

## Service Manual

## Compact Disc Hi-Fi Stereo System

**DC - X900** (EUROPE)  
(SPAIN)



### Specifications

**PRODUCT CODE No.**  
129 353 01 (Europe)  
129 353 02 (Spain)


**Note :**

The below mentioned specifications are mainly based on the IHF measurements standard. They can therefore not directly be compared with specifications based on the DIN standard or other standards.

<b>Tuner</b>		<b>CD player</b>	
Frequency range .....	FM : 87.5 - 108 MHz MW : 522 - 1,611 kHz LW : 144 - 290 kHz	Channels .....	2-channel stereo
<b>Amplifier</b>		Sampling frequency .....	44.1 kHz
Output power .....	Max. 25W × 2 (at 8 ohms, 10% distortion)	D/A conversion .....	16-bit linear twin D/A converter
Input sensitivity / impedance .....	PHONO : 5mV / 47k ohms VIDEO : 280mV / 47k ohms	Pick-up .....	Optical 3-beam semiconductor laser
Output impedance .....	SPEAKERS : 8 ohms HEADPHONES : 8 ohms	Frequency response .....	20 - 20,000 Hz
<b>Cassette decks</b>		Signal to noise ratio .....	85 dB
Track system .....	AC bias, 4-track stereo	Channel separation .....	90 dB (1 kHz)
Frequency response .....	Chrome tapes : 40 - 15,000 Hz Normal tapes : 40 - 13,000 Hz	Distortion .....	0.12% (1 kHz)
Signal to noise ratio .....	58 dB (with DOLBY NR : ON)	Wow and flutter .....	Undetectable
Wow and flutter .....	0.12% (WRMS)	<b>General</b>	
Fast forward / rewind time .....	Approx. 120 sec. (C-60)	Power requirements .....	AC : 230V(115V), 50HZ
		Power consumption .....	90W
		Dimensions(approx.) .....	360 (W) × 328 (H) × 390 (D) mm
		Weight(approx.) .....	7.2 kg
		<b>RB-X900 remote controller</b>	
		Power source .....	DC : 3 V "R6/AA/SUM-3" battery, × 2
		Dimensions(approx.) .....	63 (W) × 18 (H) × 175 (D) mm
		Weight(approx.) .....	90 g without batteries

**Note :**

The POWER switch is mounted on the secondary side. The unit is not disconnected from AC-power, even when switched off.

