

HCD-XGR6/XGR60

SERVICE MANUAL

Ver 1.0 2002.02



US Model
HCD-XGR6

E Model
HCD-XGR60

- HCD-XGR6/XGR60 are the Amplifier, CD player, tape deck and tuner in LBT-XGR6/XGR60.

PHOTO :HCD-XGR60

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM37B-30BD60C
	Base Unit Name	BU-30BD60C
	Optical Pick-up Name	A-MAX.3
TAPE Section	Model Name Using Similar Mechanism	NEW

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (LBT-XGR6 USA models only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 120-10,000 Hz; rated 140 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milli watts to rated output.

Amplifier section

North American models:

LBT-XGR6

Continuous RMS power output (reference)
160 + 160 watts (6 ohms at 1 kHz, 10% THD)
Total harmonic distortion less than 0.07%
(6 ohms at 1 kHz, 70 W)

Other models:

LBT-XGR60

The following measured at AC 120/220/240V, 50 Hz
DIN power output (rated) 150 + 150 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
200 + 200 watts
(6 ohms at 1 kHz, 10% THD)

Inputs

DJ MIX RETURN*:
(phono jacks)

sensitivity 250 mV,
impedance 47 kilohms

GUITAR:
(phone jack)

sensitivity 75 mV,
impedance 470 kilohms

PHONO IN:
(phono jacks)

sensitivity 3 mV,
impedance 47 kilohms

MIX MIC:
(phone jack)

sensitivity 1 mV,
impedance 10 kilohms

GAME INPUT:
(phono jacks)

sensitivity 250 mV,
impedance 47 kilohms

MD (VIDEO) IN:
(phono jack)

sensitivity 450 mV
(250 mV), impedance
47 kilohms

Outputs

DJ MIX SEND*:
(phono jacks)

sensitivity 250 mV,
impedance 1 kilohms

PHONES:
(stereo phone jack)

accepts headphones of
8 ohms or more

— Continued on next page —

COMPACT Hi-Fi STEREO SYSTEM

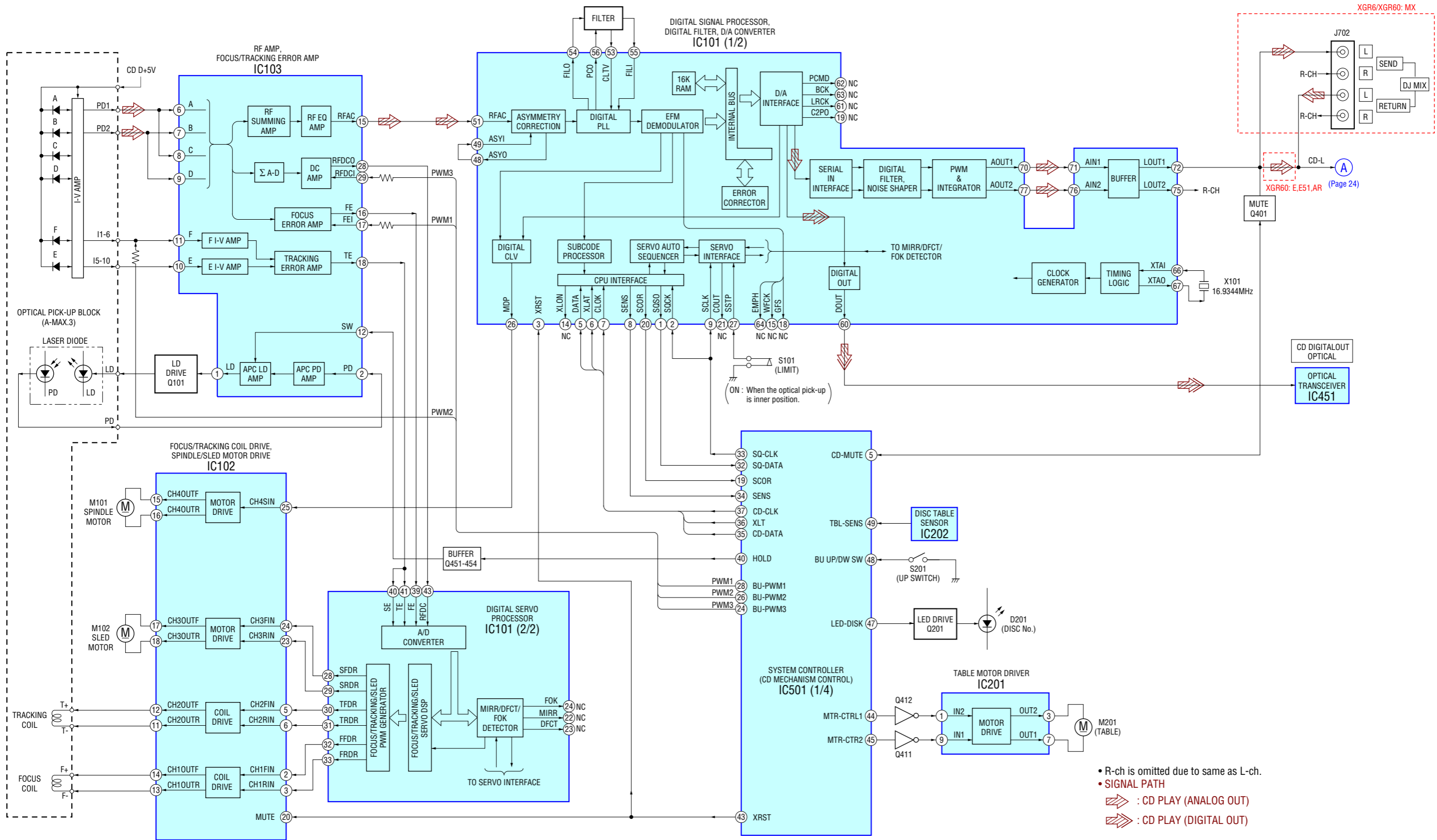
9-873-567-01
2002B0200-1
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Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

