

STR-NX1/NX3

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



STR-NX1/NX3 are the
Tuner and Amplifier
Section in HMC-NX1/NX3AV.

Photo: STR-NX3 E model

SPECIFICATIONS

Amplifier section

For the U.S. model

AUDIO POWER SPECIFICATIONS: POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohm loads both channels driven, from
70-20,000 Hz; rates 100 watts per channel
minimum RMS power, with no more than
0.9% total harmonic distortion from 250
milliwatts to rated output.

Center Speaker: (NX3)

Continuous RMS power output (reference)
35 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker: (NX3)

Continuous RMS power output (reference)
35 + 35 watts
(8 ohms at 1 kHz,
10% THD)

Canadian and US (NX1) model

Front Speaker:

Continuous RMS power output (reference)
130 + 130 watts
(6 ohms at 1 kHz,
10% THD)

Total harmonics distortion

Less than 0.07%
(6 ohms at 1 kHz, 40 W) (NX1)
(6 ohms at 1 kHz, 60 W) (NX3)

Center Speaker: (NX3)

Continuous RMS power output (reference)
35 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker: (NX3)

Continuous RMS power output (reference)
35 + 35 watts
(8 ohms at 1 kHz,
10% THD)

European model

Front Speaker:

DIN power output (rated) 80 + 80 watts (NX1)
90 + 90 watts (NX3)
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)

100 + 100 watts (NX1)
110 + 110 watts (NX3)
(6 ohms at 1 kHz,
10% THD)

Music power output (reference)

160 + 160 watts (NX1)
180 + 180 watts (NX3)
(6 ohms at 1 kHz,
10% THD)

Center Speaker: (NX3)

DIN power output (rated) 25 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
35 watts
(8 ohms at 1 kHz,
10% THD)

Music power output (reference)

70 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker: (NX3)

DIN power output (rated) 25 + 25 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
35 + 35 watts
(8 ohms at 1 kHz,
10% THD)

Music power output (reference)

70 + 70 watts
(8 ohms at 1 kHz,
10% THD)

Other models

The following measured at AC 120/220/240 V,
50/60 Hz

Front Speaker:

DIN power output (rated) 90 + 90 watts (NX1)
95 + 95 watts (NX3)
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
110 + 110 watts (NX1)
120 + 120 watts (NX3)
(6 ohms at 1 kHz,
10% THD)

Center Speaker: (NX3)

DIN power output (rated) 25 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
35 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker: (NX3)

DIN power output (rated) 25 + 25 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
35 + 35 watts
(8 ohms at 1 kHz,
10% THD)

Inputs

VIDEO IN:
(phono jacks) voltage 250 mV,
impedance 47 kilohms
MD IN:
(phono jacks) voltage 450 mV,
impedance 47 kilohms
DVD INPUT: (NX3)
FRONT IN:
(phono jacks) voltage 450 mV,
impedance 47 kilohms
REAR IN:
(phono jacks) voltage 450 mV,
impedance 47 kilohms

CENTER IN:

(phono jacks) voltage 450 mV,
impedance 47 kilohms
WOOFER IN:
(phono jacks)

MIC:

(mini jack)

Outputs

MD OUT:

(phono jacks)

PHONES:

(stereo mini jack)

FRONT SPEAKER:

REAR SPEAKER:

CENTER SPEAKER: (NX3)

SUPER WOOFER:

voltage 450 mV,
impedance 47 kilohms
voltage 450 mV,
impedance 47 kilohms
sensitivity 1 mV,
impedance 10 kilohms

voltage 250 mV
impedance 1 kilohms
accepts headphones of 8
ohms or more
accepts impedance of 6 to
16 ohms
accepts impedance of 16
ohms (NX1)
accepts impedance of 8 to
16 ohms (NX3)

accepts impedance of 8 to
16 ohms
Voltage 1 V, impedance 1
kilohms

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

Tourist model: 76.0 – 108.0 MHz

Other models: 87.5 – 108.0 MHz

Antenna

Antenna terminals

Intermediate frequency

FM lead antenna
75 ohm unbalanced
10.7 MHz

UKV tuner section

(3 band (FM-AM-UKV) models only)