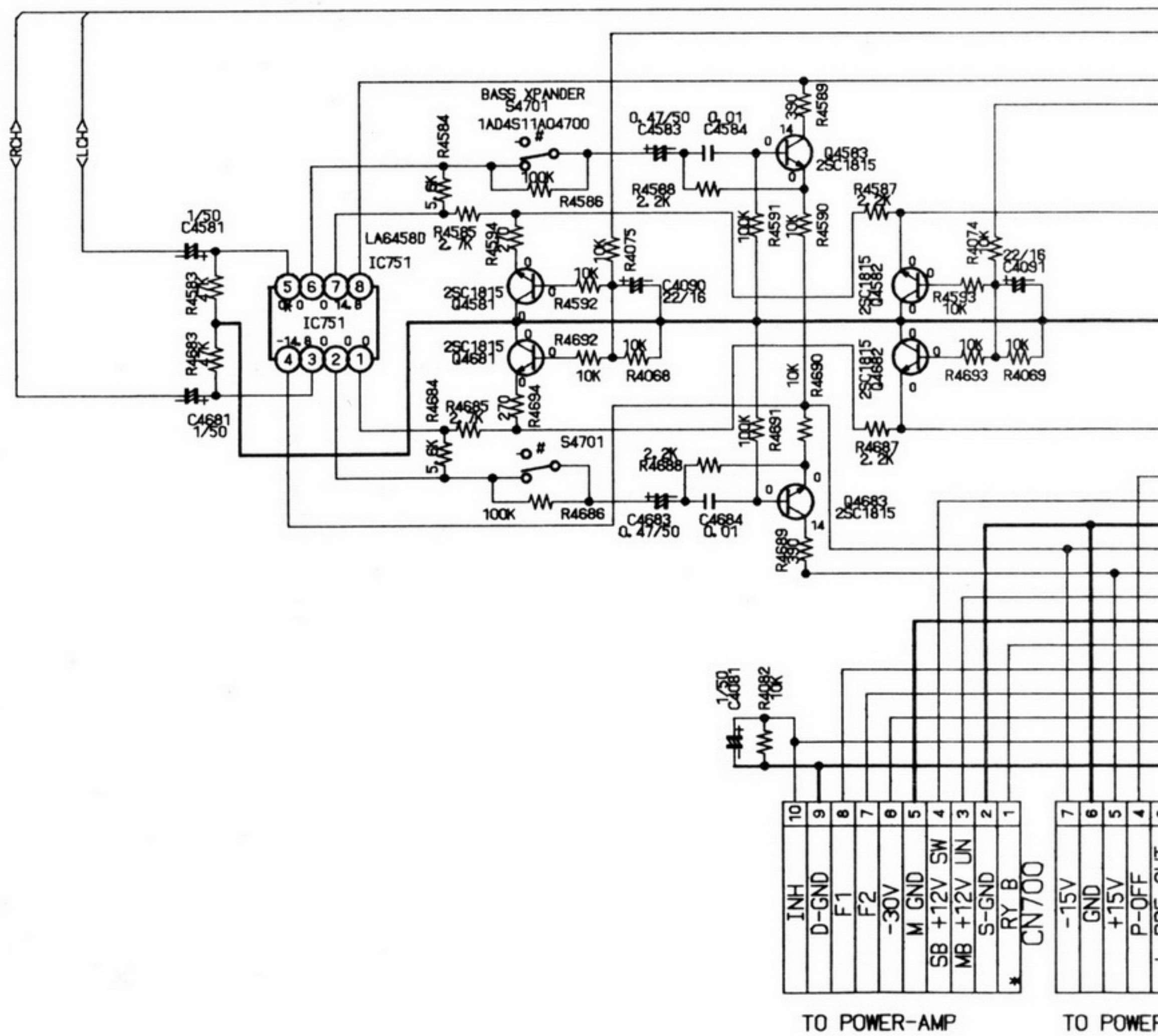
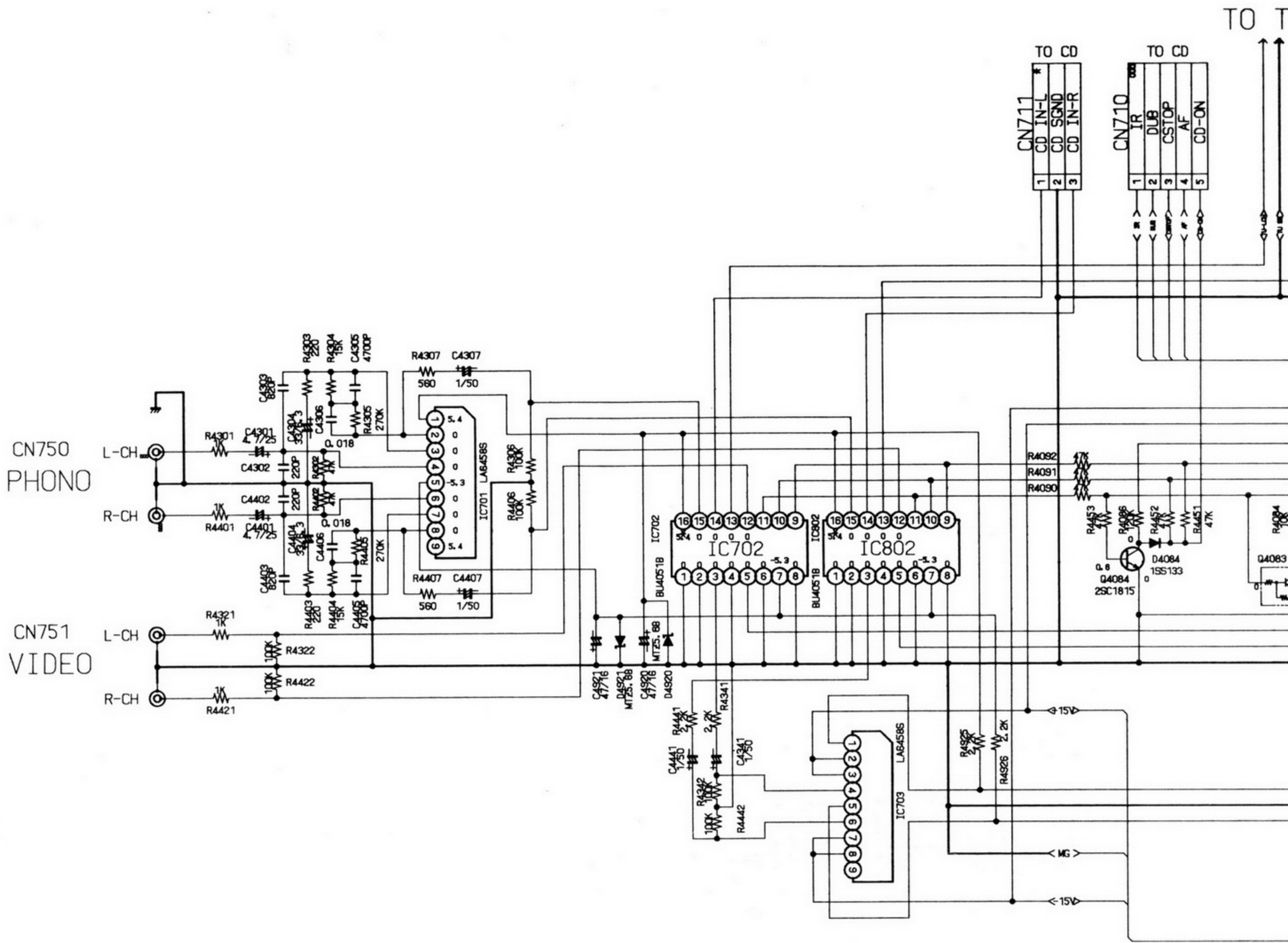
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Specification subject to change without notice.

REFERENCE No. WM-580607



# SCHEMATIC DIAGRAM (PRE-AMPLIFIER)









# VOLTAGES OF TRANSISTOR (CD)

## TRANSISTOR

(Unit : Volt)

Transistor No.	Q101			Q102			Q103			Q105		
	E	C	B	E	C	B	E	C	B	E	C	B
Measuring Pin Name												
Stop Mode	4.97	0	4.82	2.54	2.60	2.51	0	5.0	0	4.02	5.0	4.6
Play Mode	4.0	1.0	4.0	Fluc	Fluc	Fluc	0	5.0	0	4.02	5.0	4.6

Transistor No.	Q111			Q112			Q118		
	E	C	B	E	C	B	E	C	B
Measuring Pin Name									
Stop Mode	5.0	0	5.0	Fluc	5.0	0	0	0	0
Play Mode	5.0	5.0	0	Fluc	5.0	0	0	0	0

