

HTC-D159

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



HTC-D159 is the compact disc deck in LBT-A17CDM /D159CD/D220CD.

SPECIFICATIONS

Cassette deck

Recording system 4-track 2-channel stereo
DOLBY NR OFF
Frequency response With Type II cassette (Sony UX-S)
40 Hz to 14 kHz (± 3 dB)
With Type I cassette (Sony HF-S)
40 Hz to 13 kHz (± 3 dB)
Wow and flutter W.PEAK $\pm 0.2\%$ (DIN)

Compact disc player

Laser Semiconductor laser ($\lambda = 780$ nm)
Laser output Max. $44.6 \mu\text{W}^*$
* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response 2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio More than 93 dB
Dynamic range More than 90 dB
Harmonic distortion Less than 0.008% (1 kHz)
Channel separation More than 90 dB (1 kHz)

General

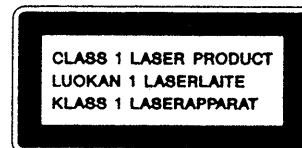
Mass Approx. 6.2 kg
Dimensions Approx. 355 \times 225 \times 385 mm
(w/h/d, including projections)

Design and specifications are subject to change without notice.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol $\square\square$ are trademarks of Dolby Laboratories Licensing Corporation.

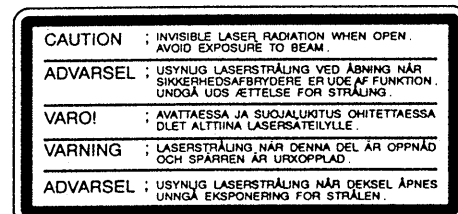
CD Section	Model Name Using Similar Mechanism	HCD-H150/H500
	Base Unit Name	BU-5BD3
DECK Section	Model Name Using Similar Mechanism	HCD-D109
	Tape Transport Mechanism Type	TCM-180VW-H9

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside of the unit.

