

# STR-DE825/V818

## SERVICE MANUAL

US Model  
Canadian Model  
E Model  
Australian Model  
STR-DE825  
Chinese Model  
STR-V818



Photo : STR-DE825

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### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

##### POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm loads, both channels driven, from 20 - 20,000 Hz; rated  
100 watts per channel minimum RMS power, with no more than  
0.09% total harmonic distortion from 250 milliwatts to rated output  
(USA model only).

#### Amplifier section

##### POWER OUTPUT

**Stereo mode** (8 ohms 20 Hz - 20 kHz, THD 0.09%)

100 W + 100 W

**Surround mode** (8 ohms at 1 kHz, THD 0.8%)

Front: 100 W/ch

Center<sup>a)</sup>: 100 W

Rear<sup>a)</sup>: 100 W/ch

a) Depending on the sound field settings and the source, there may be no  
sound output.

##### Dynamic power output

155 W + 155 W, 8 ohms

220 W + 220 W, 4 ohms

##### Harmonic distortion at rated output

Less than 0.09% (with sound field, tone, and bass  
booster bypassed)

##### Frequency response

PHONO: RIAA

equalization curve

$\pm 0.5$  dB

CD, TAPE, MD/DAT, TAPE/MD, DVD/LD, TV/DBS,  
VIDEO 1 and VIDEO 2 :

10 Hz - 50 kHz  $+0.5/-2$  dB (with sound field, tone,  
and bass booster bypassed)

##### Inputs (Analog) PHONO:

Sensitivity: 2.5 mV

Impedance: 50 kilohms

S/N<sup>b)</sup>: 75 dB (A, 2.5 mV<sup>c)</sup>)

CD, DVD/LD, TAPE, MD/DAT, TAPE/MD, TV/DBS,

VIDEO 1 and VIDEO 2 :

Sensitivity: 150 mV

Impedance: 50 kilohms

S/N<sup>b)</sup>: 82 dB (A, 150 mV<sup>c)</sup>)

b) 78' IHF

c) Weighted network, input level

##### Inputs (Digital) DVD/LD (coaxial):

Sensitivity: -

Impedance: 75 ohms

S/N: 100 dB (A, 20 kHz LPF)

DVD/LD, TV/DBS, MD/DAT (Optical):

Sensitivity: -

Impedance: -

S/N: 100 dB (A, 20 kHz LPF)

##### Outputs

TAPE, MD/DAT, TAPE/MD, (REC OUT); VIDEO 1, 2

(AUDIO OUT):

Voltage: 150 mV

Impedance: 10 kilohms

WOOFER:

Voltage: 2 V

Impedance: 1 kilohms

PHONES:

Accepts low - and high-impedance headphones

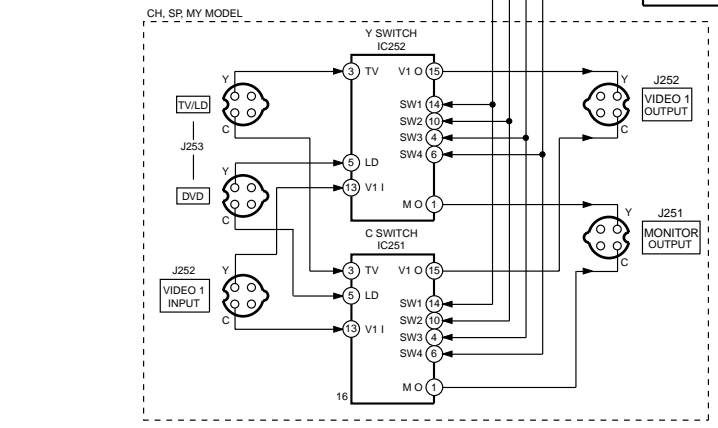
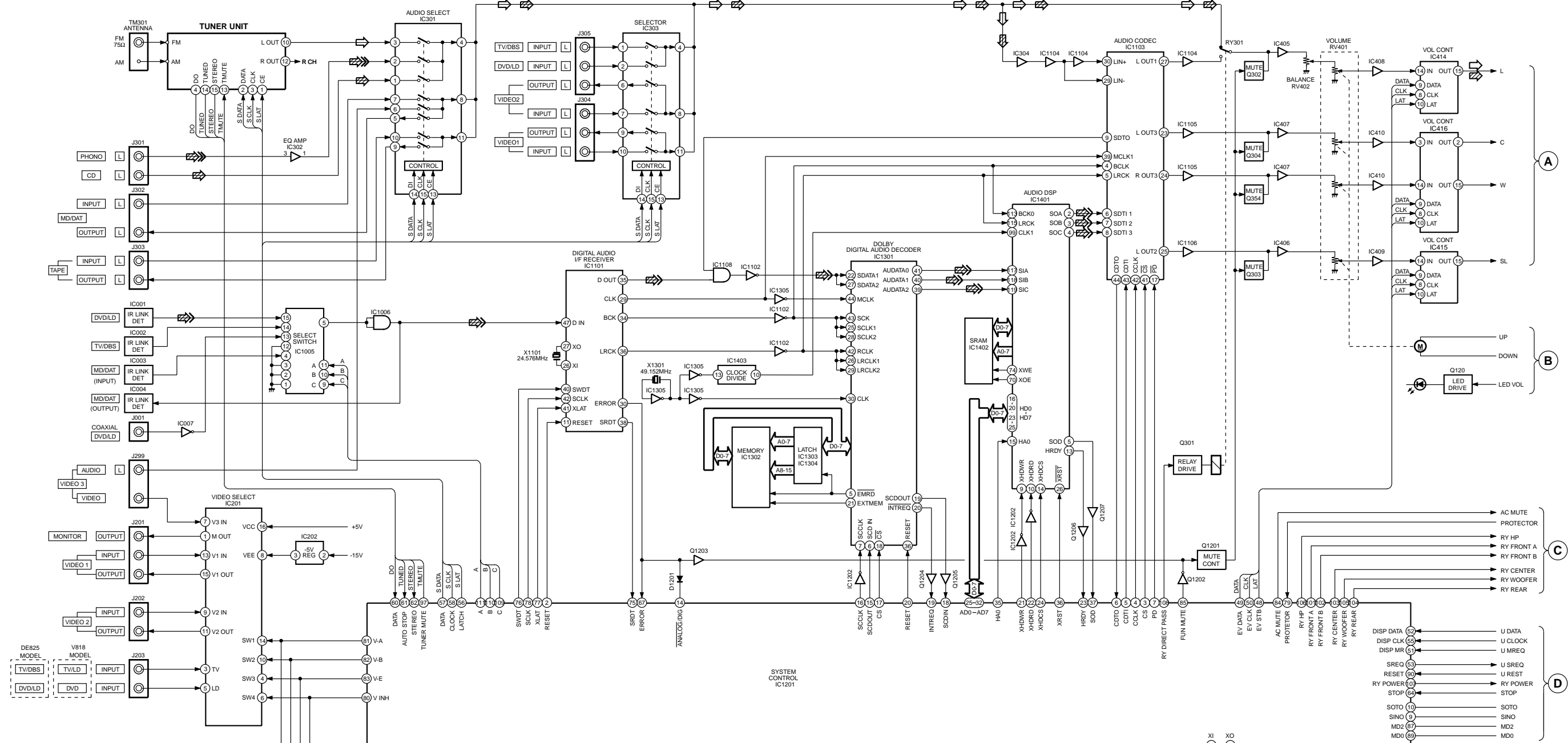
— Continued on next page —

