 and IO1 Disc equalizer PWM output terminal for IO2 and IO3
69	CKSE	I	Usually open
70	DACT	I	DAC test mode terminal
71	TESIN	I	Test input terminal
72	TESIO1	I	Test input/output terminal
73	VSS		Digital ground terminal
74	PXI	I	DPS-system clock oscillator circuit input terminal
75	PXO	O	DPS-system clock oscillator circuit output terminal
76	VDD		Digital + power supply terminal (5 V)
77	XVSS		Ground terminal for system clock oscillator circuit
78	XI	I	System clock oscillator circuit input terminal
79	XO	O	System clock oscillator circuit output terminal
80	XVDD		For system clock oscillator circuit + power supply terminal
81	DVSR		R channel D/A converting unit power supply terminal
82	RO	O	R channel data forward rotation output terminal
83	DVDD		D/A converting unit power supply terminal (5 V)
84	DVR		Reference voltage terminal
85	LO	O	L channel forward rotation output terminal
86	DVSL		L channel D/A converting unit power supply terminal
87-89	TEST1-3	I	Test mode terminal
90-93	BUS0-3	I/O	Data input/output terminal for microcomputer interface
94	VDD		Digital + power supply terminal (5 V)
95	VSS		Digital ground terminal
96	BUCK	I	Clock terminal for microcomputer interface
97	CEE	I	Chip enable signal for microcomputer interface
98	TEST4	I	Test mode terminal
99	TSMOD	I	Test mode terminal
100	RST	I	Reset signal input terminal