16
0
Fluc
32
-5.0
-5.0
48
4.07
Fluc
64
0
0
80
0
0

: Fluctuation

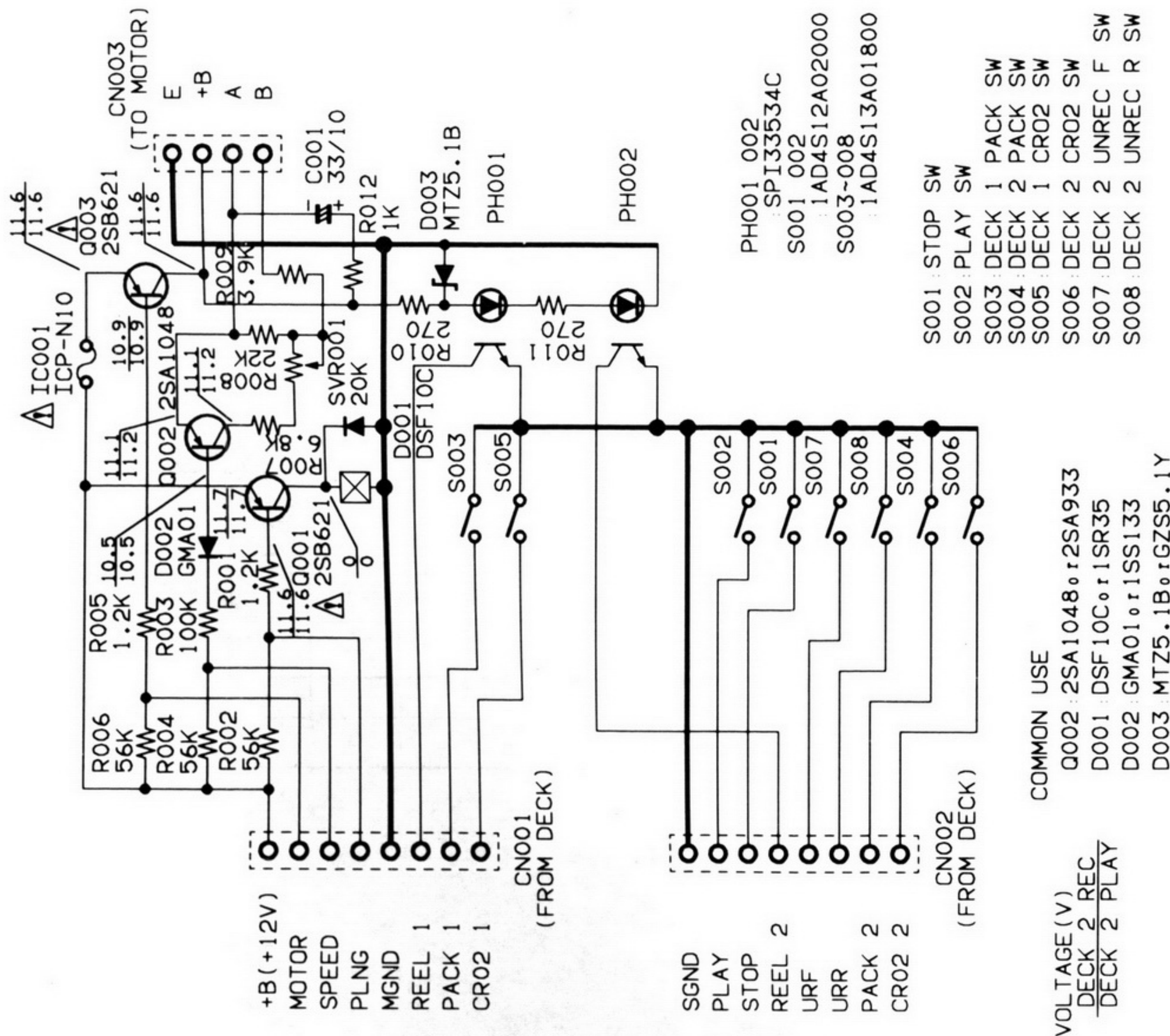
16
4.07
Fluc
32
1.25
Fluc
48
0
Fluc
64
2.47
Fluc

16
0
0

16
8.60
8.60

16
5.0
5.0
32
0
0
48
5.0
5.0
64
0
0

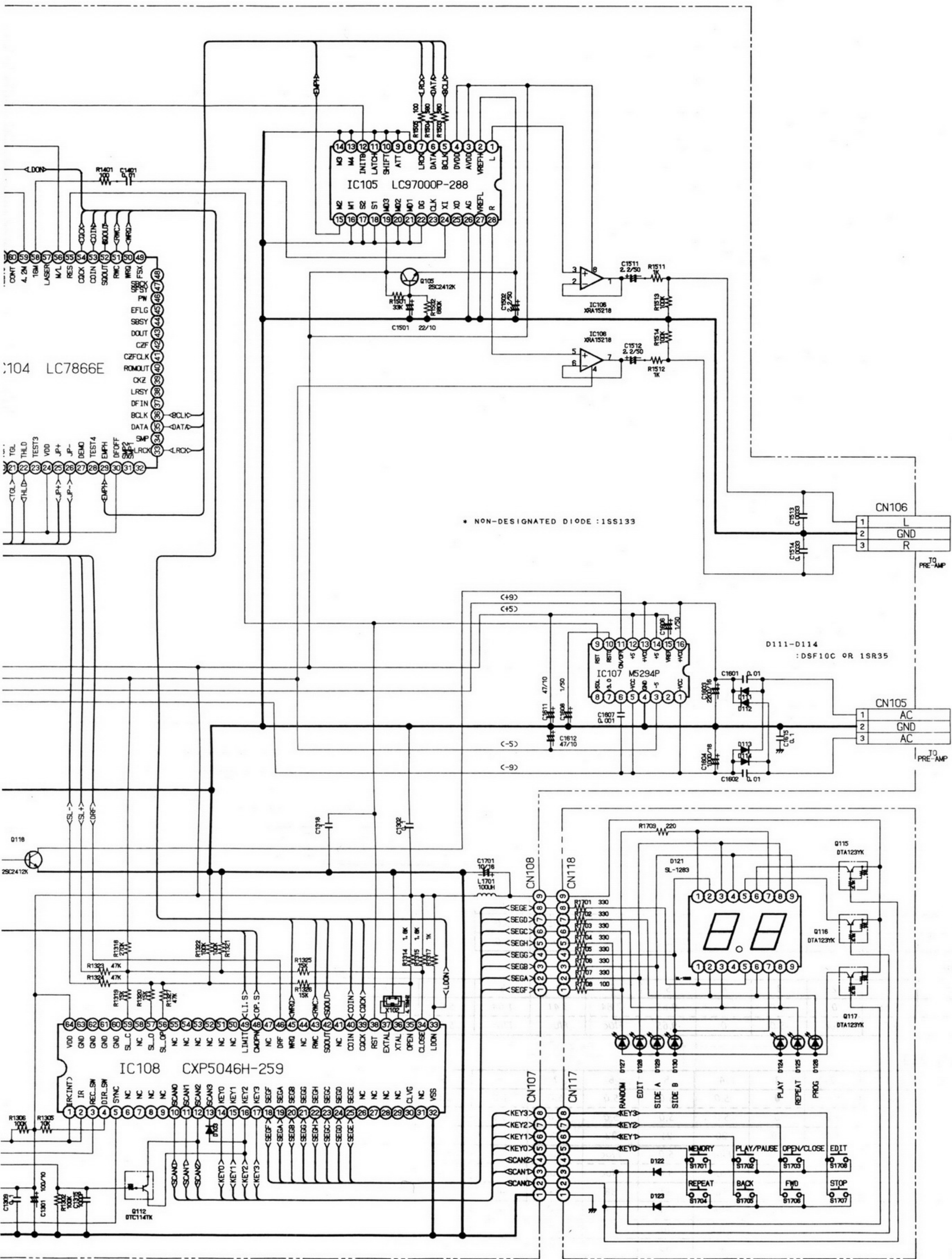
# SCHEMATIC DIAGRAM (TAPE MECHANISM)