## FM STEREO FM-AM RECORDER



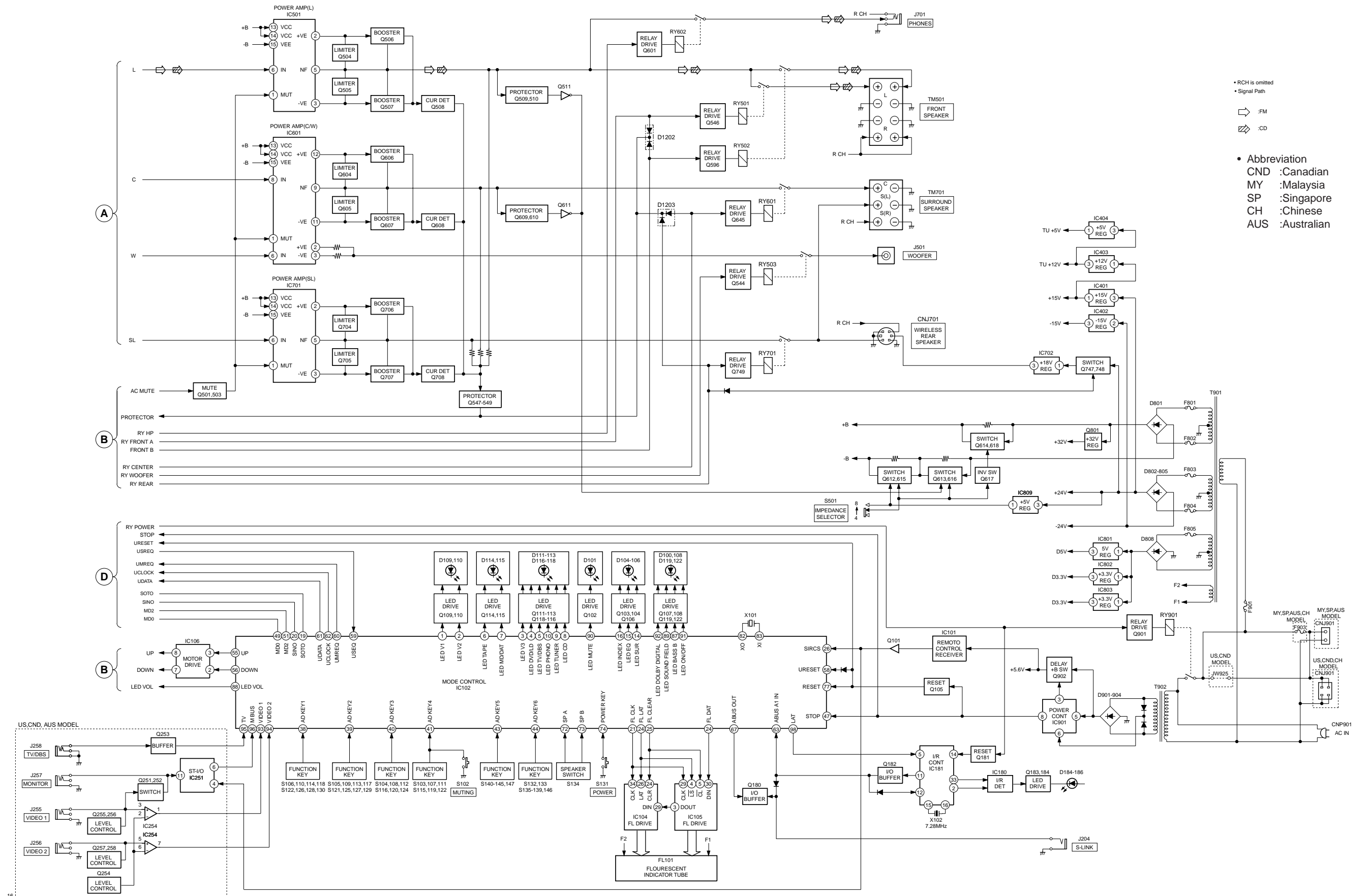
# SONY®

3-2. BLOCK DIAGRAM – MAIN SECTION –



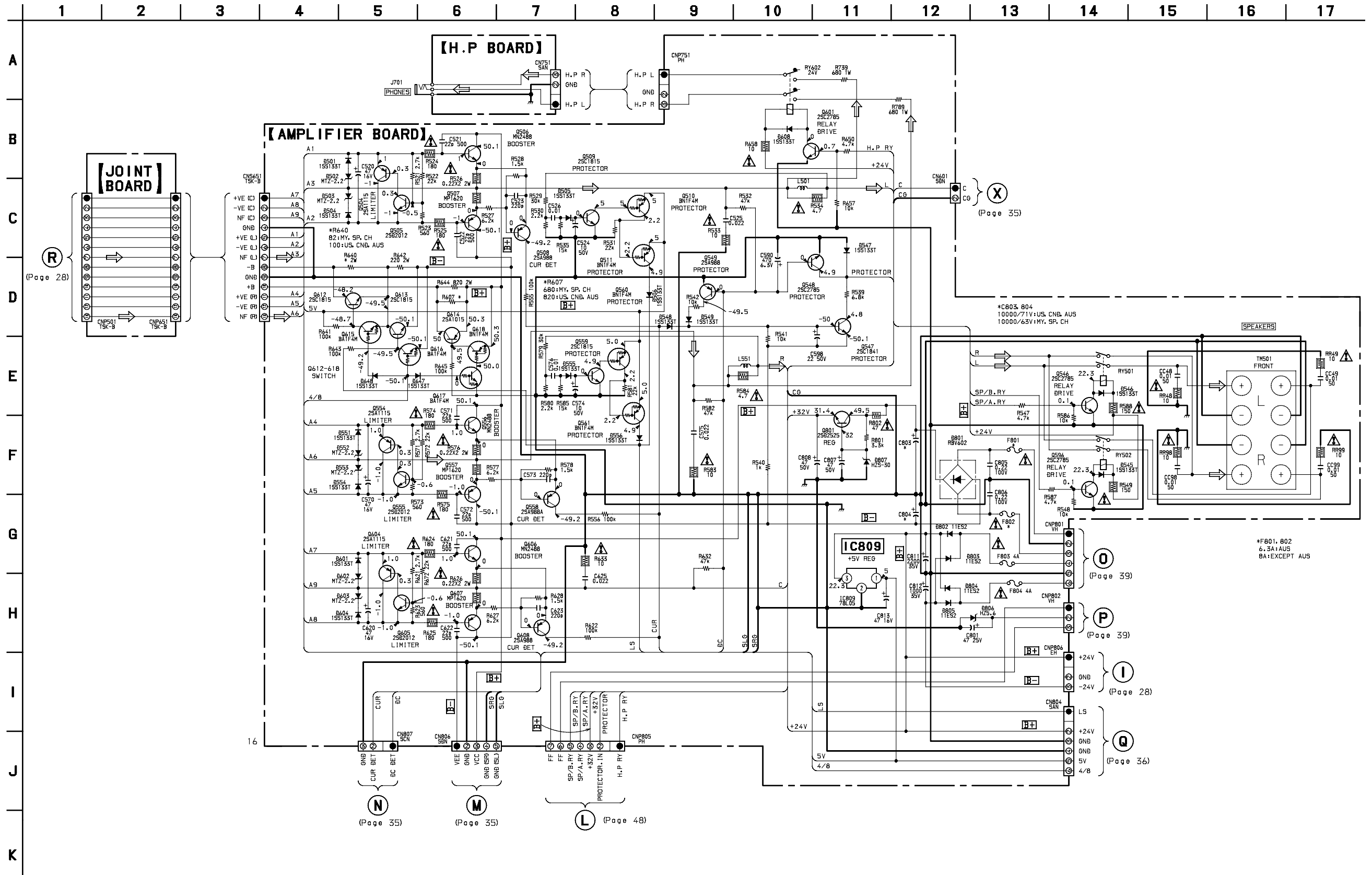
- RCH is omitted
  - Signal Path
  - ◻ : FM
  - ◻◻◻ : PHONO
  - ◻◻ : CD
  - ◻◻◻◻ : DIGITAL
- 
- Abbreviation
  - CND :Canadian
  - EA :Saudi Arabia
  - MY :Malaysia
  - SP :Singapore
  - CH :Chinese
  - AUS :Australian

