

HCD-H550/H550M

SERVICE MANUAL

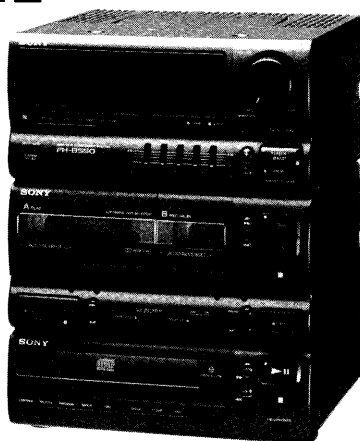



Photo: HCD-H550

HCD-H550/H550M are the CD player and stereo deck receiver in FH-B511/B550/MHC-550.

AEP Model
E Model
Australian Model
PX Model
HCD-H550
US Model
Canadian Model
AEP Model
UK Model
HCD-H550M

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SPECIFICATIONS

CD player section

System Compact disc digital audio system
 Laser Semiconductor laser
 Wavelength 780 - 790 nm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
 Except CIS, EE
 JE, PX model : 87.5 - 108.0 MHz
 CIS, EE model : 65.0 - 74.0 MHz
 87.5 - 108.0 MHz
 JE, PX model : 76.0 - 108.0 MHz

Antenna
 HCD-H550 : Telescopic antenna
 HCD-H550M : FM lead antenna

Antenna terminals 75 ohm unbalanced
 Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
 US, CND model : AM530 - 1,710 kHz

AEP, UK, CIS, EE model : MW531 - 1,602 kHz
 LW153 - 279 kHz
 G model : AM531 - 1,602 kHz
 IT model : AM522 - 1,611 kHz
 AUS model : MW531 - 1,602 kHz
 SW5.95 - 17.9 MHz
 E, EA, MX, MY, SP, PX, JE model : MW531 - 1,602 kHz
 (at 9 kHz step)
 MW530 - 1,710 kHz
 (at 10 kHz step)
 SW5.95 - 17.9 MHz

Antenna AM loop antenna
 External antenna terminals
 Intermediate frequency 450 kHz

Cassette deck section

Recording system 4-track 2-channel stereo
 Frequency response (DOLBY NR OFF)
 60 - 13,000 Hz (± 3 dB),
 using TYPE I cassette (Sony HF-S)

60 - 14,000 Hz (± 3 dB),
 using TYPE II cassette (Sony UX-S)
 Wow and flutter 0.1% WRMS $\pm 0.3\%$ (DIN)

Amplifier section

Continupus RMS Power output:
 30+30 watts (6 ohms at 1 kHz, 5% THD)
 Peak music power output:
 300 watts (2 speakers driven)
 Inputs
 MIX MIC (mini jack)
 (EXCEPT H550: AEP, G, CIS/H550M):
 Sensitivity 1 mV,
 impedance 600 ohms
 VIDEO/AUX (H550: EXCEPT AEP, G/
 H550M: US, CND): Sensitivity 450 mV,
 impedance 47 kilo ohms
 PHONO (phono jack)
 (AEP, UK, EE, G, IT): sensitivity 5 mV,
 impedance 47 kilohms

CD SECTION	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM28-5BD17A
	Base Unit Type	BU-5BD17A
TAPE DECK SECTION	Model Name Using Similar Mechanism	TC-WR445
	Tape Transport Mechanism Type	TCM-220WR2

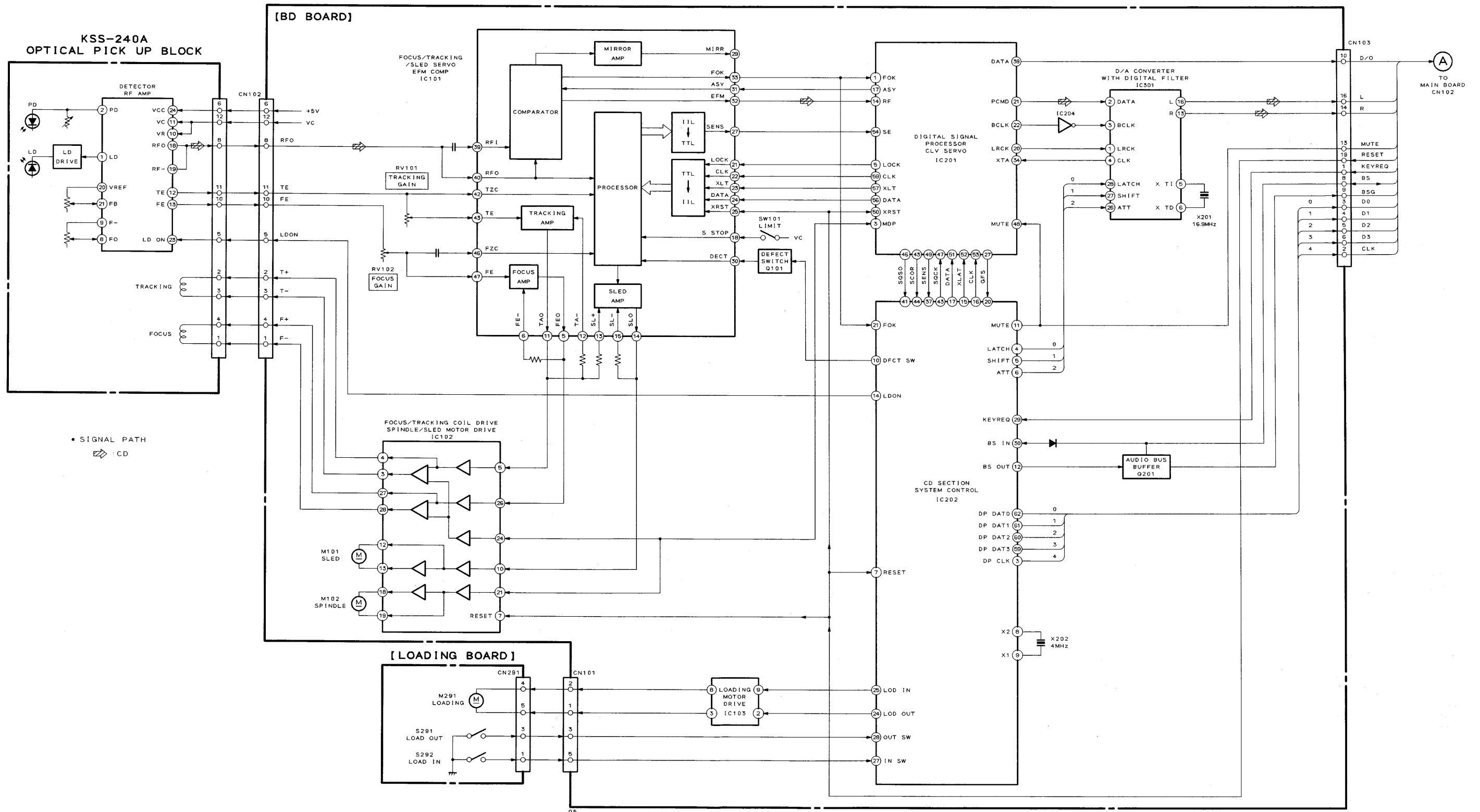
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MINI Hi-Fi COMPONENT SYSTEM
SONY

