

# CDX-L300/L460X

## SERVICE MANUAL

Ver 1.0 2001. 11

US Model  
Canadian Model  
CDX-L300  
E Model  
CDX-L460X



Photo: CDX-L460X

- The CD sections have no adjustments.

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS (US Model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION  
22 watts per channel minimum continuous average power into  
4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more  
than 5% total harmonic distortion.

#### CD player section

Signal-to-noise ratio 90 dB  
Frequency response 10 – 20,000 Hz  
Wow and flutter Below measurable limit  
Laser Diode Properties (CDX-L300)  
Material GaAlAs  
Wavelength 780 nm  
Emission Duration Continuous  
Laser output power Less than 44.6  $\mu$ W\*

\* This output is the value measured at a distance  
of 200 mm from the objective lens surface on the  
Optical Pick-up Block.

#### Tuner section

##### FM

Tuning range CDX-L300:  
87.5 – 107.9 MHz  
CDX-L460X:  
FM tuning interval:  
50 kHz/200 kHz  
switchable  
87.5 – 108 MHz  
(at 50 kHz step)  
87.5 – 107.9 MHz  
(at 200 kHz step)  
Antenna terminal External antenna connector  
Intermediate frequency 10.7 MHz  
Usable sensitivity 11 dBf  
Selectivity 75 dB at 400 kHz  
Signal-to-noise ratio 65 dB (stereo),  
68 dB (mono)

Model Name Using Similar Mechanism	CDX-L250/L430X NEW
CD Drive Mechanism Type	MG-393X-121//K MG-393XA-121//K
Optical Pick-up Name	KSS-720A

#### Harmonic distortion at 1 kHz

0.7% (stereo),  
0.5% (mono)

Separation 33 dB at 1 kHz  
Frequency response 30 – 15,000 Hz

#### AM

Tuning range CDX-L300:  
530 – 1,710 kHz  
CDX-L460X:  
AM tuning interval:  
9 kHz/10 kHz  
switchable  
531 – 1,602 kHz  
(at 9 kHz step)  
530 – 1,710 kHz  
(at 10 kHz step)

Antenna terminal External antenna connector  
Intermediate frequency 10.7 MHz/450 kHz  
Sensitivity 30  $\mu$ V

#### Power amplifier section

Outputs Speaker outputs  
(sure seal connectors)  
Speaker impedance 4 – 8 ohms  
Maximum power output 45 W  $\times$  4 (at 4 ohms)