3-3. BLOCK DIAGRAM – POWER SECTION –

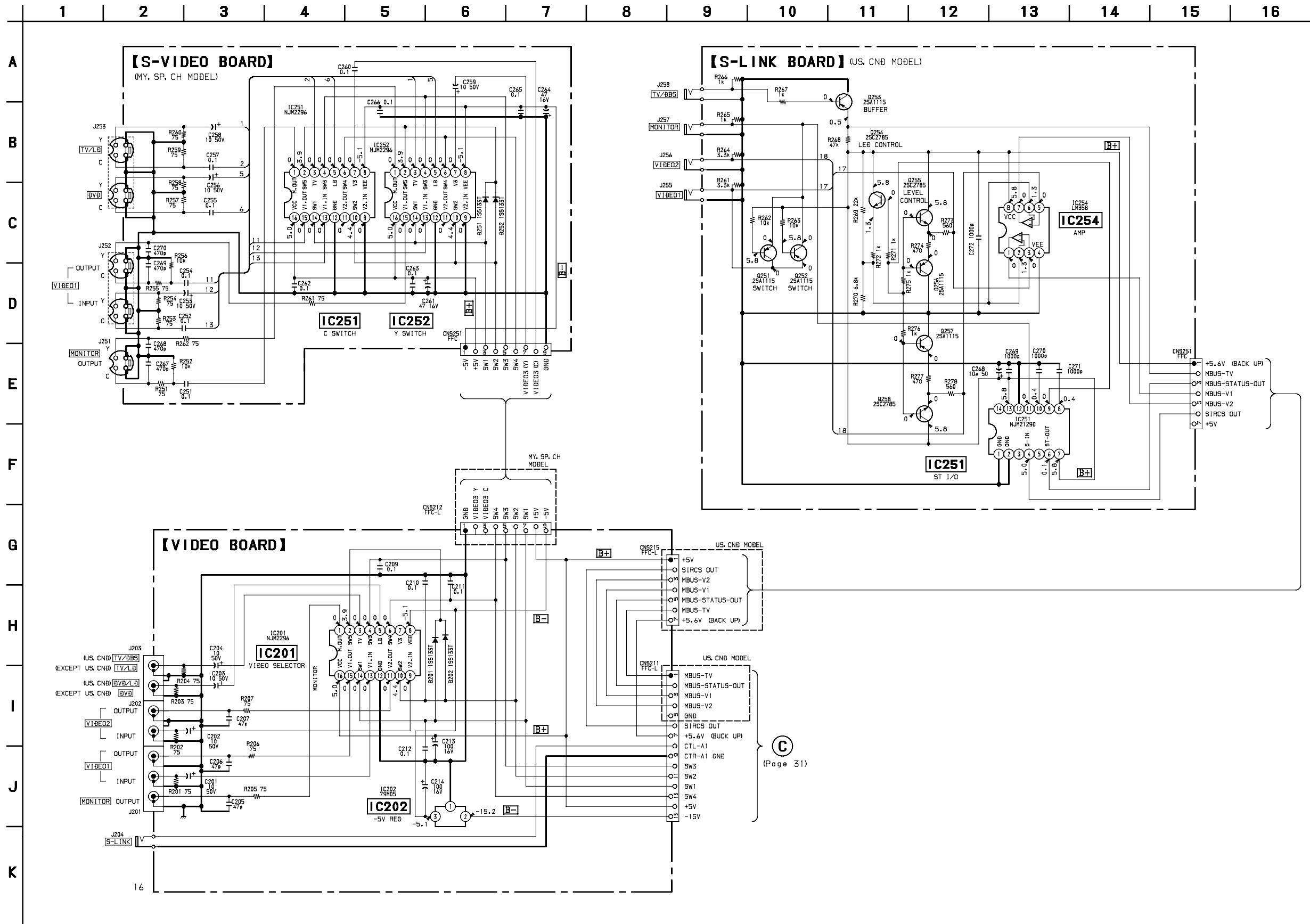


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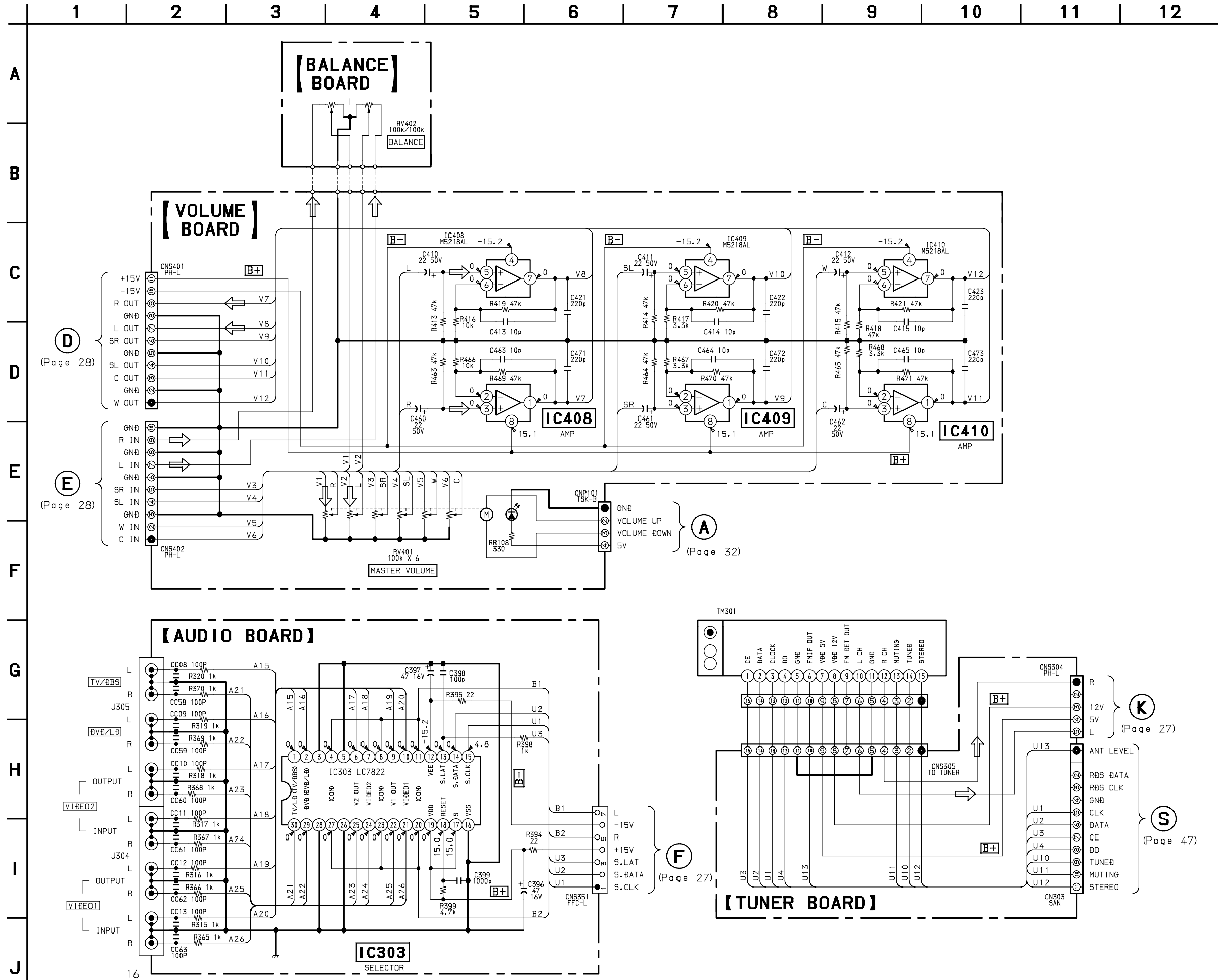
3-5. SCHEMATIC DIAGRAM — AMP SECTION —