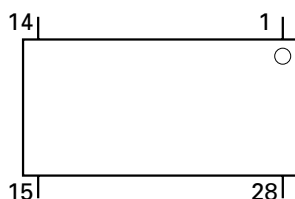
*TC9495F2



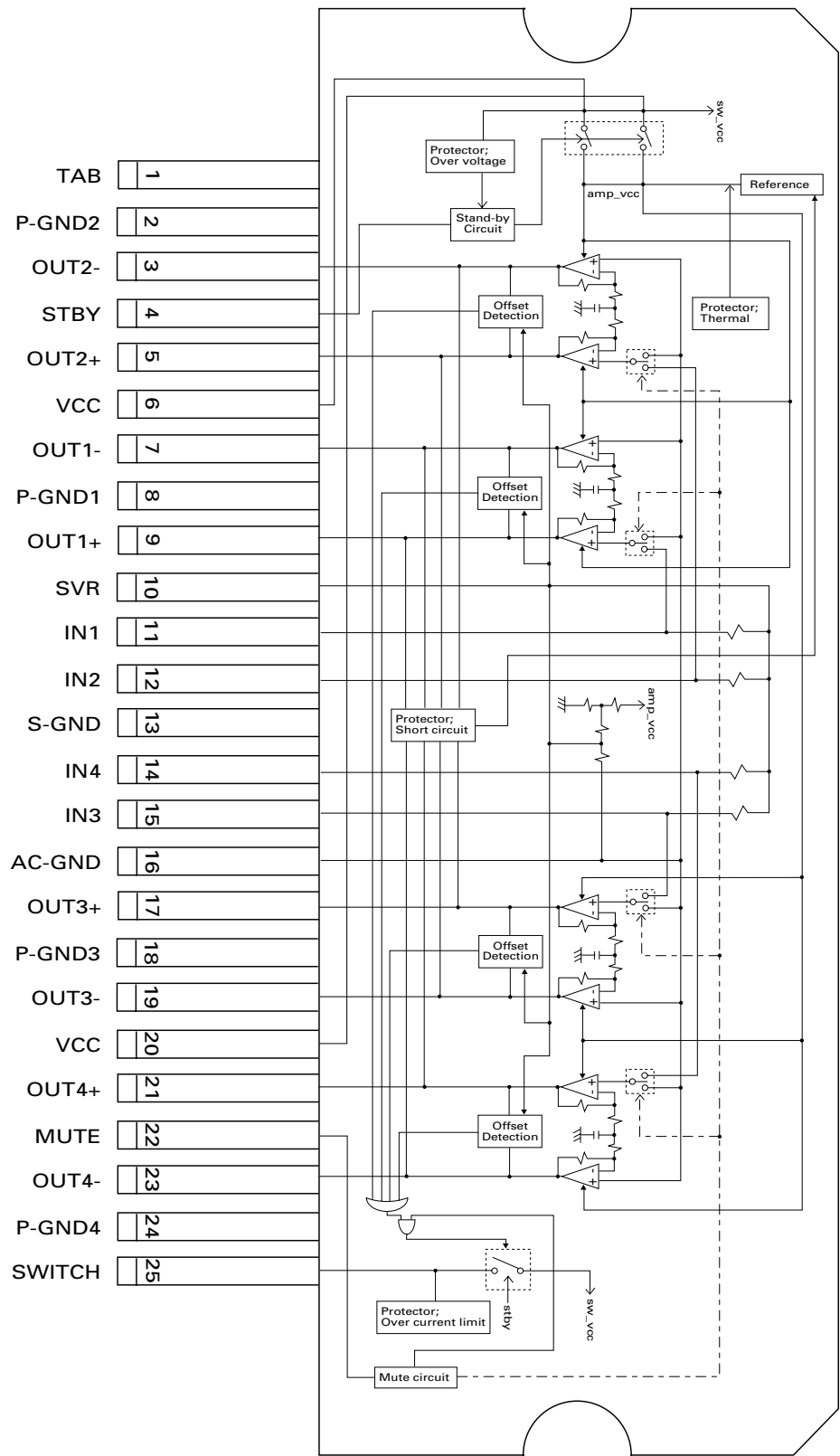
● **Pin Functions(BA5996FM)**

Pin No.	Pin Name	Function and Operation
1	VR	Input pin for reference voltage
2	OPIN2(+)	Input pin for non-inverting input for CH2 preamplifier
3	OPIN2(-)	Input pin for inverting input for CH2 preamplifier
4	OPOUT2	Output pin for CH2 preamplifier
5	OPIN1(+)	Input pin for non-inverting input for CH1 preamplifier
6	OPIN1(-)	Input pin for inverting input from CH1 preamplifier
7	OPOUT1	Output pin for CH1 preamplifier
8	GND	Ground pin
9	MUTE	Mute control pin
10	POWVCC1	Power supply pin for CH1, CH2, and CH3 at "Power" stage
11	VO1(-)	Driver CH1 - Negative output
12	VO1(+)	Driver CH2 - Positive output
13	VO2(-)	Driver CH2 - Negative output
14	VO2(+)	Driver CH2 - Positive output
15	VO3(+)	Driver CH2 - Positive output
16	VO3(-)	Driver CH2 - Negative output
17	VO4(+)	Driver CH4 - Positive output
18	VO4(-)	Driver CH4 - Negative output
19	POWVCC2	Power supply pin for CH4 at "Power" stage
20	GND	Ground pin
21	CNT	Control pin
22	LDIN	Loading input
23	OPOUTSL	Output pin for preamplifier for thread
24	OPINSL	Input pin for preamplifier for thread
25	OPOUT3	CH3 preamplifier output pin
26	OPIN3(-)	Input pin for inverting input for CH3 preamplifier
27	OPIN3(+)	Input pin for non-inverting input for CH3 preamplifier
28	PREVCC	PreVcc

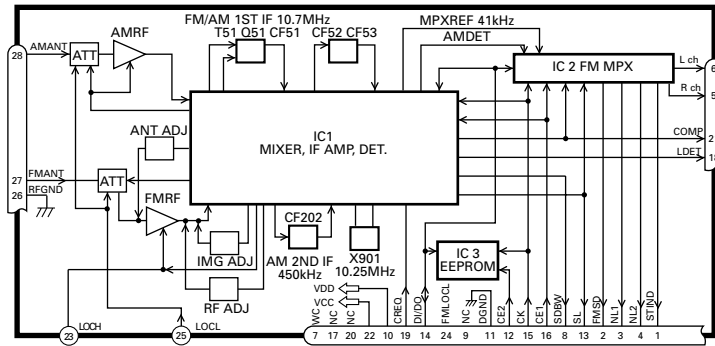
BA5996FM



PAL007A



● FM/AM Tuner Unit

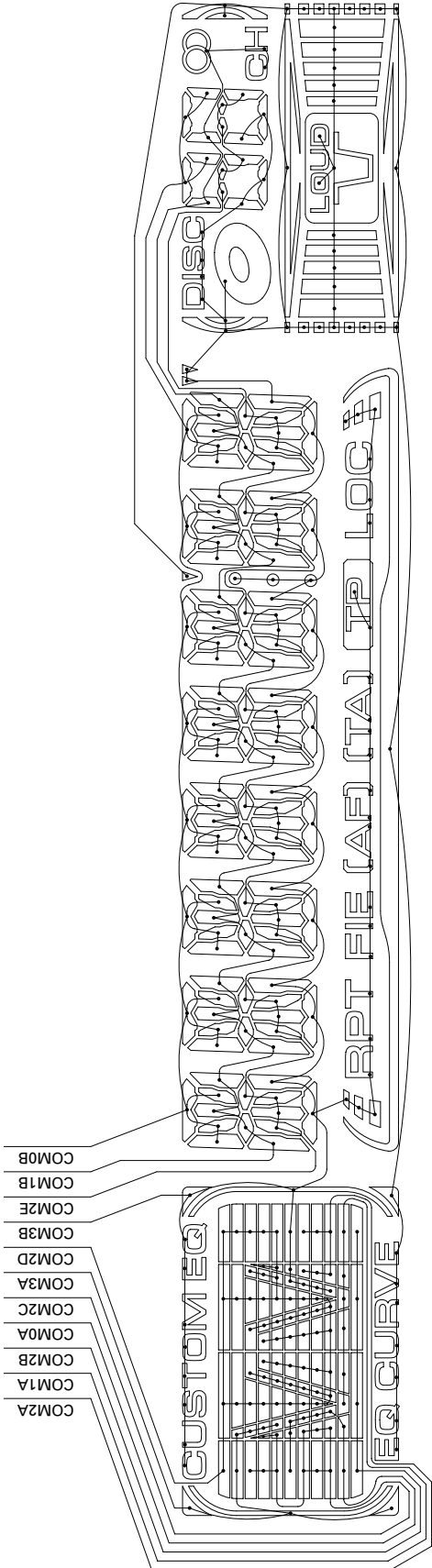
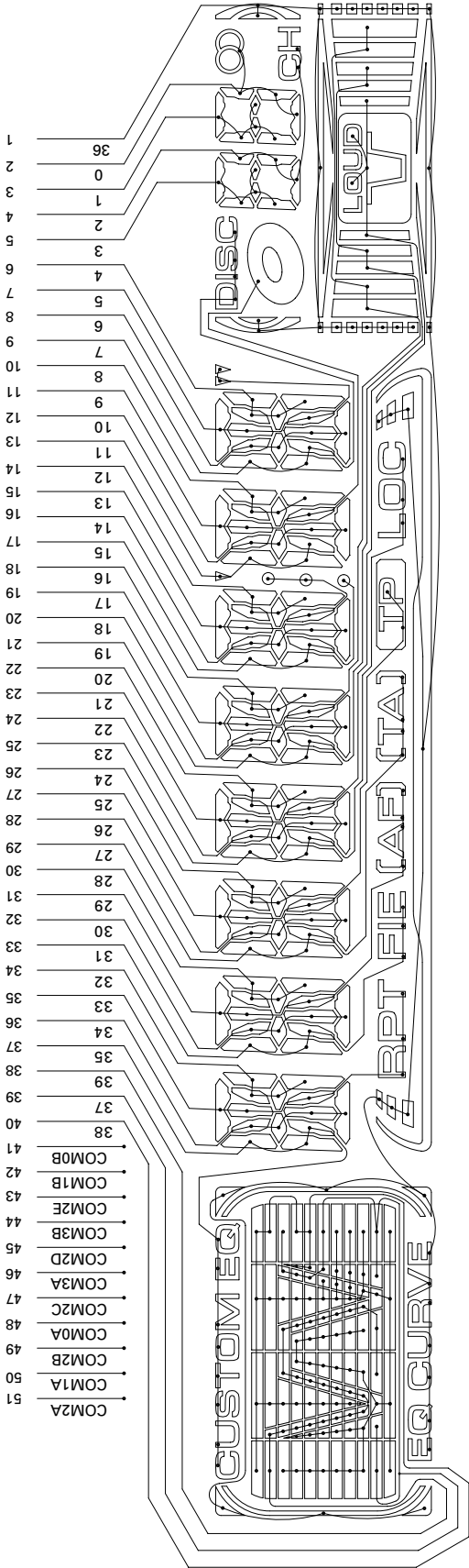