– Continued on next page –

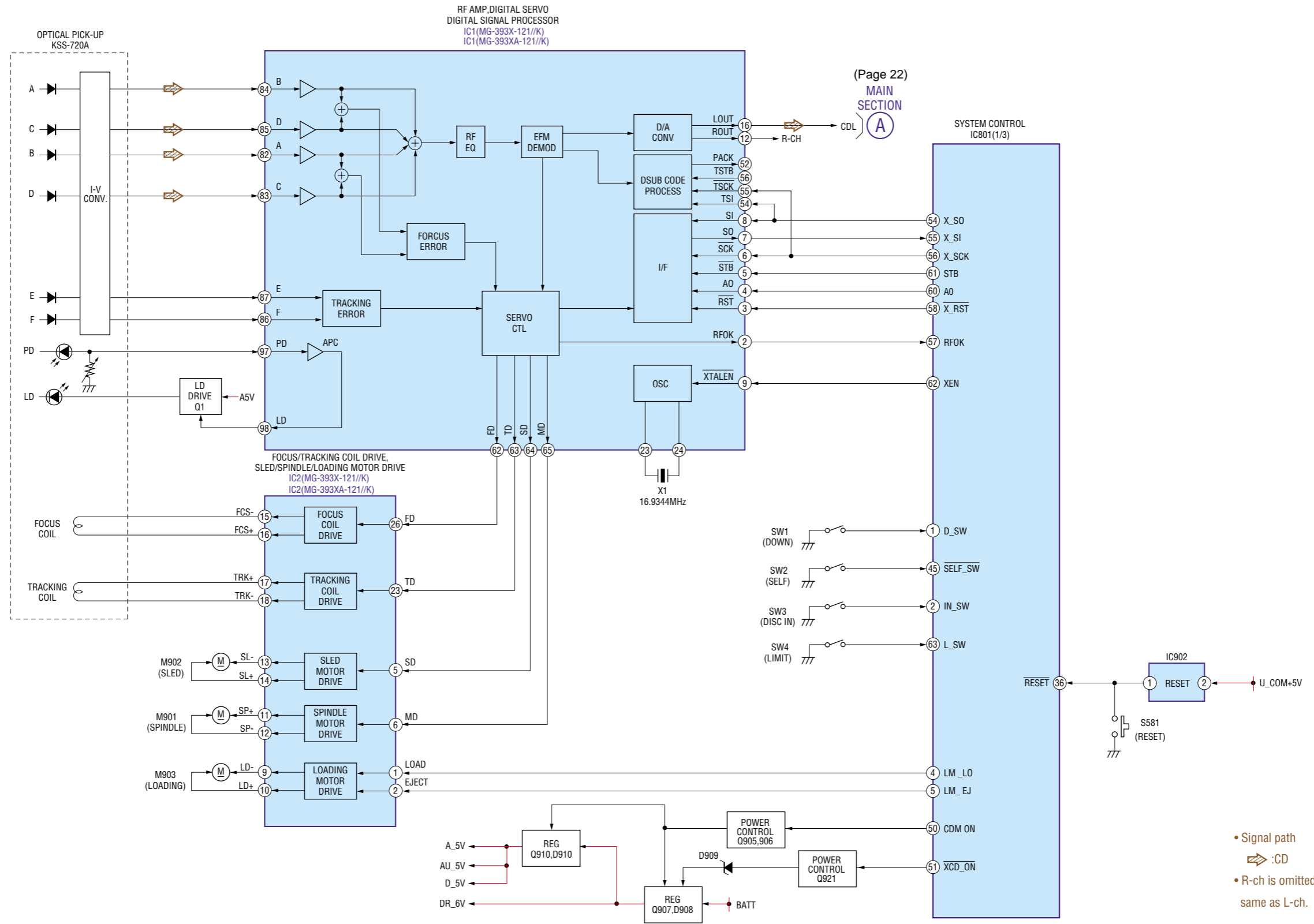
## FM/AM COMPACT DISC PLAYER

9-873-402-01  
2001K0400-1  
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e Vehicle Company  
Published by Sony Engineering Corporation