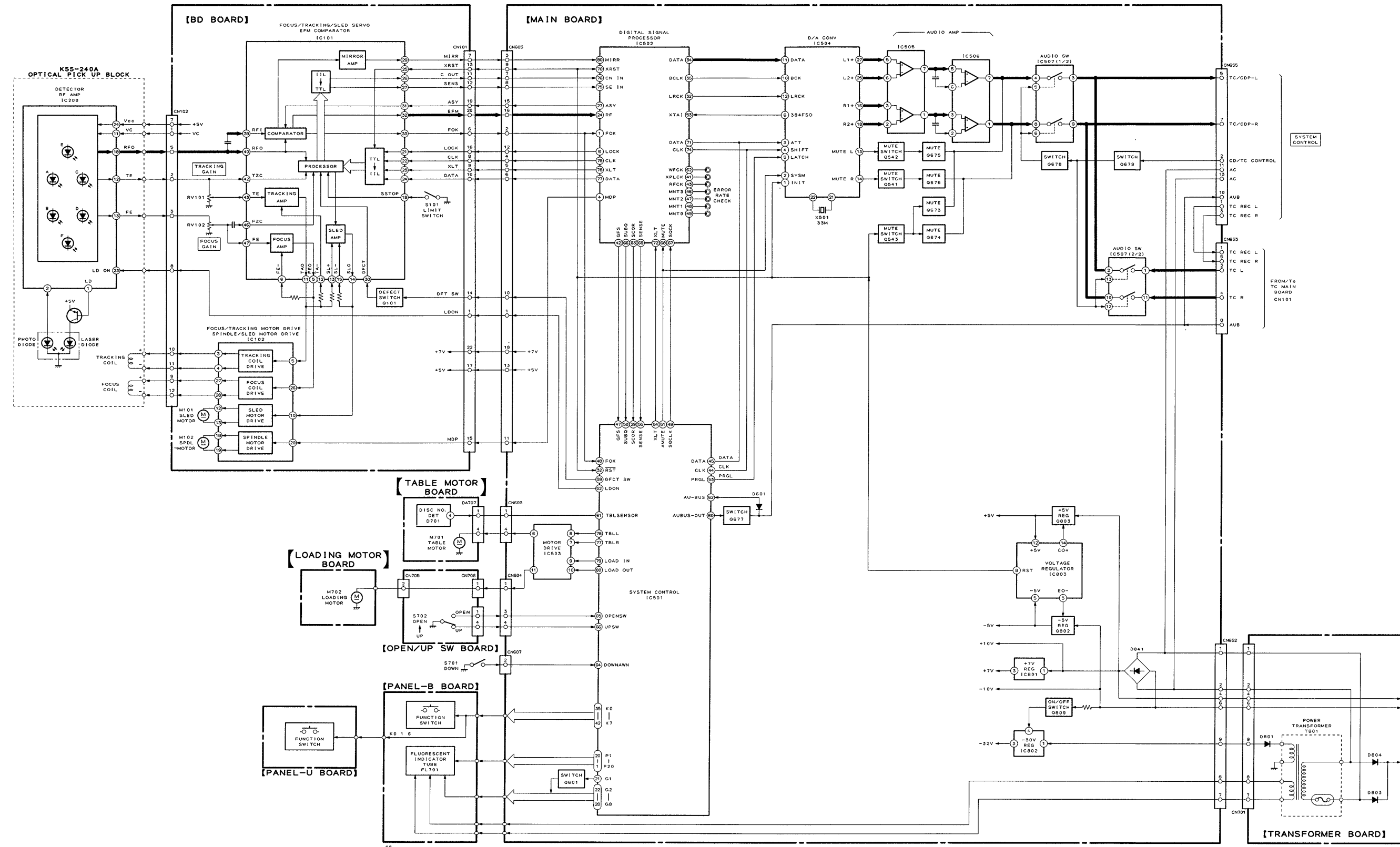


COMPACT DISC DECK
SONY[®]