No.	Symbol	I/O	Explain	
1	STIND	O	stereo indicator	"Low" when the FM stereo signals are received. To be pulled up to the "VDD" at 47kΩ.
2	FMSD	O	FM station detector	"High" when signals are received. To be pulled up to the "VDD" at 47kΩ Meanwhile, 10kΩ should be used when taking diver FIX trigger from here and "High: 0.9VDD or more" and "Low: 250mV or less". (Should satisfy the diver IC specifications)
3	NL1	O	noise level-1	"High" when noise is received. Output for the RDS. GND at 47kΩ //1,800pF.
4	NL2	O	noise level-2	"High" when noise is received. Output for the RDS. GND at 36kΩ //330pF.
5	Rch	O	R channel output	FM stereo "R-ch" signal output or AM audio output. Add the specified de-emphasis constant.
6	Lch	O	L channel output	FM stereo "L-ch" signal output or AM audio output. Add the specified de-emphasis constant.
7	WC		write control	EEPROM write control. Writing permissible at "Low". Normally open.
8	SDBW	O	SD bandwidth	SD bandwidth signal output. For detection of detuning data for the RDS.
9	NC			Not used
10	VDD		power supply	Power supply pin for the digital section. DC 5V +/- 0.25V. Be careful about overlapping noise in the logic section.
11	DGND		digital ground	Grounding for the digital section.
12	CE2	I	chip enable-2	EEPROM chip enable. Active a "Low" To be pulled up to the "VDD" at 47kΩ
13	SL	I/O	signal level	Received FM/AM signal level (strength) output. Connect the specified load resistor and capacitor (10k Ω + 39k Ω //4,700pF)
14	DI/DO	I/O	data input/ data output	Data input/Data output To be pulled up to the "VDD" at 47kΩ
15	CK	I	clock	Clock input To be pulled up to the "VDD" at 47kΩ
16	CE1	I	chip enable-1	AF-RF chip enable. Active at "High" To be grounded at 47kΩ
17	NC			Not used
18	LDET	O	lock detector	Active at "Low". To be pulled up to the "VDD" at 47kΩ
19	CREQ	I	current request	Active at "Low". To be grounded at 47kΩ
20	NC			Not used
21	COMP	O	composite signal	FM composite signal output. r out < 100Ω
22	VCC		power supply	Analog section power supply pin.DC 8.4V +/- 0.3V
23	LOCH	I	local high	FM local high pin. When seeking local high, apply 5V together with "LOCL".
24	FMLOCL	I	FM local low	FM local low pin. When seeking local low, apply 5V to the base of the NPN transistor with which the specified resistor is being connected to the emitter. Keep it open in case of ordinary marketed models.
25	LOCL	I	local low	FM/AM local low pin. When seeking local low, apply 5V to the base of the NPN transistor. Since this pin is exclusive for AM when the FMLOCL is in use, do not drive it under FM.
26	RFGND		RF ground	Grounding for the antenna section.
27	FMANT	I	FM antenna input	FM antenna input. 75Ω. Surge absorber (DSP-201M-S00B) is necessary.
28	AMANT	I	AM antenna input	AM antenna input. High impedance. Connect to the antenna through an L (LAU type) of 4.7μH.To cope with the power transmission line hums, insert a series circuit consisting of an L (a coil of about 100mH) + R (a resistor of 470 Ω to 2.2kΩ) between the GND.

