

# Service Manual

Portable Stereo CD System

Radio Cassette

## RX-DS45

**COMPACT**  
**disc**  
**DIGITAL AUDIO**



**Color**

(K) ..... Black Type

### Areas

Country Code	Areas	Color
(EB)	Great Britain	(K)
(EG)	Continental Europe and F.R. Germany	

**TAPE DECK: RX-FD55 MECHANISM SERIES (AR300)**  
**TRAVERSE DECK: RX-DT55 MECHANISM SERIES (S0DD110)**

### ■ SPECIFICATIONS

#### General:

Power Requirement: AC; 230~240 V, 50 Hz  
Battery; 15 V (10 R20/LR20, UM-1 batteries)  
Memory Back-up for Computer/Clock; 6V (4 R6/LR6, UM-3 batteries)

Power Consumption: 46 W (AC only)  
Power Output: 22.5 W×2...PMPO  
Speaker: Woofer; 10 cm×2 PM Dynamic speaker (2.7Ω)  
Tweeter; 8 cm×2 PM Dynamic speaker (8Ω)

Inputs: MIX MIC; 4.5 mV/200~600Ω, Ø3.5

AUX; 200 mV/47 kΩ

Output: HEADPHONES; 32Ω, Ø3.5

Dimensions: 648 (W)×175 (H)×250 (D) mm

Weight: 5.8 kg without batteries

#### Disc Player Section:

Sampling Frequency: 44.1 kHz

D-A Conversion: 16-bit linear

Light Source: Semiconductor laser (wavelength 780 nm)

No. of Channels: 2 channels, stereo

Frequency Range: 20~20,000 Hz (+1/-2 dB)

Dynamic Range: 95 dB

S/N Ratio: 100 dB

Wow and Flutter: below measurable limit

#### Radio Section:

Radio Frequency Range: FM; 87.5~108 MHz

LW; 144~288 kHz

MW; 522~1611 kHz

Intermediate Frequency: FM; 10.7 MHz

AM; 459 kHz

Sensitivity: FM; 5 μV/50 mW output (-3 dB Limit Sens)

LW; 100 μV/m/50 mW output

MW; 60 μV/m/50 mW output

#### Tape Deck Section:

Frequency Range: 30~16,000 Hz (with normal tape)

Recording System: AC bias (67 kHz), AC erase

Tape Speed: 4.8 cm/s

Monitor System: Variable sound monitor

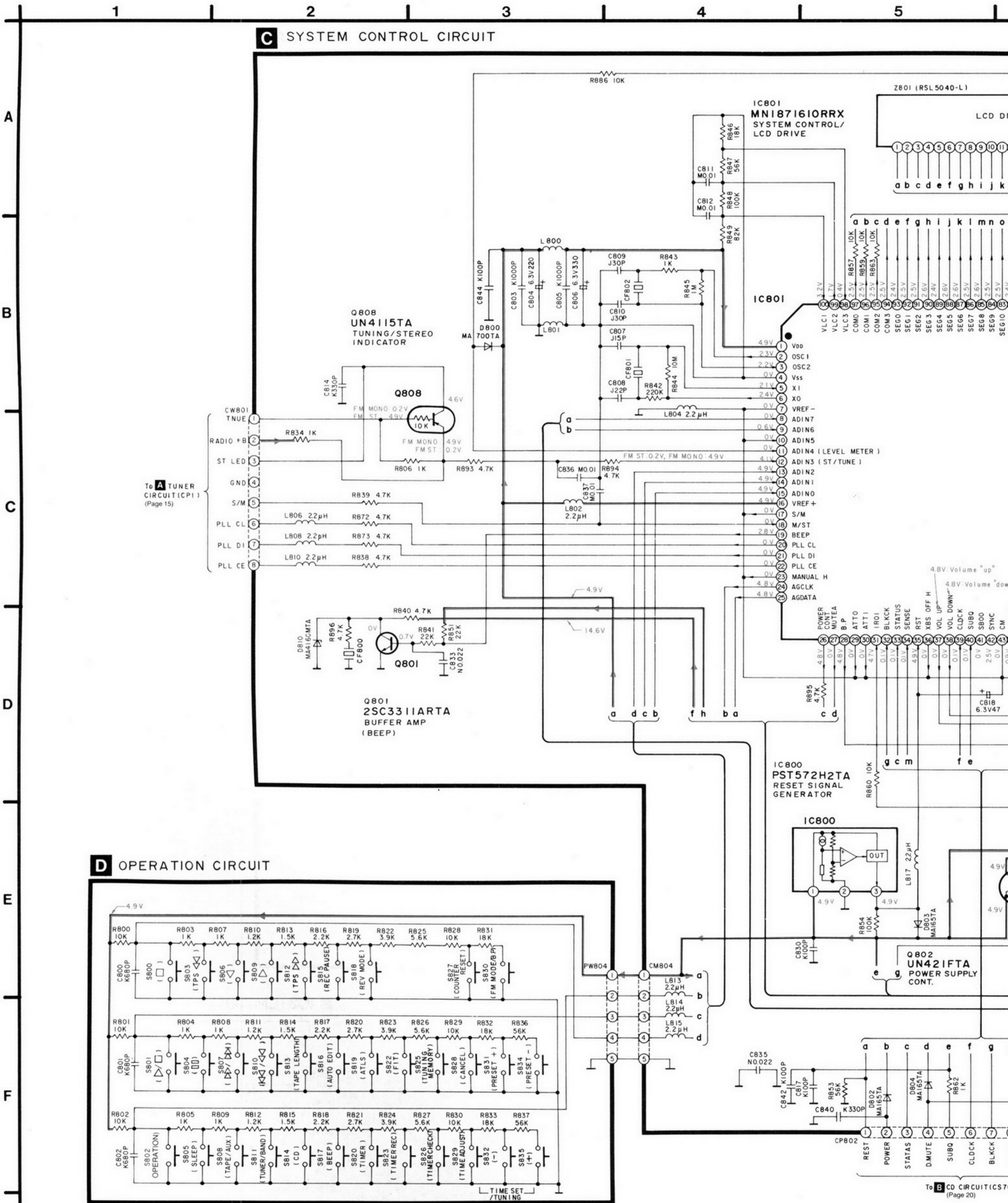
Track System: 4-track 2-channel stereo recording and playback