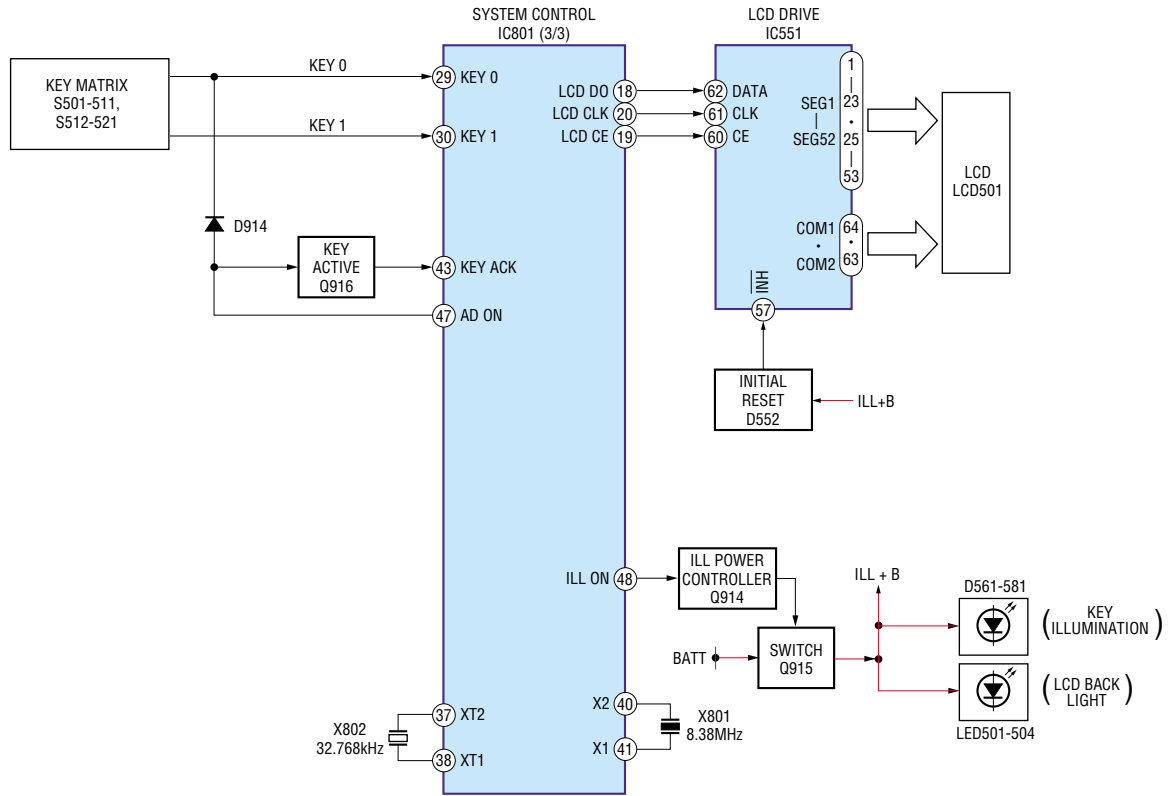
# SONY®

3-2. BLOCK DIAGRAM — CD SECTION —

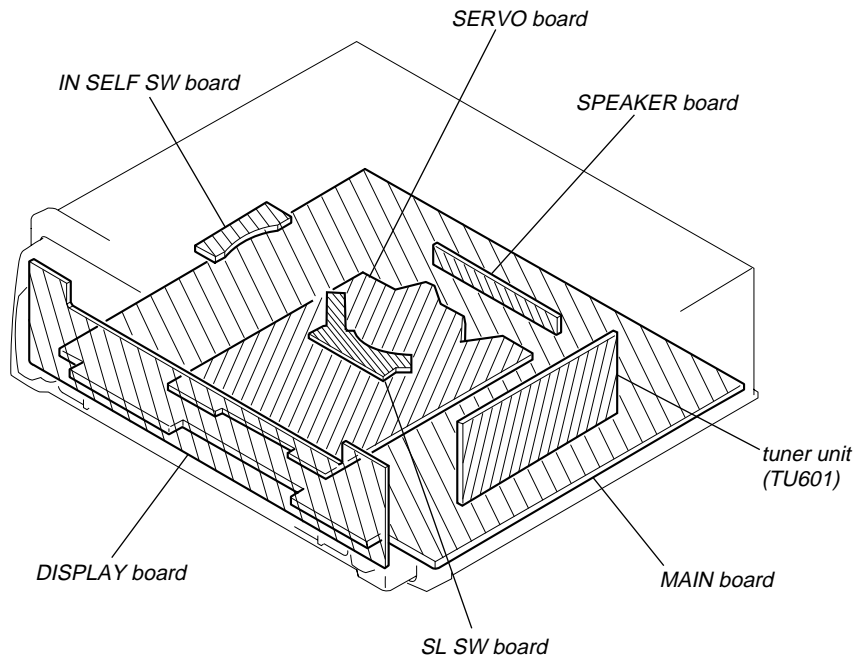




3-4. BLOCK DIAGRAM — DISPLAY SECTION —



3-5. CIRCUIT BOARDS LOCATION

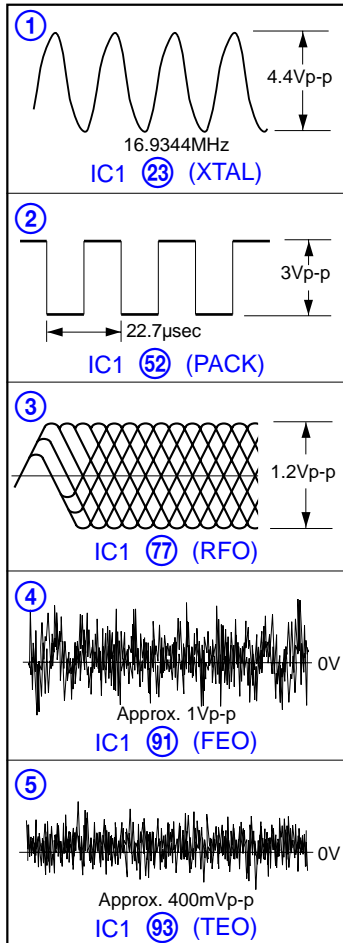


• Waveforms

— Servo Board —

(MG-393X-121//K)

(MODE: CD PLAY)