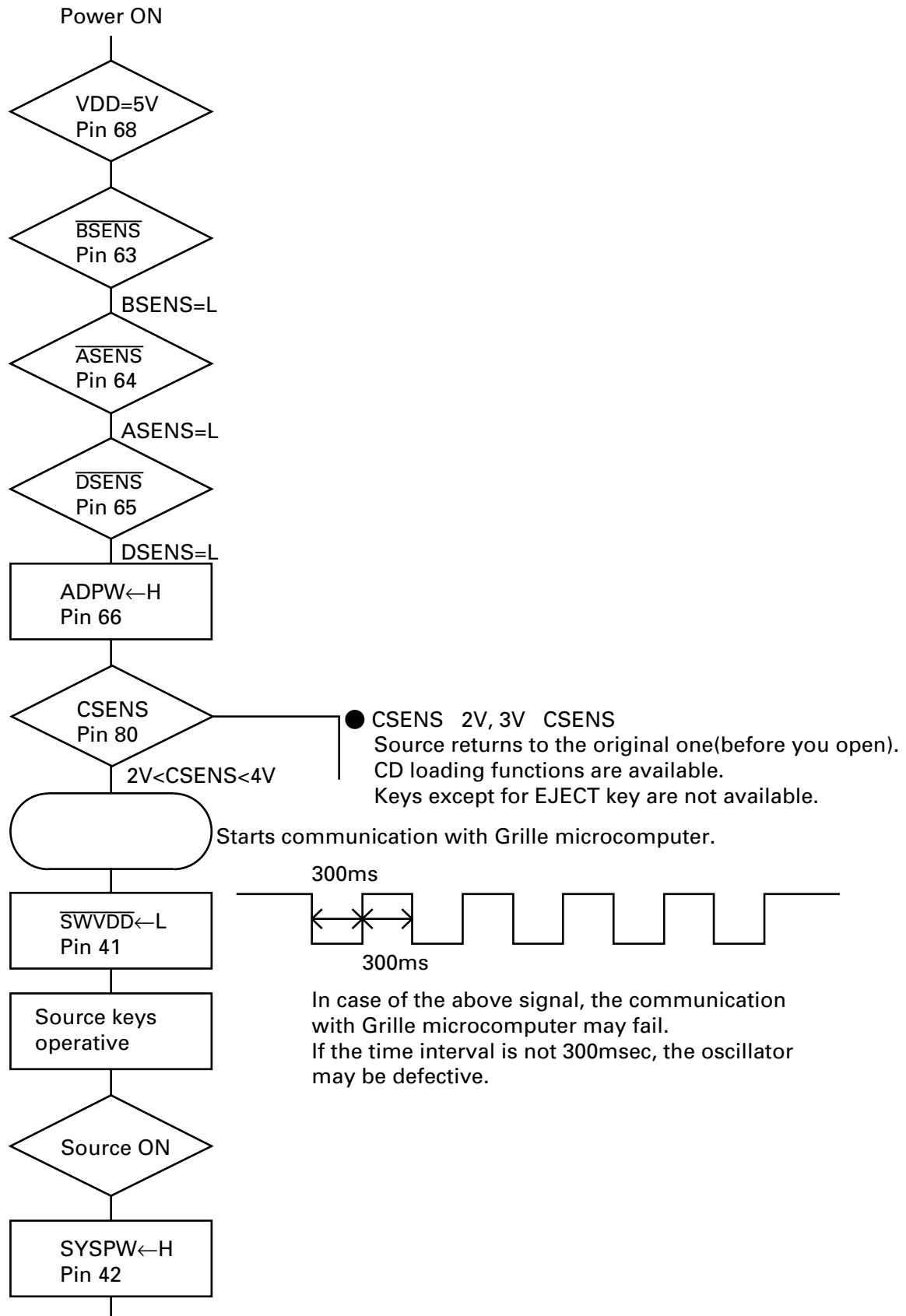
DEH-340,3400,34

7.2.2 DISPLAY

● CAW1699(DEH-340/XN/UC), CAW1707(DEH-3400/XN/UC, DEH-34/XN/UC)



7.3 OPERATIONAL FLOW CHART



Completes power-on operation.(After that, proceed to each source operation.)

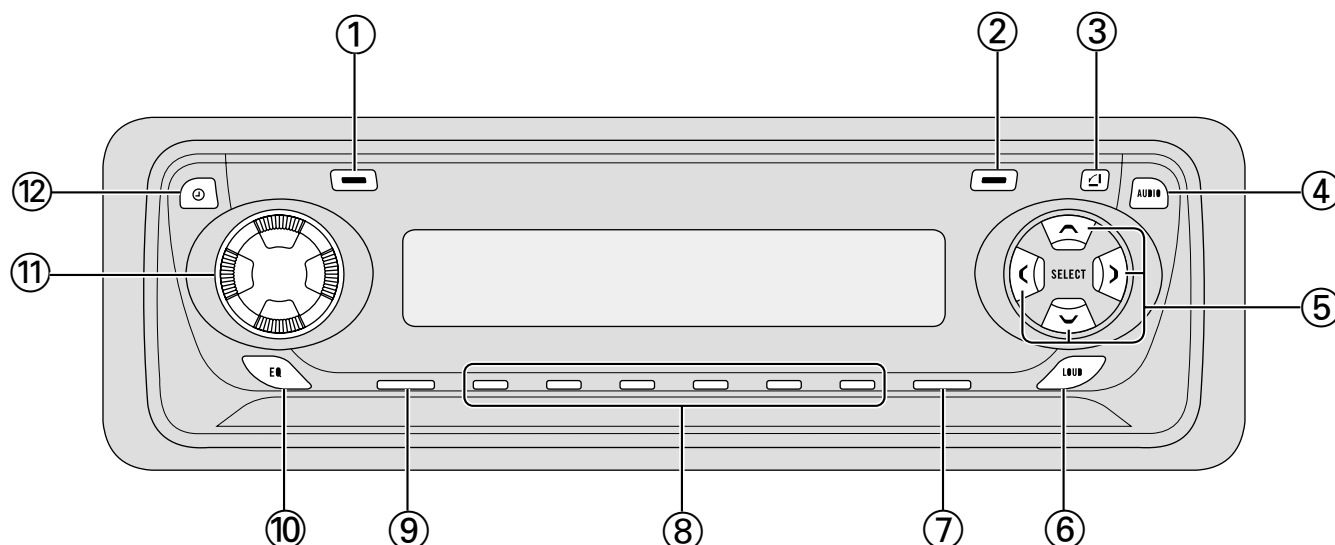
7.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
CD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