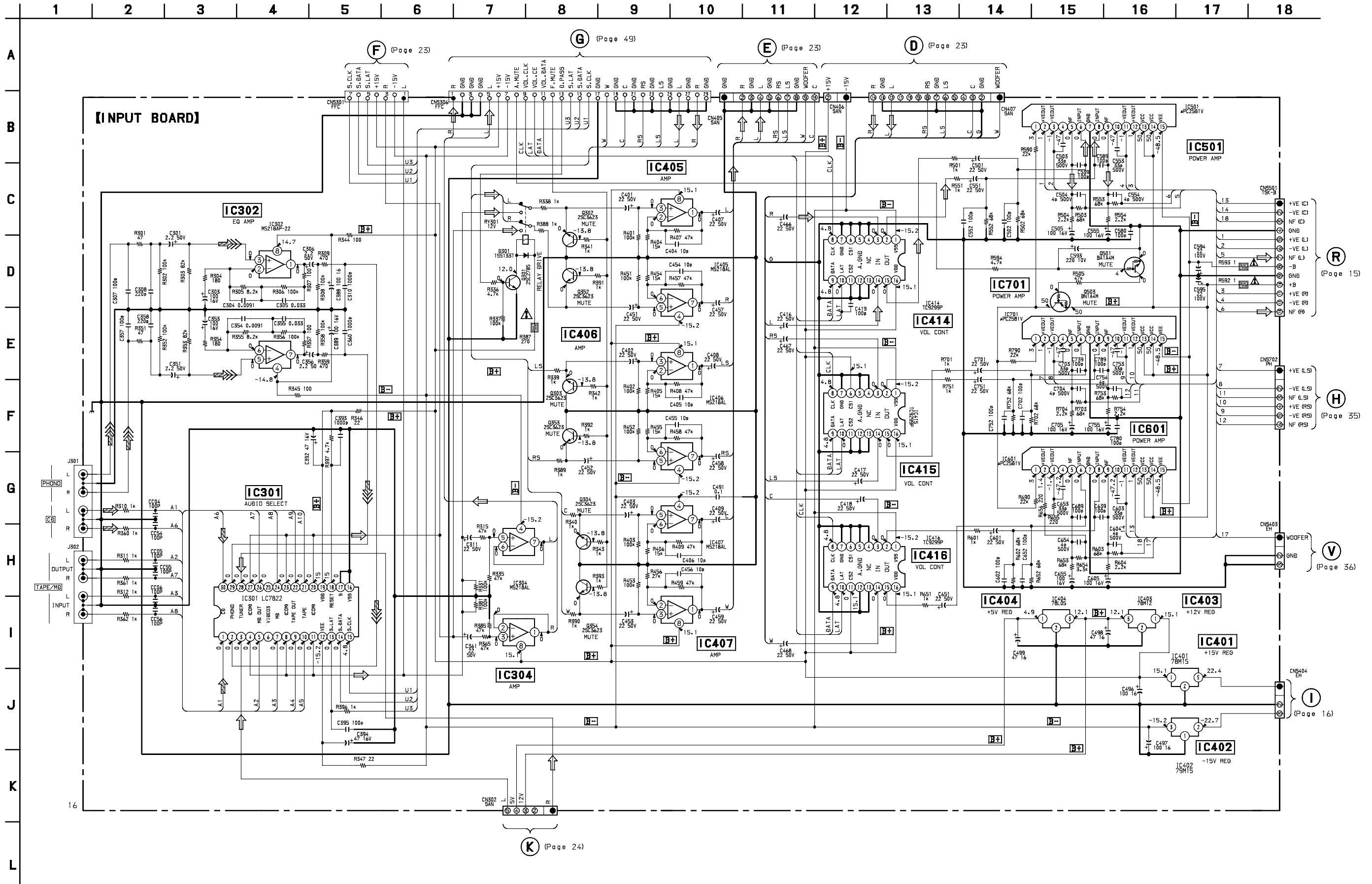
3-7. SCHEMATIC DIAGRAM — VIDEO SECTION — • See pages 60 for IC Block Diagrams.



3-9. SCHEMATIC DIAGRAM — AUDIO SECTION —

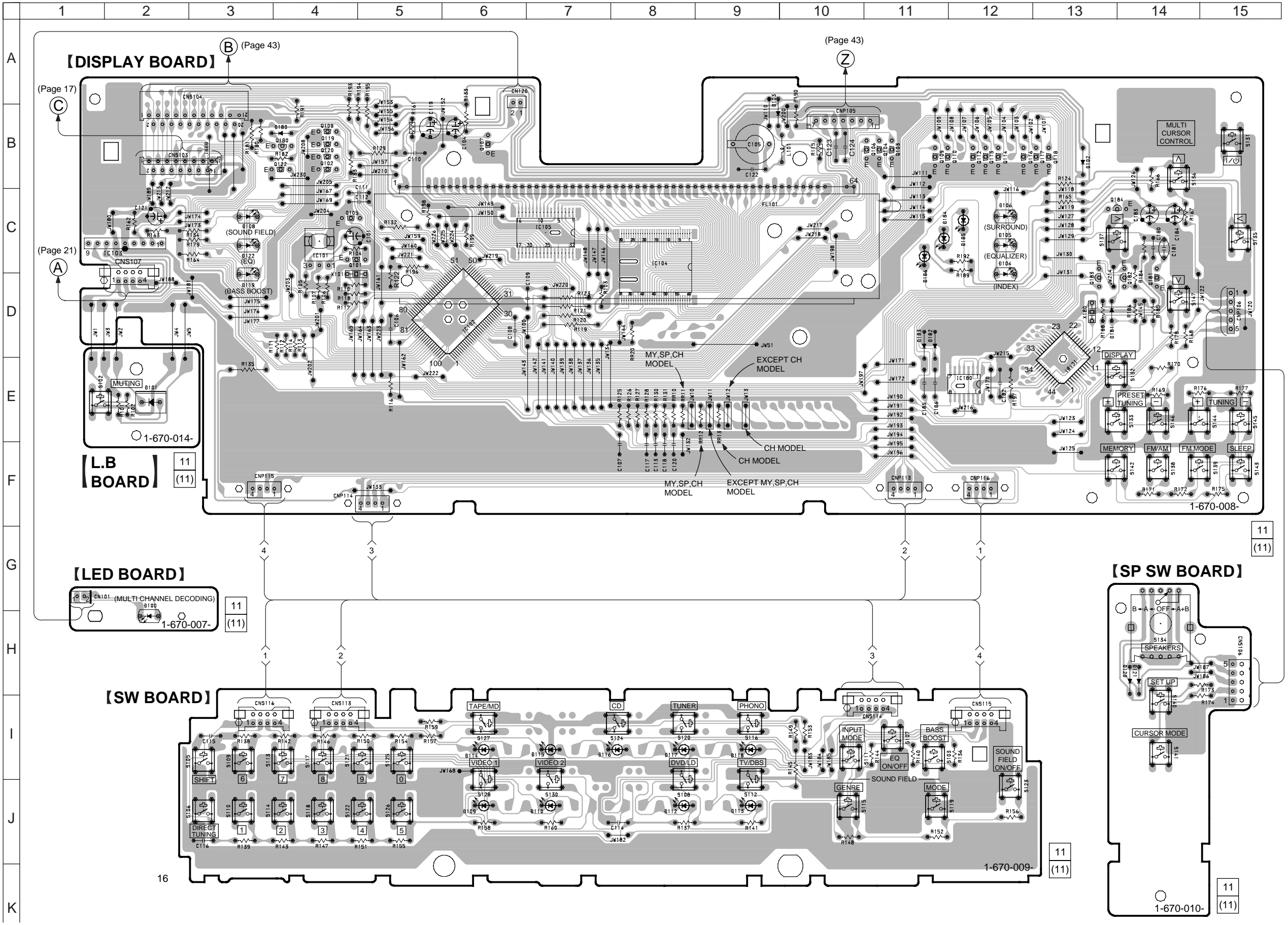


3-11. SCHEMATIC DIAGRAM — INPUT SECTION — • See page 60 for IC Block Diagrams.