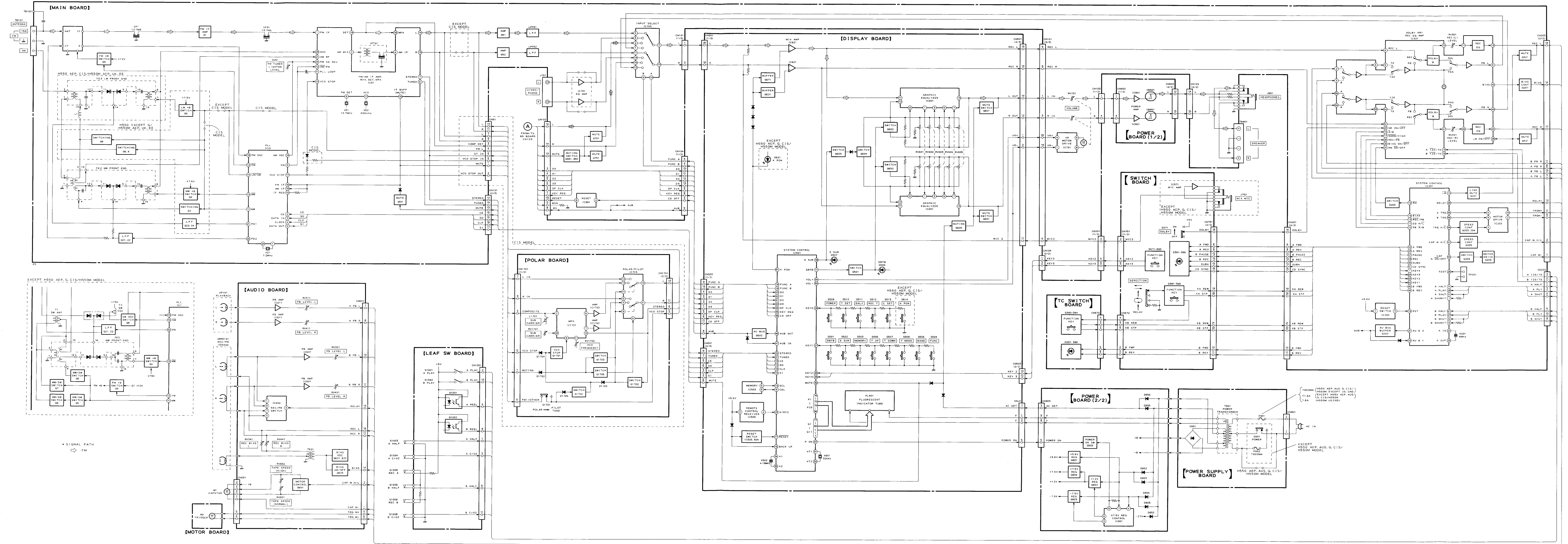


SECTION 5
DIAGRAMS

5-1. CD SECTION BLOCK DIAGRAM



5-2. OTHER SECTION BLOCK DIAGRAM



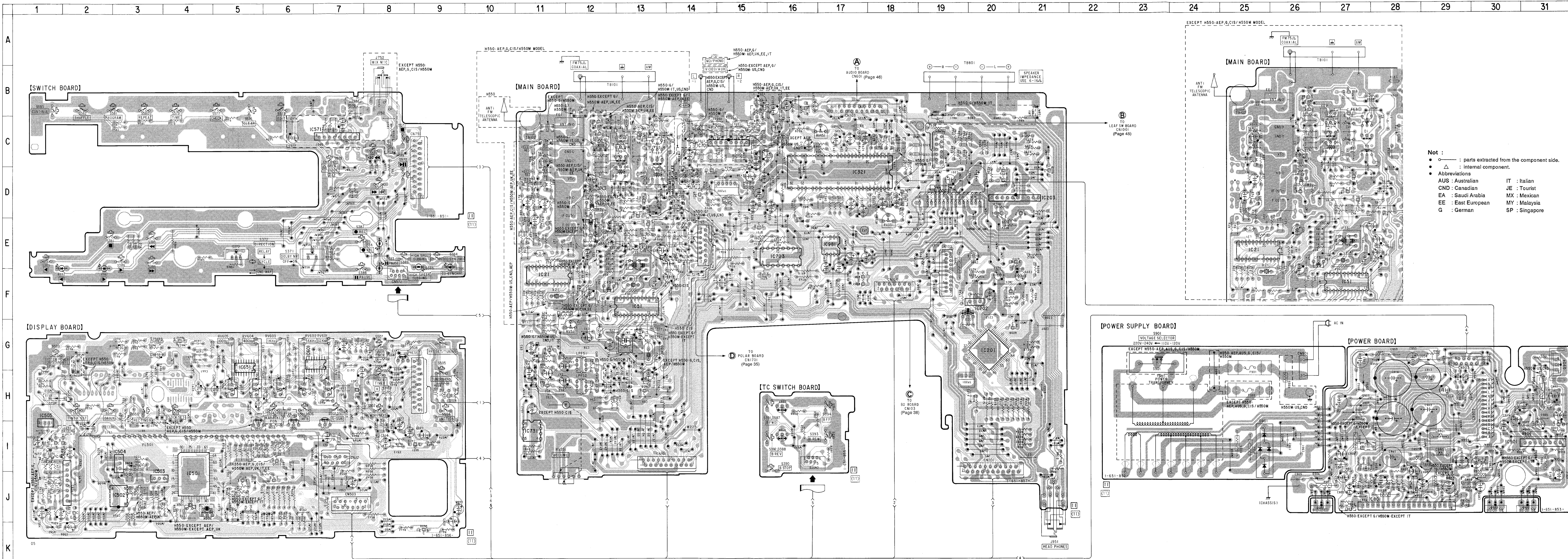
5-3. MAIN, DISPLAY SECTION PRINTED WIRING BOARDS

See page 47 for Semiconductor Lead Layouts and Circuit Boards Location.