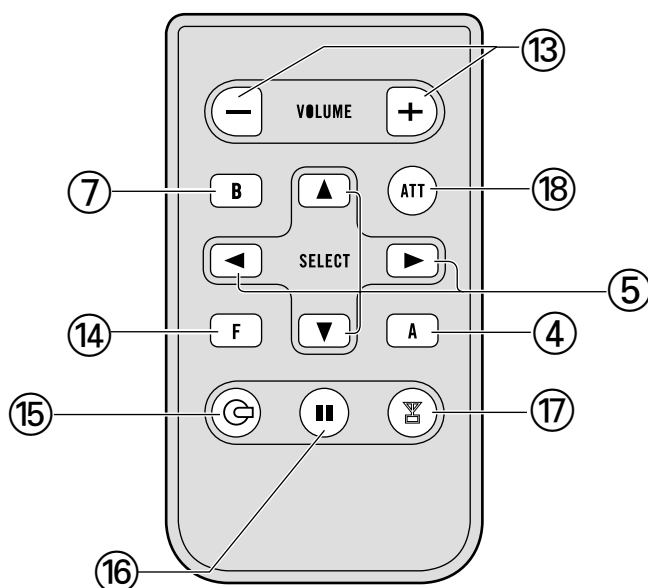
8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS



What's what

- ① BSM button
Press and hold for two seconds to switch BSM function on or off.
- ② LOCAL button
Press to switch local function on or off.
- ③ OPEN button
Press to open the front panel.
- ④ AUDIO button
Press to select various sound quality controls.
- ⑤ ▲/▼/◀/▶ buttons
Press to do manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.
- ⑥ LOUDNESS button
Press to switch loudness function on or off.
- ⑦ BAND button
Press to select among three FM and one AM band and cancel the control mode of functions.
- ⑧ 1-6 (PRESET TUNING) buttons
Press for preset tuning.
- ⑨ SOURCE button
This unit is switched on by selecting a source. Press to cycle through all of the available sources.
- ⑩ EQ button
Press to select various equalizer curves.
- ⑪ VOLUME
Rotate to increase or decrease the volume.
- ⑫ CLOCK button
Press to switch clock display on or off.



Remote control

A remote controller that enables remote operation of the head unit is supplied. Operation is the same as when using the button on the head unit. See the explanation of the head unit about the operation of each button with the exception of ATT, which is explained below.

- ⑬ +/- button
Raise or lower the volume.
- ⑭ FUNCTION button
Not used.
- ⑮ CD button
Press once to select a CD.
- ⑯ PAUSE button
Press once to pause play.
- ⑰ TUNER button
Press once to select a tuner.
- ⑱ ATT button
Press to quickly lower the volume level, by about 90%. Press once more to return to the original volume level.

Power ON/OFF

Turning the unit on

Press SOURCE to turn the unit on.
When you select a source the unit is turned on.

Selecting a source

You can select a source you want to listen to. To switch to the built-in CD player, load a disc in this unit.

Press SOURCE to select a source.
Press SOURCE repeatedly to switch between the following sources:
Built-in CD player—Tuner



Notes

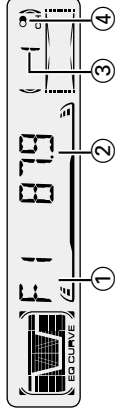
- When no disc is set in this product, built-in CD player source will not change.
- When this unit's blue/white lead is connected to the car's auto-antenna relay control terminal, the car's antenna extends when this unit's source is switched on. To retract the antenna, switch the source off.

Turning the unit off

Press SOURCE and hold for at least one second to turn the unit off.

Tuner

Listening to the radio



- BAND indicator**
Shows which band the radio is tuned to, AM or FM.
- FREQUENCY indicator**
Shows to which frequency the tuner is tuned.
- PRESET NUMBER indicator**
Shows what preset has been selected.
- STEREO (stereo icon) indicator**
Shows that the frequency selected is being broadcast in stereo.



Note

- When the frequency selected is being broadcast in stereo the STEREO (stereo icon) indicator will light.

- Press SOURCE to select the tuner.

- Use VOLUME to adjust the sound level. Rotate to increase or decrease the volume.

- Press BAND to select a band. Press BAND until the desired band is displayed, F1, F2, F3 for FM or AM.

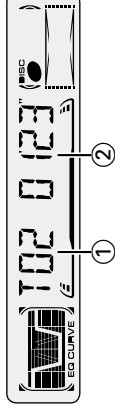
- To perform manual tuning, press ◀ or ▶ with quick presses. The frequencies move up or down step by step.

- To perform seek tuning, press and hold ◀ or ▶ for about one second and release. The tuner will scan the frequencies until a broadcast strong enough for good reception is found.

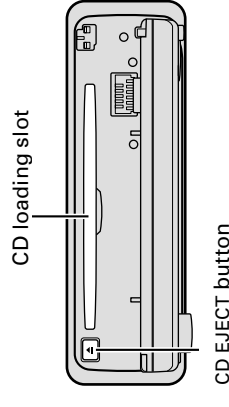
- You can cancel seek tuning by pressing either ◀ or ▶ with a quick press.
- If you press and hold ◀ or ▶ you can skip broadcasting stations. Seek tuning starts as soon as you release the buttons.

Built-in CD player

Playing a CD

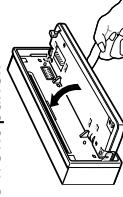


- TRACK NUMBER indicator**
Shows the track currently playing.
 - PLAY TIME indicator**
Shows the elapsed playing time of the current track.
- Press OPEN to open the front panel. CD loading slot appears.
 - Insert a CD into the CD loading slot. Playback will automatically start.



- You can eject a CD by pressing CD EJECT.

- Close the front panel.



- After a CD has been inserted, press SOURCE to select the built-in CD player.

Built-in CD player

- 4 Use VOLUME to adjust the sound level. Rotate to increase or decrease the volume.
- 5 To perform fast forward or reverse, press and hold ◀ or ▶.

- 6 To skip back or forward to another track, press ◀ or ▶.
Pressing ▶ skips to the start of the next track. Pressing ◀ once skips to the start of the current track. Pressing again will skip to the previous track.