#### Notes:

- Weights and dimensions shown are approximate.
- Design and specifications are subject to change without notice.

# Panasonic

# SCHEMATIC DIAGRAM • SYSTEM CONTROL AND OPERATION CIRCUIT (Parts list on pages 57-58)



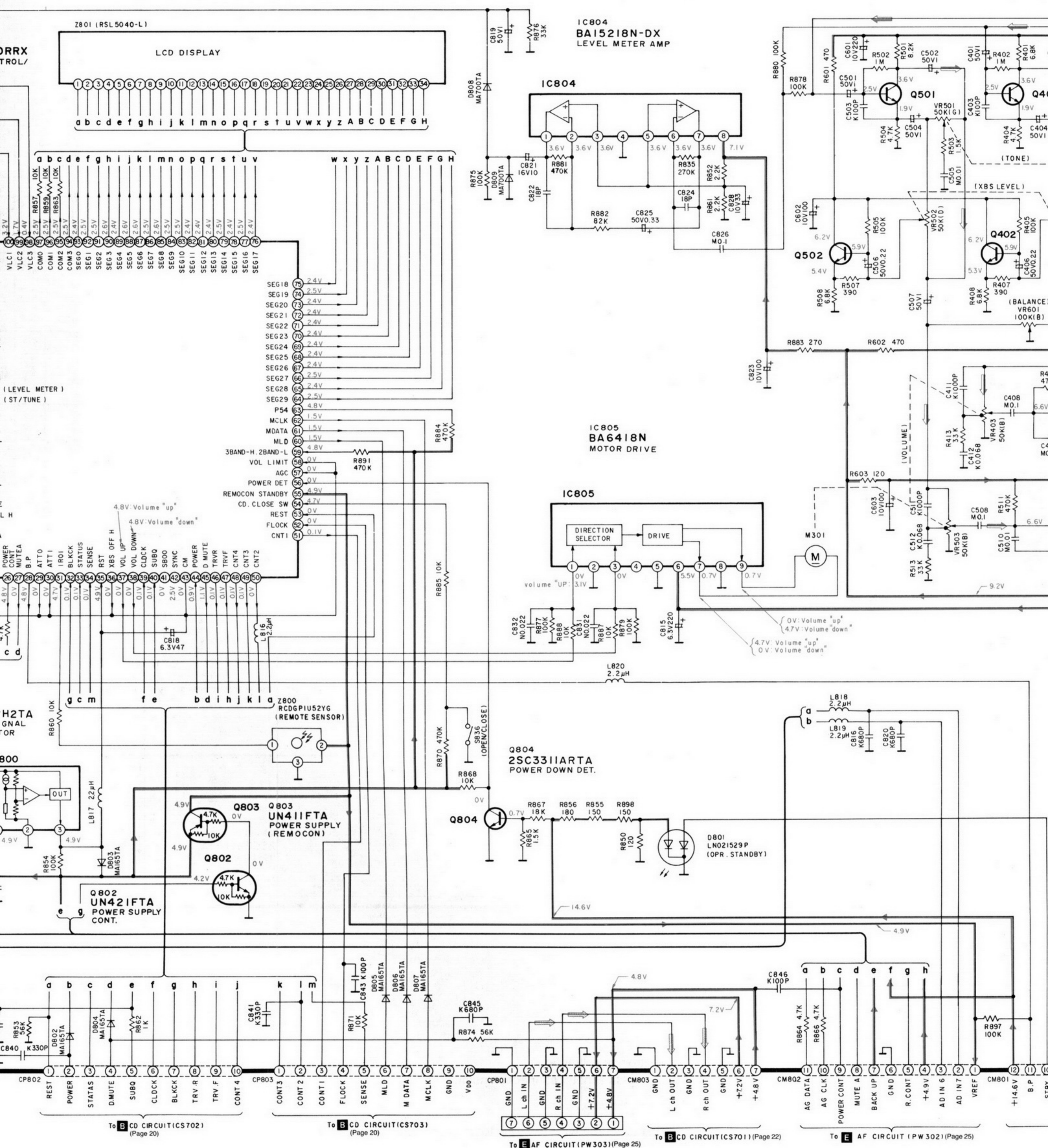
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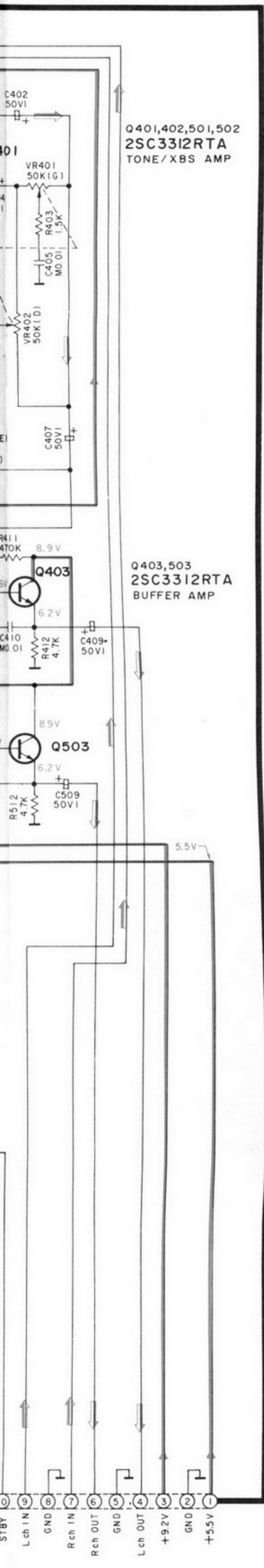
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**NOTES:**