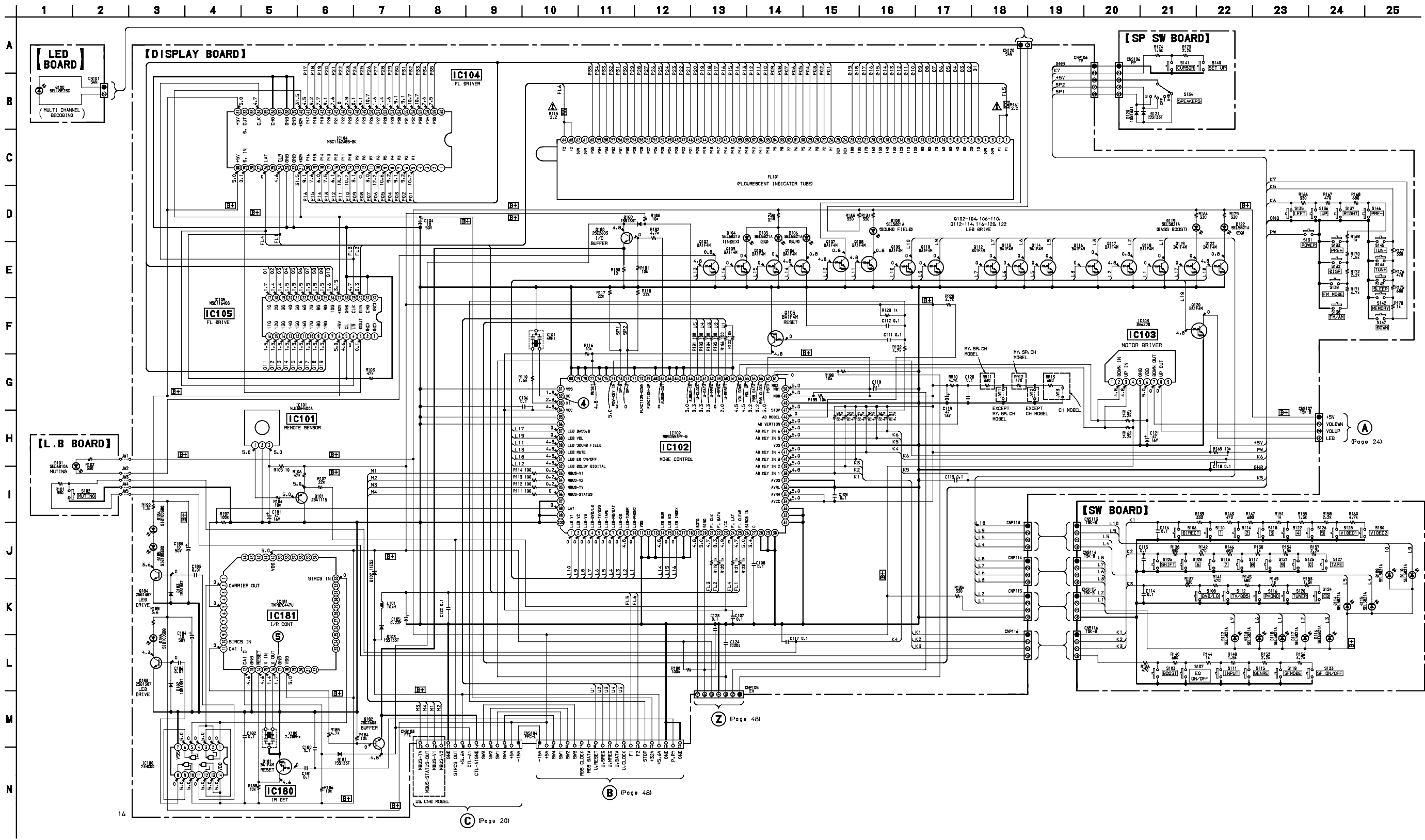
• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D100     | H-2      |
| D101     | E-2      |
| D102     | B-13     |
| D103     | B-9      |
| D104     | C-12     |
| D105     | C-12     |
| D106     | C-12     |
| D108     | C-3      |
| D109     | J-6      |
| D110     | J-7      |
| D111     | J-7      |
| D112     | J-8      |
| D113     | J-9      |
| D114     | I-6      |
| D115     | I-7      |
| D116     | I-7      |
| D117     | I-8      |
| D118     | I-9      |
| D119     | D-3      |
| D120     | I-13     |
| D121     | I-14     |
| D122     | C-3      |
| D180     | B-3      |
| D181     | D-13     |
| D182     | E-11     |
| D183     | E-11     |
| D184     | C-11     |
| D185     | C-12     |
| D186     | C-11     |
| IC101    | C-4      |
| IC102    | D-6      |
| IC103    | C-1      |
| IC104    | D-8      |
| IC105    | C-7      |
| IC180    | E-12     |
| IC181    | E-13     |
| Q101     | C-4      |
| Q102     | B-4      |
| Q103     | B-11     |
| Q104     | B-11     |
| Q105     | C-4      |
| Q106     | B-11     |
| Q107     | B-6      |
| Q108     | B-4      |
| Q109     | B-11     |
| Q110     | B-11     |
| Q111     | B-12     |
| Q112     | B-12     |
| Q113     | B-12     |
| Q114     | B-12     |
| Q115     | B-12     |
| Q116     | B-12     |
| Q117     | B-13     |
| Q118     | B-13     |
| Q119     | B-4      |
| Q120     | B-4      |
| Q122     | B-3      |
| Q180     | B-3      |
| Q181     | C-14     |
| Q182     | C-14     |
| Q183     | C-13     |
| Q184     | C-13     |