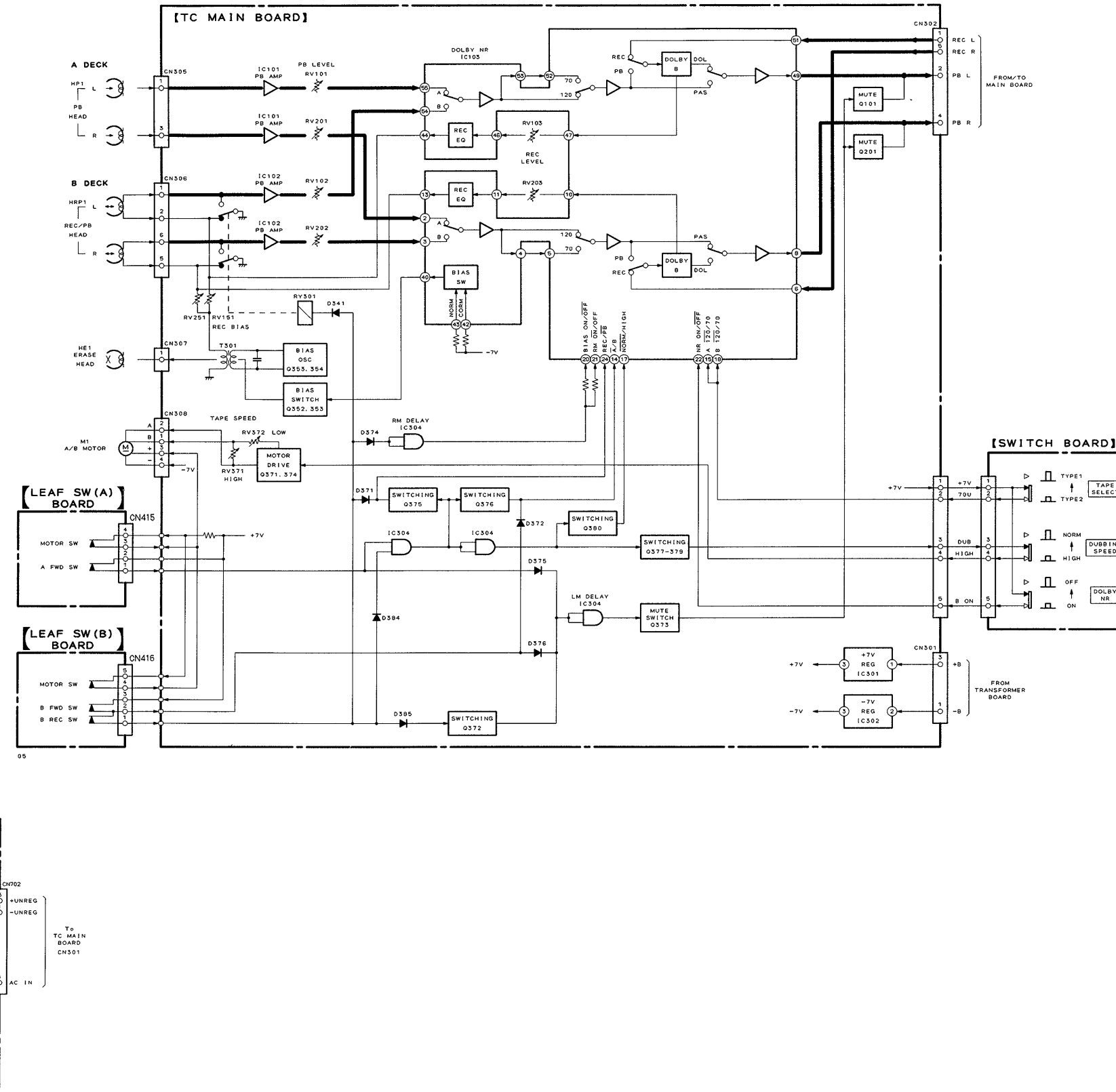


SECTION 3
DIAGRAMS

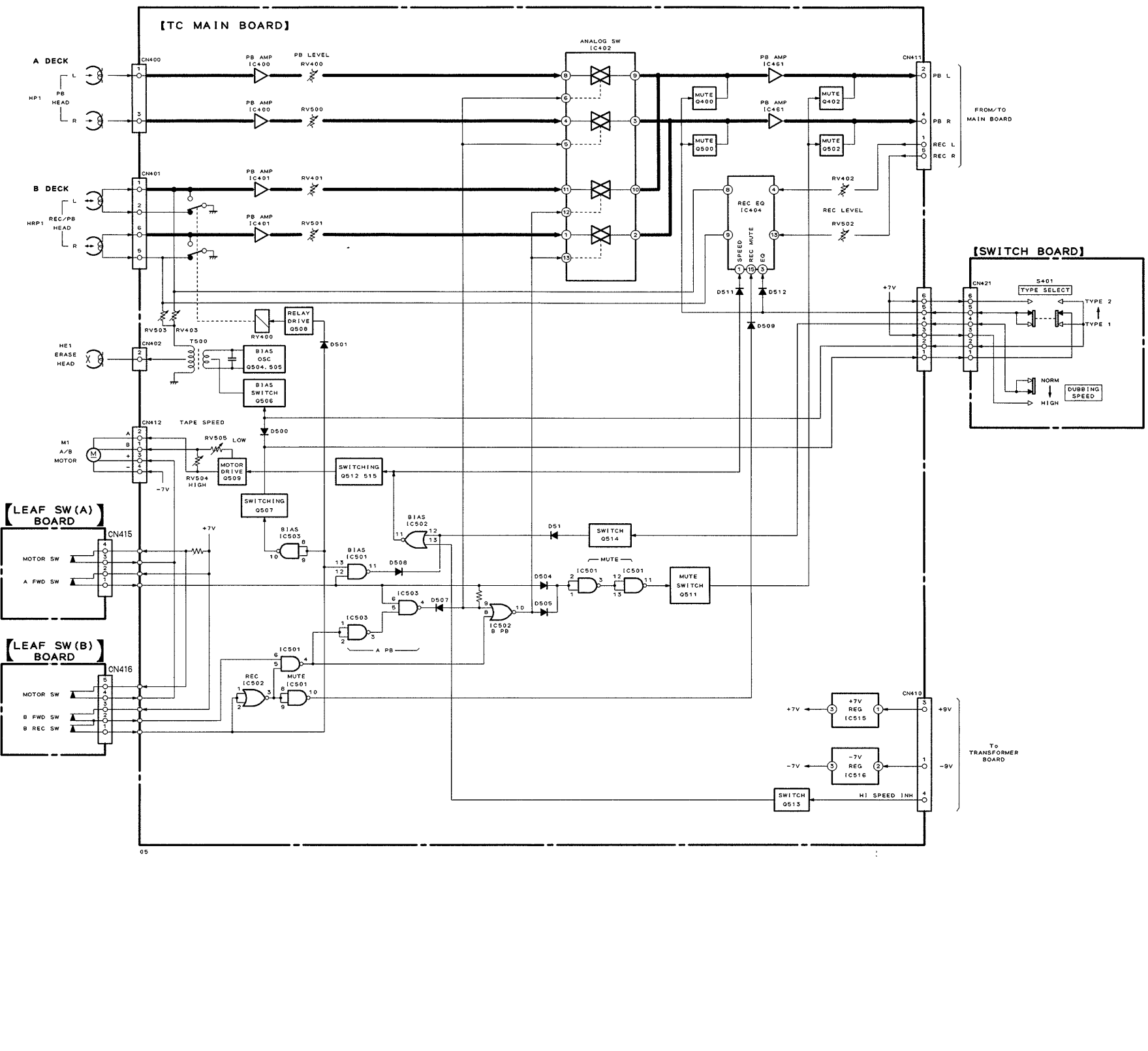
3-1. CD SECTION BLOCK DIAGRAM

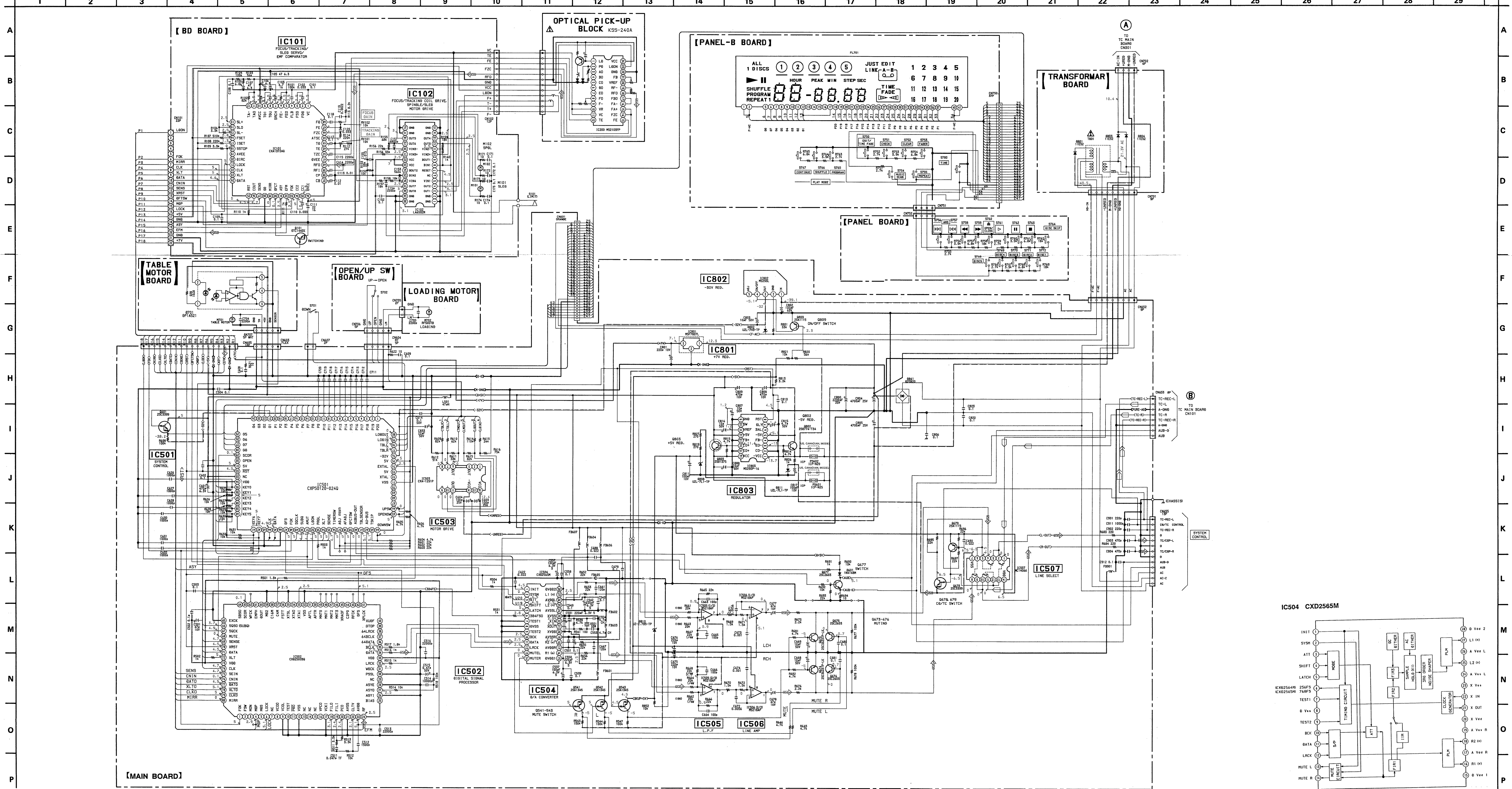


3-2. CASSETTE DECK SECTION BLOCK DIAGRAM
EXCEPT E MODEL



E MODEL



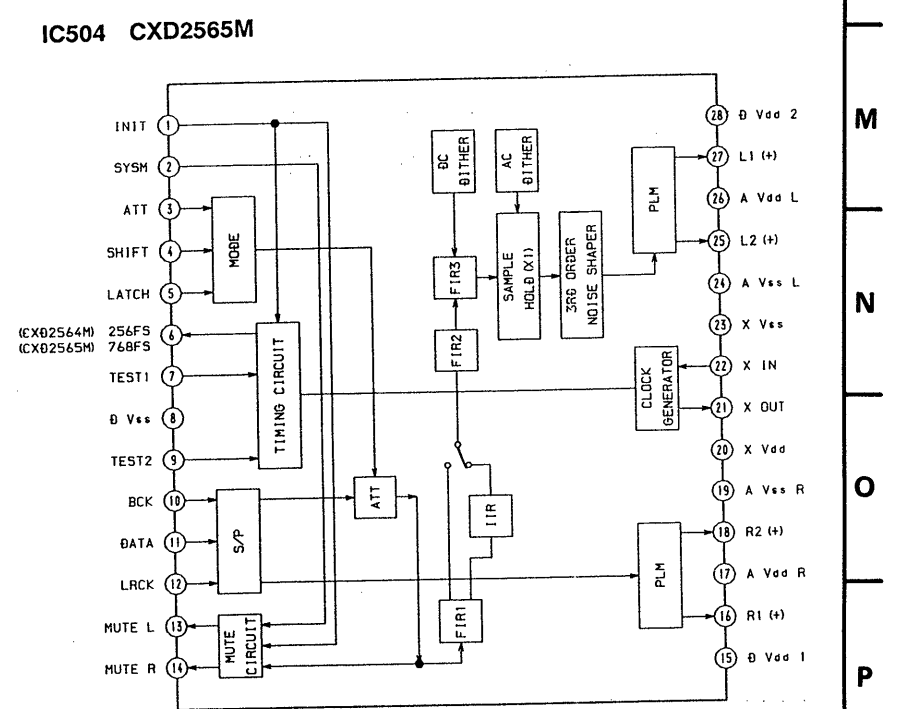


Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. μF , μM , 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.

<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.
- - - : B- Line.
- ⊕ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : CD PLAY (COMMON)
- () : DECK A PB
- << >> : DECK B PB
- Voltages are taken with a VOM (10 M Ω V).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
- ⊠ : CD
- ⊡ : PB (DECK B)
- ⊣ : REC (DECK B)



3-5. CASSETTE DECK SECTION PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM (EXCEPT E MODEL)