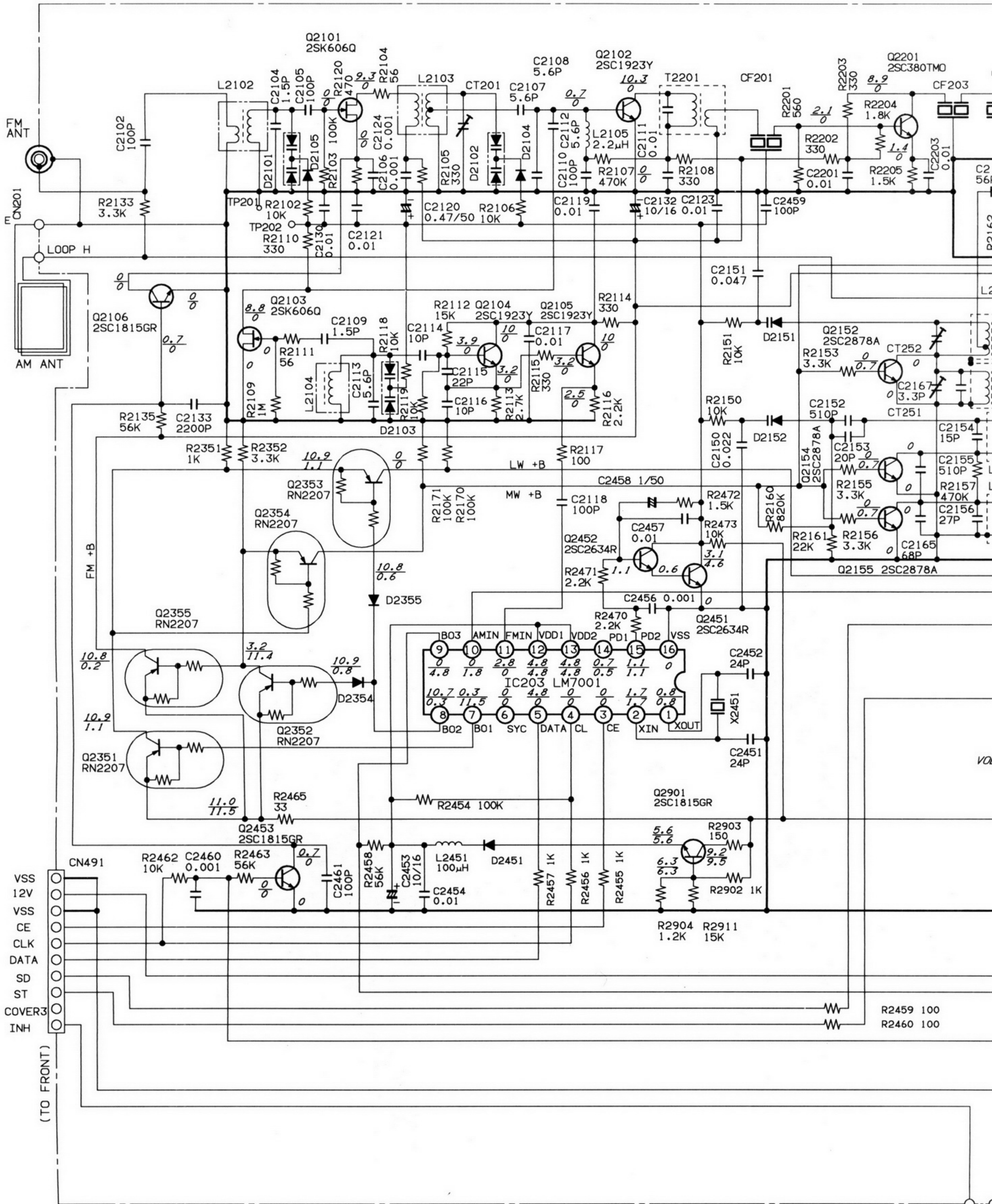




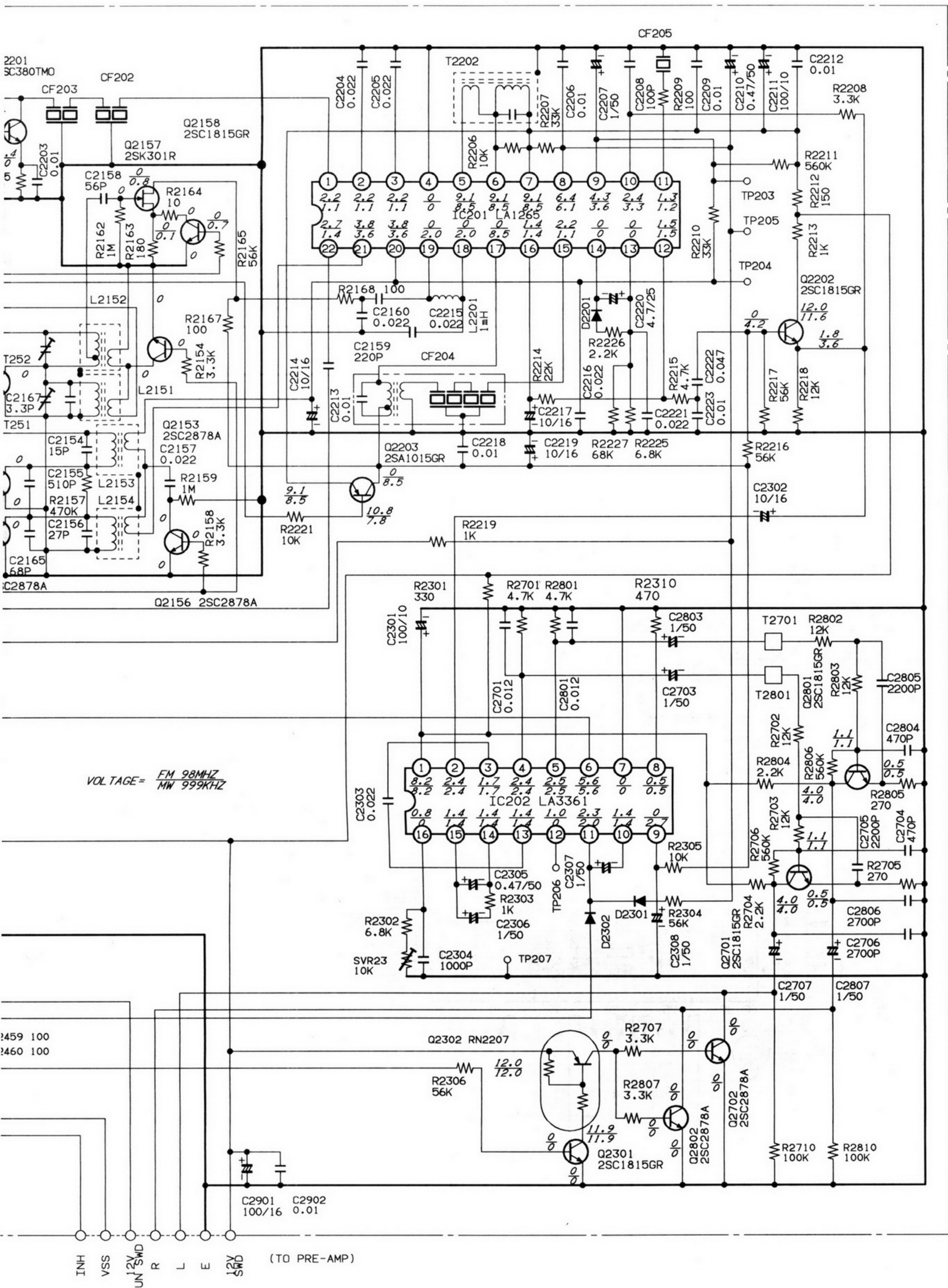




# SCHEMATIC DIAGRAM (TUNER)



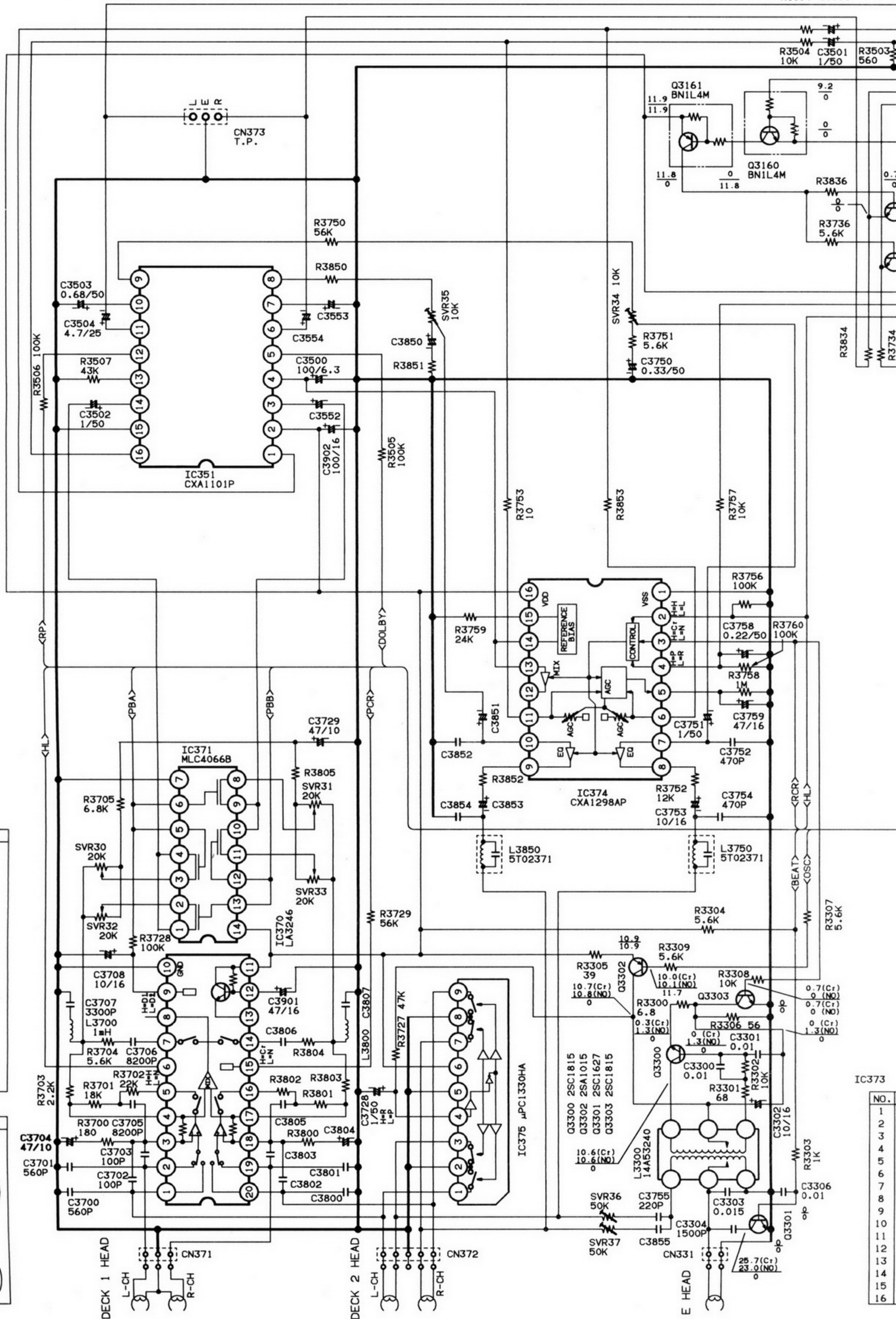






# SCHEMATIC DIAGRAM (TAPE DECK AMPLIFIER)

R3554 C3551



IC370

NO.	PLAY	REC	OTHER
1	0	0	
2	0	0	
3	0.58	0.56	
4	5.3	5.3	
5	5.3	5.3	
6	0	0	5.5 (HIDUB)
7	0	0	
8	5.2	5.2	6.7 (DECK 1 PLAY)
9	0	0	
10	0	0	