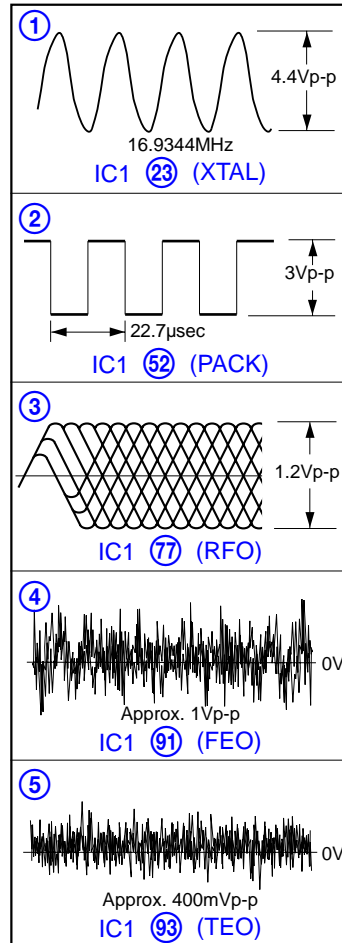


• Waveforms

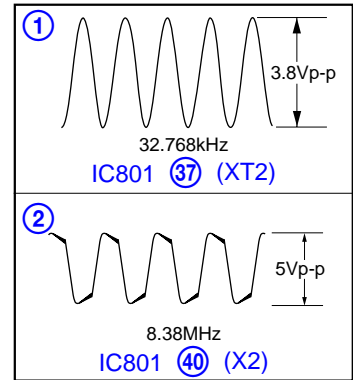
— Servo Board —

(MG-393XA-121//K)

(MODE: CD PLAY)



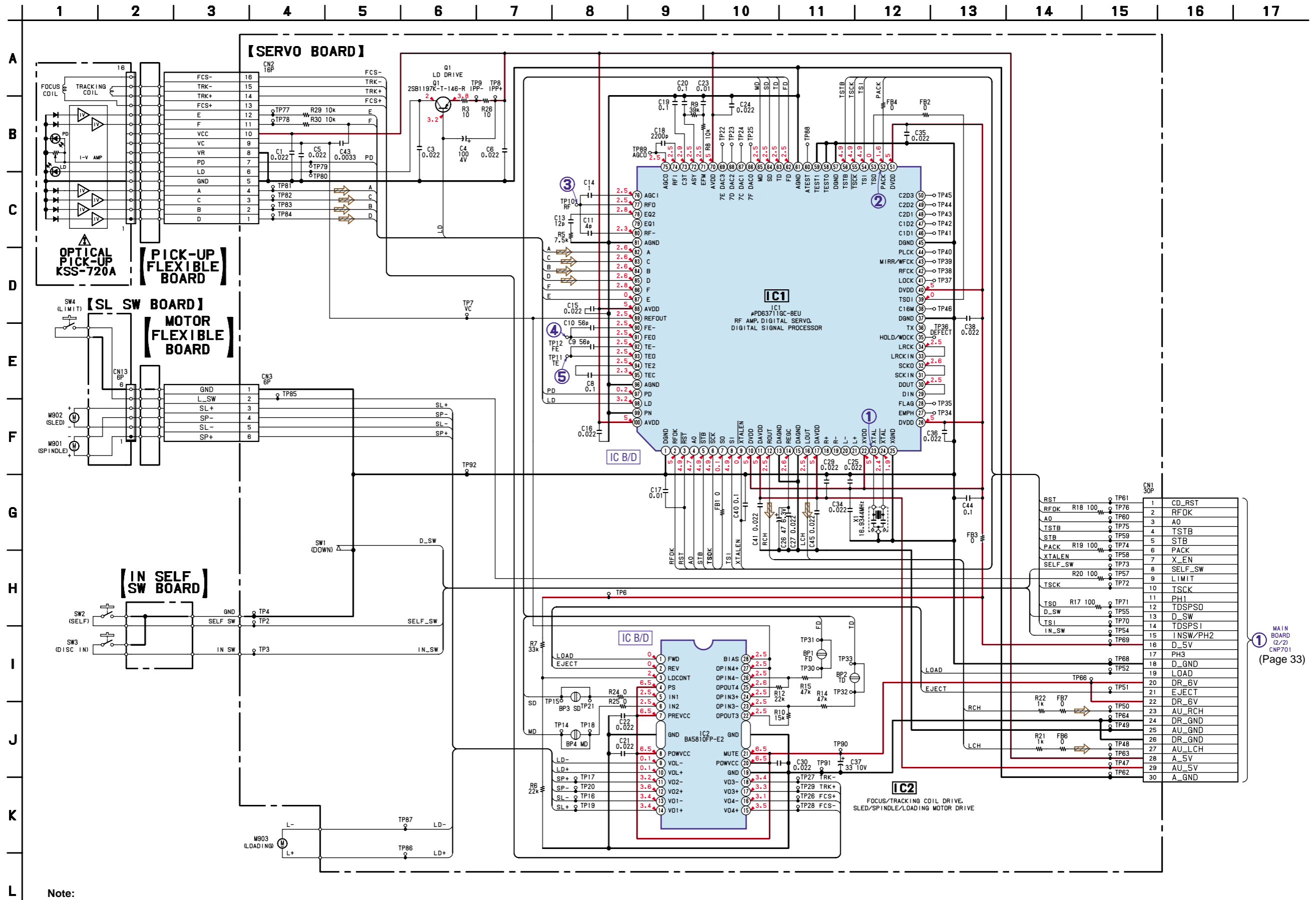
— Main Board —



3-6. SCHEMATIC DIAGRAM

• Refer to page 24 for Waveforms.