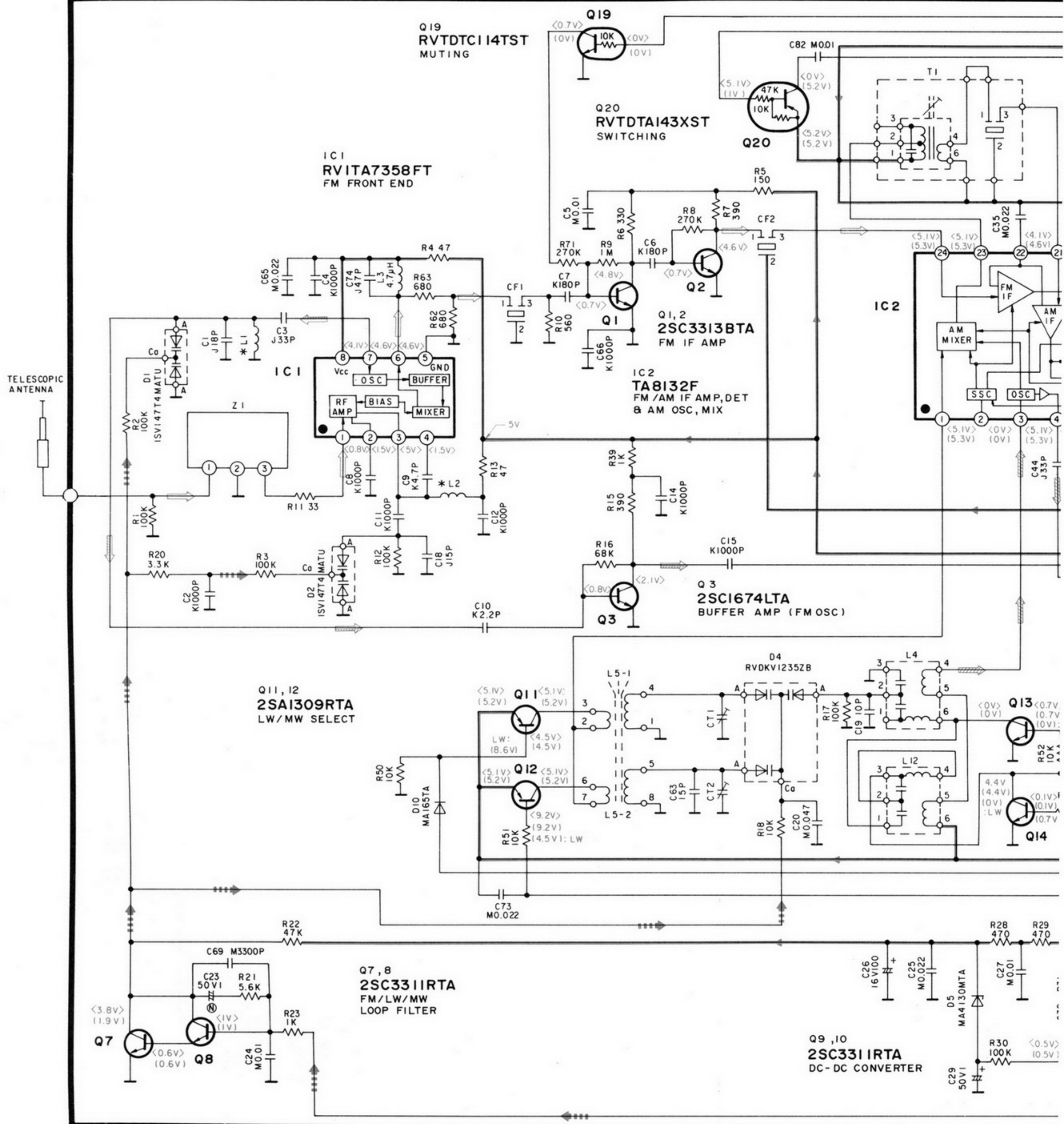
- S800 : Deck stop switch. (□)
- S801 : CD playback/stop switch. (▷/□)
- S802 : Operation switch. (OPERATION)
- S803 : Deck fast/TPS switch. (◀◀/TPS)
- S804 : CD pause switch. (▢▢)
- S805 : Sleep switch. (SLEEP)
- S806 : Deck reverse side playback switch. (◁)
- S807 : CD skip/search switch. (▷▷/▷▷▢)
- S808 : Function select switch. (TAPE/AUX)
- S809 : Deck front side playback switch. (▷)
- S810 : CD skip/search switch. (▢◁◁/◁◁)
- S811 : Function select switch. (TUNER/BAND)
- S812 : Deck fast/TPS switch. (TPS/▷▷)
- S813 : Tape length switch. (TAPE LENGTH)
- S814 : Function select switch. (CD)
- S815 : Recording pause switch. (REC PAUSE)
- S816 : Auto editing switch. (AUTO EDIT)
- S817 : Beep on/off switch. (BEEP)
- S818 : Reverse mode select switch. (REVERSE MODE)
- S819 : ATLS switch. (ATLS)
- S820 : Timer set switch. (TIMER)
- S822 : Fit edit switch. (FIT)
- S823 : Timer recording switch. (TIMER REC)
- S825 : Tuning memory switch. (TUNING MEMORY)
- S826 : Timer check switch. (TIMER CHECK)
- S827 : Tape counter reset switch. (COUNTER RESET)
- S828 : CD program cancel switch. (CANCEL)
- S829 : Time set switch. (TIME ADJUST)
- S830 : FM mode select/beat proof switch. (FM MODE/B.P.)
- S831 : Preset tuning switch. (+)
- S832 : Time set/manual tuning switch. (-)
- S834 : Preset tuning switch. (-)
- S835 : Time set/manual tuning switch. (+)
- S836 : CD cover open/close switch.
- VR401 : Tone control VR (Lch)
- VR402 : S-XBS level control VR (Lch)
- VR403 : Volume control VR (Lch)
- VR501 : Tone control VR (Rch)
- VR502 : S-XBS level control VR (Rch)
- VR503 : Volume control VR (Rch)
- VR601 : Balance control VR (Rch)
- DC voltage measurements are taken with electronics voltmeter.  
The negative terminal of the battery provides negative meter connection point.