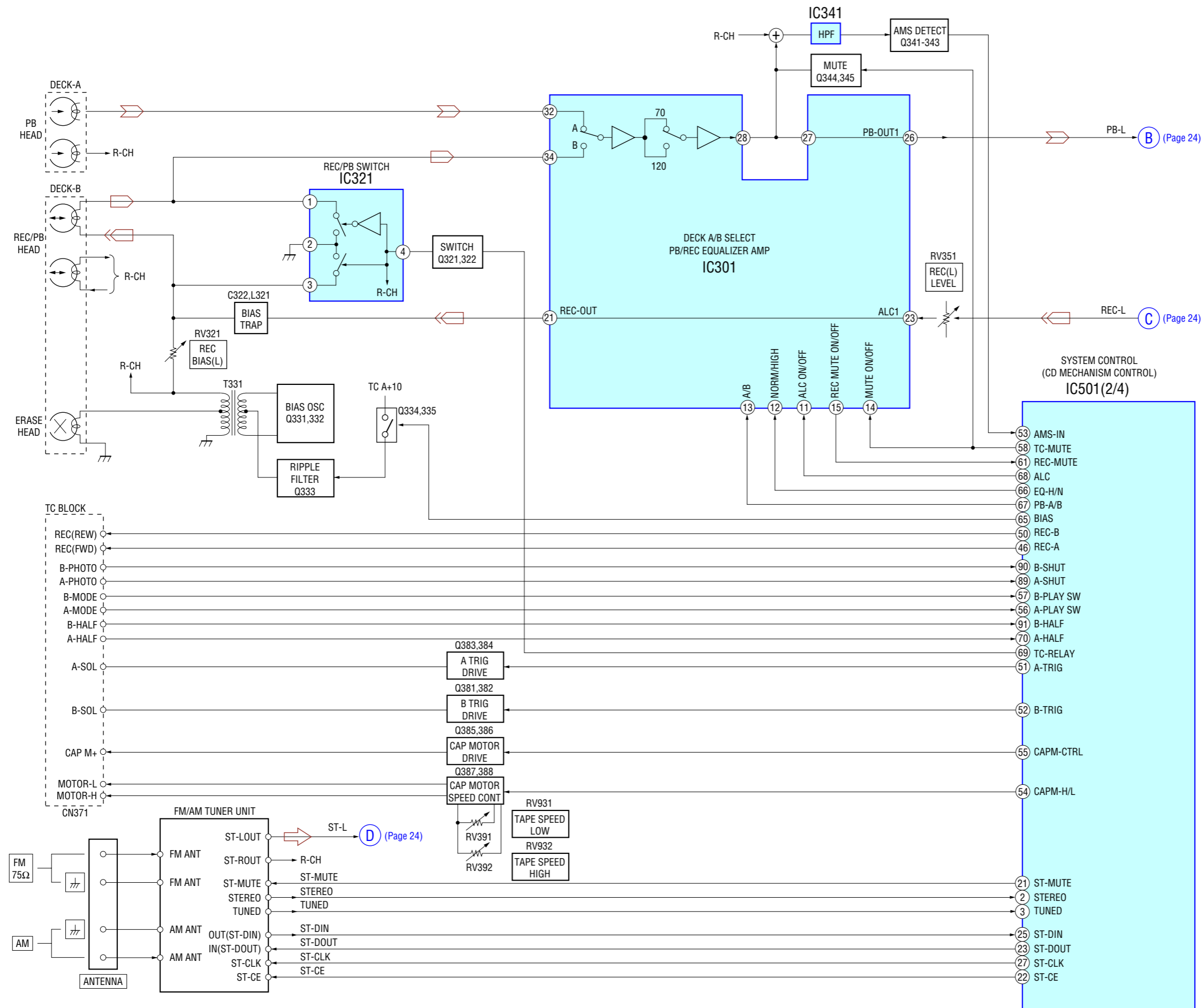
SONY®

HCD-XGR6/XGR60

6-2. BLOCK DIAGRAMS - CD SERVO SECTION -



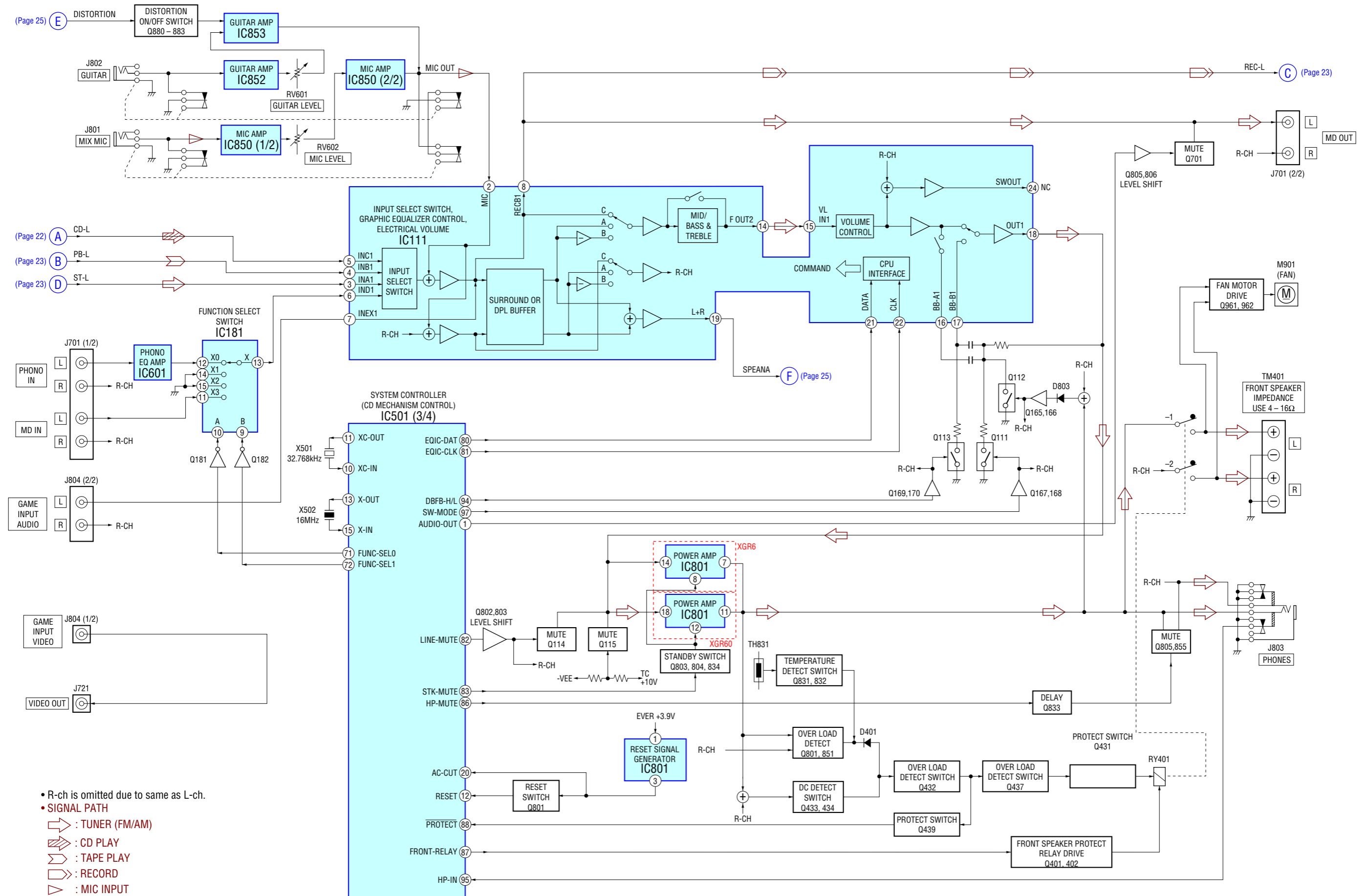
-TUNER/TAPE DECK SECTION-



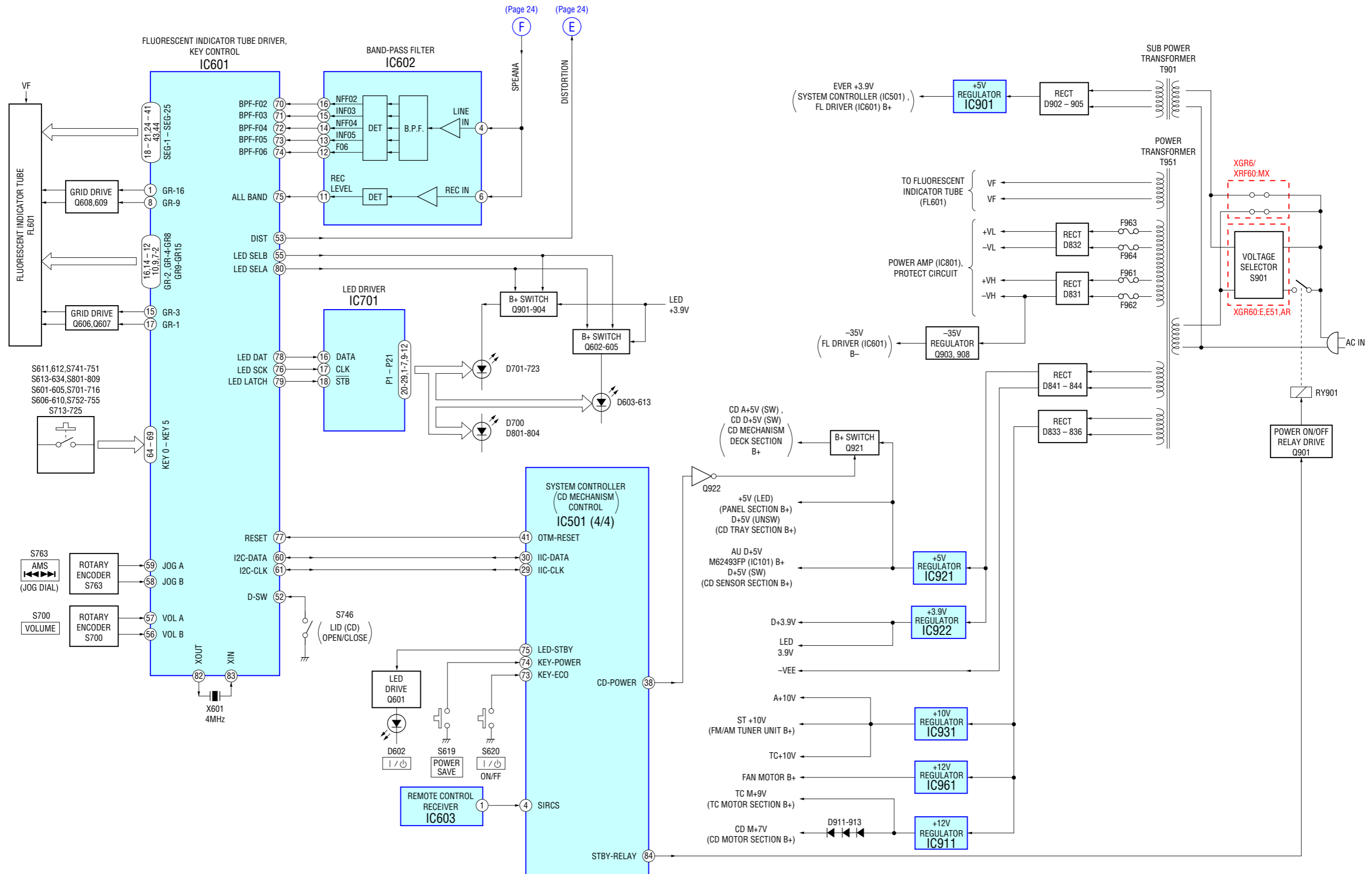
- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
- ➡ : TUNER (FM/AM)
- ➡ : PLAYBACK (DECK A)
- ➡ : PLAYBACK (DECK B)
- ➡ : RECORD

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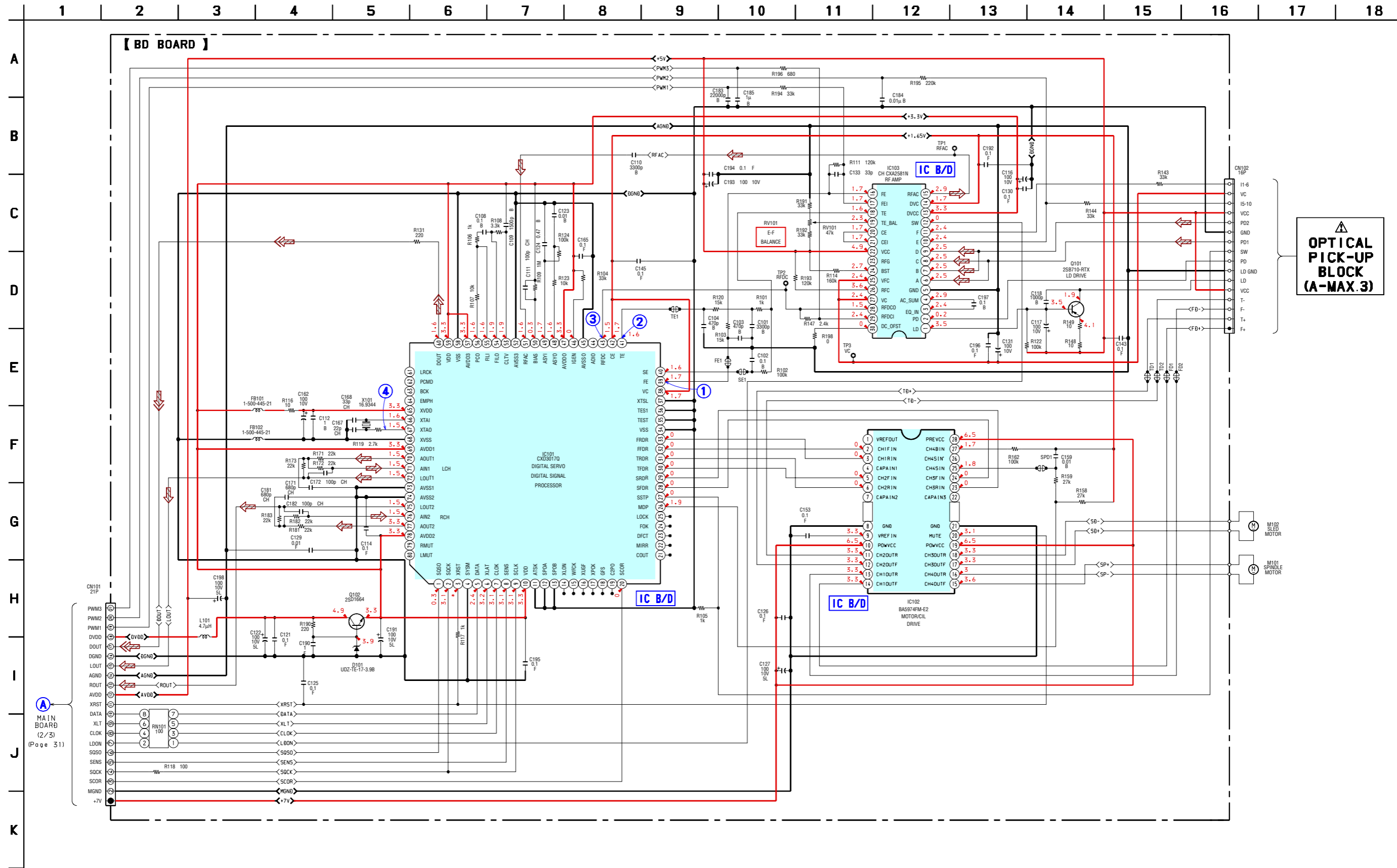
- MAIN SECTION -