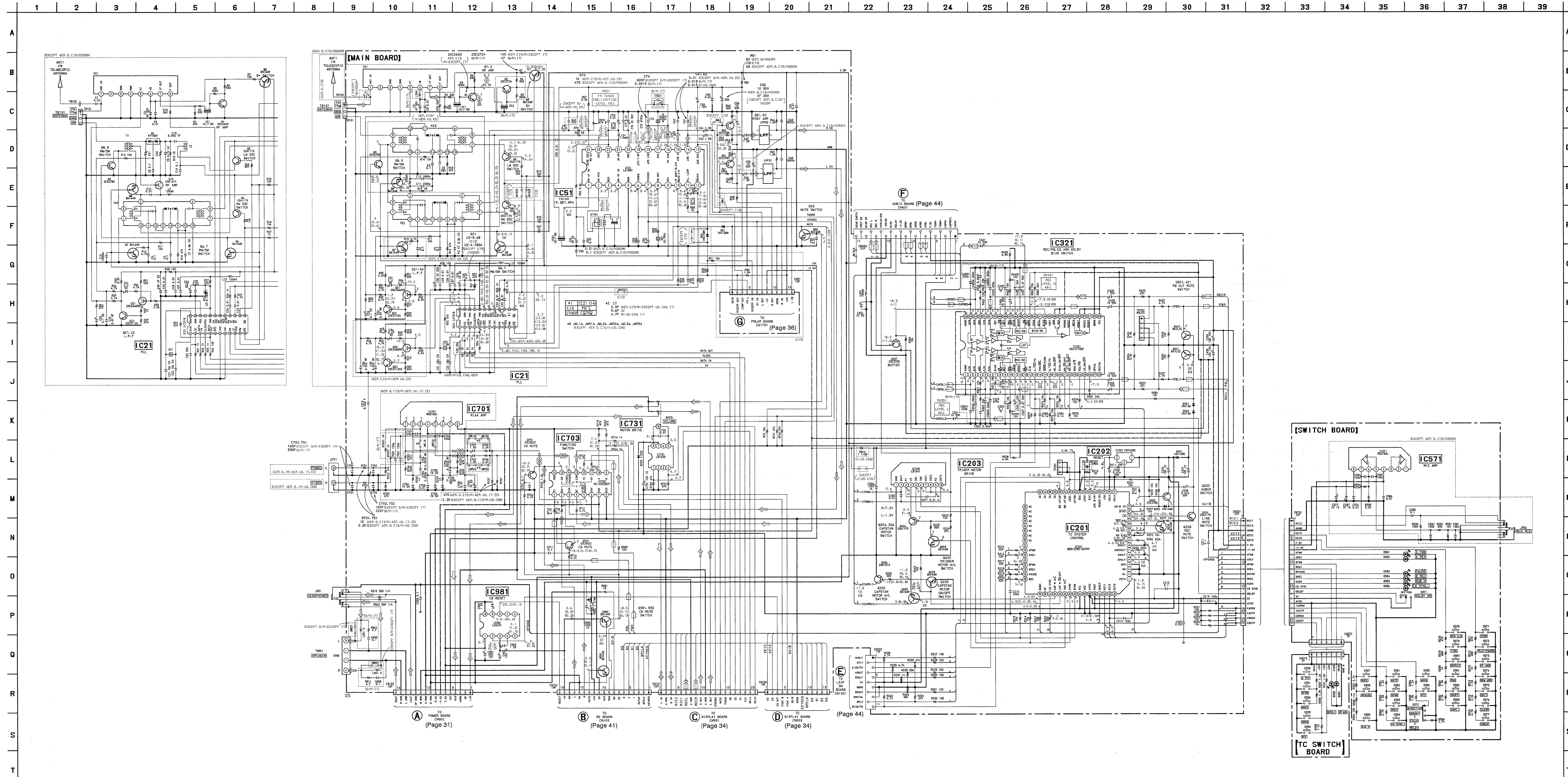
Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1(*1)	C-27	IC701	C-15
D21	E-12	IC703	E-16
D21(*1)	E-26	IC731	I-11
D51	H-13	IC801	J-28
D52	E-14	IC901	I-31
D201	E-19	IC981	E-17
D202	F-20		
D321	E-16	Q1	D-12
D322	E-17	Q1(*1)	D-26
D381	E-1	Q2	E-12
D382	E-1	Q3	D-13
D383	E-8	Q3(*1)	D-27
D384	E-8	Q4	D-13
D385	E-9	Q4(*1)	D-27
D386	E-9	Q5	D-13
D387	H-16	Q5(*1)	D-27
D388	I-16	Q6	E-13
D501	J-7	Q6(*1)	D-27
D502	J-1	Q7	C-12
D503	I-2	Q7(*1)	B-26
D504	J-6	Q8	C-12
D505	J-5	Q8(*1)	B-26
D506	H-6	Q9	C-13
D507	H-7	Q9(*1)	B-27
D508	G-8	Q15(*1)	B-27
D601	J-5	Q21	E-11
D602	I-9	Q21(*1)	D-25
D604	I-3	Q22	D-11
D611	H-3	Q22(*1)	C-25
D612	I-2	Q23	D-11
D613	H-1	Q24	D-11
D621	H-5	Q51	G-11
D651	I-6	Q52	H-11
D652	I-6	Q53	H-13
D700	H-12	Q201	F-20
D821	I-29	Q202	E-20
D901	I-25	Q203	D-21
D902	I-27	Q204	D-20
D903	H-27	Q205	D-20
D904	H-27	Q206	D-20
D905	H-27	Q207	B-16
D906	J-26	Q208	G-20
D921	H-31	Q209	D-21
D951	H-27	Q321	D-14
D952	H-27	Q421	D-14
D953	G-28	Q501	J-2
D954	G-29	Q502	J-5
D955	H-29	Q503	I-6
D956	H-29	Q601	I-8
		Q602	G-4
IC21	F-11	Q603	J-9
IC21(*1)	E-25	Q604	H-9
IC51	F-13	Q605	J-6
IC51(*1)	F-27	Q621	I-1
IC201	G-20	Q651	H-7
IC202	F-20	Q652	G-3
IC203	D-21	Q671	I-1
IC321	D-17	Q701	E-15
IC501	I-4	Q751	F-15
IC502	J-3	Q901	J-26
IC503	J-3	Q902	J-30
IC504	I-3	Q903	J-30
IC505	H-1	Q904	H-31
IC571	C-7	Q905	I-31
IC601	G-6	Q981	F-17
IC621	J-2	Q982	F-17
IC651	G-5		

*1: Used on the models except H550: AEP, G, CIS/H550M model.