●This schematic diagram may be modified at any time with the development of new technology.

➔ : +B line   ➞ : CD signal line   ➡ : Main signal line

# SCHEMATIC DIAGRAM • TUNER CIRCUIT (Parts list on pages 57~63)

## A TUNER CIRCUIT

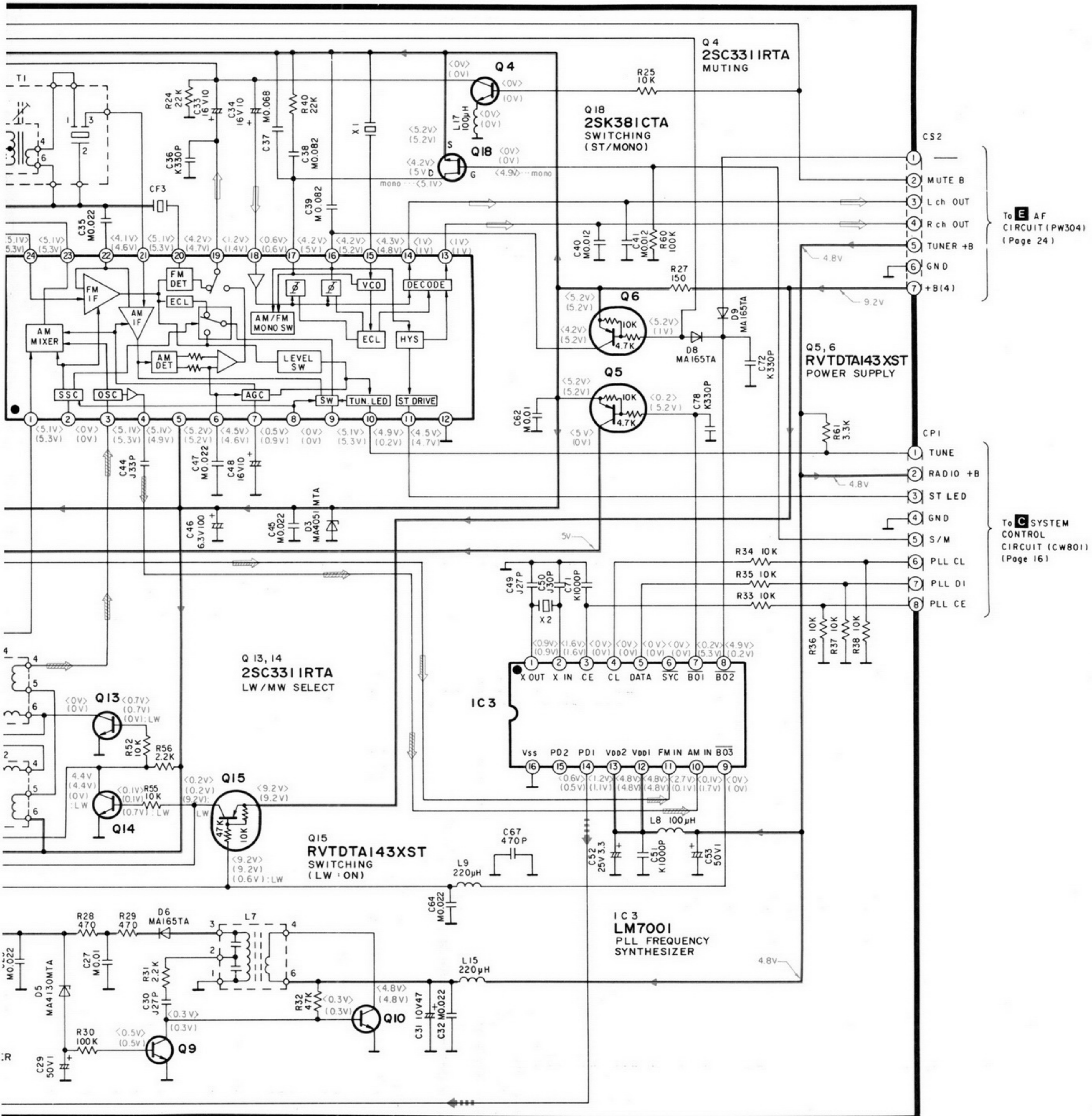


### Notes:

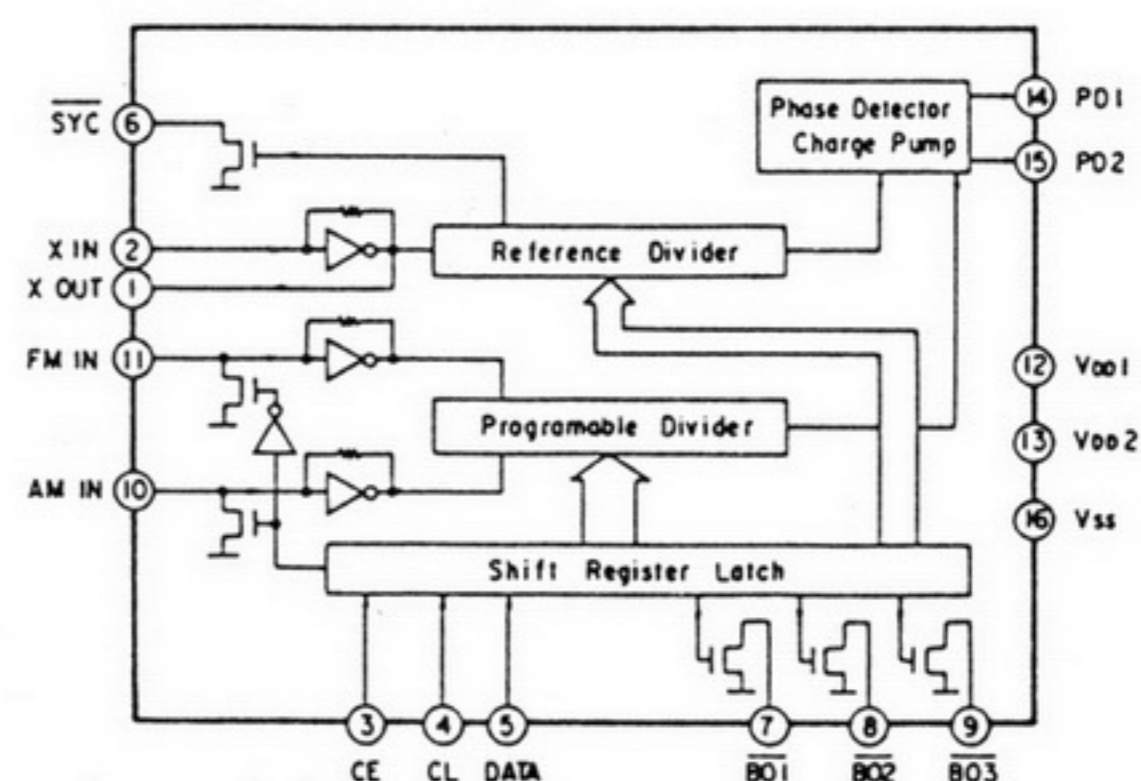