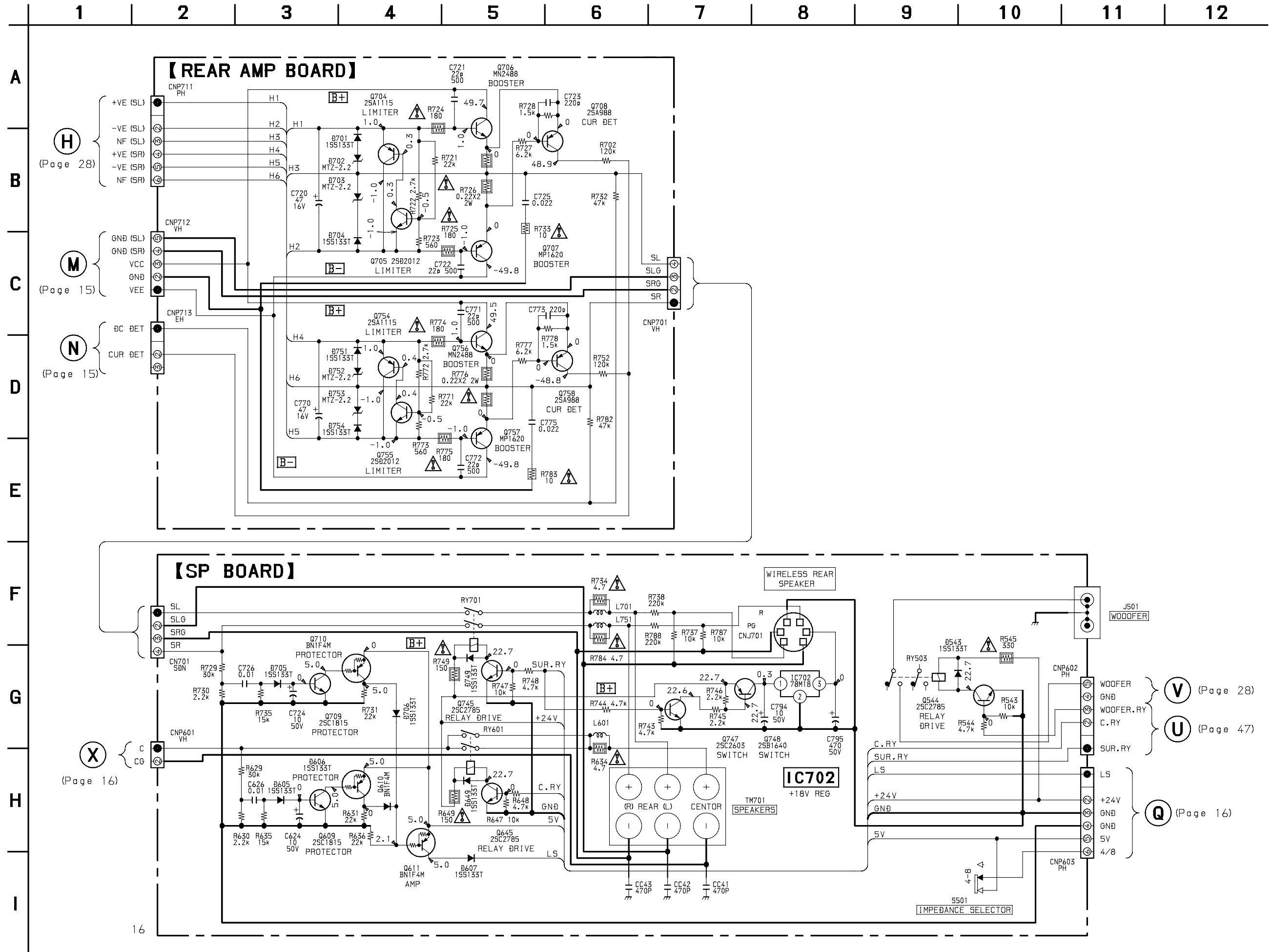




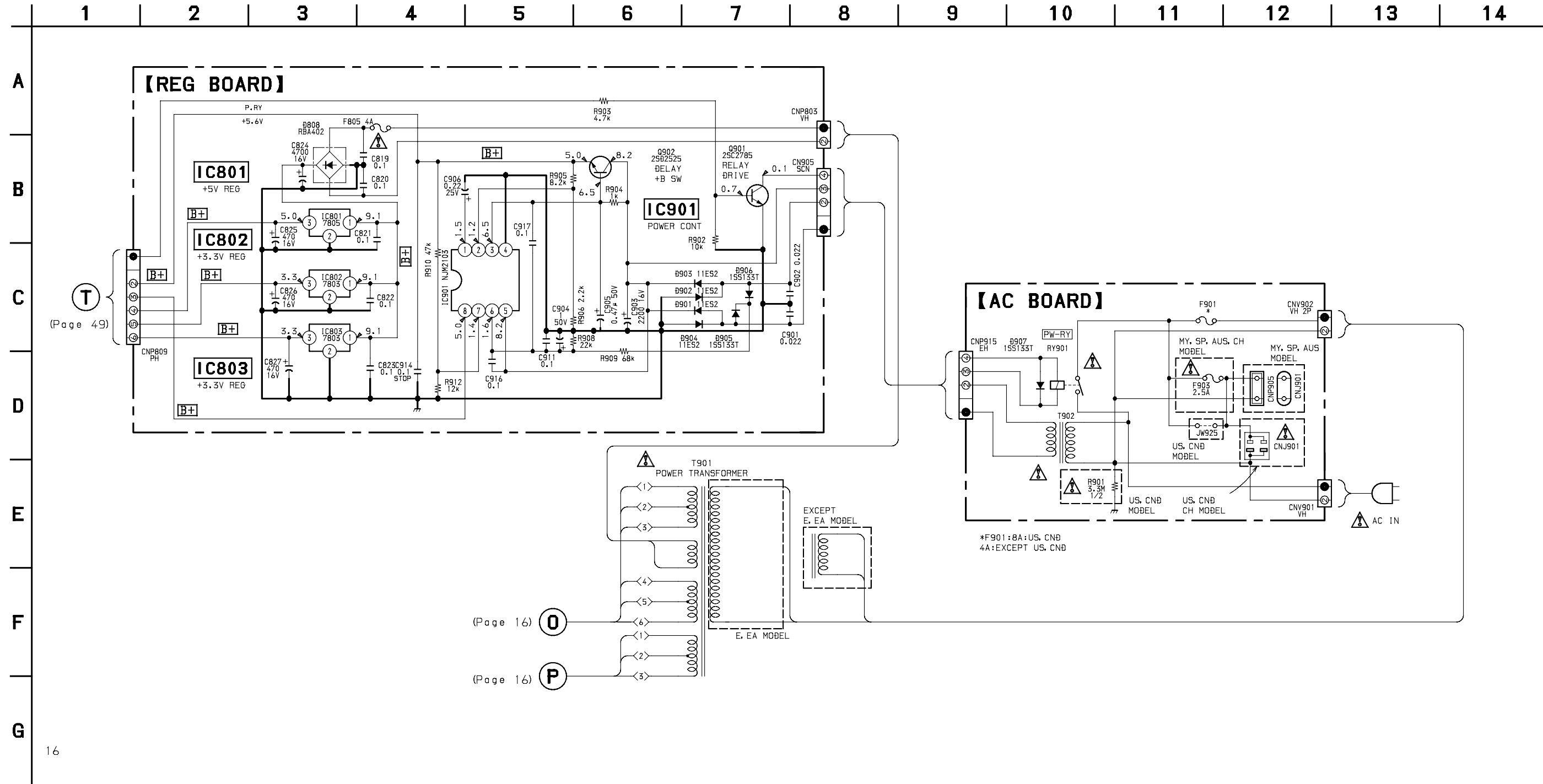
3-13. SCHEMATIC DIAGRAM — DISPLAY SECTION — • See page 8 for Waveform. • See page 51 for IC Pin Function Description. • See page 60 for IC Block Diagrams.