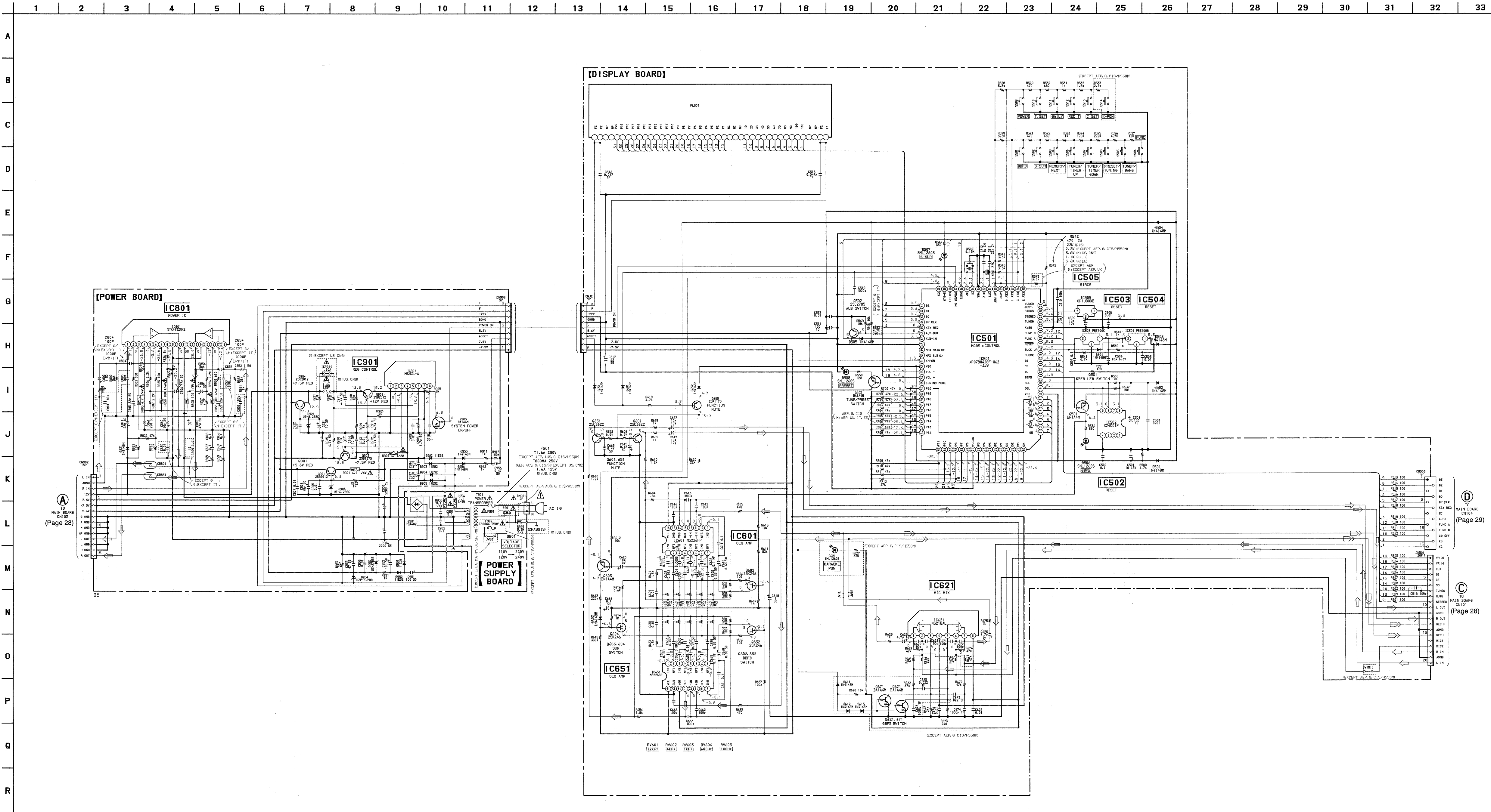
5-4. MAIN SECTION SCHEMATIC DIAGRAM
• See pages 31 to 34 for Display Section Schematic Diagram and page 49 for IC Block Diagrams.



Note: 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 ¼ W or less unless otherwise specified. Internal component. Fusible resistor. 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.

Legend for symbols: B+ Line, B- Line, panel designation, adjustment for repair, Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. Signal path symbols: FM, DECK B REC, DECK B PB, PHONO. Abbreviations: AUS: Australian, CND: Canadian, EA: Saudi Arabia, EE: East European, G: German, IT: Italian, JE: Tourist, MX: Mexican, MY: Malaysia, SP: Singapore.

5-5. DISPLAY SECTION SCHEMATIC DIAGRAM



(Page 28)

(Page 29)

(Page 28)