11	11.9	11.9	
12	11.8	11.8	
13	11.0	11.0	
14	0	0	
15	0.60	0.60	5.5 (CR02)
16	5.1	5.1	
17	5.1	5.1	
18	0.56	0.56	
19	0	0	
20	0	0	

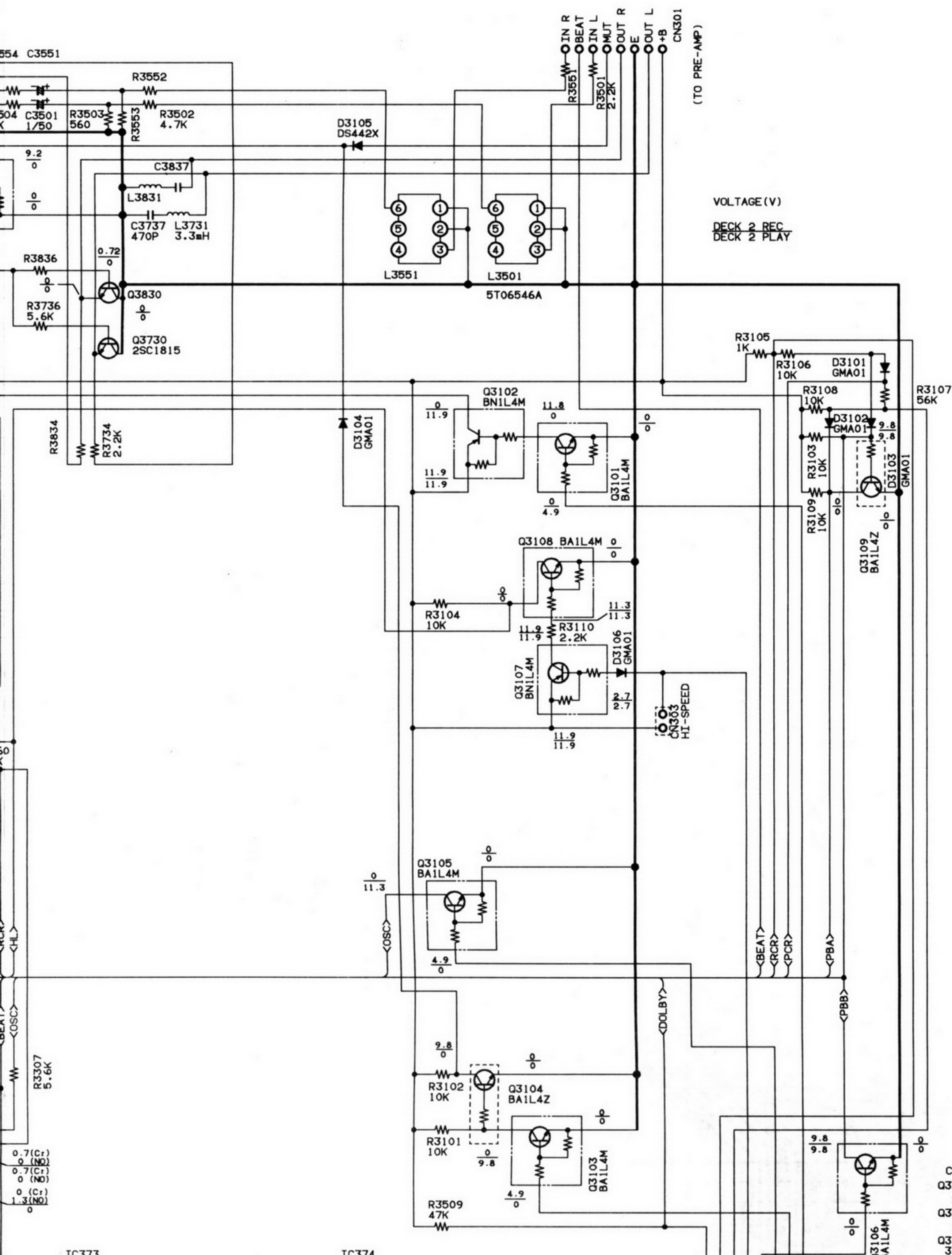
IC371

NO.	PLAY	REC	OTHER
1	5.2	5.2	
2	5.2	5.2	
3	5.2	5.2	
4	5.2	5.2	
5	0	0	11.4 (DECK 1)
6	0	0	11.4 (PLAY)
7	0	0	
8	5.2	5.2	
9	5.2	5.2	
10	5.2	5.2	
11	5.2	5.2	
12	9.8	9.8	0 (DECK 1)
13	9.8	9.8	0 (PLAY)
14	11.9	11.9	

IC373

NO.	PLAY	REC	OTHER
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			





VOLTAGE (V)  
DECK 2 REC  
DECK 2 PLAY

IC373

NO.	PLAY	REC	OTHER
1	6.0	6.0	
2	11.9	11.9	
3	6.0	6.0	
4	6.0	6.0	
5	11.9	11.9	0 (DOLBY ON)
6	6.1	6.1	
7	0.4	0.4	
8	6.1	6.1	
9	6.1	6.1	
10	0.4	0.4	
11	6.1	6.1	
12	11.7	0	
13	1.2	1.2	
14	6.0	6.0	
15	0	0	
16	6.0	6.0	