- DC voltage measurements are taken with electronics voltmeter.  
The negative terminal of the battery provides negative meter connection point.  
( )...MW/LW < >...FM

•This schematic diagram may be modified at any time with the development of new technology.

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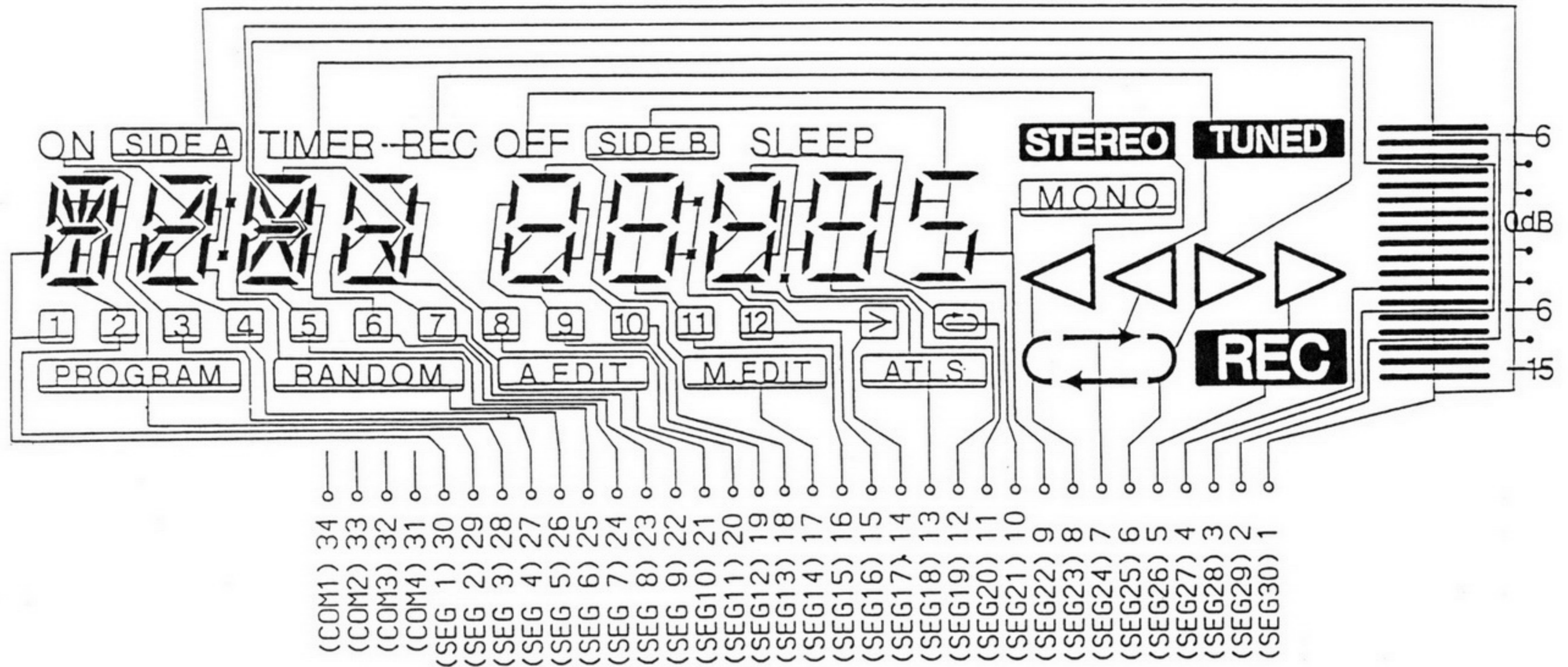