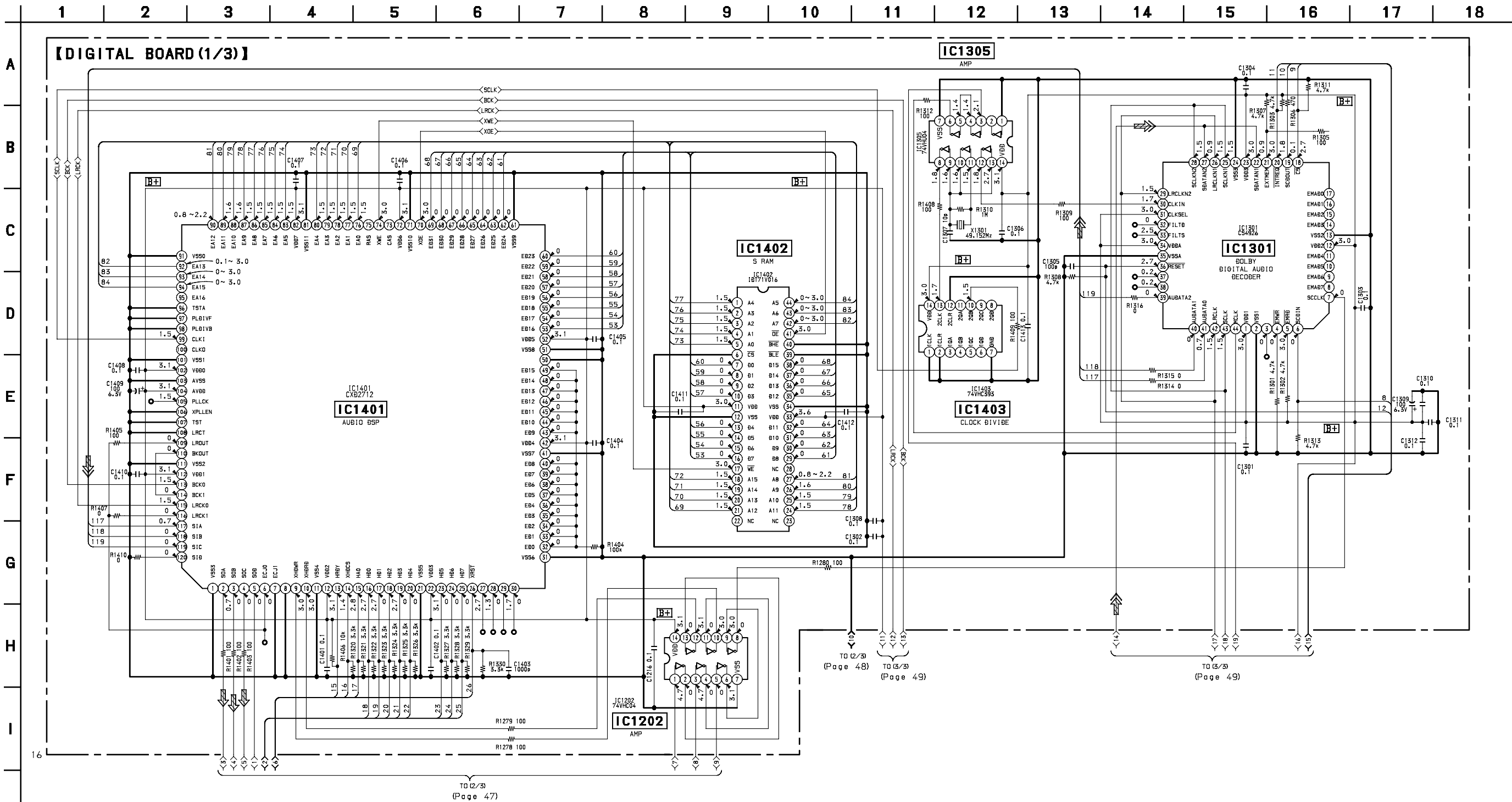
3-15. SCHEMATIC DIAGRAM — SPEAKER SECTION —



3-17. SCHEMATIC DIAGRAM — POWER SECTION — • See page 60 for IC Block Diagrams.



3-20. SCHEMATIC DIAGRAM — DIGITAL SECTION (1/3) — • See page 51 for IC Pin Functions. • See page 60 for IC Block Diagrams.



3-21. SCHEMATIC DIAGRAM — DIGITAL SECTION (2/3) — • See page 51 for IC Pin Functions. • See page 8 for Waveforms.