IC374

NO.	PLAY	REC	OTHER
1	0	0	
2	0	0	7.2 (HIDUB)
3	0	0	10.7 (CRO2)
4	10.8	0	
5	0	0	0.70 (ALC DOING)
6	6.0	6.0	
7	6.0	6.0	
8	5.8	5.8	
9	5.8	5.7	
10	6.0	6.0	
11	6.0	6.0	
12	6.1	6.1	
13	6.0	6.0	
14	6.0	6.0	
15	1.2	1.2	
16	11.9	11.9	

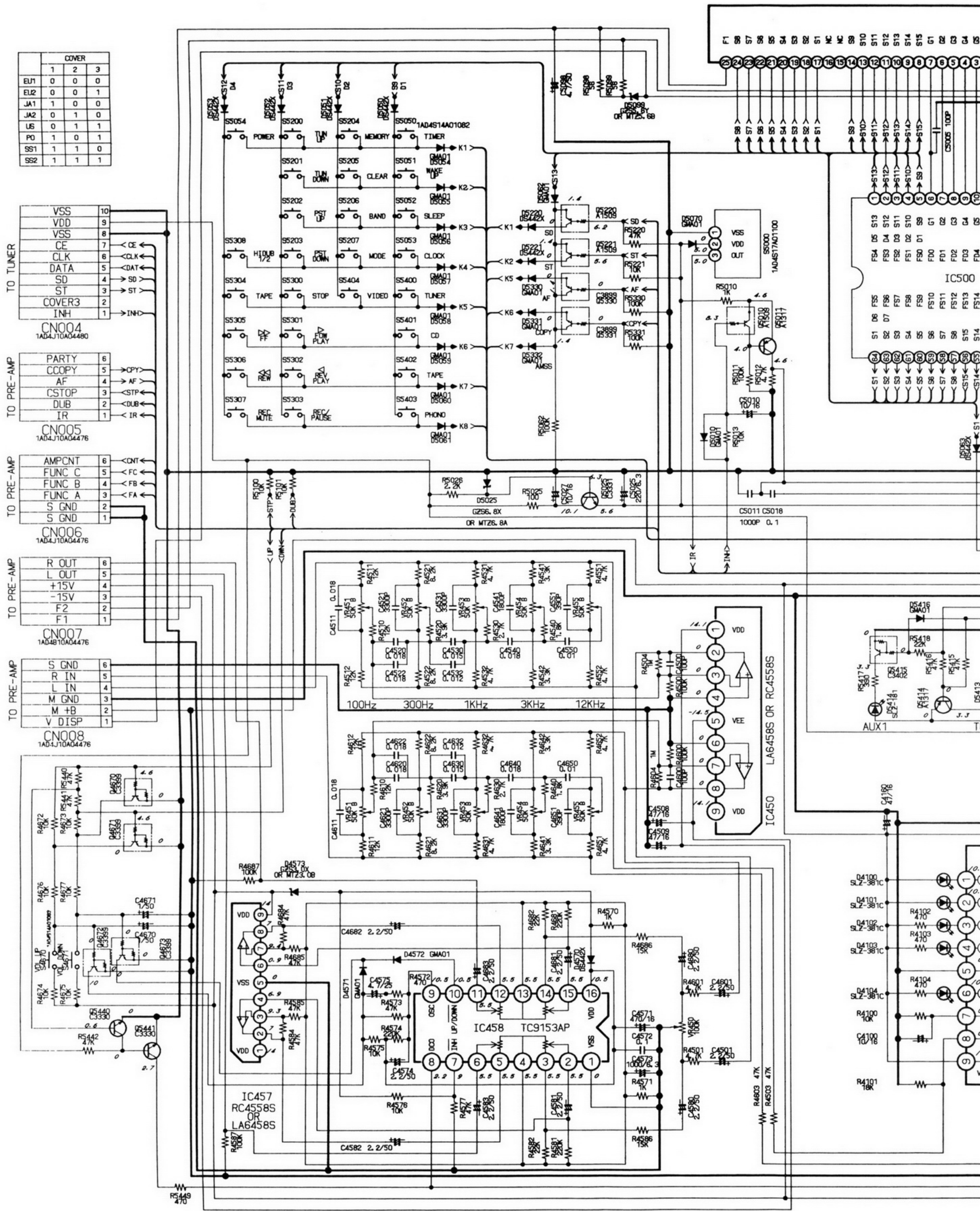
IC375

NO.	PLAY	REC
1	0	0
2	0	0
3	0	0
4	0	7.4
5	0	0
6	11.9	11.9
7	0	0
8	0	0
9	0	0

- COMMON USE
- Q3730 3830 3300 3303
  - 2SC1815 or 2SC945
  - Q3302
  - 2SA1015 or 2SA733
  - Q3101 3103 3105 3106 3108 3160
  - RN1204 or BA1L4M
  - Q3102 3107 3161
  - RN2204 or BN1L4M
  - Q3104 3109
  - BA1L4Z
  - D3101 3102 3103 3104 3105
  - GMA01 or 1SS133
  - D3105
  - DS442X or 1S2473
  - IC371
  - MLC4066B or TC4066BP
  - or BU4066B or μPD4066BC