— CD MECHANISM SECTION (MG-393X-121//K) — • Refer to page 36 for IC Block Diagrams.



RST	R18 100	TP61	1	CD_RST
RFOK	R18 100	TP76	2	RFOK
AO		TP60	3	AO
TSTB		TP75	4	TSTB
STB		TP59	5	STB
PACK	R19 100	TP74	6	PACK
XTALEN		TP58	7	X_TALEN
SELF_SW		TP73	8	SELF_SW
TSCK	R20 100	TP57	9	LIMIT
		TP72	10	TSCK
TSD	R17 100	TP71	11	PHI
D_SW		TP55	12	TDSPSO
TSI		TP70	13	D_SW
IN_SW		TP54	14	TDSPSI
		TP69	15	IN_SW/PH2
		TP68	16	D_5V
		TP52	17	PH3
		TP51	18	D_GND
		TP66	19	LOAD
		TP50	20	DR_6V
		TP64	21	EJECT
		TP49	22	DR_6V
		TP48	23	AU_RCH
		TP63	24	DR_GND
		TP47	25	AU_GND
		TP46	26	DR_GND
		TP47	27	AU_LCH
		TP62	28	A_5V
			29	AU_5V
			30	A_GND

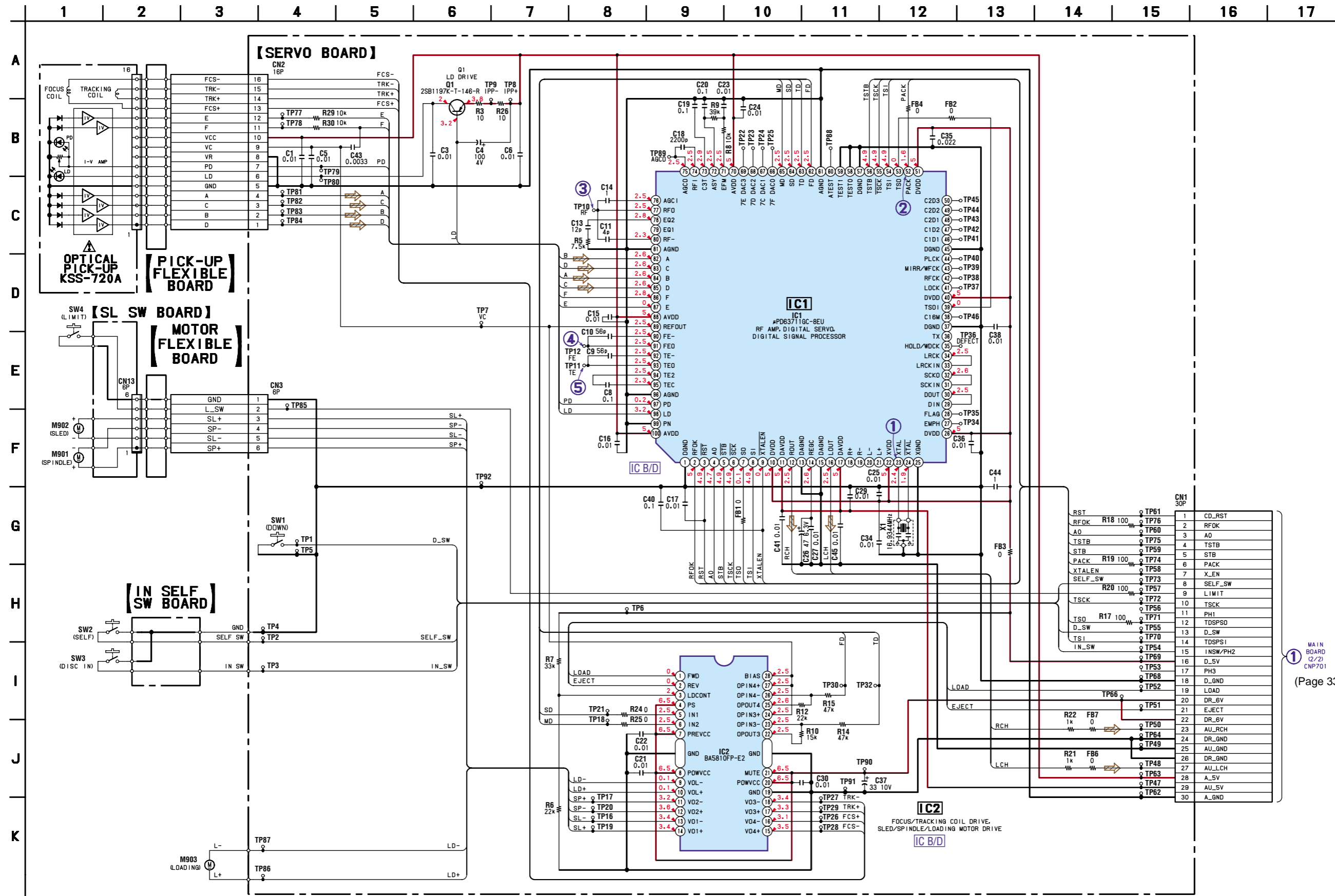
1 MAIN BOARD I2/23 CNP701 (Page 33)