■ IC3 (LM7001)

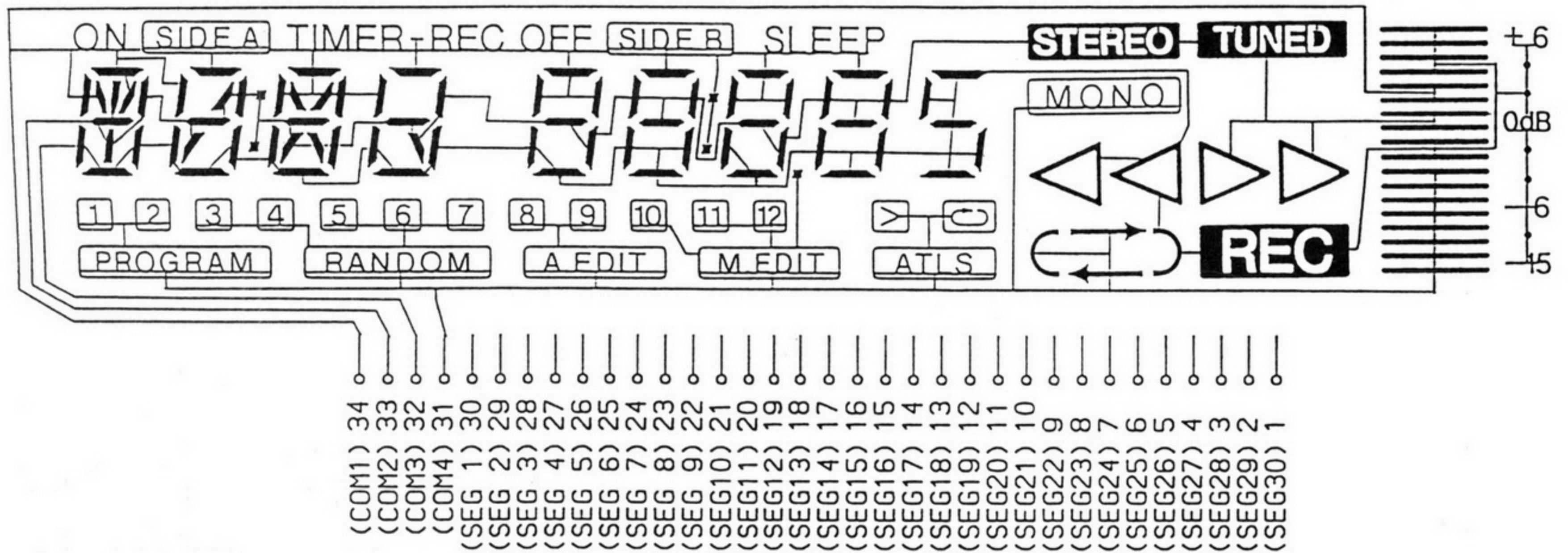


# LIQUID CRYSTAL DISPLAY (LCD)

## ●SEGMENT



## ●COMMON



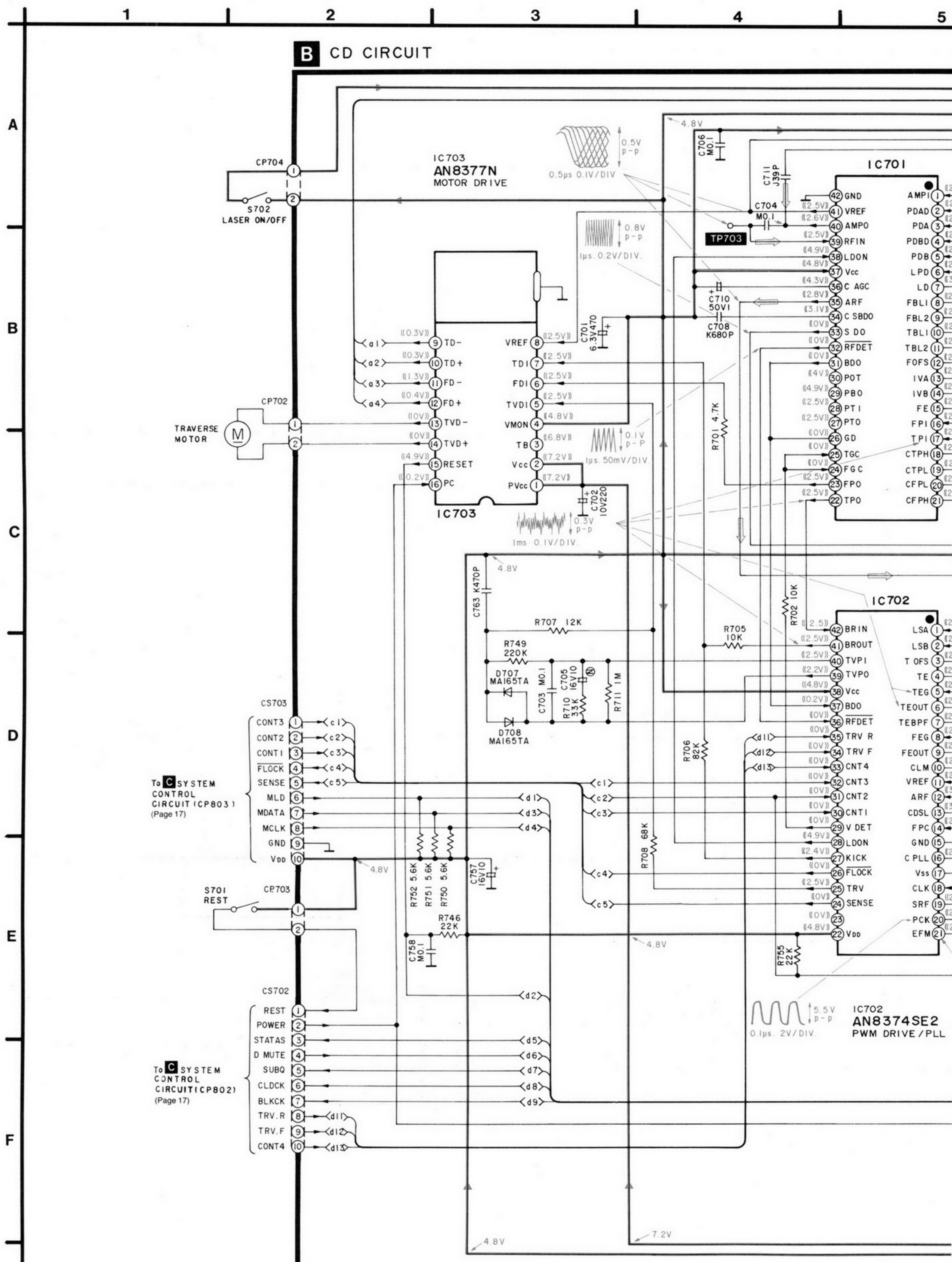
**Notes:**

- S701 : Rest switch.
- S702 : Laser ON/OFF switch.
- VR701 : Best eye adjustment VR.
- VR702 : Tracking balance adjustment VR.
- VR703 : Focus offset adjustment VR.
- VR704 : Focus gain adjustment VR.