Tuning range

65.0 – 74.0 MHz
Stereo Plus

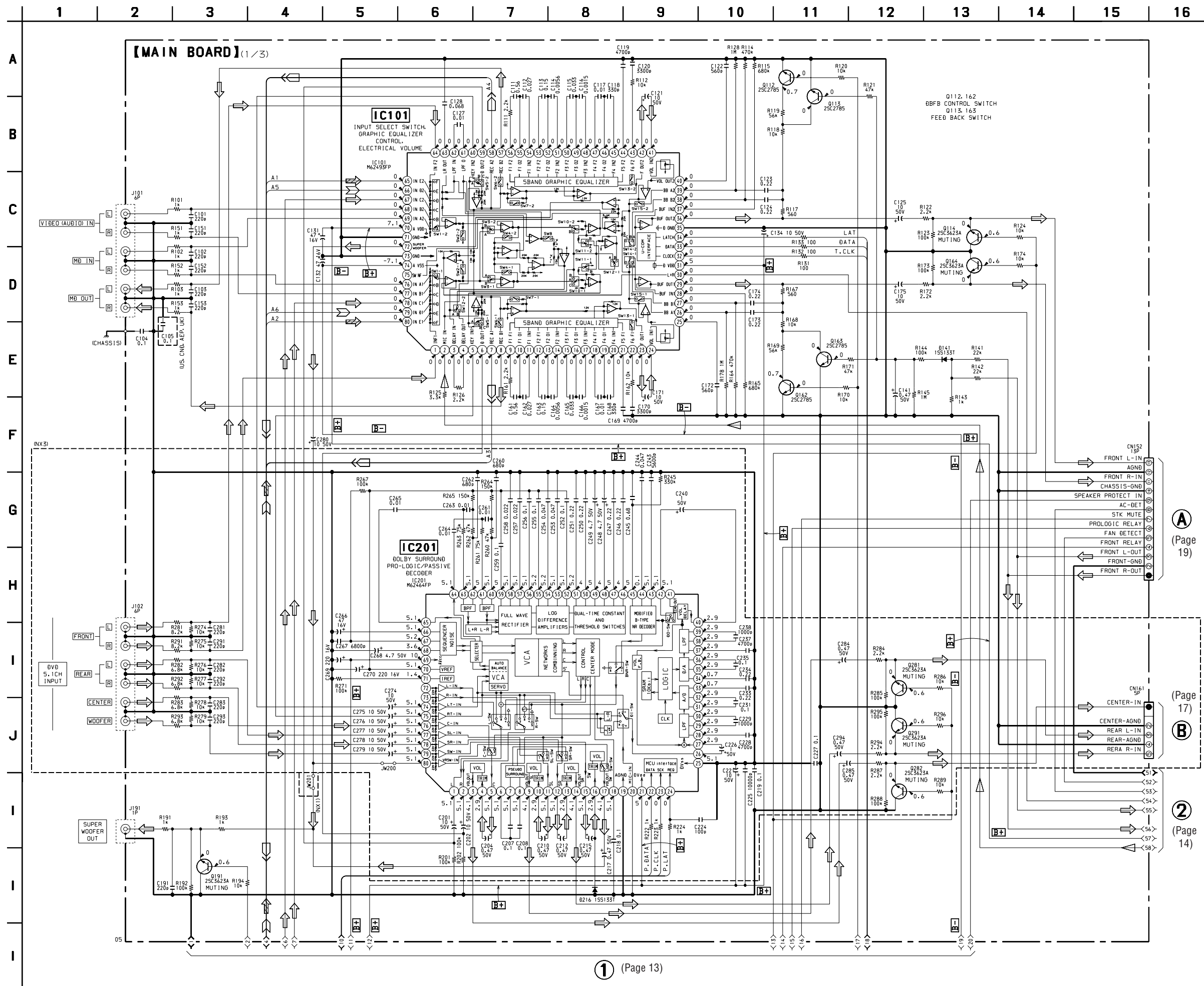
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SONY®