**Note:**  
 • Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
 no mark : CD PLAY

3-9. SCHEMATIC DIAGRAM

• Refer to page 24 for Waveforms.

— CD MECHANISM SECTION (MG-393XA-121//K) — • Refer to page 36 for IC Block Diagrams.

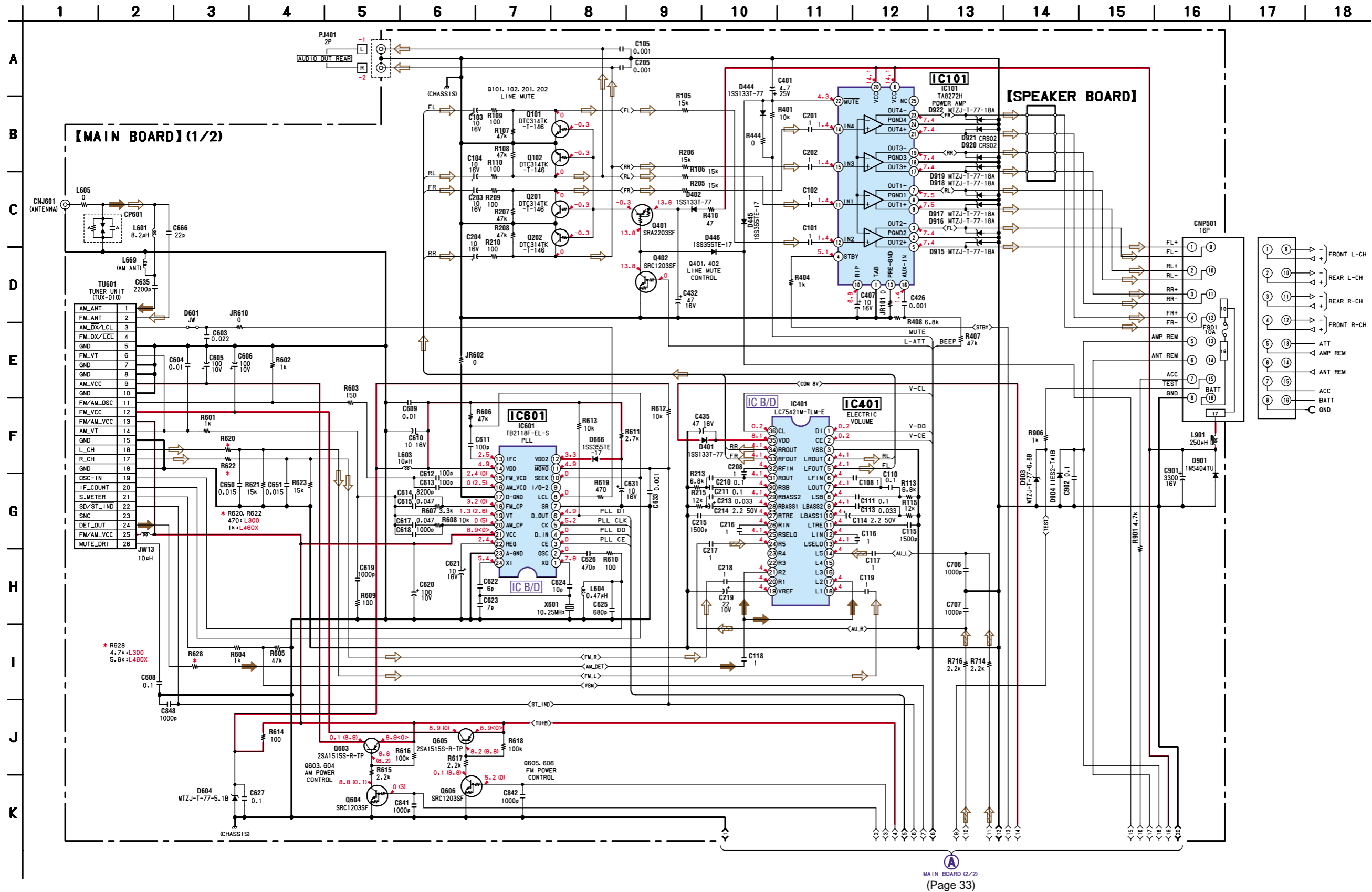