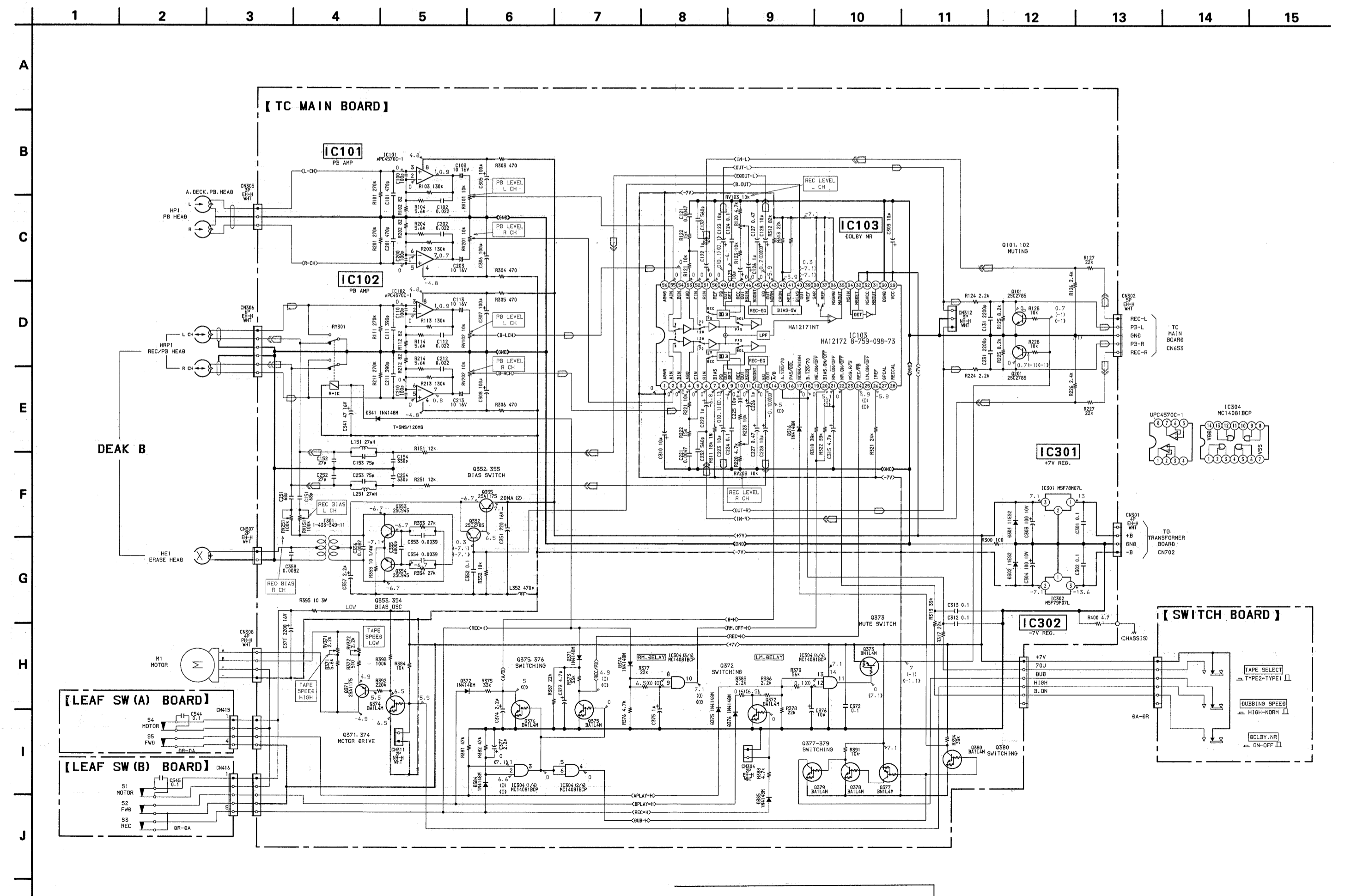