# SCHEMATIC DIAGRAM (FRONT)



COVER			
	1	2	3
EU1	0	0	0
EU2	0	0	1
JA1	1	0	0
JA2	0	1	0
LS	0	1	1
PO	1	0	1
SS1	1	1	0
SS2	1	1	1

TO TUNER			
	10	9	8
VSS			
VDD			
VSS			
CE			
CLK			
DATA			
SD			
ST			
COVER3			
INH			

TO PRE-AMP			
	6	5	4
PARTY			
CCOPY			
AF			
CSTOP			
DUB			
IR			

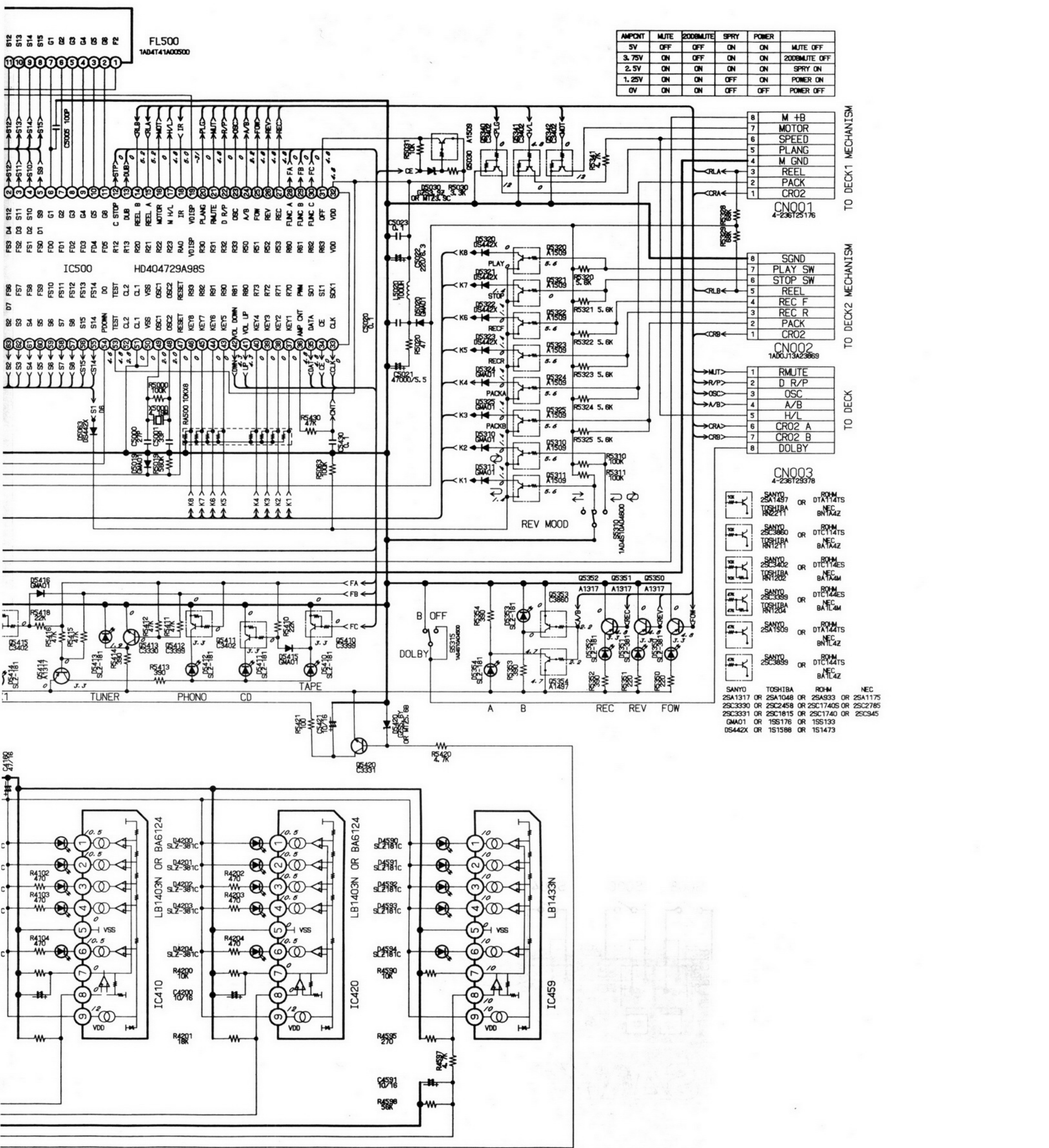
TO PRE-AMP			
	6	5	4
AMPCNT			
FUNC C			
FUNC B			
FUNC A			
S GND			
S GND			

TO PRE-AMP			
	6	5	4
R OUT			
L OUT			
+15V			
-15V			
F2			
F1			

TO PRE-AMP			
	6	5	4
S GND			
R IN			
L IN			
M GND			
M +B			
V DISP			

1A04J10A04480\_MTCN  
 1A04J10A04476\_MTCN  
 1A04J10A04476\_MTCN  
 1A04J10A04476\_MTCN





AMP/ONT	MUTE	200B/MUTE	SPRY	POWER	
5V	OFF	OFF	ON	ON	MUTE OFF
3.75V	ON	OFF	ON	ON	200B/MUTE OFF
2.5V	ON	ON	ON	ON	SPRY ON
1.25V	ON	ON	OFF	ON	POWER ON
0V	ON	ON	OFF	OFF	POWER OFF

8	M +B
7	MOTOR
6	SPEED
5	PLANG
4	M GND
3	REEL
2	PACK
1	CRO2

CNO01  
4-236125176

8	SGND
7	PLAY SW
6	STOP SW
5	REEL
4	REC F
3	REC R
2	PACK
1	CRO2

CNO02  
1A00J13A23869

1	RMUTE
2	D R/P
3	OSC
4	A/B
5	H/L
6	CRO2 A
7	CRO2 B
8	DOLBY

- CNO03  
4-236129378
- SANYO 2SA1437 OR ROHM DTA114T5
  - TOSHIBA 2SC3890 OR NEC BNT14AZ
  - SANYO 2SC3890 OR ROHM DTC114T5
  - TOSHIBA 2SC3402 OR ROHM DTC114ES
  - SANYO 2SC3399 OR ROHM DTC144ES
  - TOSHIBA 2SA1509 OR ROHM DTA144T5
  - SANYO 2SC3899 OR NEC BNT14AZ
  - SANYO 2SC3899 OR ROHM DTC144T5
  - SANYO 2SC3899 OR NEC BAT14AZ
- SANYO 2SA1317 OR TOSHIBA 2SA1048 OR ROHM 2SA933 OR NEC 2SA1175  
 SANYO 2SC3330 OR TOSHIBA 2SC2458 OR ROHM 2SC1740S OR NEC 2SC2785  
 SANYO 2SC3331 OR TOSHIBA 2SC1815 OR ROHM 2SC1740 OR NEC 2SC945  
 SANYO QM401 OR ROHM 15S176 OR NEC 15S133  
 SANYO 05442X OR ROHM 151588 OR NEC 151473