**Note:**  
 • Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
 no mark : CD PLAY

1 MAIN BOARD (2/2) CNP701 (Page 33)



3-11. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 36 for IC Block Diagrams.-

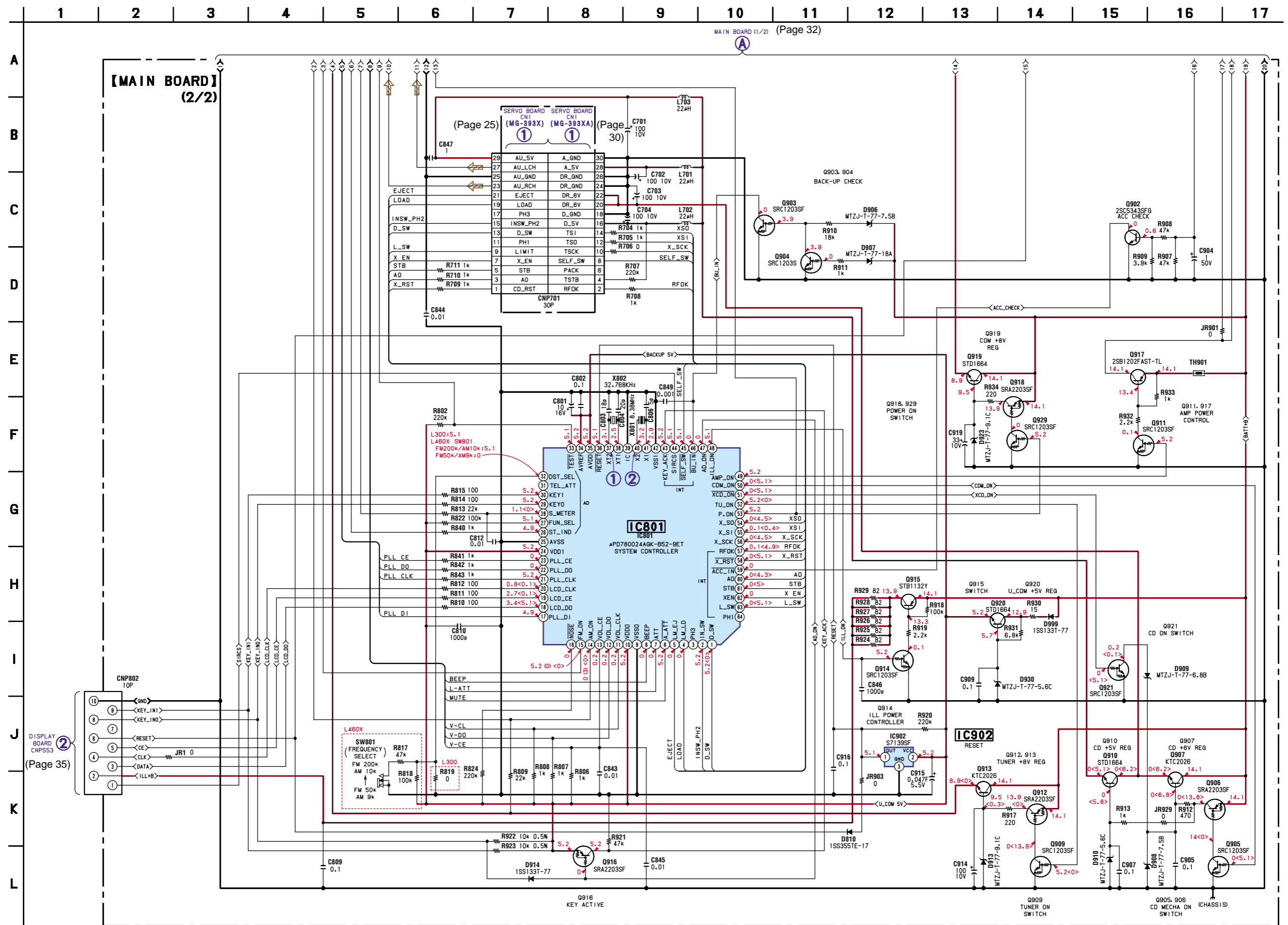


MAIN BOARD (2/2)  
(Page 33)