- DISPLAY/KEY CONTROL/POWER SUPPLY SECTION -

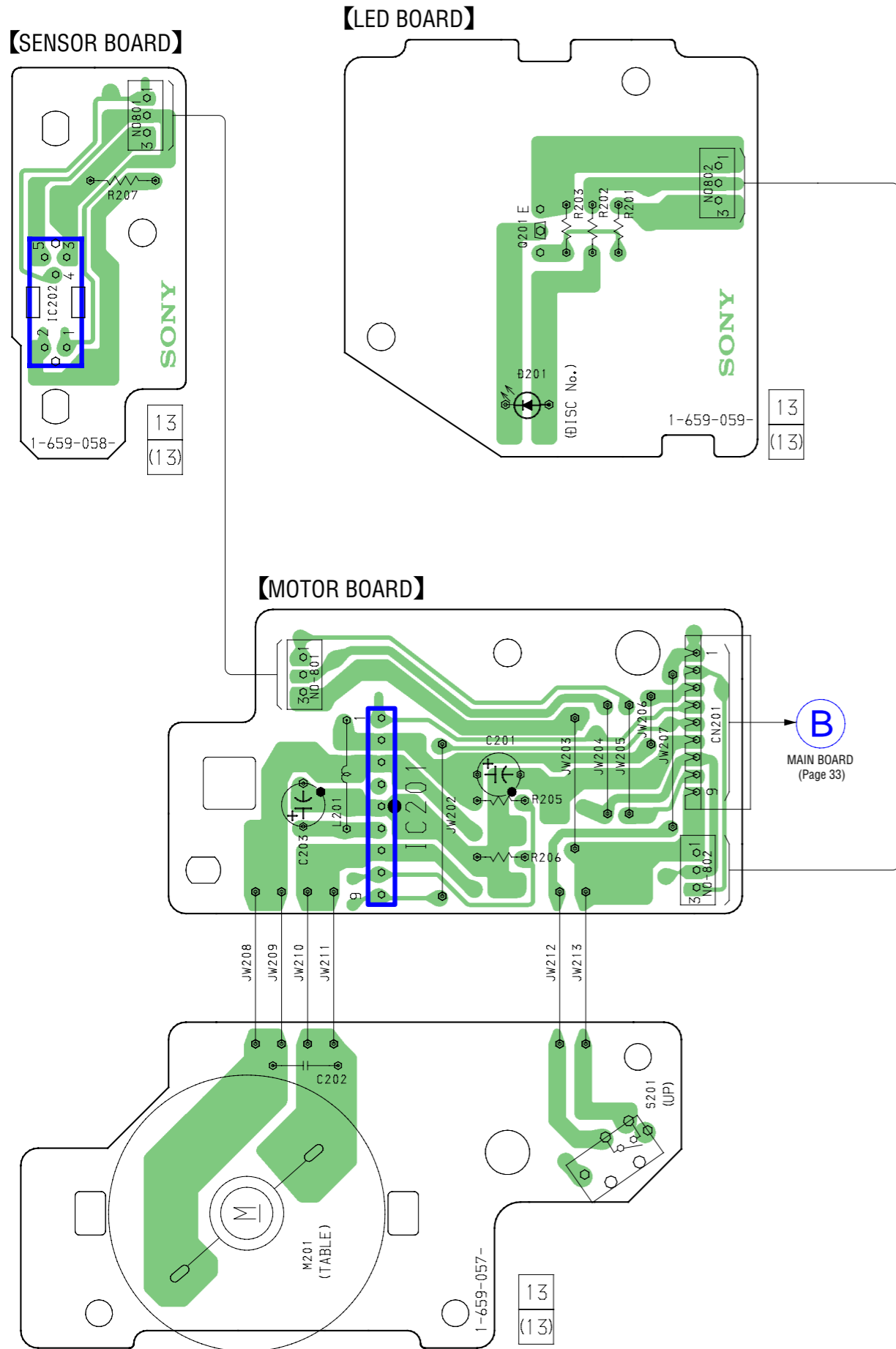


6-4. SCHEMATIC DIAGRAM – BD SECTION – • See page 44 for Waveforms. • See page 44 for IC Pin Function. • See page 50,51 for IC Block Diagrams.