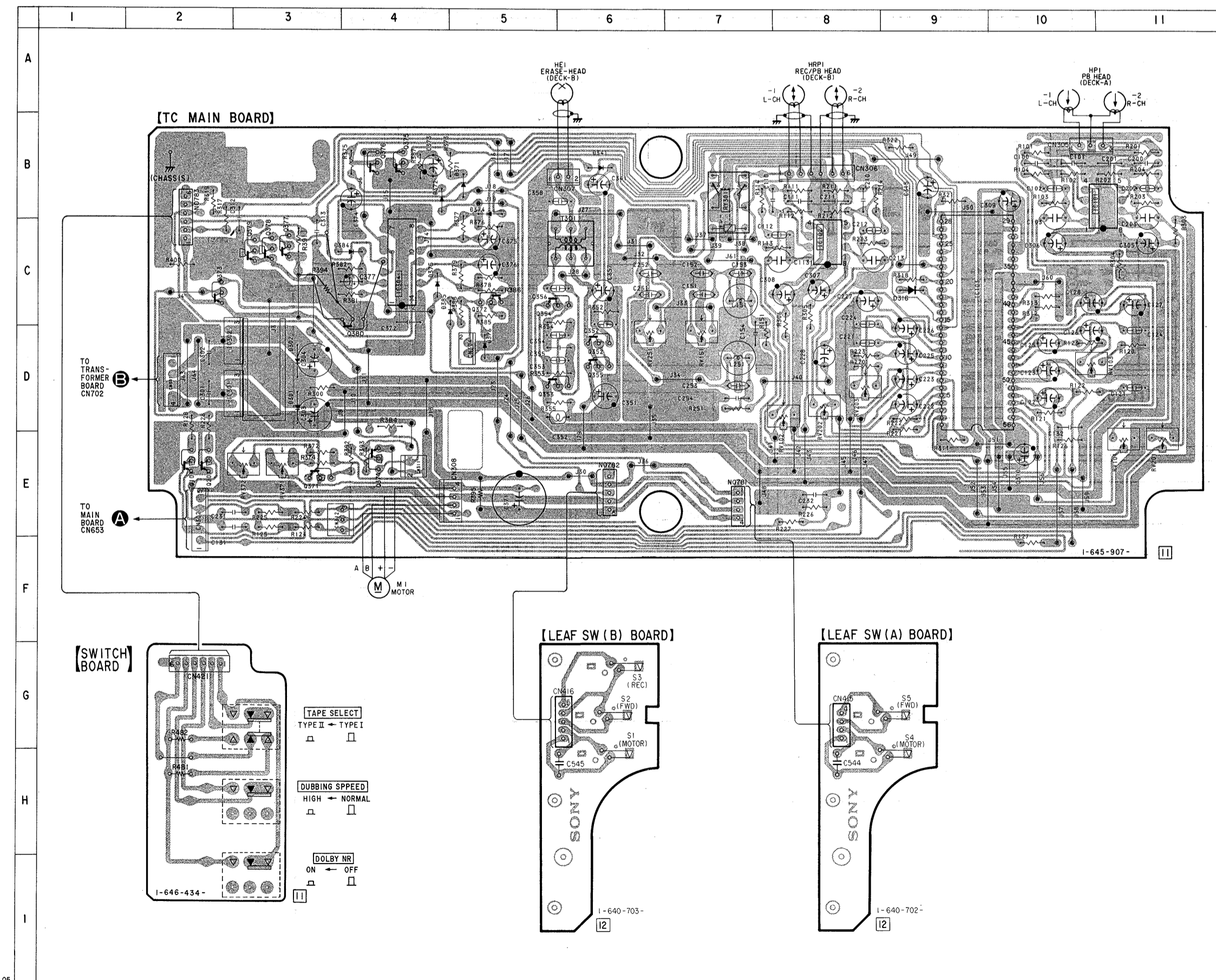
• Semiconductor Location