- VR705 : Tracking gain adjustment VR.
- VR706 : Tracking offset adjustment VR.
- DC voltage measurements are taken with electronics voltmeter.  
The negative terminal of the battery provides negative meter connection point.
- (( ))...CD

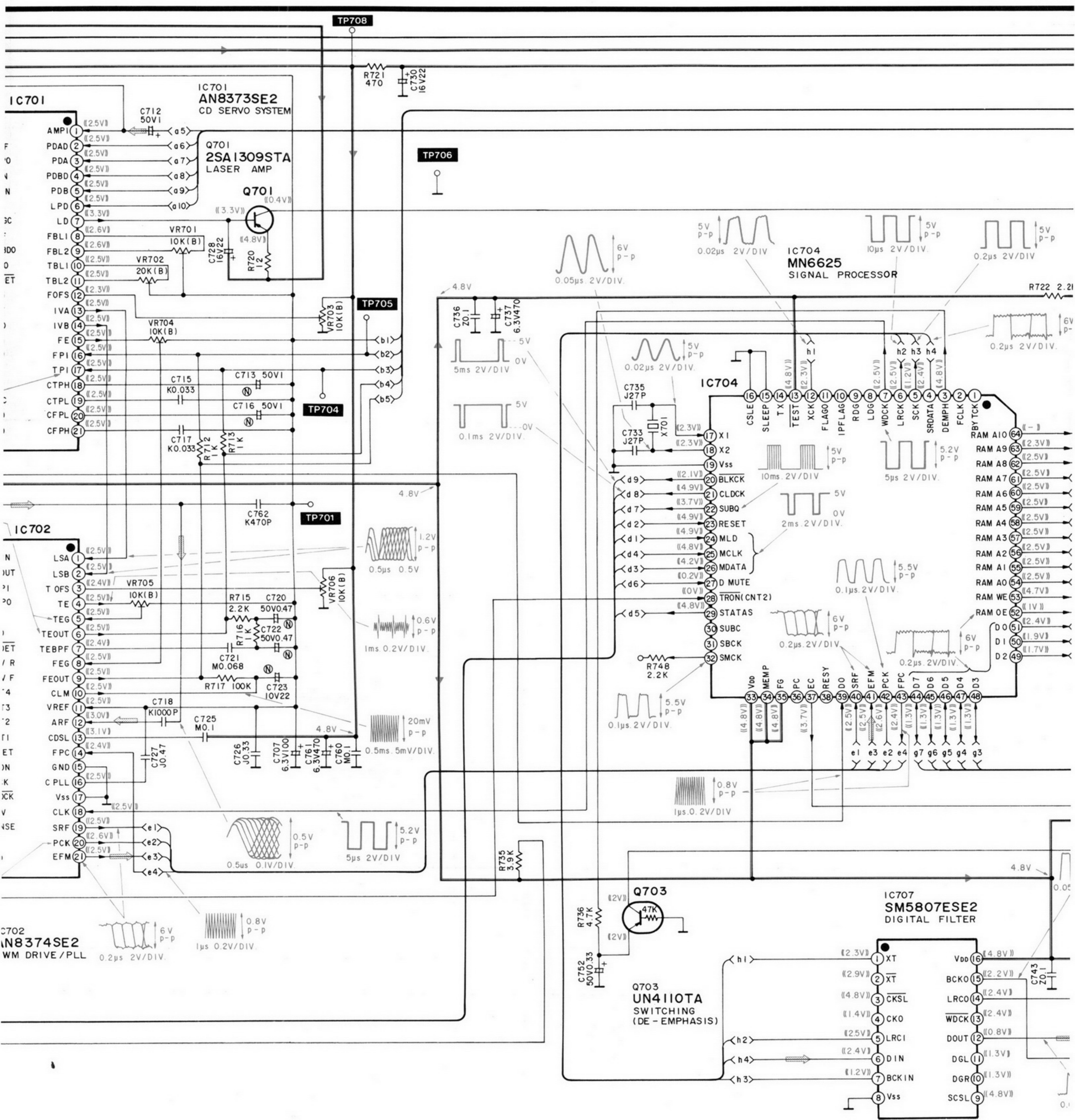
●This schematic diagram may be modified at any time with the development of new technology.