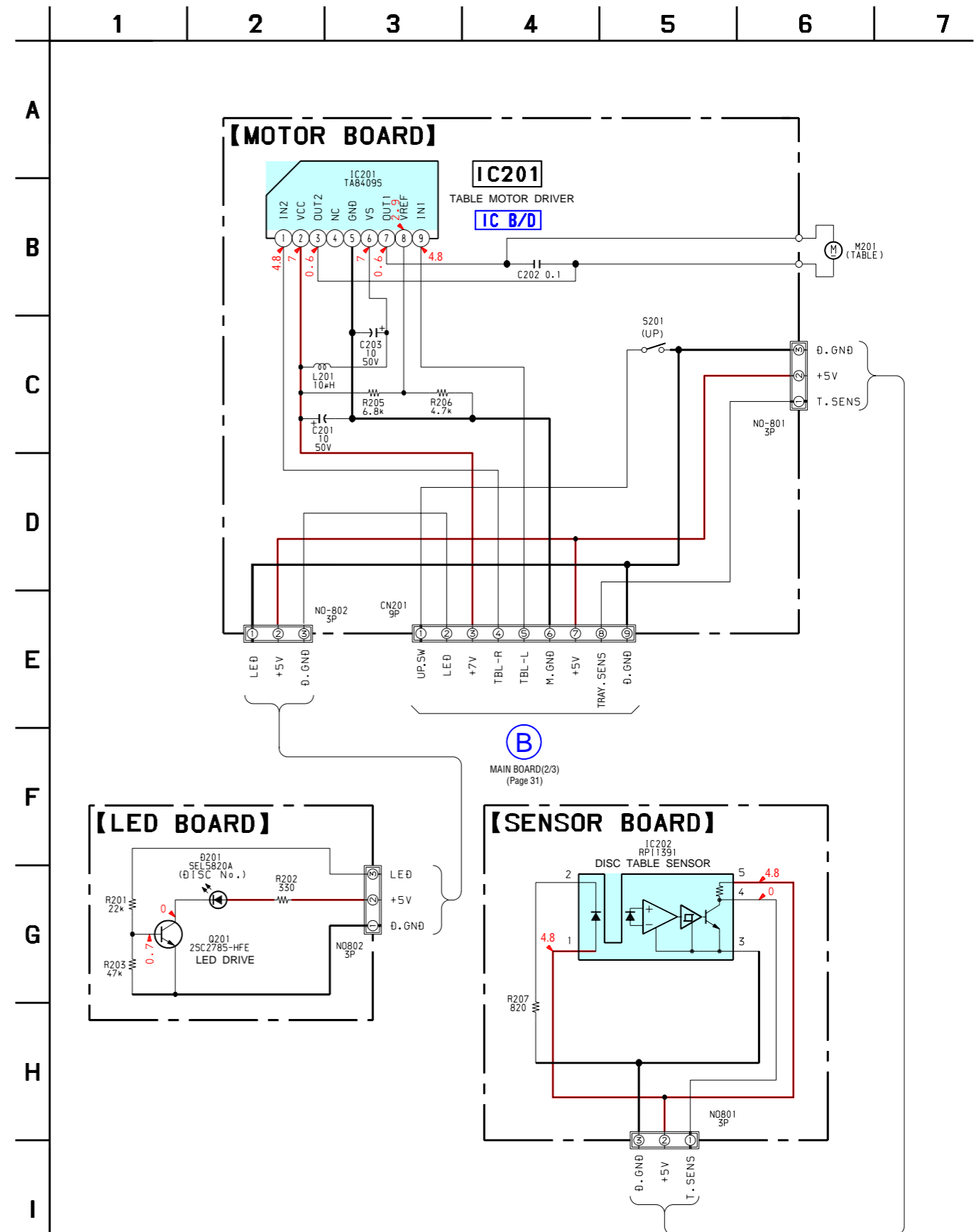


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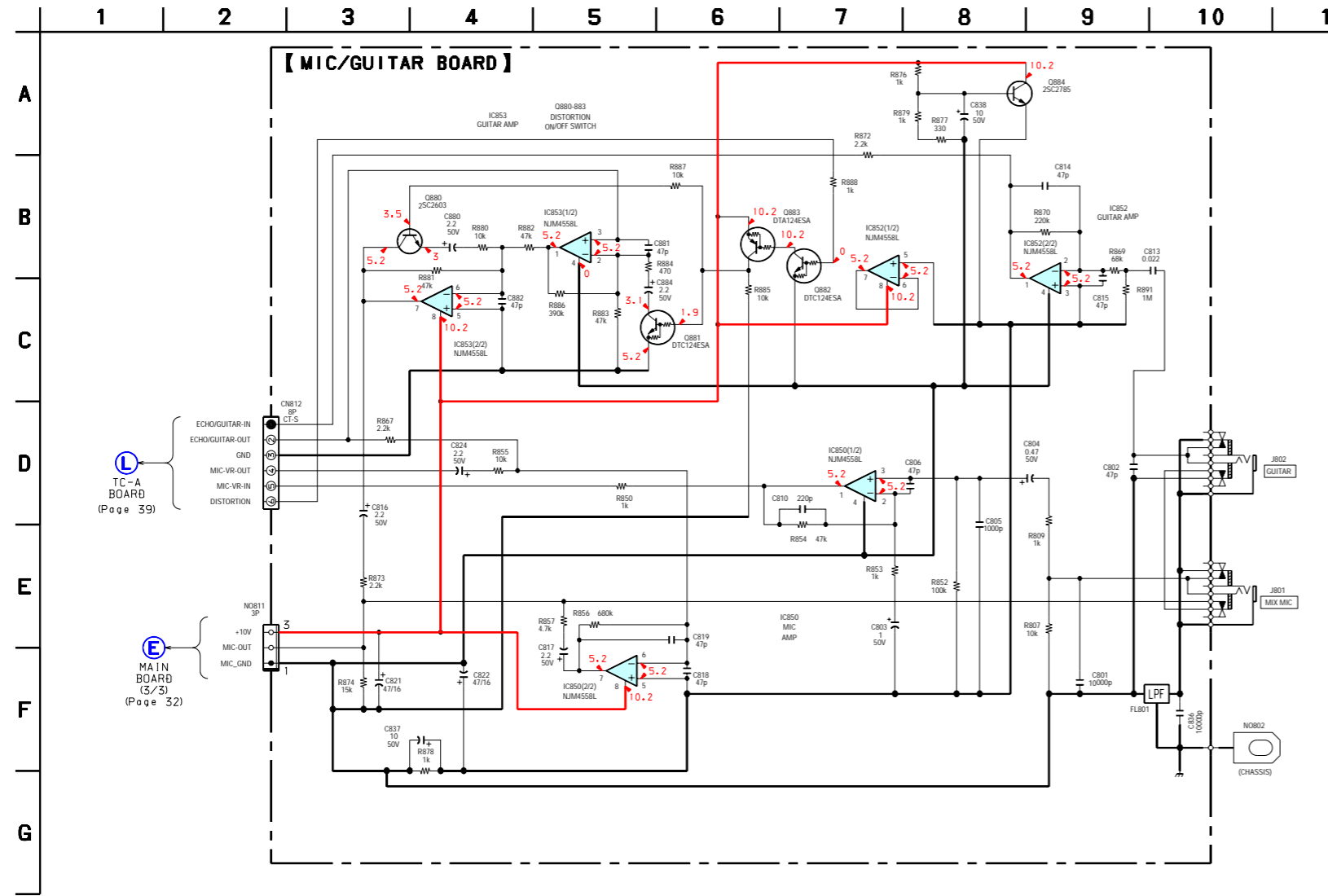
6-5.PRINTED WIRING BOARD – MOTOR LED SECTION – • See page 21 for Circuit Boards Location.



6-6.SCHEMATIC DIAGRAM – MOTOR LED SECTION – • See page 56 for IC Block Diagrams.

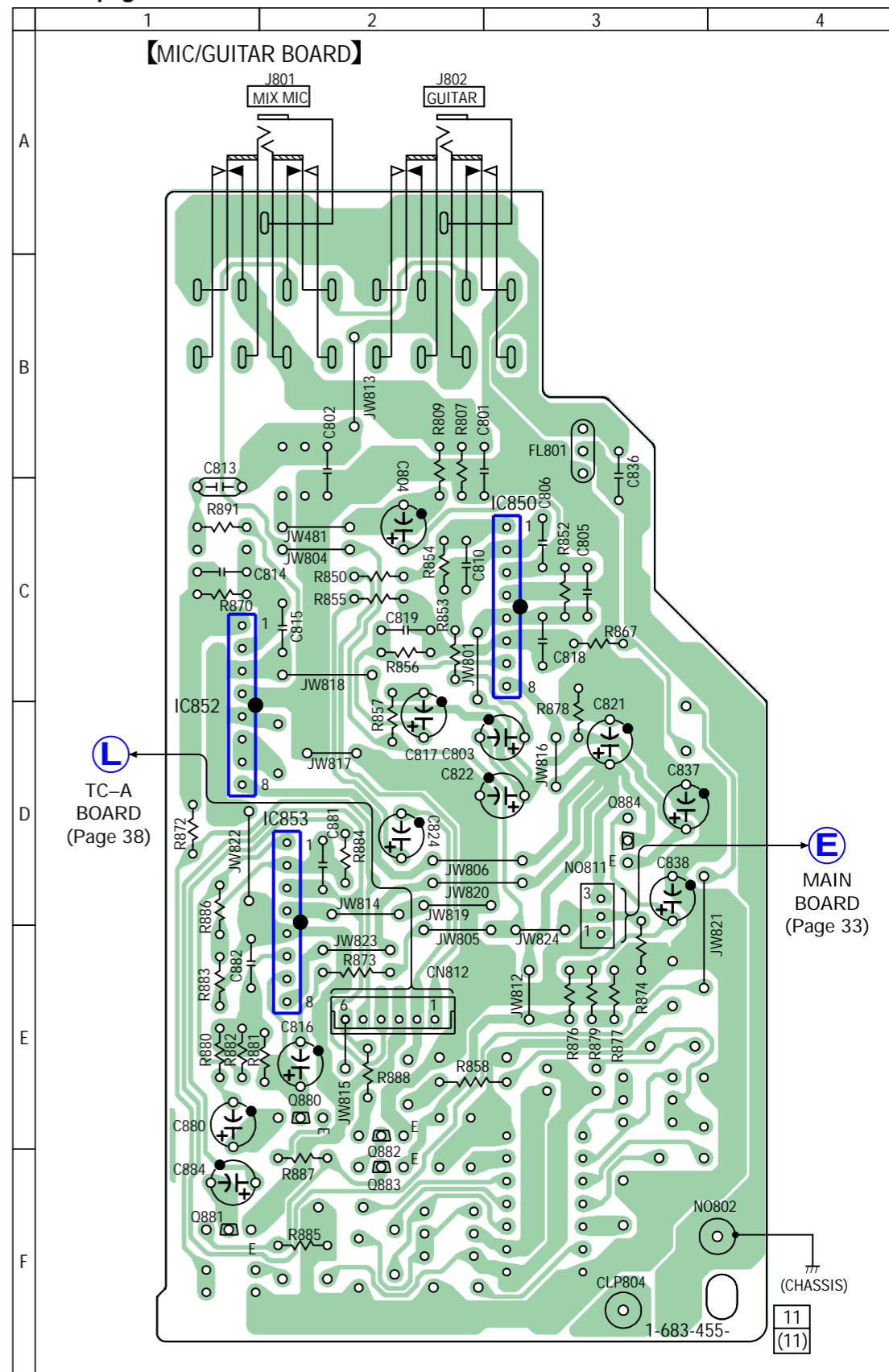


6-7.SCHEMATIC DIAGRAM – MIC/GUITAR SECTION –



6-8.PRINTED WIRING BOARD – MIC/GUITAR SECTION –

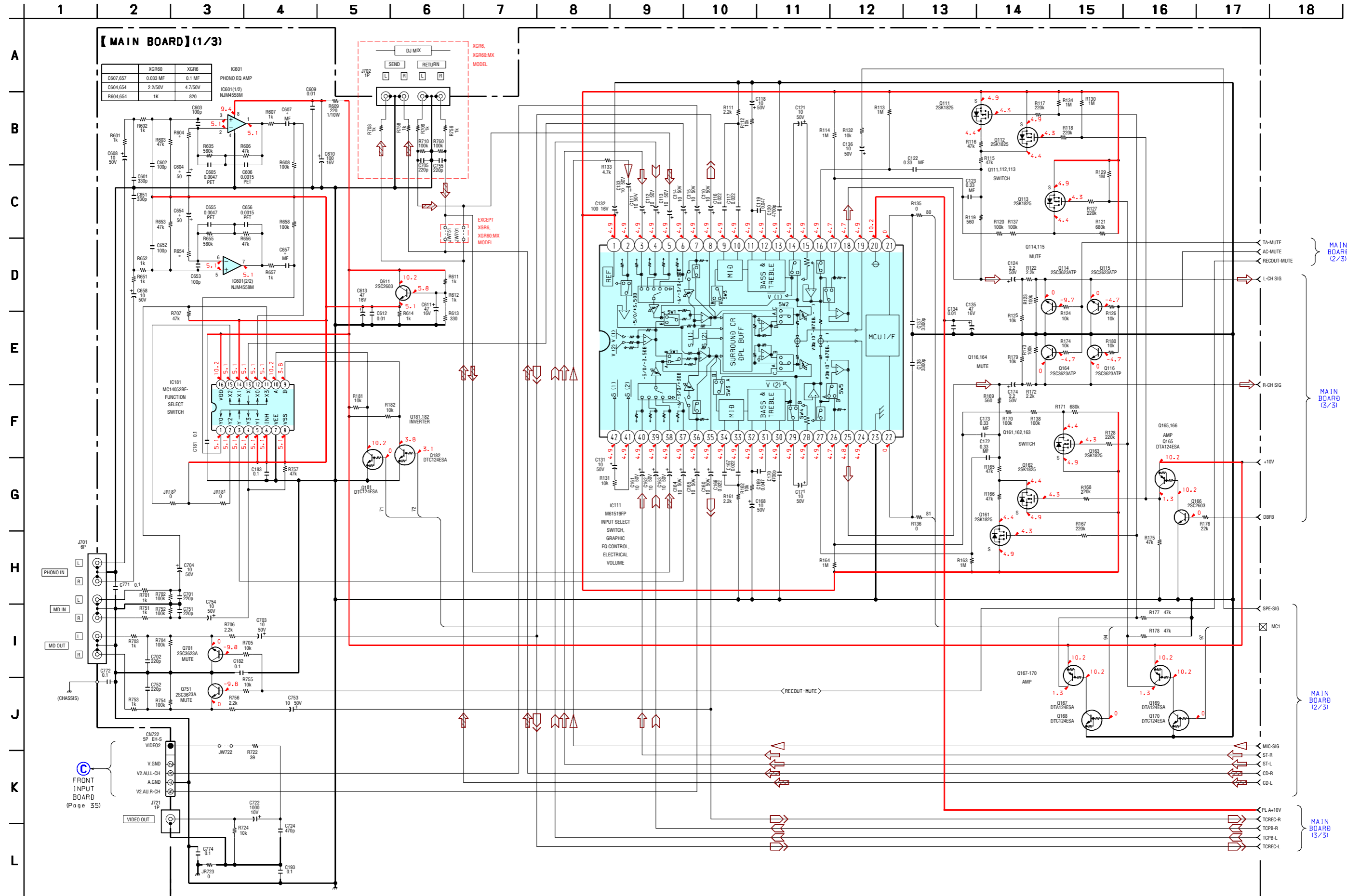
• See page 21 for Circuit Boards Location.