Notes

- The built-in CD player plays one, standard, 12-cm or 8-cm (single) CD at a time. Do not use an adapter when playing 8-cm CDs.
- Do not insert anything other than a CD into the CD loading slot.
- If you cannot insert a disc completely or if after you insert a disc the disc does not play, check that the label side of the disc is up. Press CDEJECT to eject the disc, and check the disc for damage before inserting the disc again.
- If the built-in CD player does not operate properly, an error message such as ERROR-14 may be displayed. □

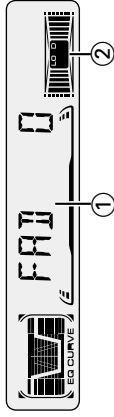
Playing tracks in a random order

Random play lets you play back tracks on the CD in a random order.

- 1 Press 4 to turn random play on.
RDM appears in the display. Tracks will play in a random order.
- 2 Press 4 to turn random play off.
Tracks will continue to play in order. □

Audio Adjustments

Introduction of audio adjustments



- ① AUDIO display
Shows the audio adjustments status.

- ② LOUD indicator
Appears in the display when loudness is turned on.

Press AUDIO to display the audio function names.

Press AUDIO repeatedly to switch between the following audio functions:

FAD (balance adjustment)—EQ-L (equalizer)—LOUD (loudness)—FIE (front image enhancer)—SLA (source level adjustment)

- When selecting the FM tuner as the source, you cannot switch to SLA.
- To return to the display of each source, press BAND.



Note

- If you do not operate the audio function within about 30 seconds, the display is automatically returned to the source display. □

Using balance adjustment

You can select a fader/balance setting that provides an ideal listening environment in all occupied seats.

- 1 Press AUDIO to select FAD.
Press AUDIO until FAD appears in the display.
• If the balance setting has been previously adjusted, BAL will be displayed.
- 2 Press ▲ or ▼ to adjust front/rear speaker balance.
Each press of ▲ or ▼ moves the front/rear speaker balance towards the front or the rear.
• FAD F15 – FAD R15 is displayed as the front/rear speaker balance moves from front to rear.
• FAD 0 is the proper setting when only two speakers are used.
- 3 Press ◀ or ▶ to adjust left/right speaker balance.
When you press ◀ or ▶, BAL 0 is displayed.
Each press of ◀ or ▶ moves the left/right speaker balance towards the left or the right.
• BAL L9 – BAL R9 is displayed as the left/right speaker balance moves from left to right. □

Audio Adjustments

Using the equalizer

The equalizer lets you adjust the equalization to match car interior acoustic characteristics as desired.

Recalling equalizer curves

There are six stored equalizer curves which you can easily recall at any time. Here is a list of the equalizer curves:

Display	Equalizer curve
SPR-BASS	Super bass
POWERFUL	Powerful
NATURAL	Natural
VOCAL	Vocal
CUSTOM	Custom
EQ FLAT	Flat

- CUSTOM is an adjusted equalizer curve that you create.
- When EQ FLAT is selected no supplement or correction is made to the sound. This is useful to check the effect of the equalizer curves by switching alternatively between EQ FLAT and a set equalizer curve.

Press EQ to select the equalizer.

- If the equalizer has been previously set to an equalizer curve other than POWERFUL then the title of that previously selected equalizer curve will be displayed, such as SPR-BASS, NATURAL, VOCAL, CUSTOM, or EQ FLAT. 

Adjusting equalizer curves

You can adjust the currently selected equalizer curve setting as desired. Adjusted equalizer curve settings are memorized in CUSTOM.

- 1 Press AUDIO to select the equalizer mode. Press AUDIO until EQ-L/EQ-M/EQ-H appears in the display.

- 2 Select the band you want to adjust with the  . EQ-L (low) —EQ-M (mid) —EQ-H (high)

- 3 Press  or  to adjust the equalizer curve.
Each press of  or  increases or decreases the equalizer curve respectively.
 - +6 – -6 is displayed as the equalizer curve is increased or decreased.
 - The actual range of the adjustments are different depending on which equalizer curve is selected.



Note

- If you make adjustments when a curve other than CUSTOM is selected, the newly adjusted curve will replace the previous curve. Then a new curve with CUSTOM appears on the display while selecting the equalizer curve. 

Adjusting loudness

Loudness compensates for deficiencies in the low- and high-sound ranges at low volume.

- 1 Press AUDIO to select LOUD. Press AUDIO until LOUD appears in the display.

- 2 Select LOUD on or off with  .

- 3 Select the desired level with  . LOW (low) —MID (mid) —HI (high)



Note

- You can also switch LOUD on or off by pressing the LOUDNESS. 

Front image enhancer (FIE)

The F.I.E. (Front Image Enhancer) function is a simple method of enhancing front imaging by cutting mid- and high-range frequency output from the rear speakers, limiting their output to low-range frequencies. You can select the frequency you want to cut.



Precaution

- When the F.I.E. function is deactivated, the rear speakers output sound of all frequencies, not just bass sounds. Reduce the volume before disengaging F.I.E. to prevent a sudden increase in volume.

- 1 Press AUDIO to select FIE. Press AUDIO until FIE appears in the display.
- 2 Select FIE on or off with  .

- 3 Select the desired frequency with  . 100—160—250 (Hz)



Notes

- After switching the F.I.E. function ON, select the Fader/Balance mode in the Audio Menu, and adjust front and rear speaker volume levels until they are balanced.

Audio Adjustments

Using the equalizer

The equalizer lets you adjust the equalization to match car interior acoustic characteristics as desired.

Recalling equalizer curves

There are six stored equalizer curves which you can easily recall at any time. Here is a list of the equalizer curves:

Display	Equalizer curve
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Press EQ to select the equalizer.