**Note:**  
 • Voltage is dc with respect to ground under no-signal (detuned) condition.  
 no mark : FM  
 ( ) : AM  
 < > : CD PLAY



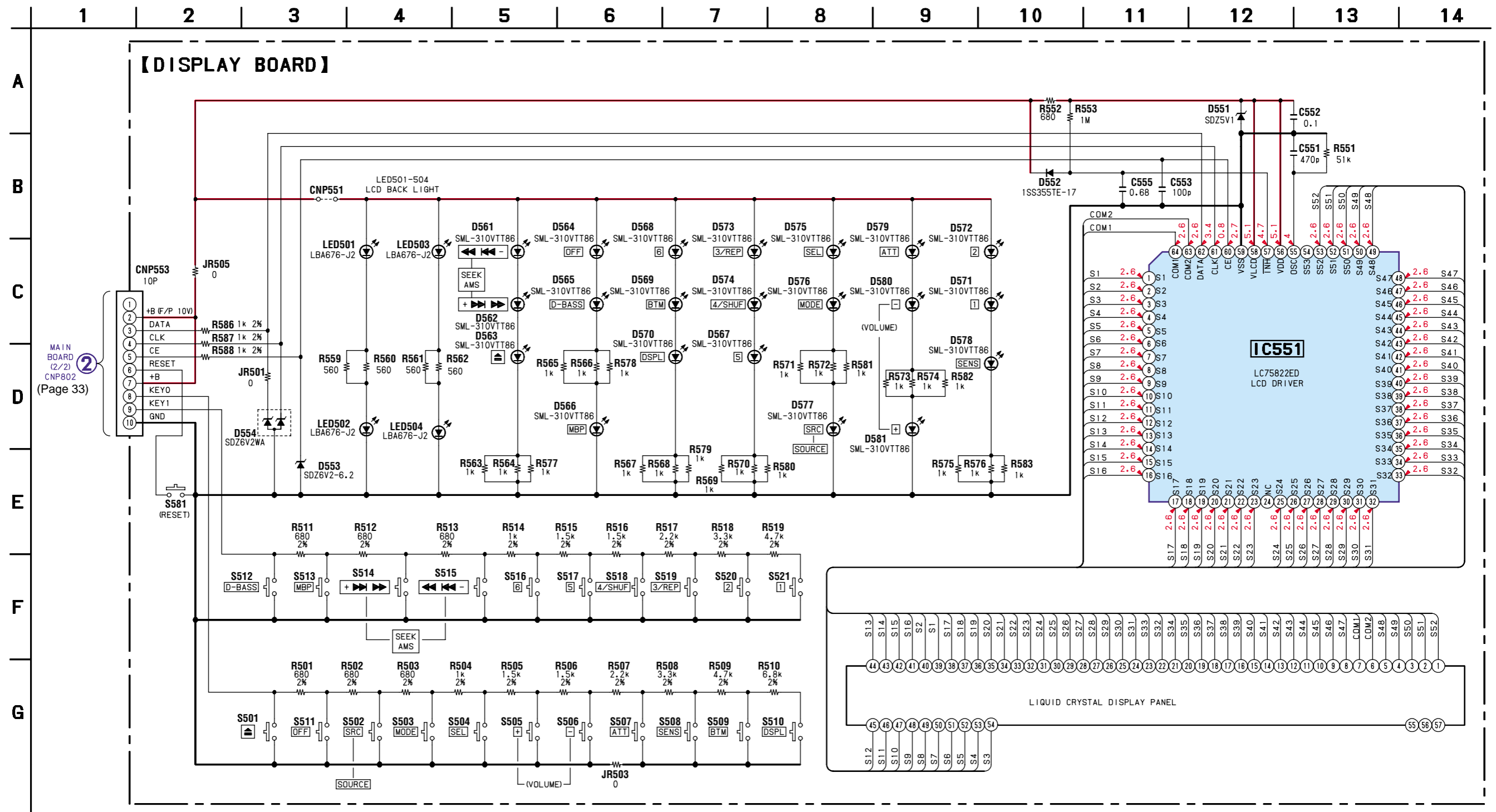
3-12. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 24 for Waveforms.



**Note:**

- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- ( ) : AM
- < > : CD PLAY

3-14. SCHEMATIC DIAGRAM — DISPLAY SECTION —



**Note:**  
 • Voltage is dc with respect to ground under no-signal (detuned) condition.  
 no mark : FM