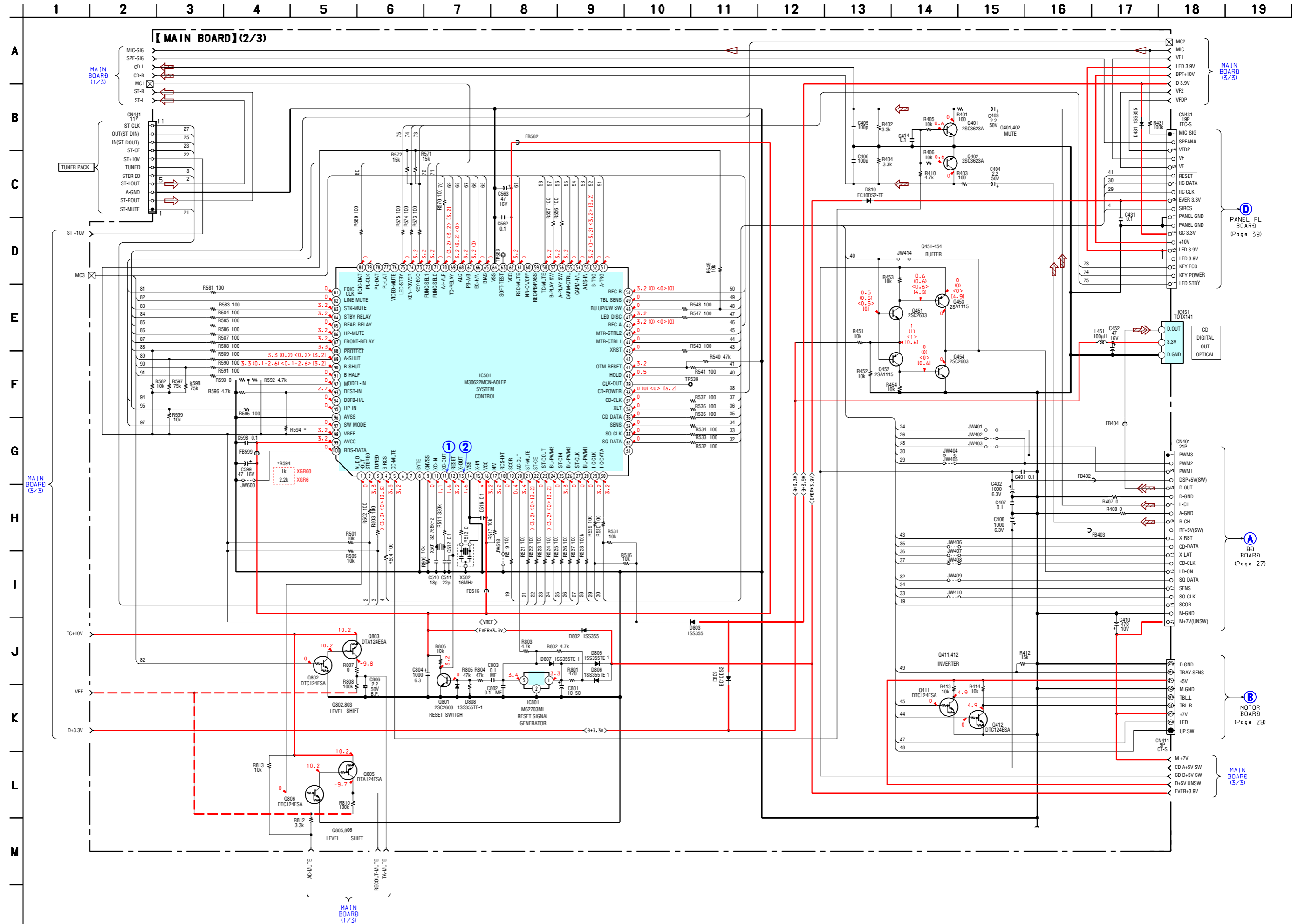
• Semiconductor Location

Ref. No.	Location
IC850	B-3
IC852	C-4
IC853	C-5
Q880	C-6
Q881	D-6
Q882	C-6
Q883	C-6
Q884	B-4

6-9.SCHEMATIC DIAGRAM – MAIN (1/3) SECTION –

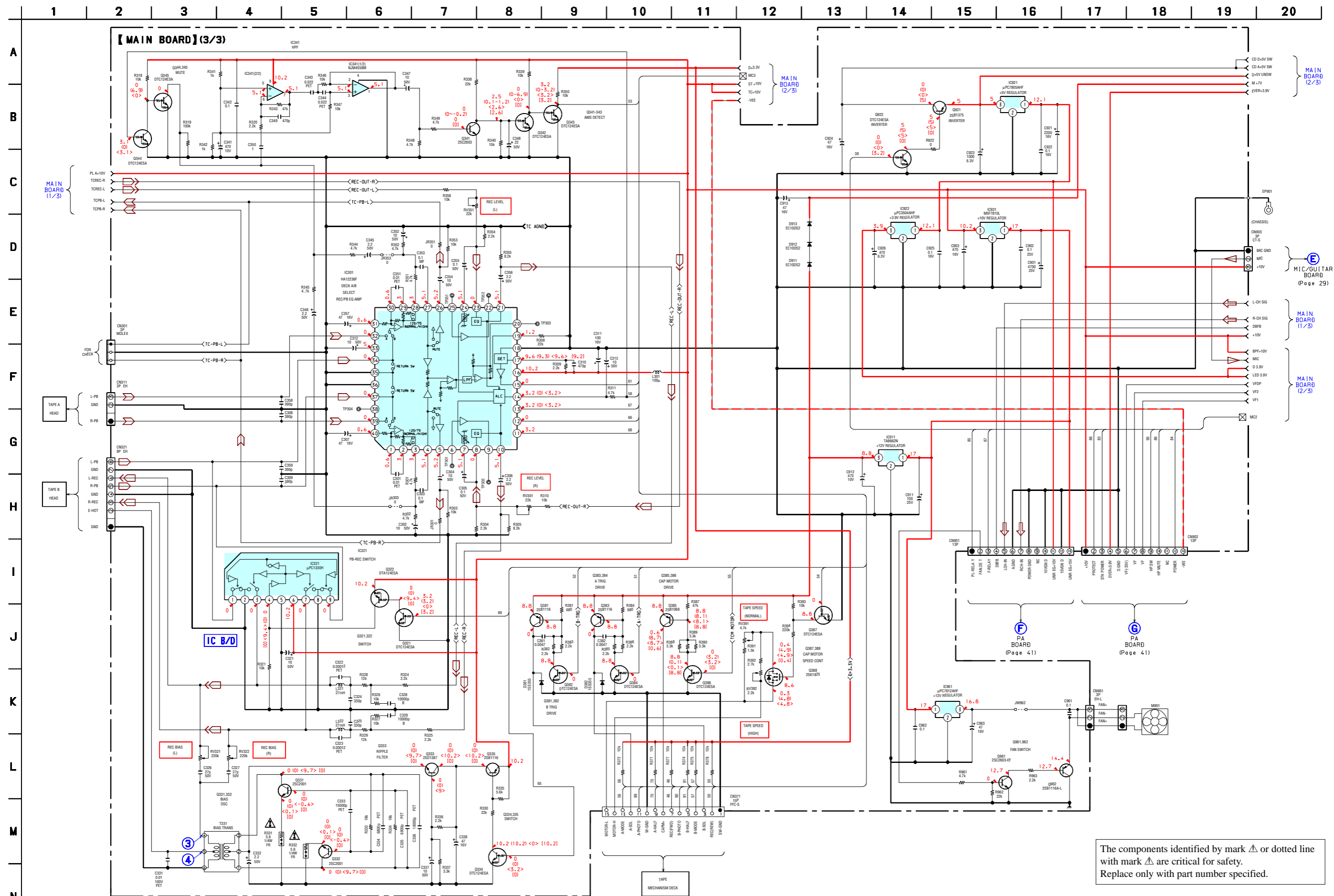


6-10.SCHEMATIC DIAGRAM – MAIN(2/3) SECTION – • See page 44 for Waveforms. • See page 46 for IC Pin Function.