TUNER/AMPLIFIER

5-2. SCHEMATIC DIAGRAM - MAIN Board (1/3) -



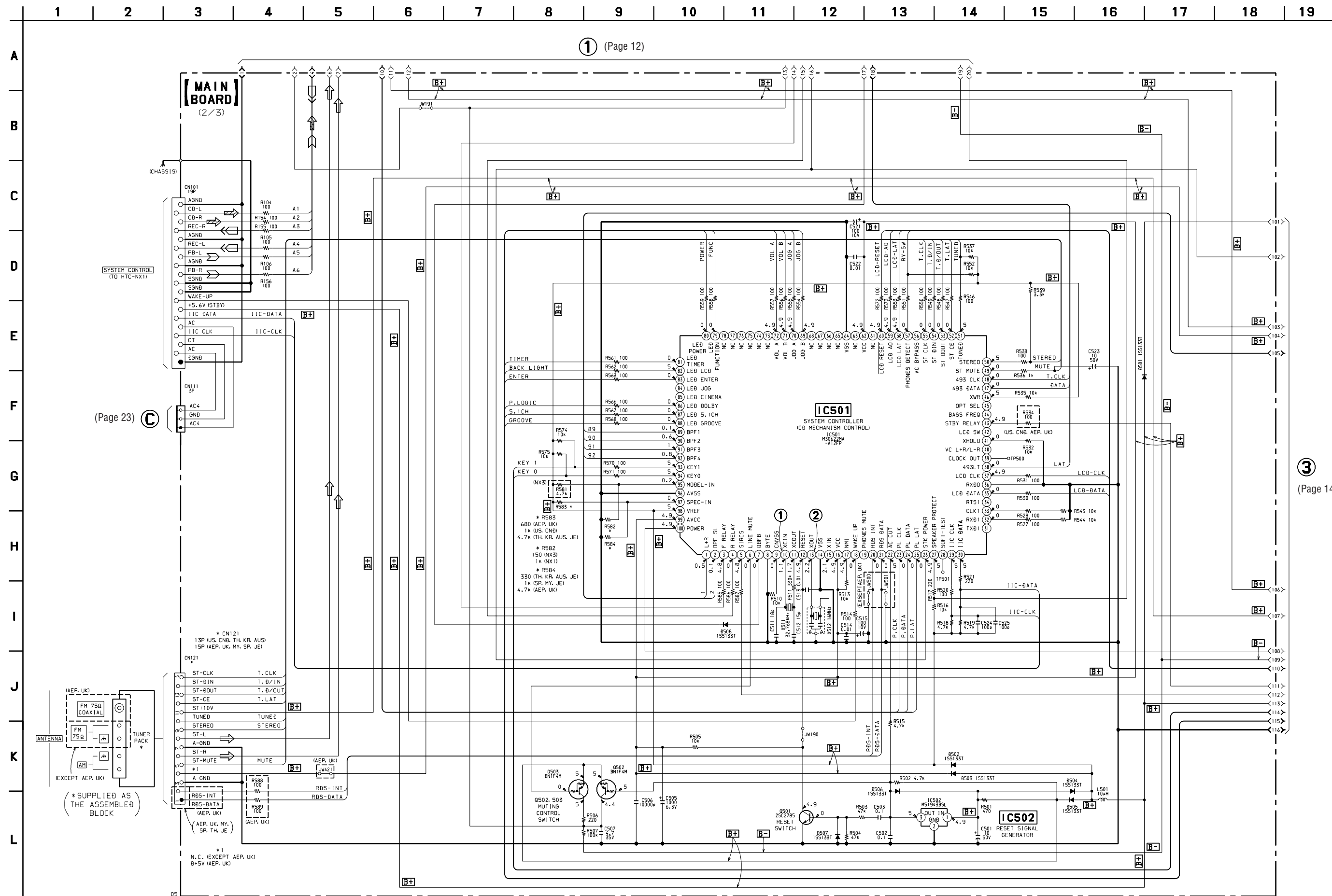
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5-3. SCHEMATIC DIAGRAM – MAIN Board (2/3) – • See page 11 for Waveforms.