- If the equalizer has been previously set to an equalizer curve other than POWERFUL then the title of that previously selected equalizer curve will be displayed, such as SPR-BASS, NATURAL, VOCAL, CUSTOM, or EQ FLAT. 

Adjusting equalizer curves

You can adjust the currently selected equalizer curve setting as desired. Adjusted equalizer curve settings are memorized in CUSTOM.

- 1 Press AUDIO to select the equalizer mode. Press AUDIO until EQ-L/EQ-M/EQ-H appears in the display.

- 2 Select the band you want to adjust with the  . EQ-L (low) —EQ-M (mid) —EQ-H (high)

- 3 Press  or  to adjust the equalizer curve.
Each press of  or  increases or decreases the equalizer curve respectively.
 - +6 – -6 is displayed as the equalizer curve is increased or decreased.
 - The actual range of the adjustments are different depending on which equalizer curve is selected.



Note

- If you make adjustments when a curve other than CUSTOM is selected, the newly adjusted curve will replace the previous curve. Then a new curve with CUSTOM appears on the display while selecting the equalizer curve. 

Adjusting loudness

Loudness compensates for deficiencies in the low- and high-sound ranges at low volume.

- 1 Press AUDIO to select LOUD. Press AUDIO until LOUD appears in the display.

- 2 Select LOUD on or off with  .

- 3 Select the desired level with  . LOW (low) —MID (mid) —HI (high)



Note

- You can also switch LOUD on or off by pressing the LOUDNESS. 

Front image enhancer (FIE)

The F.I.E. (Front Image Enhancer) function is a simple method of enhancing front imaging by cutting mid- and high-range frequency output from the rear speakers, limiting their output to low-range frequencies. You can select the frequency you want to cut.



Precaution

- When the F.I.E. function is deactivated, the rear speakers output sound of all frequencies, not just bass sounds. Reduce the volume before disengaging F.I.E. to prevent a sudden increase in volume.

- 1 Press AUDIO to select FIE. Press AUDIO until FIE appears in the display.
- 2 Select FIE on or off with  .

- 3 Select the desired frequency with  . 100—160—250 (Hz)



Notes

- After switching the F.I.E. function ON, select the Fader/Balance mode in the Audio Menu, and adjust front and rear speaker volume levels until they are balanced.

- Switch the F.I.E. function OFF when using a 2-speaker system. 

Adjusting source levels

SLA (Source level adjustment) lets you adjust the volume level of each source to prevent radical changes in volume when switching between sources.

- Settings are based on the volume level of the FM tuner, which remains unchanged.

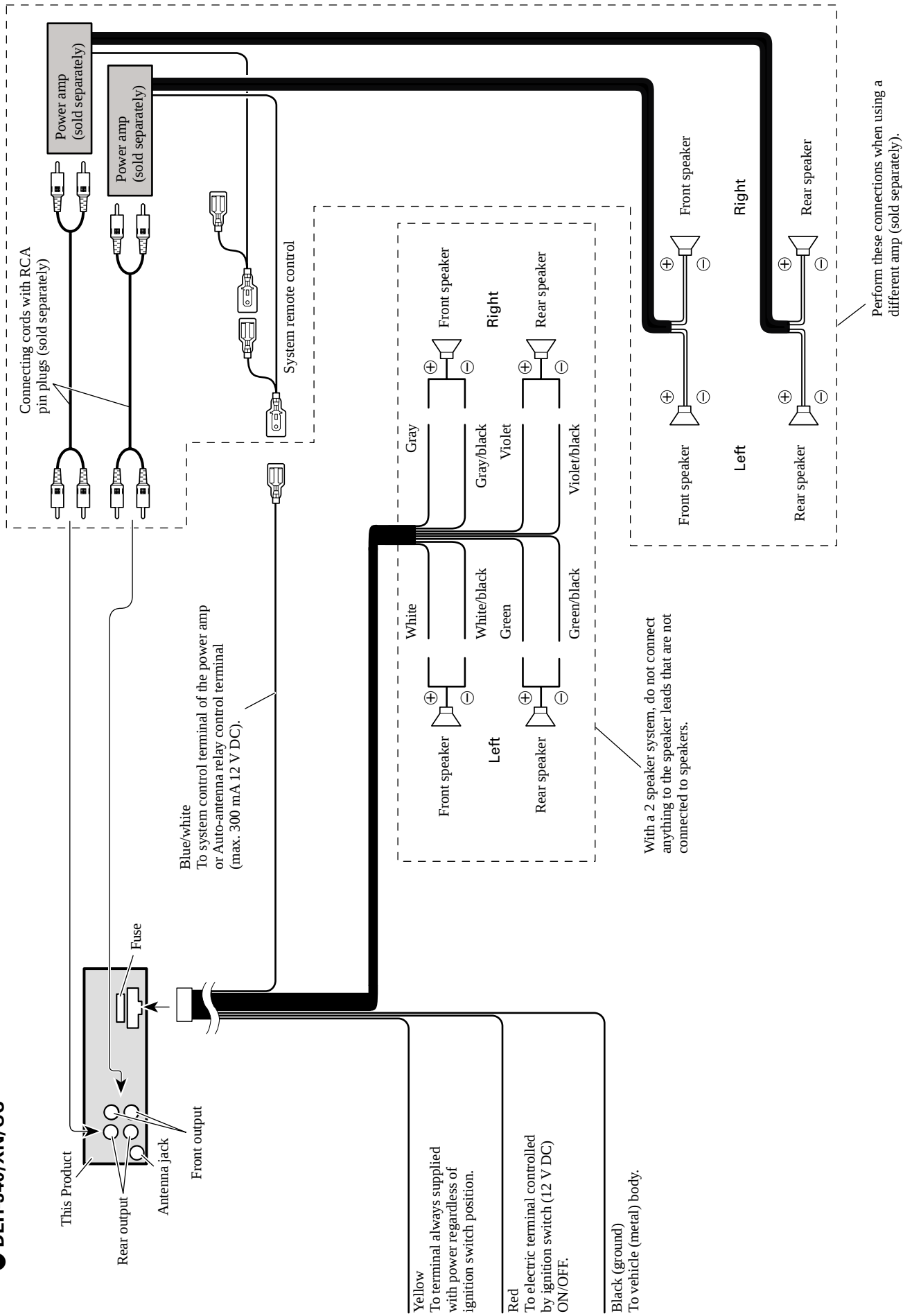
- 1 Compare the FM tuner volume level with the level of the source you wish to adjust.
- 2 Press AUDIO to select SLA. Press AUDIO until SLA appears in the display.
- 3 Press  or  to adjust the source volume. Each press of  or  increases or decreases the source volume.
 - SLA +4 – SLA –4 is displayed as the source volume is increased or decreased.