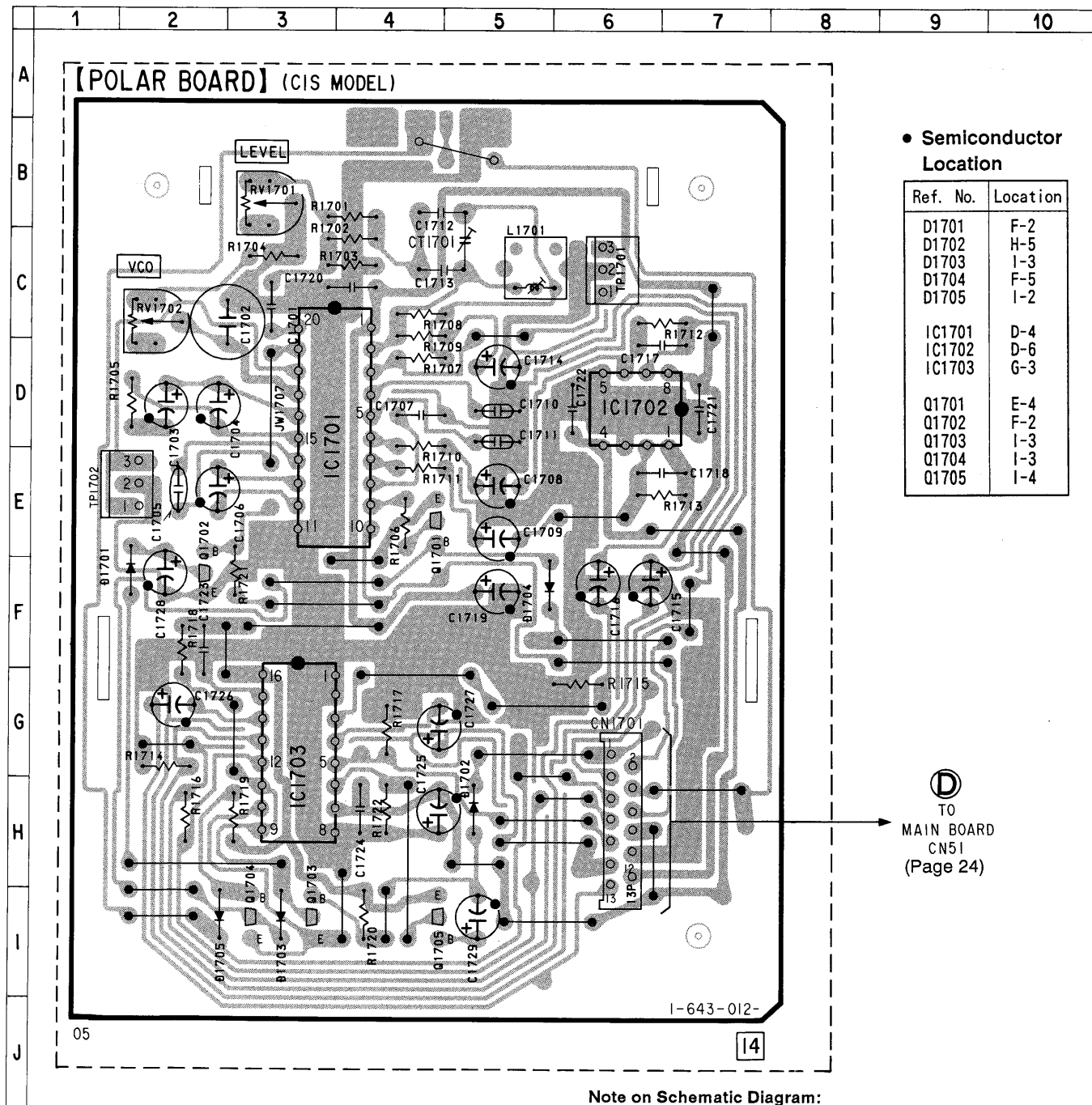
Note:
 • All capacitors are in μF unless otherwise noted. pF , μF , 50 WV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and $\frac{1}{4}\text{ W}$ or less unless otherwise specified.
 • Δ : internal component.
 • $\text{---}\text{---}$: fusible resistor.

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

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

- $\text{---}\text{---}$: B + Line.
- $\text{---}\text{---}$: B - Line.
- $\text{---}\text{---}$: panel designation.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 * : Impossible to measure
- Voltages are taken with a VOM (10 $\text{M}\Omega/\text{V}$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\text{---}\text{---}$: FM
- $\text{---}\text{---}$: REC (DECK B)
- Abbreviations
 AUS : Australian IT : Italian
 CND : Canadian JE : Tourist
 EA : Saudi Arabia MX : Mexican
 EE : East European MY : Malaysia
 G : German SP : Singapore

5-6. POLAR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM
See page 47 for Semiconductor Lead Layouts and Circuit Boards Location.



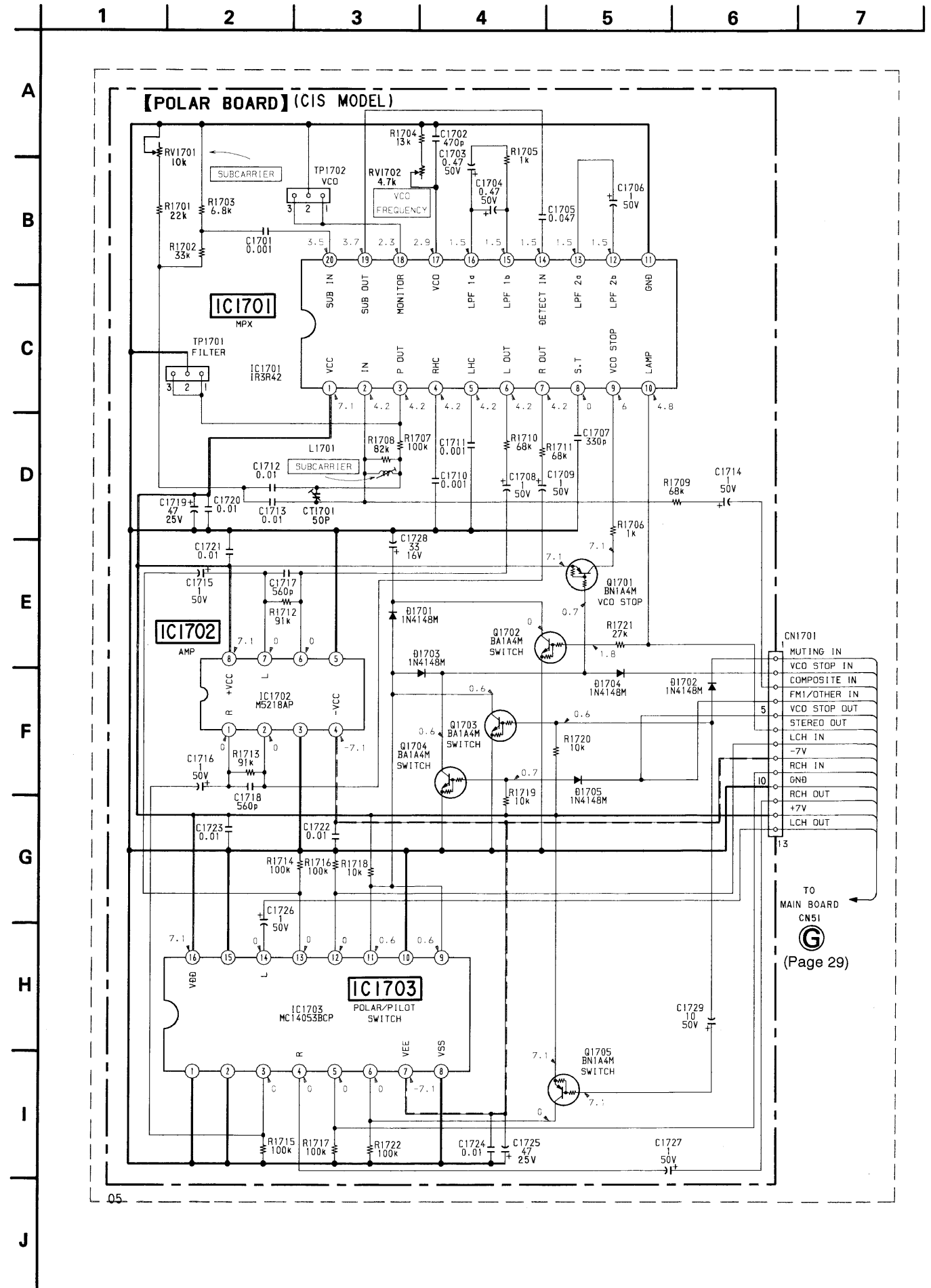
• Semiconductor Location

Ref. No.	Location
D1701	F-2
D1702	H-5
D1703	I-3
D1704	F-5
D1705	I-2
IC1701	D-4
IC1702	D-6
IC1703	G-3
Q1701	E-4
Q1702	F-2
Q1703	I-3
Q1704	I-3
Q1705	I-4