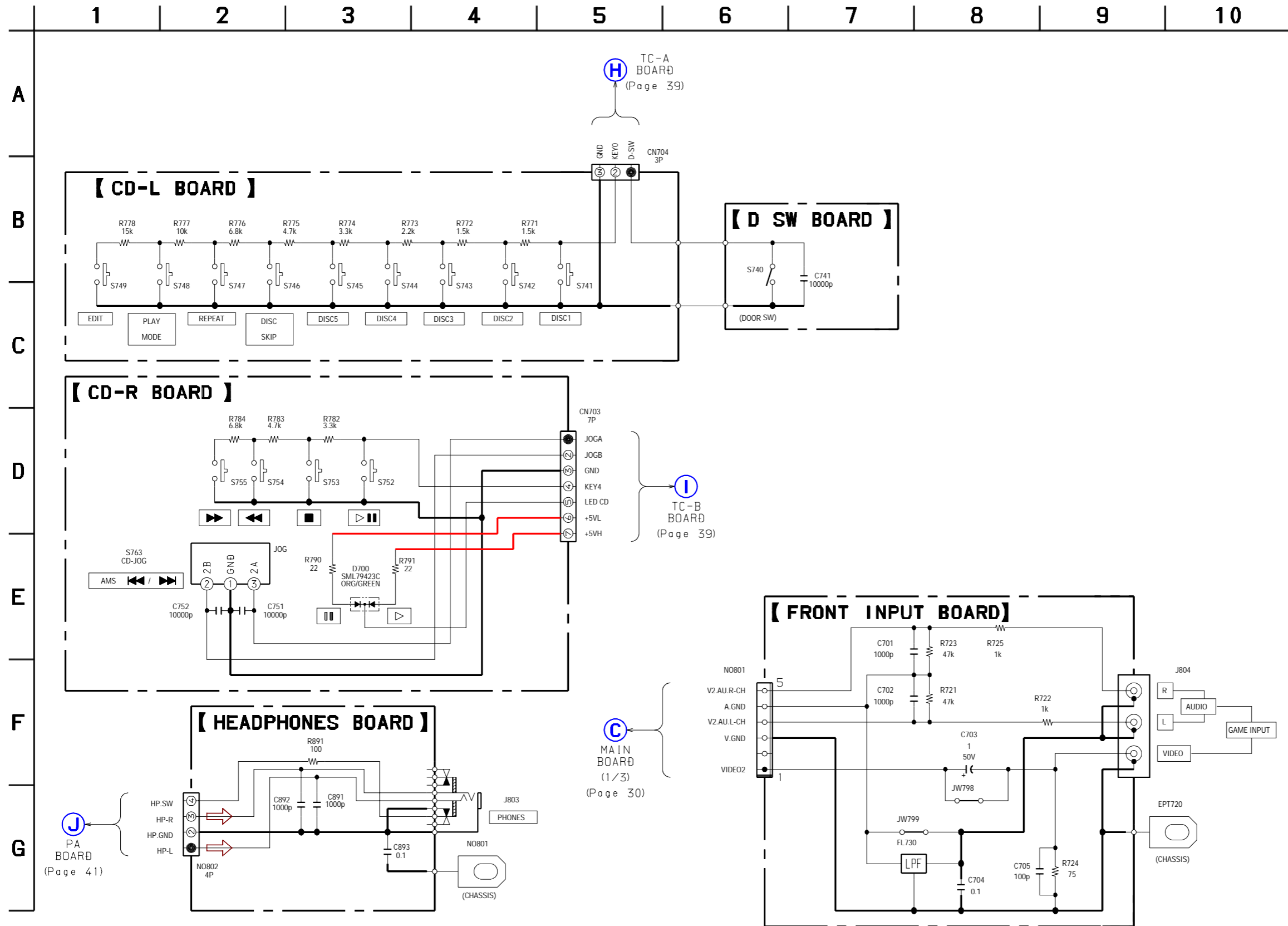
HCD-XGR6/XGR60

6-11. SCHEMATIC DIAGRAM – MAIN (3/3) SECTION – • See page 44 for Waveforms. • See page 51 for IC Block Diagrams.