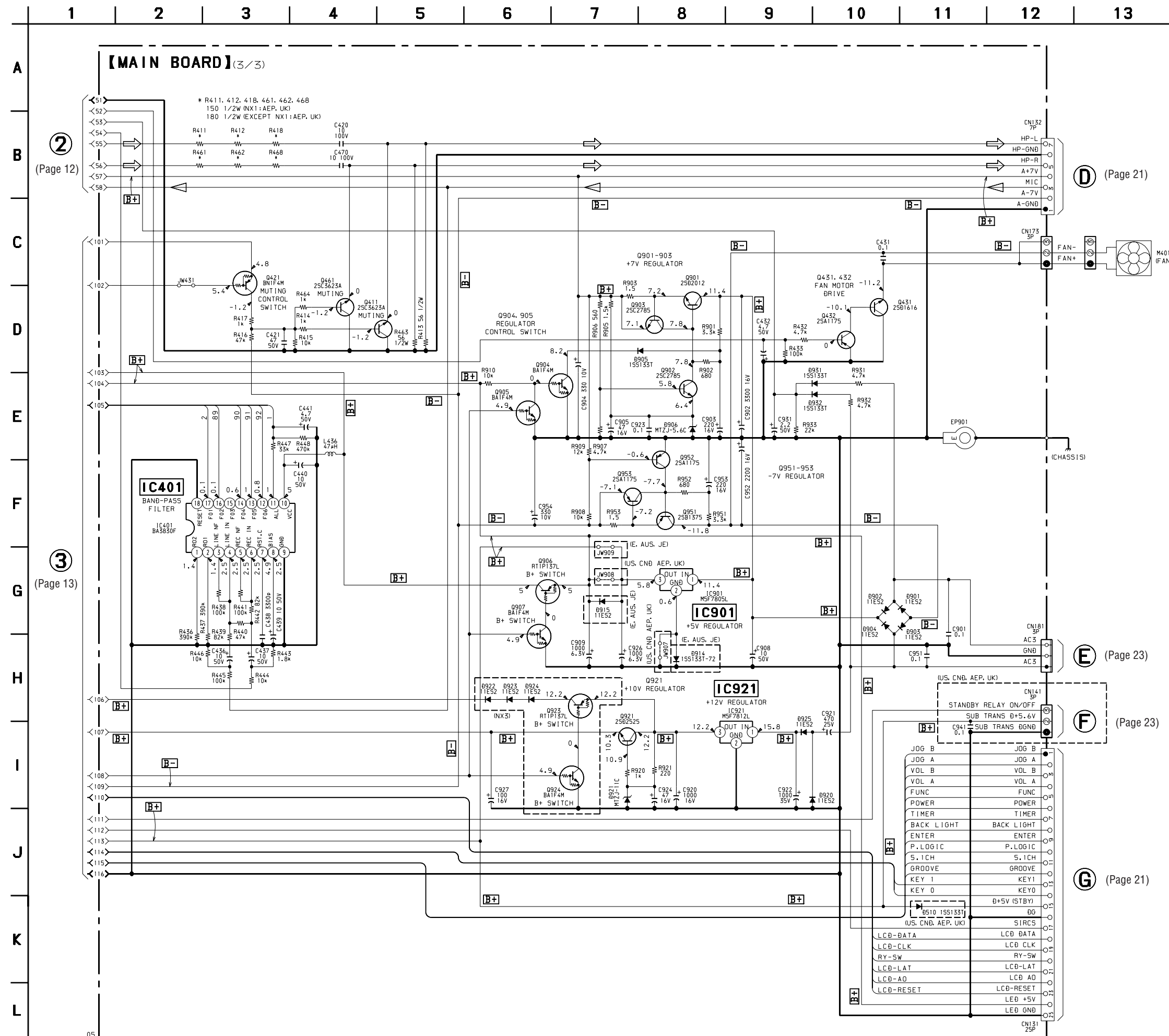


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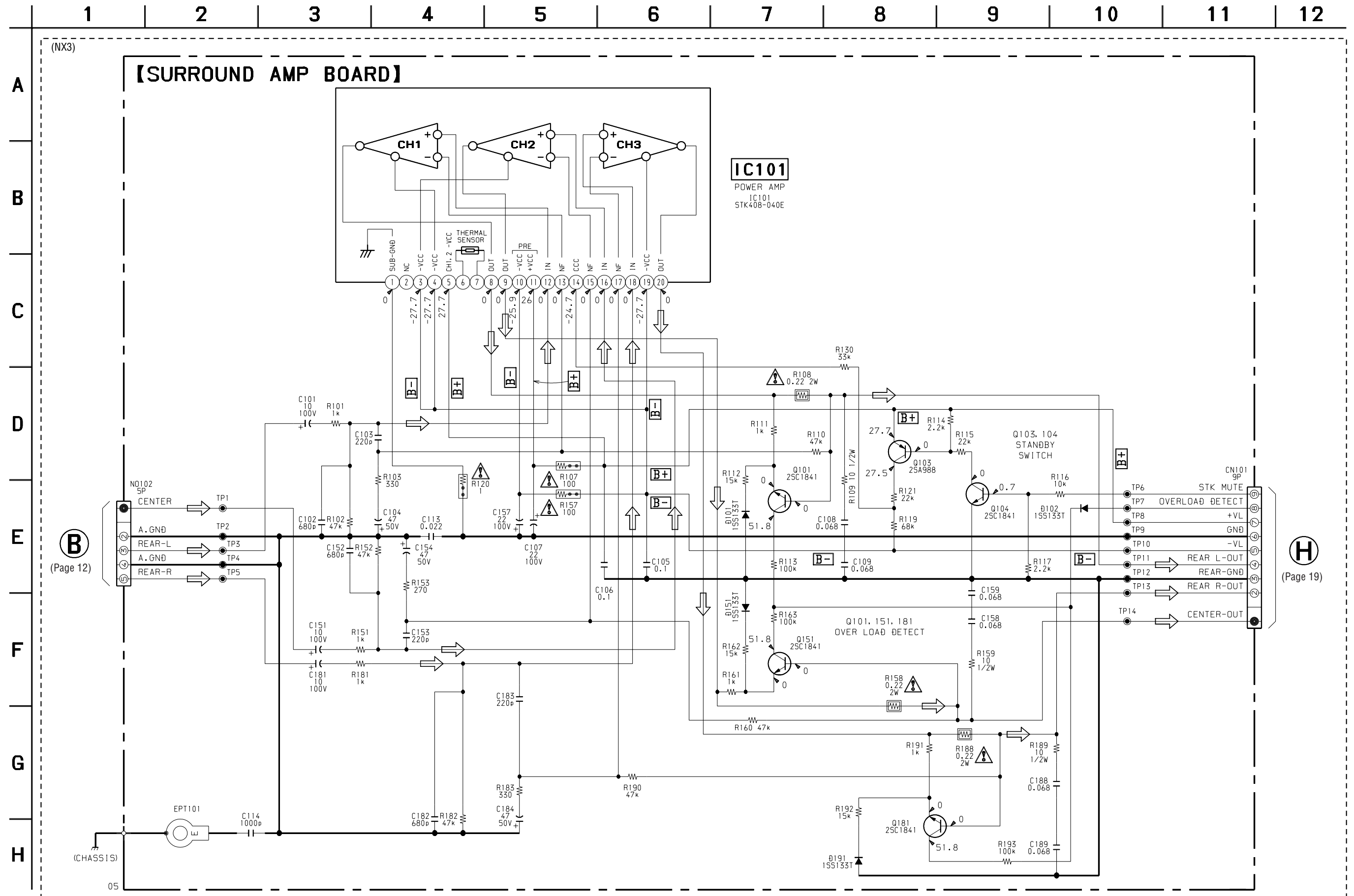
5-4. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 11 for IC Block Diagram.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D141	A-8	IC921	C-2
D216	E-9		
D501	B-2	Q112	A-8
D502	D-1	Q113	A-8
D503	D-1	Q114	G-6
D504	E-1	Q162	A-9
D505	E-1	Q163	A-9
D506	E-1	Q164	G-6
D507	F-1	Q191	G-11
D508	E-2	Q281	D-8
D510	C-1	Q282	D-7
D901	B-5	Q291	D-8
D902	A-5	Q411	D-5
D903	B-5	Q421	C-3
D904	A-4	Q431	E-6
D905	A-6	Q432	D-6
D906	A-6	Q461	D-5
D914	A-3	Q501	F-1
D915	B-3	Q502	F-1
D920	B-4	Q503	F-1
D921	B-3	Q901	A-6
D922	E-7	Q902	A-6
D923	E-7	Q903	A-6
D924	D-6	Q904	A-3
D925	B-4	Q905	A-3
D931	A-4	Q906	B-3
D932	A-4	Q907	B-4
		Q921	B-3
		Q923	C-3
IC101	B-9	Q924	B-3
IC201	E-9	Q951	B-6
IC401	E-5	Q952	B-6
IC501	E-3	Q953	B-6
IC502	E-1		
IC901	A-2		