Ⓓ
TO
MAIN BOARD
CN51
(Page 24)

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- : B + Line.
- : B - Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
- Voltages are taken with a VOM (10 M Ω /V).
Voltage variations may be noted due to normal production tolerances.



Ⓔ
TO
MAIN BOARD
CN51
(Page 29)

HCD-H550/H550M

5-7. CD SECTION PRINTED WIRING BOARDS

See page 47 for Semiconductor Lead Layouts and Circuit Boards Location.

Semiconductor Location

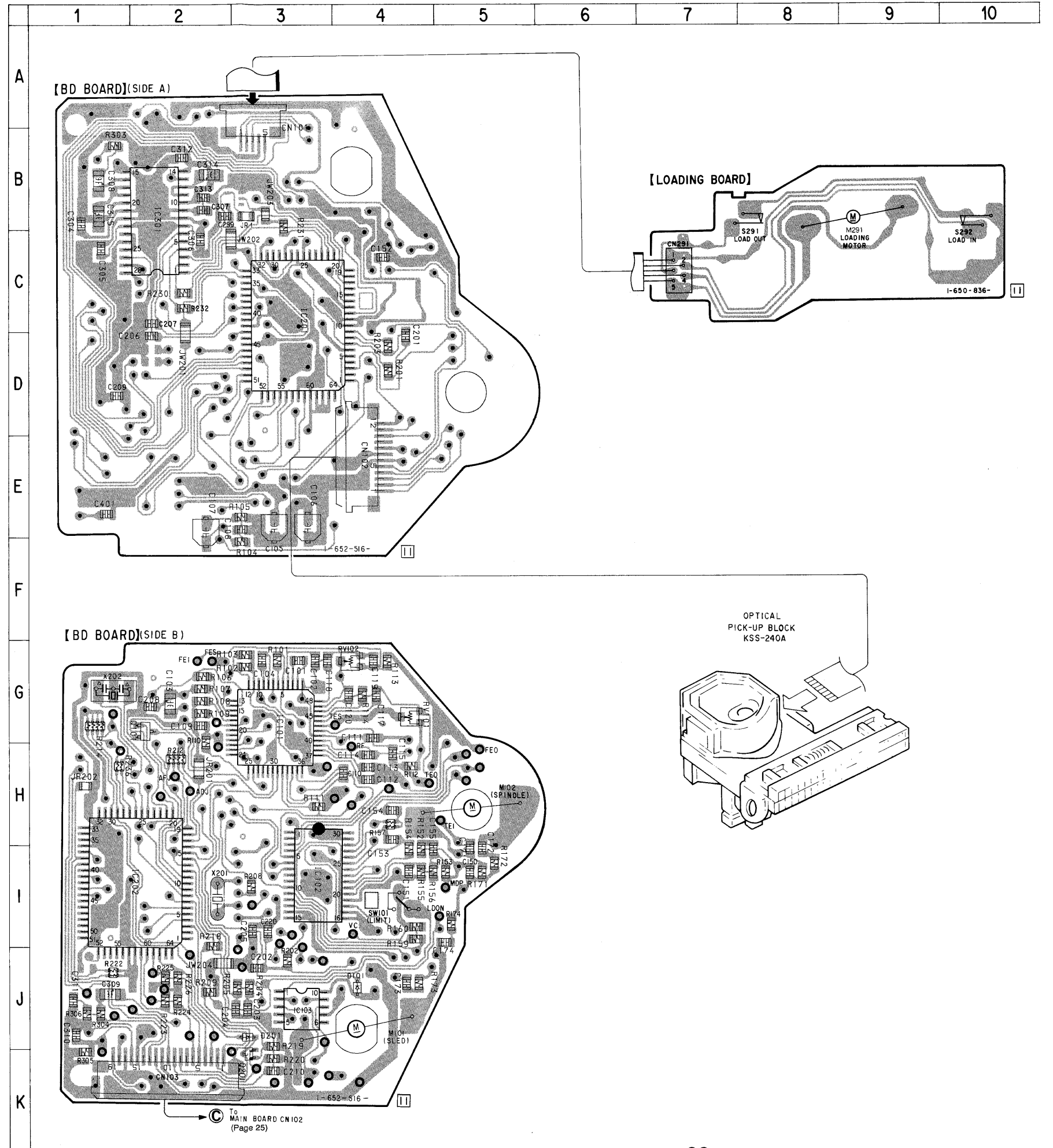
Ref. No.	Location
D101	J-4
D201	J-3
IC101	G-3
IC102	I-3
IC103	J-3
IC201	C-3
IC202	I-2
IC301	B-2
Q101	G-2
Q201	K-3

Note:

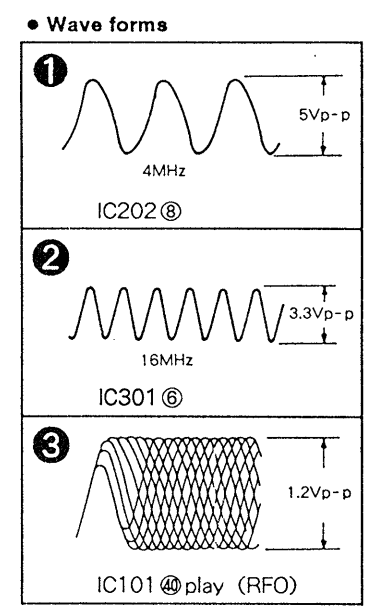
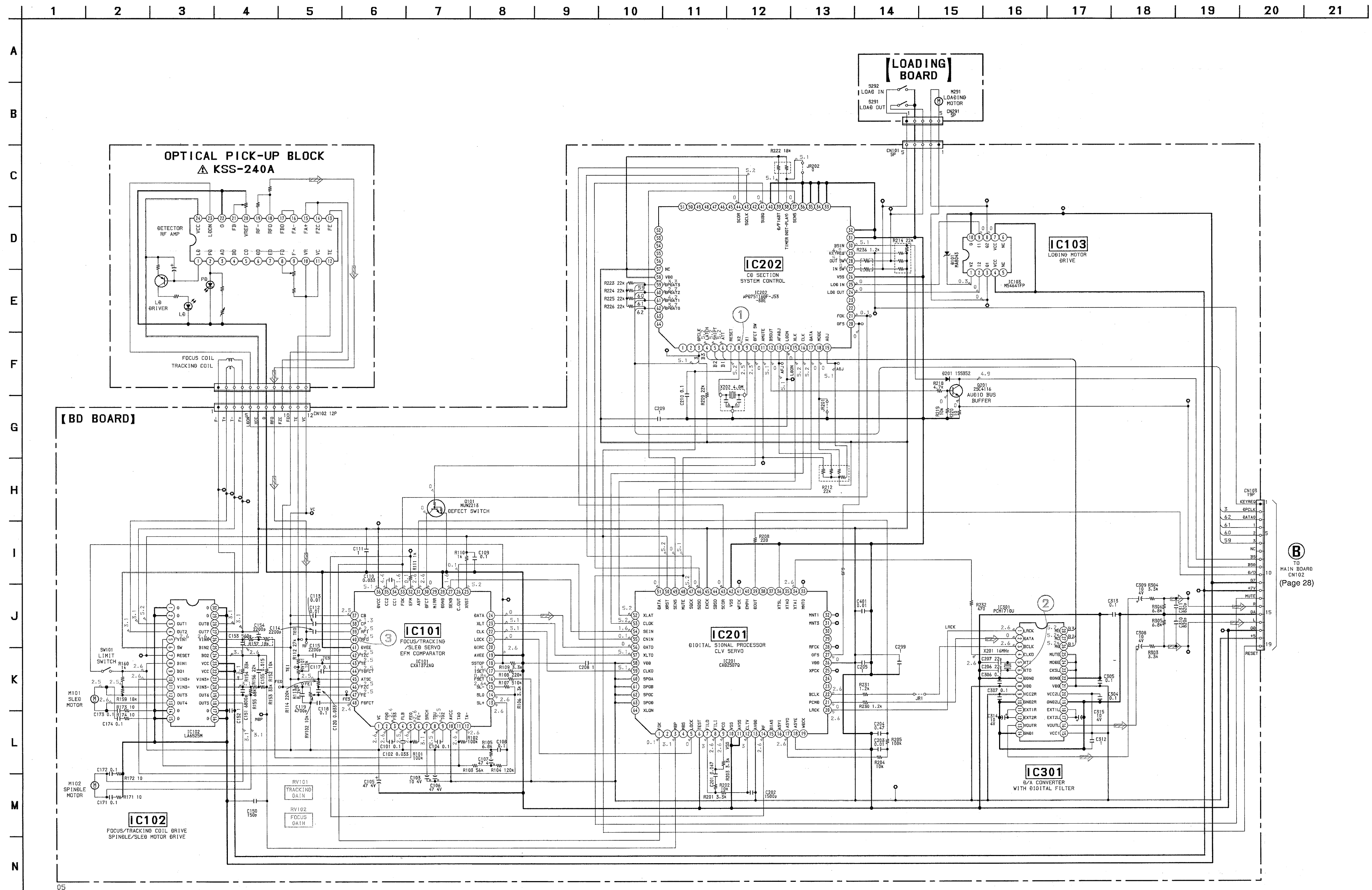
- ○ — : parts extracted from the component side.
- △ : internal component.
- ■ : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: Parts on the parts face side seen from the parts face are indicated.



5-8. CD SECTION SCHEMATIC DIAGRAM • See page 49 for IC Block diagrams.



Note:

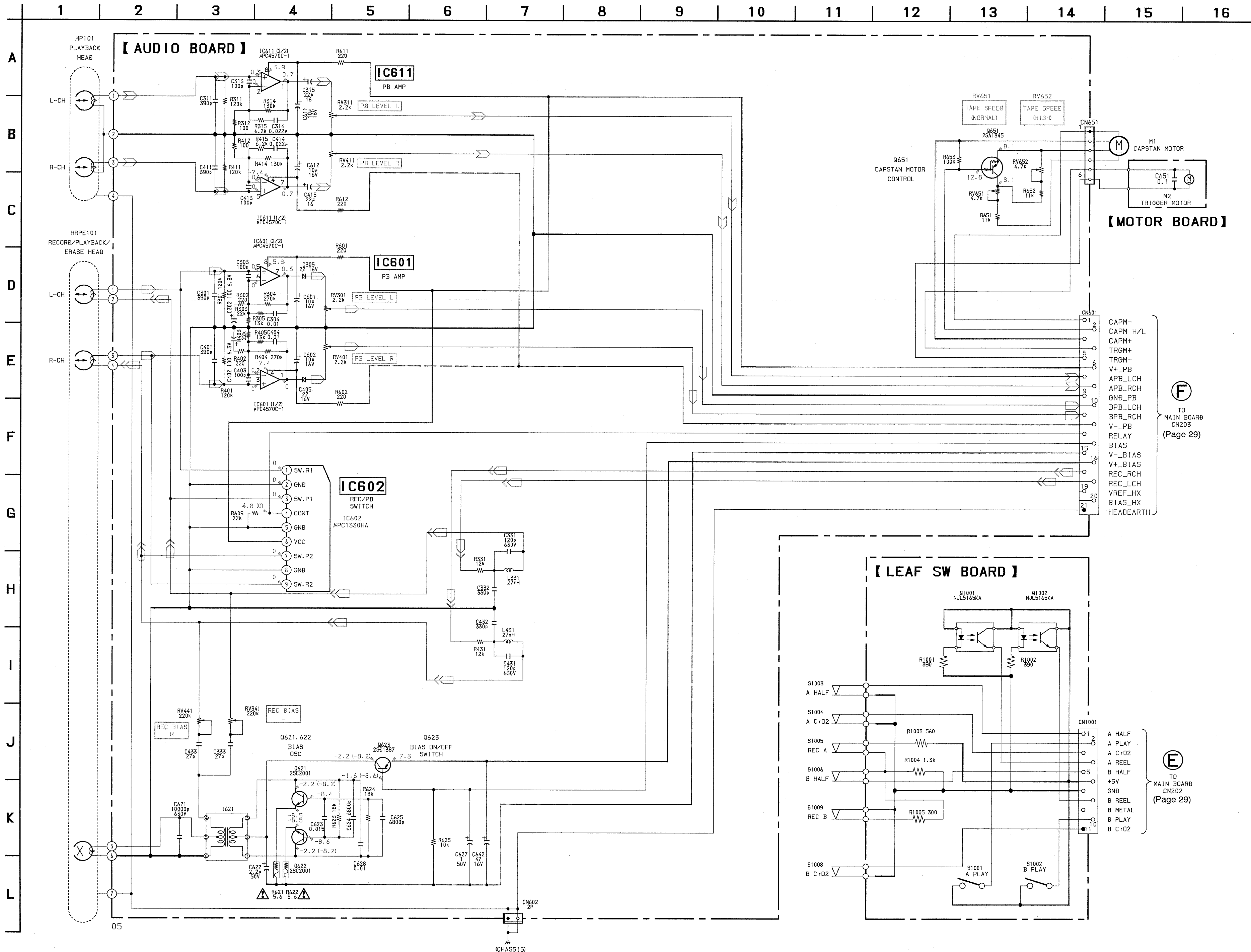
- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- Δ : internal component.