Ref. No.	Location
D301	D-3
D302	D-3
D316	C-9
D341	B-6
D371	B-5
D372	B-4
D374	B-5
D375	C-4
D376	D-5
D384	C-4
D385	C-5
IC101	B-11
IC102	B-8
IC103	C-9
IC301	D-2
IC302	D-2
IC304	C-4
Q101	E-2
Q201	E-2
Q352	D-6
Q353	D-6
Q354	O-6
Q355	D-6
Q371	E-3
Q372	C-5
Q373	C-2
Q374	E-4
Q375	B-4
Q376	B-4
Q377	C-3
Q378	C-3
Q379	C-3
Q380	C-4

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 $\frac{1}{4}\text{ W}$ or less unless otherwise specified.

Note:
 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.

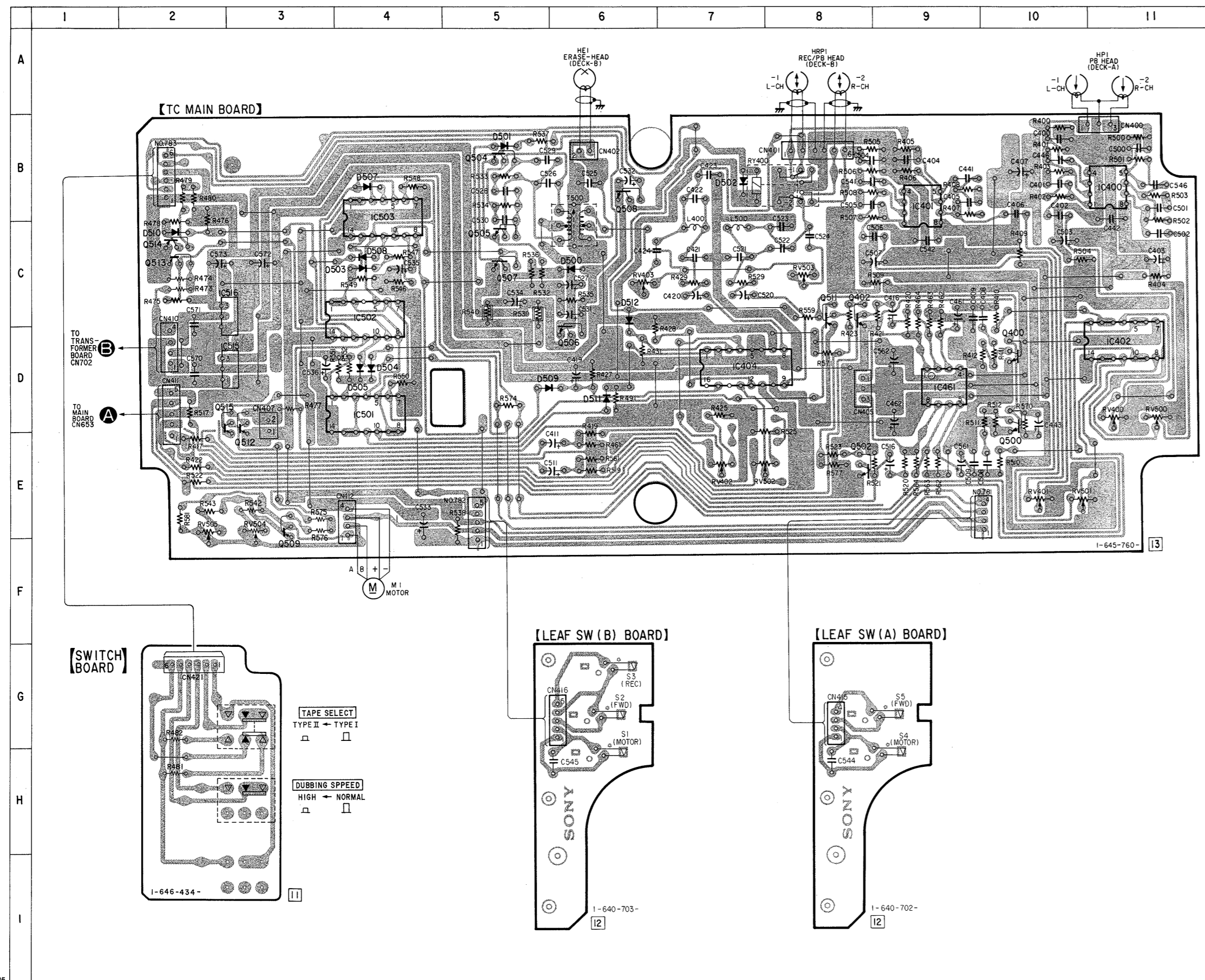
- : B → Line.
- - - : B ← Line.
- - - : adjustment for repair.
- ⊕ : Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : REC (COMMON)
- () : DECK A PB
- << : DECK B PB
- ⊕ : Voltages are taken with a VOM (10 $\text{M}\Omega/\text{V}$).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
- ⊕ : CD
- ⊕ : PB (DECK B)
- ⊕ : REC (DECK B)



3-6. CASSETTE DECK SECTION PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM (E MODEL)

• Semiconductor Location

Ref. No.	Location
D500	C-6
D501	B-5
D502	B-7
D503	C-4
D504	D-4
D505	D-4
D507	B-4
D508	C-4
D509	D-6
D510	C-2
D511	D-6
D512	C-6
IC400	B-11
IC401	B-9
IC402	D-11
IC404	D-7
IC461	D-9
IC501	D-4
IC502	C-4
IC503	B-4
IC515	D-3
IC516	C-3
Q400	D-10
Q402	C-8
Q500	D-10
Q502	E-8
Q504	B-5
Q505	C-5
Q506	D-6
Q507	C-5
Q508	B-6
Q509	E-3
Q511	C-8
Q512	D-3
Q513	C-2
Q514	C-2
Q515	D-3



Note on Printed Wiring Board:
 • — : parts extracted from the component side.