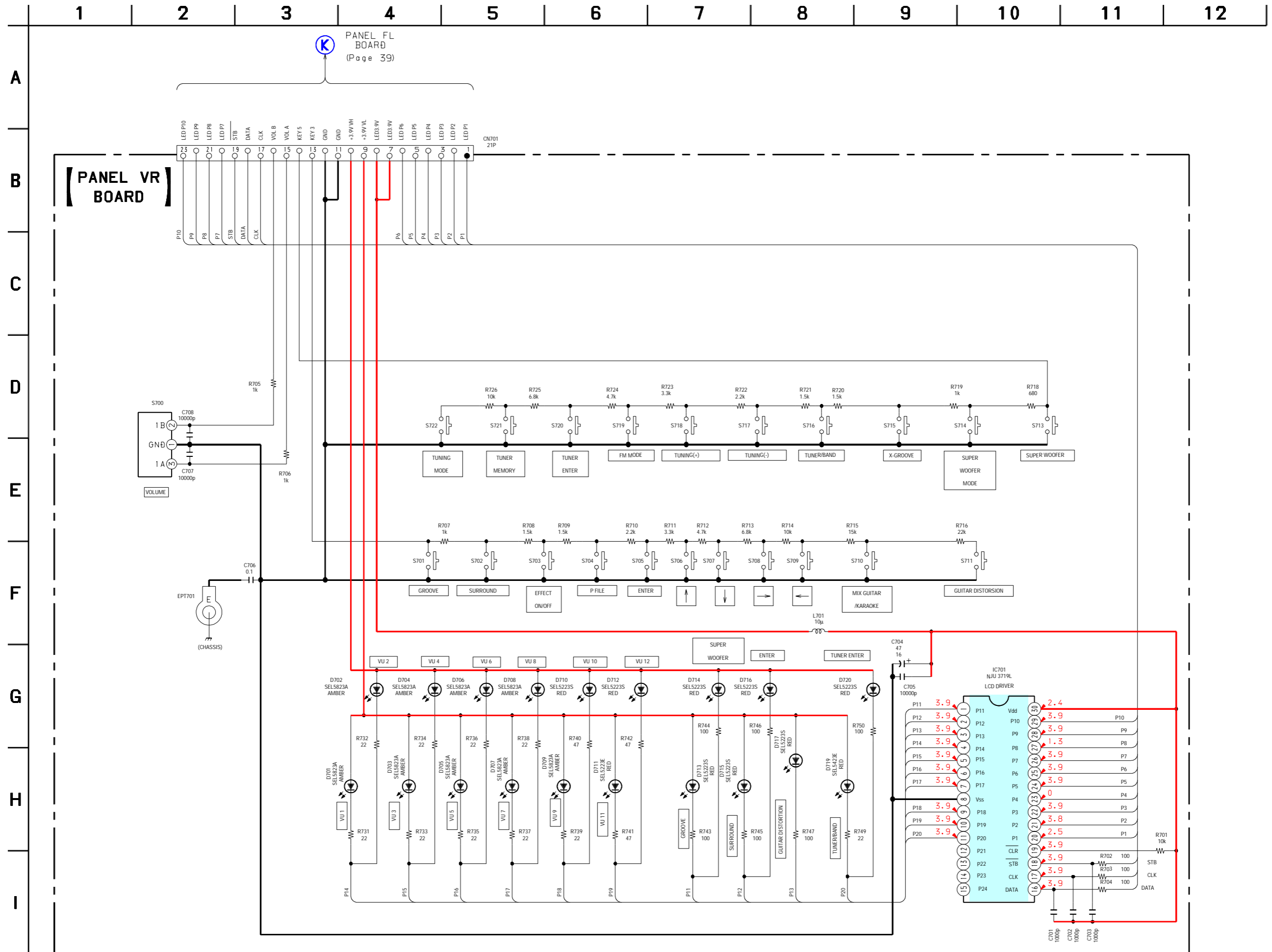


The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

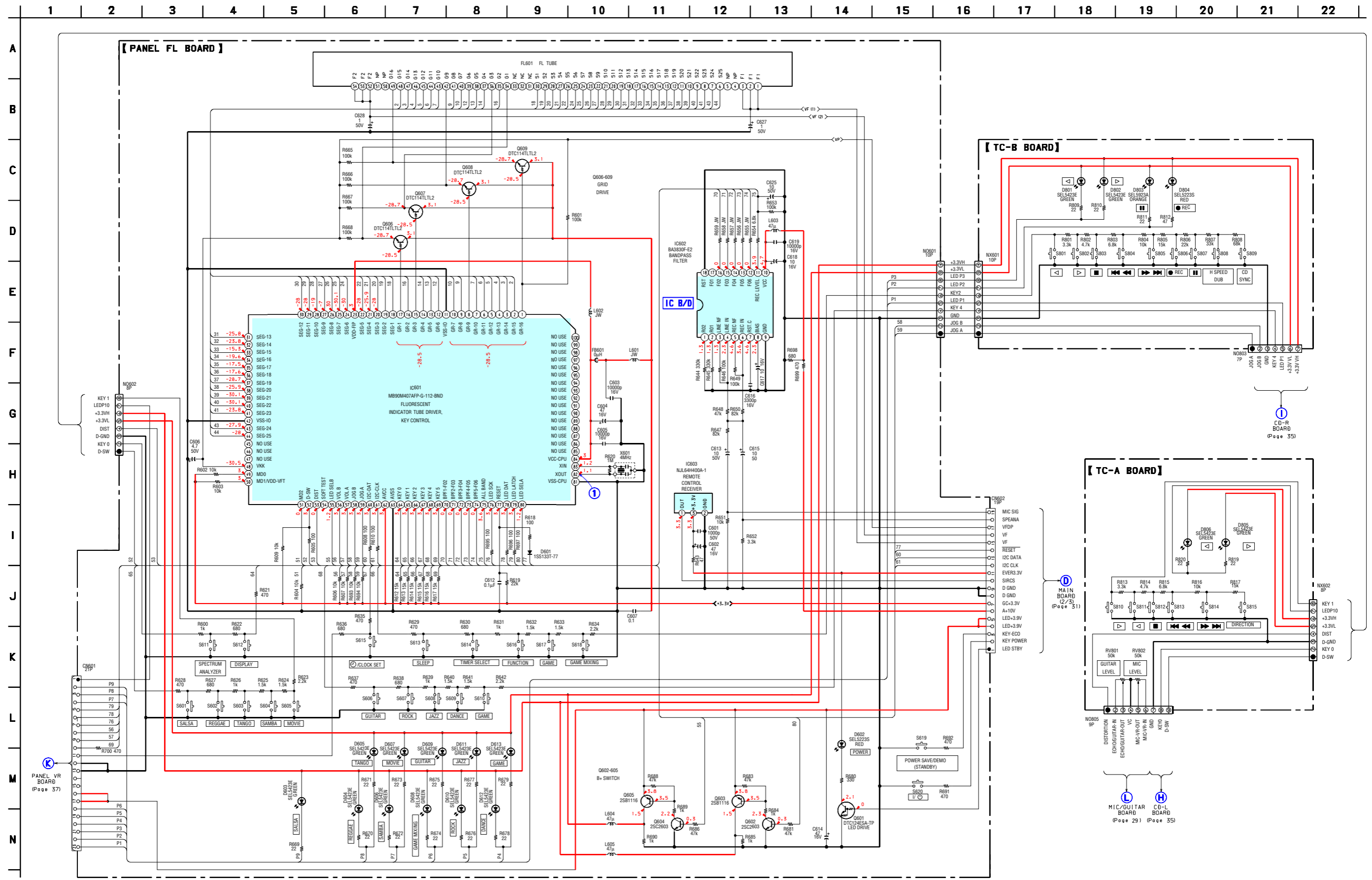
6-14. SCHEMATIC DIAGRAM – CD-L, CD-R, HEADPHONE, FRONT INPUT, D-SW SECTION –



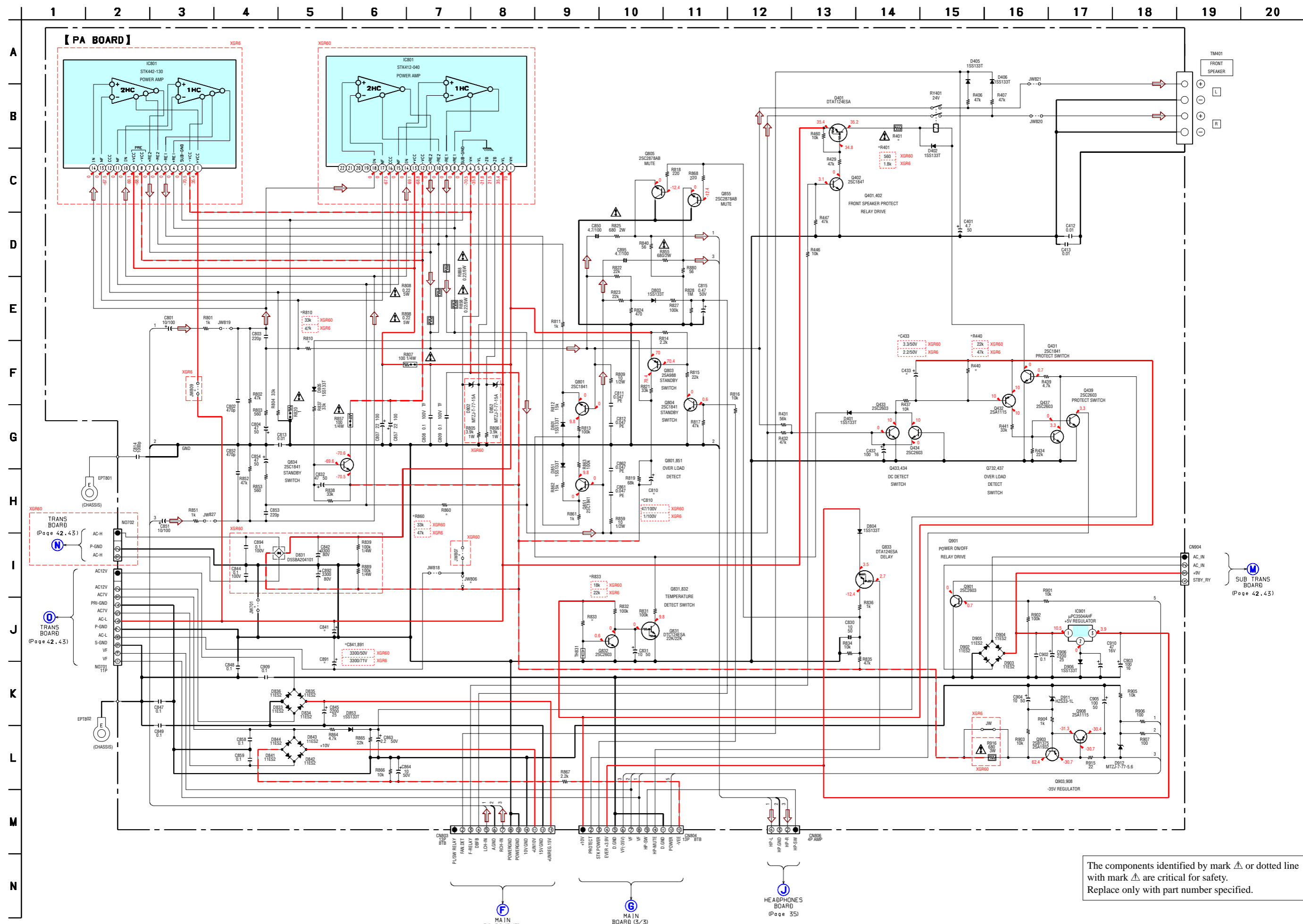
6-16. SCHEMATIC DIAGRAM – PANEL VR SECTION –



6-18.SCHEMATIC DIAGRAM – PANEL FL, TC-A, TC-B SECTION – • See page 44 for Waveforms. • See page 48 for IC Pin Function. • See page 52 for IC Block Diagrams.