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

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

- --- : B + Line.
- --- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark : CD
- Voltages are taken with a VOM (10 M Ω /V). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- --- : CD

(B) MAIN BOARD CN102 (Page 28)



TO MAIN BOARD
CN203
(Page 29)

CAPM-
 CAPM H/L
 CAPM+
 TRGM+
 TRGM-
 V+_PB
 APB_LCH
 APB_RCH
 GND_PB
 BPB_LCH
 BPB_RCH
 V-_PB
 RELAY
 BIAS
 V-_BIAS
 V+_BIAS
 REC_RCH
 REC_LCH
 VREF_HX
 BIAS_HX
 HEADERTH

TO MAIN BOARD
CN205
(Page 29)

TO MAIN BOARD
CN202
(Page 29)

Note:

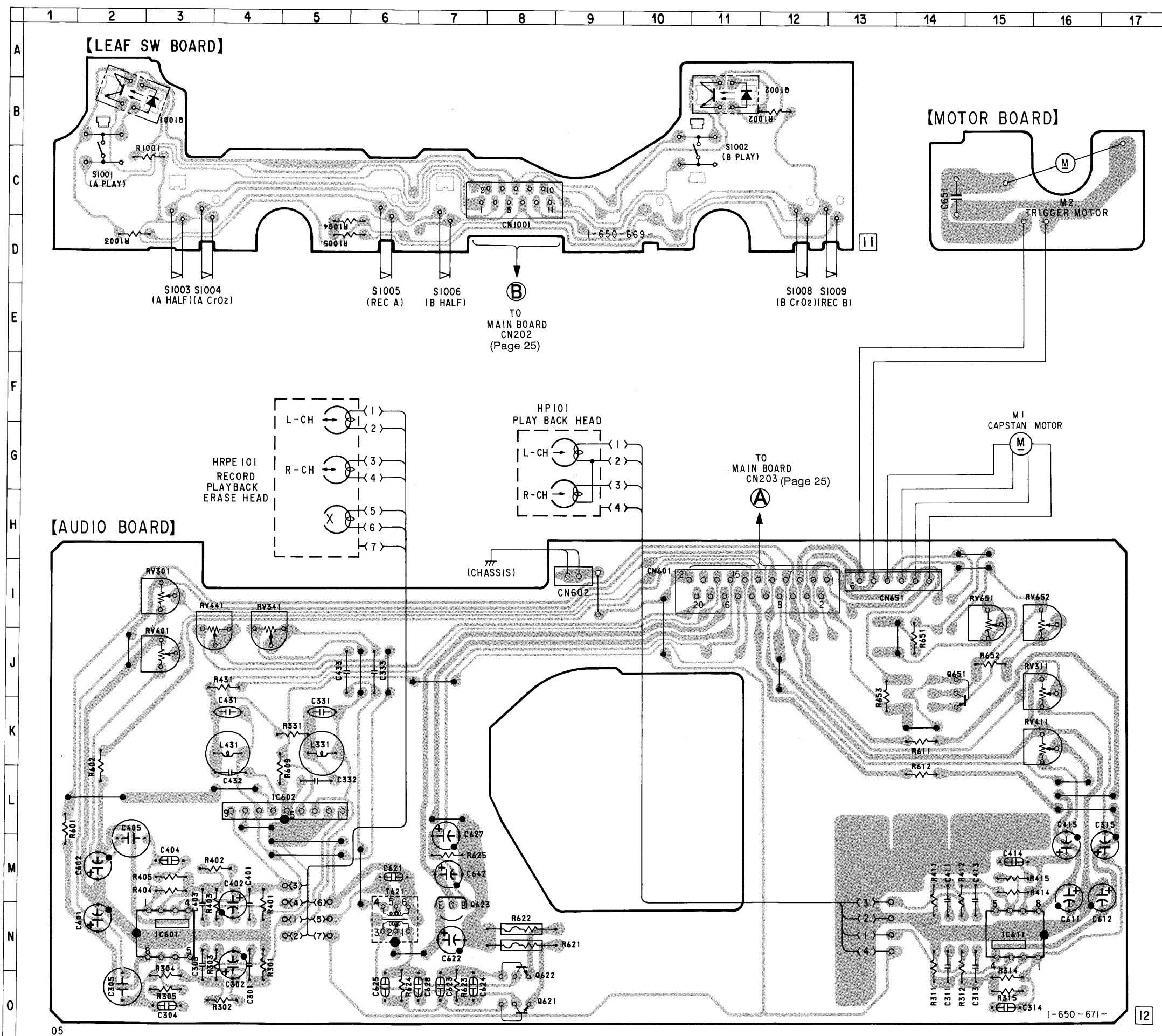
- All capacitors are in μF unless otherwise noted. μF : μF , μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- --- : fusible resistor.

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

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

○ : B + Line.
 ○ : B - Line.
 □ : adjustment for repair.
 ○ : Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 no mark : REC (Common)
 () : PB
 ○ : Voltages are taken with a VOM (10 M Ω /V).
 Voltage variations may be noted due to normal production tolerances.
 ○ : Signal path.
 □ : PB (DECK B)
 □ : REC (DECK A)
 □ : REC (DECK B)

5-10. TAPE SECTION PRINTED WIRING BOARDS



• Semiconductor Location

Ref. No.	Location
IC601	N-3
IC602	L-5
IC611	N-15
Q621	O-8
Q622	N-8
Q623	M-7
Q651	J-14
Q1001	B-2
Q1002	B-11

05