Notes

- Since the FM tuner volume is the control, it is not possible to apply source level adjustments to the FM tuner.
- The AM tuner volume level can also be adjusted with source level adjustments. 

● DEH-340/XN/UC



8.2 SPECIFICATIONS

General	
Power source	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	10.0 A
Backup current.....	5 mA
Dimensions (W × H × D):	
(DIN)	
Chassis	178 × 50 × 157 mm (7 × 2 × 6-1/8 in)
Nose	188 × 58 × 19 mm (7-3/8 × 2-1/4 × 3/4 in)
(D)	
Chassis	178 × 50 × 162 mm (7 × 2 × 6-3/8 in)
Nose	170 × 48 × 14 mm (7 × 1-7/8 × 1/2 in)
Weight	1.5 kg (3.3 lbs)
Audio	
Continuous power output is 22 W per channel min. into 4 ohms, both channel driven 50 to 15,000 Hz with no more than 5% THD.	
Maximum power output	50 W × 4
Load impedance	4 Ω (4 – 8 Ω allowable)
Preout max output level/output impedance	2.2 V/1 kΩ
Equalizer (3-Band Equalizer):	
(LOW)	Level : ±12 dB
(MID)	Level : ±12 dB
(HIGH)	Level : ±12 dB
Loudness contour	
(LOW)	+3.5 dB (100 Hz), +3 dB (10 kHz)
(MID)	+10 dB (100 Hz), +6.5 dB (10 kHz)
(HIGH)	+11 dB (100 Hz), +11dB (10 kHz) (volume : –30 dB)

CD player	
System	Compact disc audio system
Usable discs	Compact disc
Signal format:	
Sampling frequency	44.1 kHz
Number of quantization bits	16; linear
Frequency characteristics	
.....	5 – 20,000 Hz (±1 dB)
Signal-to-noise ratio	94 dB (1 kHz) (IHF-A network)
Dynamic range	92 dB (1 kHz)
Number of channels	2 (stereo)
FM tuner	
Frequency range	87.9 – 107.9 MHz
Usable sensitivity	9 dBf (0.8 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	15 dBf (1.5 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IHF-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)
Selectivity	70 dB
Three-signal intermodulation (desired signal level)	
	30 dBf (two undesired signal level: 100 dBf)
AM tuner	
Frequency range	530 – 1,710 kHz (10 kHz)
Usable sensitivity	18 μV (S/N: 20 dB)
Selectivity	50 dB (±10 kHz)

 Note

- Specifications and the design are subject to possible modifications without notice due to improvements. 

Service Manual

ORDER NO.
CRT2788

HIGH POWER CD PLAYER WITH FM/AM TUNER

DEH-340

XM/UC

DEH-3400

XM/UC

DEH-34

XM/UC



- This service manual should be used together with the manual(s) listed below.

For the parts numbers, adjustments, etc. which are not shown in this manual,
refer to the following manual(s).

Model No.	Order No.	Mech. Module	Remarks
DEH-340/XN/UC	CRT2759		
CX-977	CRT2624	S9	CD Mech. Module:Circuit Description, Mech.Description, Disassembly

EXPLODED VIEWS AND PARTS LIST

PACKING(Page 4)

● PACKING SECTION PARTS LIST

* : Non spare part

Mark No.	Symbol and Description	Part No.	
		DEH-340/XN/UC	DEH-340/XM/UC
1-5	Polyethylene Bag	CEG1116	Not used
13	Carton	CHG4550	CHG4532
14	Contain Box	CHL4550	CHL4532
15	Protector	CHP2251	CHP2421
16	Protector	CHP2252	CHP2422

● PACKING SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		DEH-3400/XN/UC	DEH-3400/XM/UC
1-5	Polyethylene Bag	CEG1116	Not used
13	Carton	CHG4547	CHG4529
14	Contain Box	CHL4547	CHL4529
15	Protector	CHP2251	CHP2421
16	Protector	CHP2252	CHP2422

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

● PACKING SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		DEH-34/XN/UC	DEH-34/XM/UC
1-5	Polyethylene Bag	CEG1116	Not used
13	Carton	CHG4549	CHG4531
14	Contain Box	CHL4549	CHL4531
15	Protector	CHP2251	CHP2421
16	Protector	CHP2252	CHP2422

EXTERIOR(DEH-340/XN/UC)(Page 6)

● EXTERIOR SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		DEH-340/XN/UC	DEH-340/XM/UC
11	Holder	CNC8659	CXB6681(Holder Unit)

EXTERIOR(DEH-3400/XN/UC, DEH-34/XN/UC)(Page 8)

● EXTERIOR SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		DEH-3400/XN/UC	DEH-3400/XM/UC
11	Holder	CNC8659	CXB6681(Holder Unit)

● EXTERIOR SECTION PARTS LIST

Mark No.	Symbol and Description	Part No.	
		DEH-34/XN/UC	DEH-34/XM/UC
11	Holder	CNC8659	CXB6681(Holder Unit)