5-7. SCHEMATIC DIAGRAM – SURROUND AMP Board –



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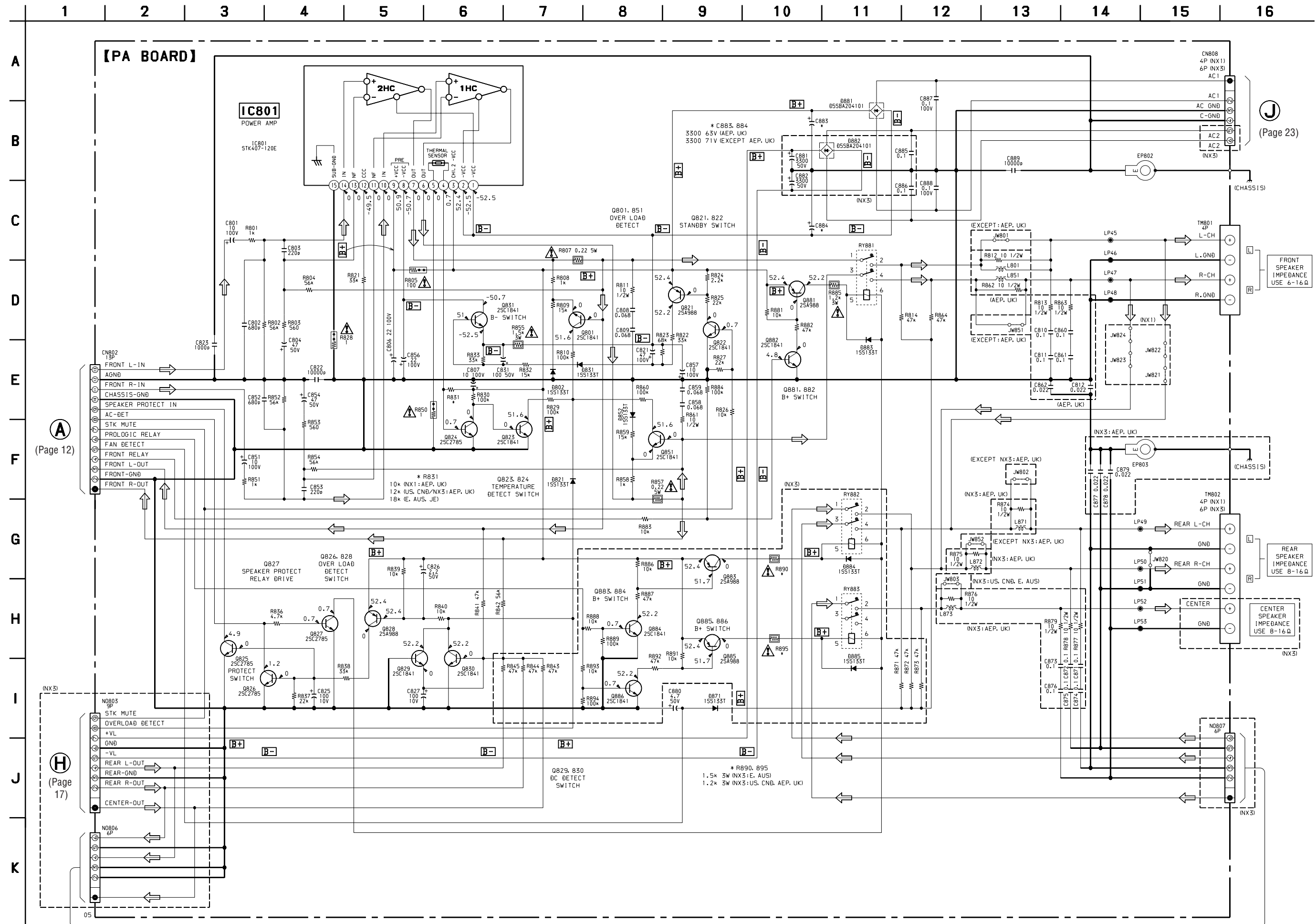
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The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