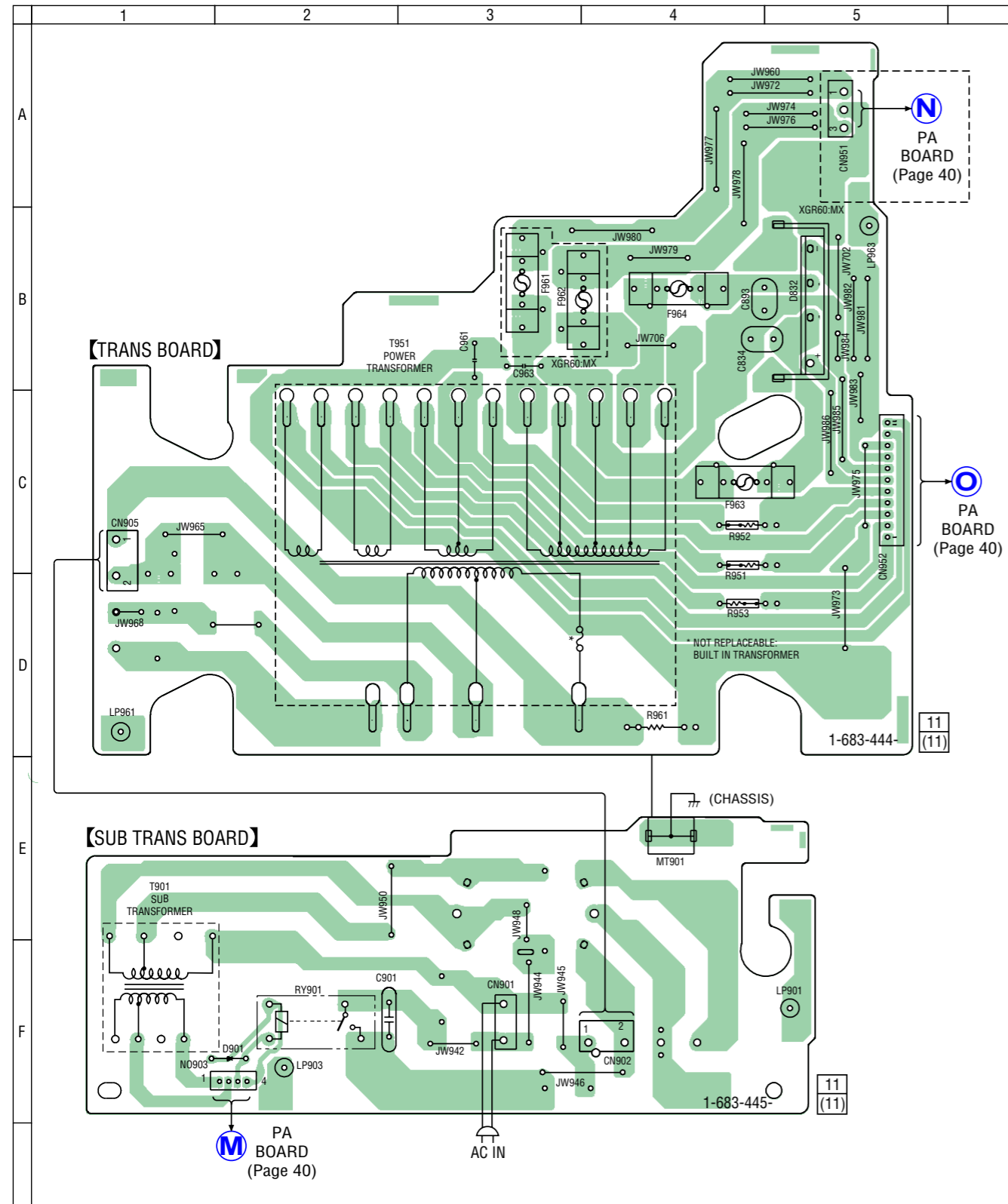
6-20.SCHEMATIC DIAGRAM – PA SECTION –



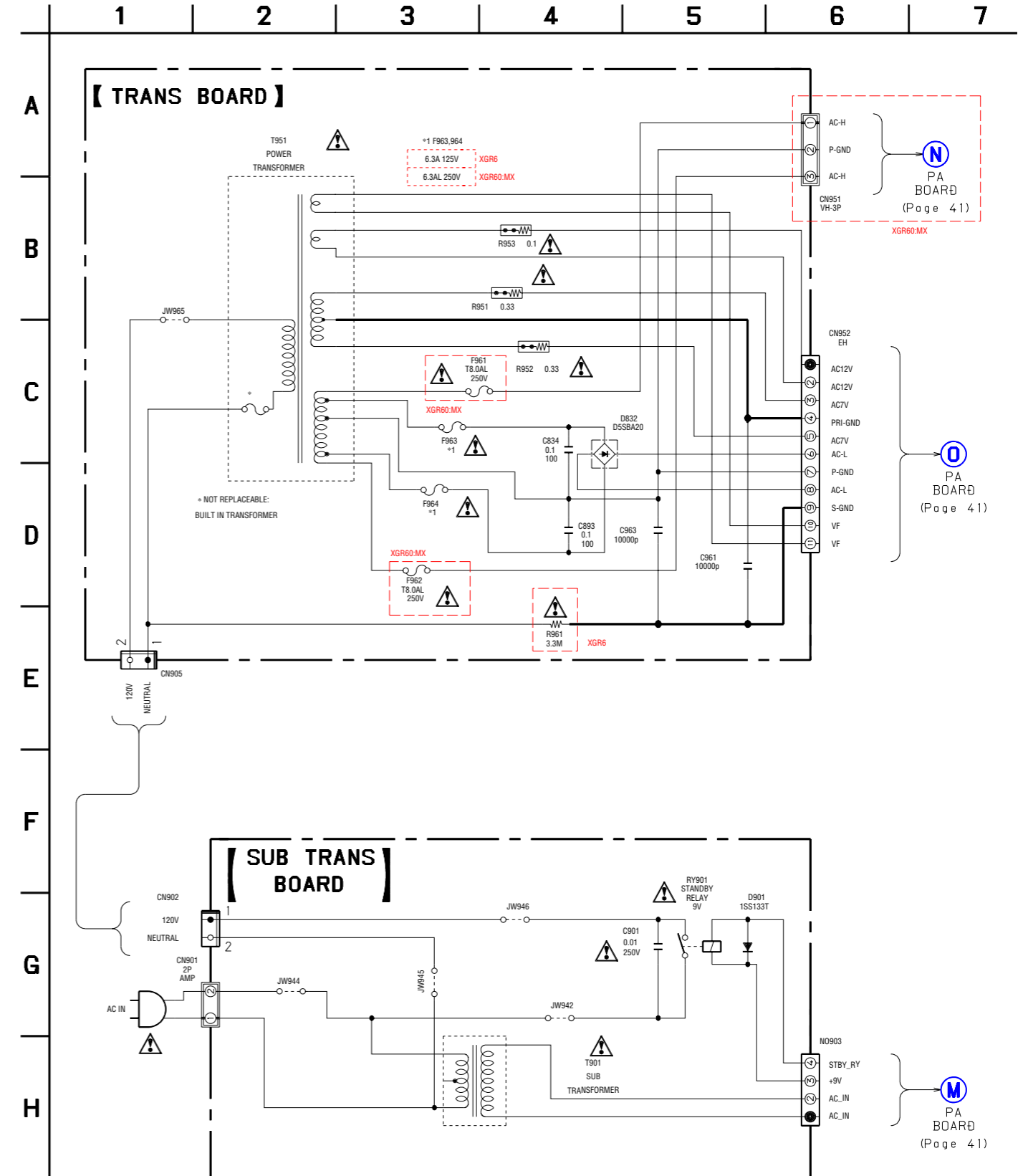
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6-21.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION (XGR6, XGR60: MX MODEL) –
 • See page 21 for Circuit Boards Location.



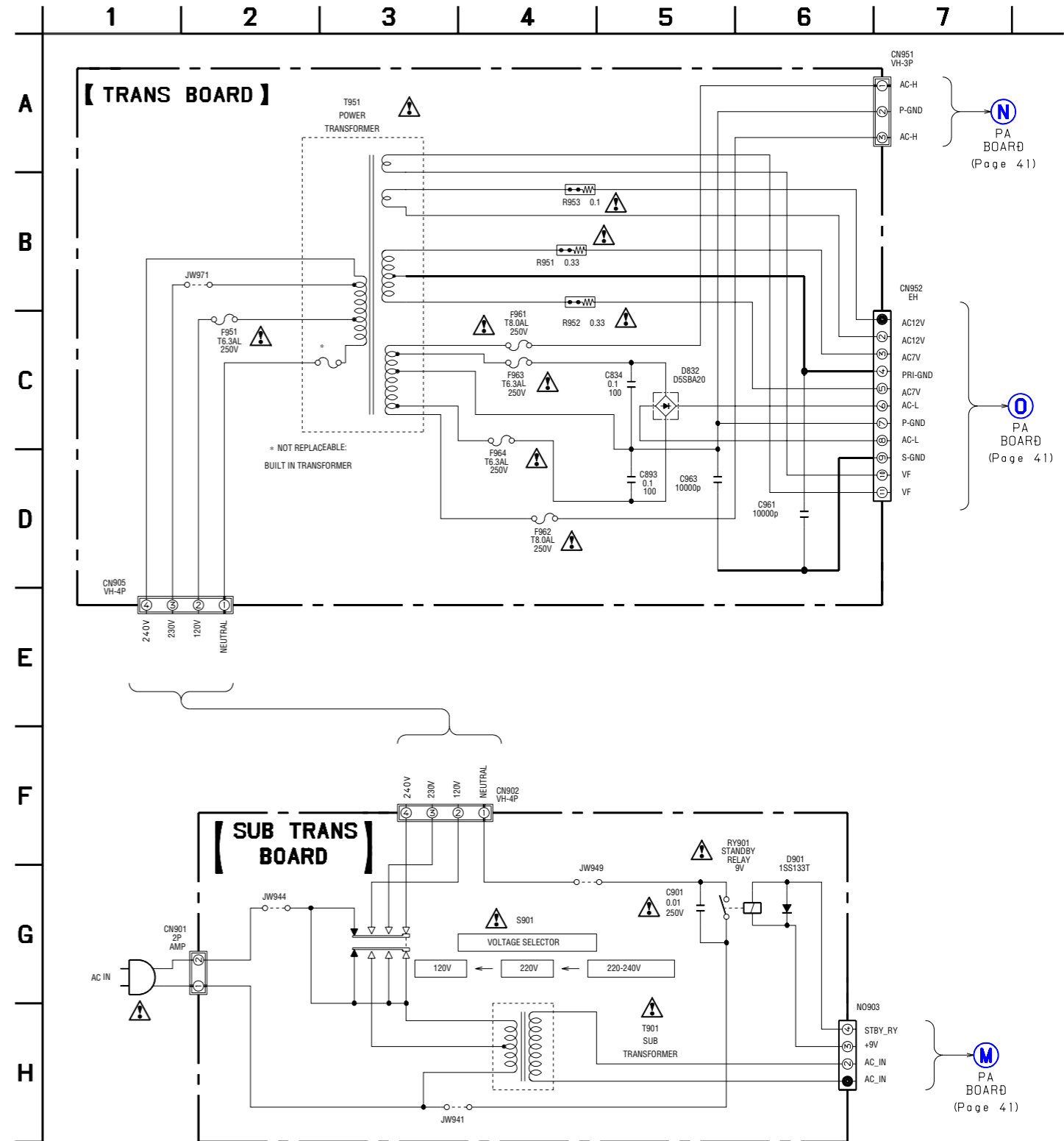
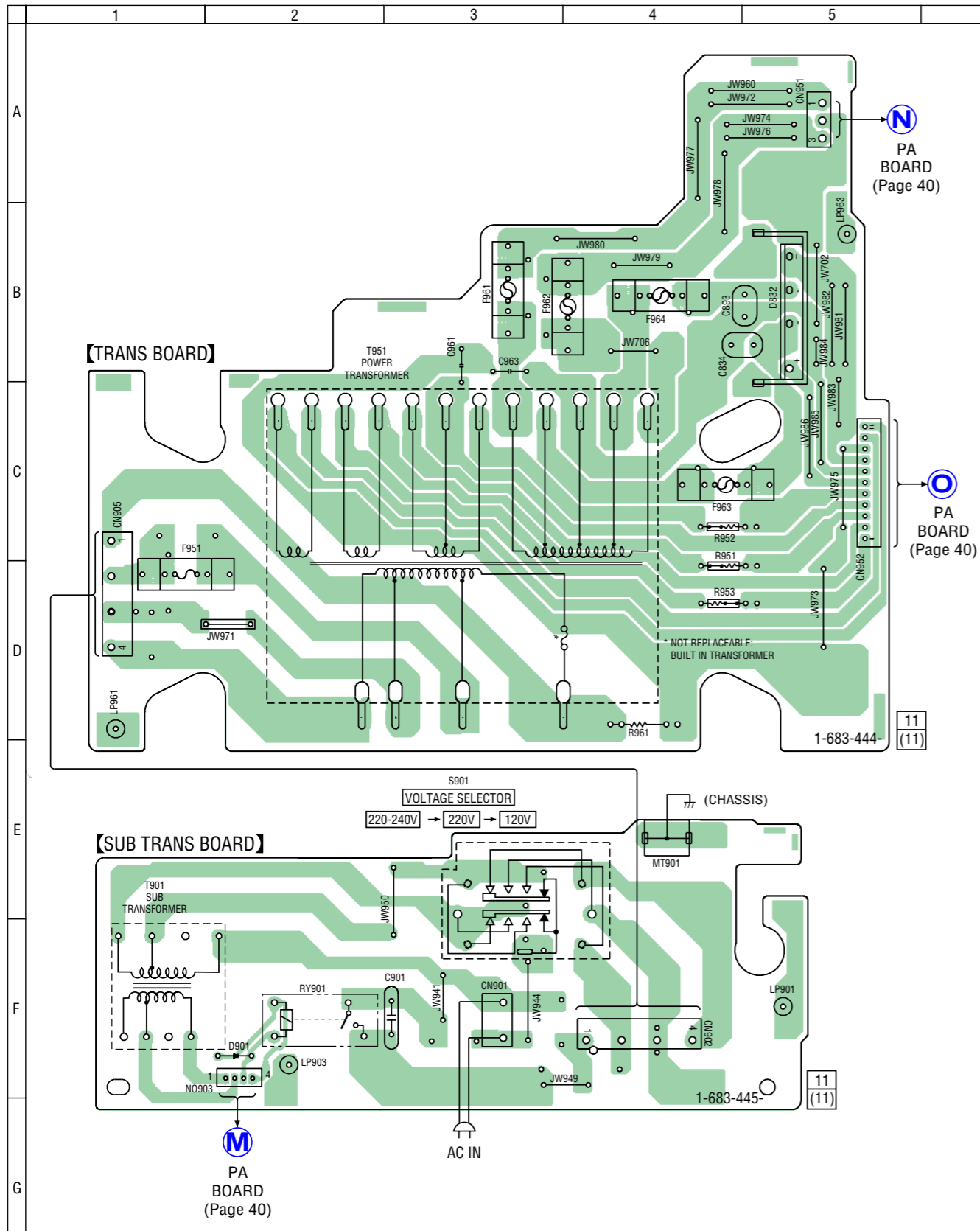
6-22.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION (XGR6, XGR60: MX MODEL) –



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

6-23.PRINTED WIRING BOARD – TRANS, SUB TRANS SECTION (XGR60:E, E51, AR MODEL) –
 • See page 21 for Circuit Boards Location.

6-24.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION (XGR60:E, E51, AR MODEL) –



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