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5-9. SCHEMATIC DIAGRAM - PA Board -

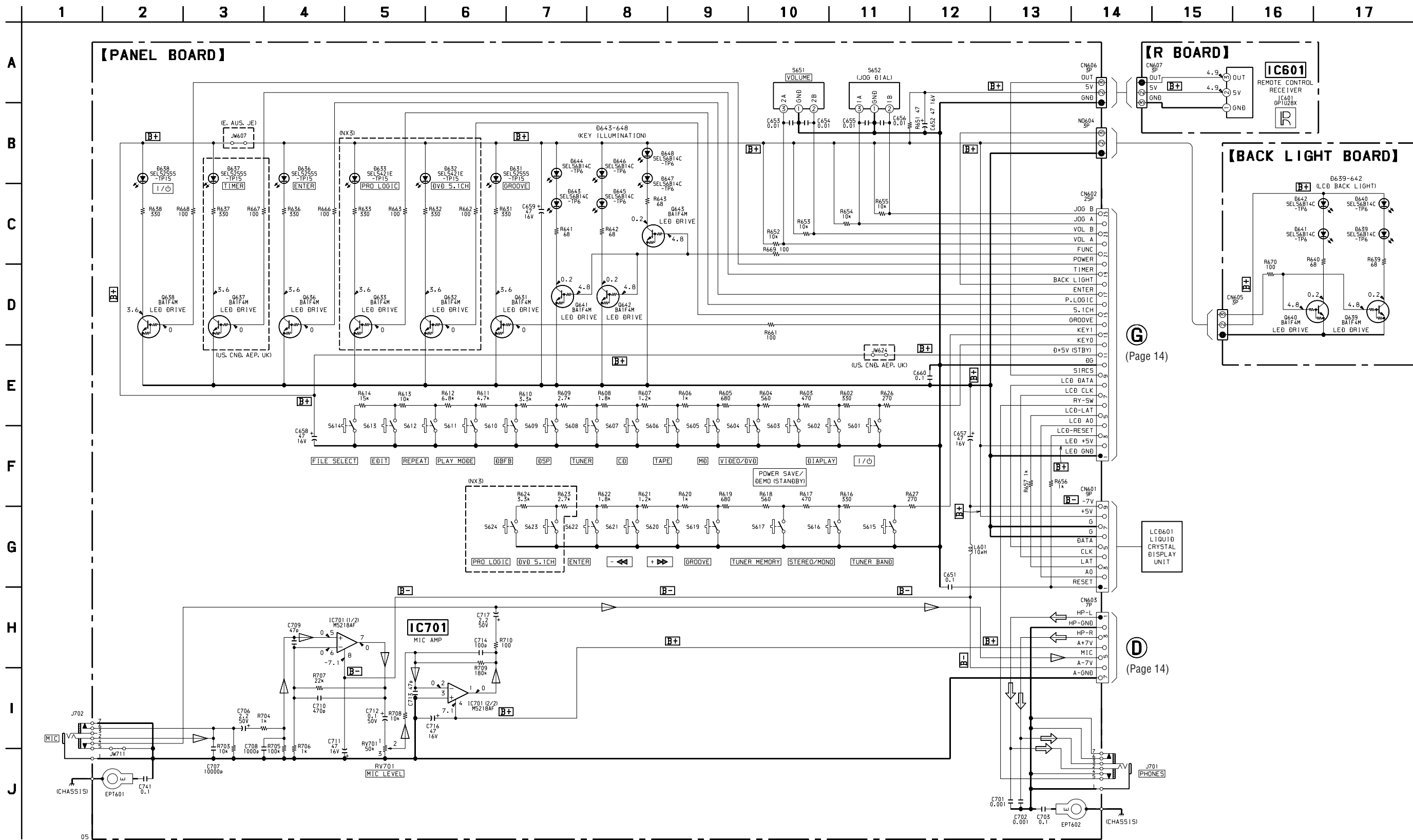


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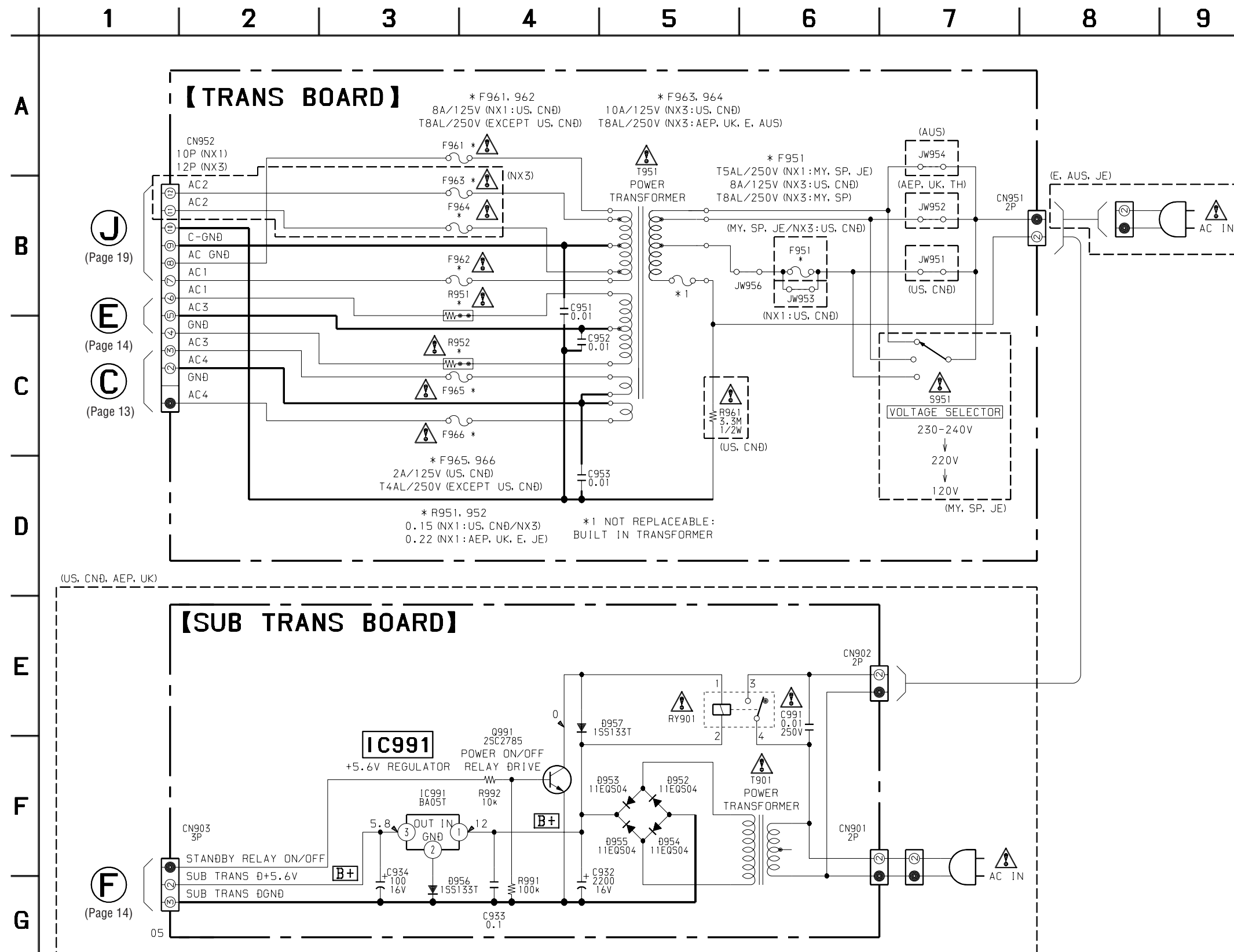
5-11. SCHEMATIC DIAGRAM - PANEL Section -



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5-13. SCHEMATIC DIAGRAM – TRANSFORMER Section –



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

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