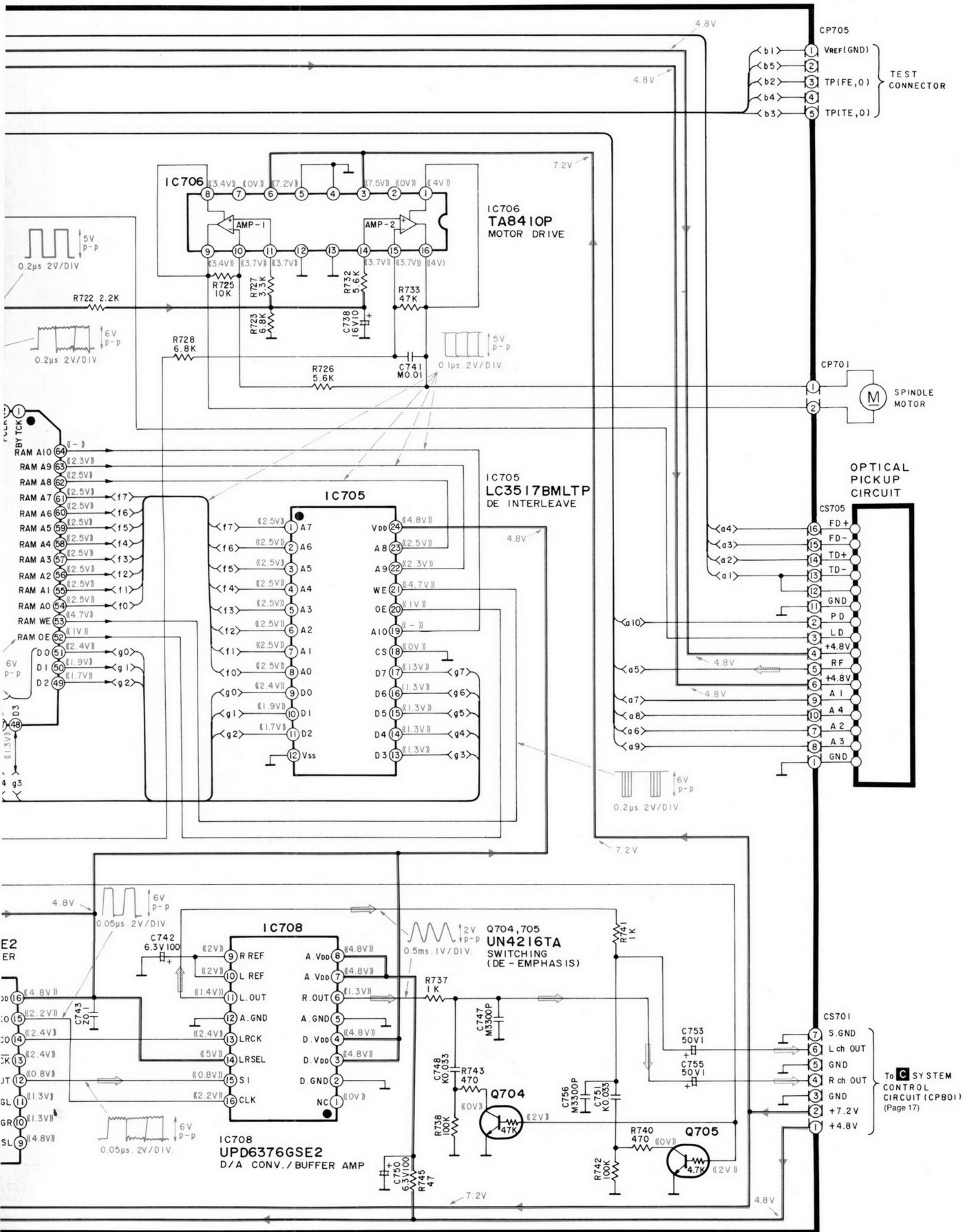
➡ : CD signal line      ➡ : +B line

# SCHEMATIC DIAGRAM • CD CIRCUIT (Parts list on pages 57~63)



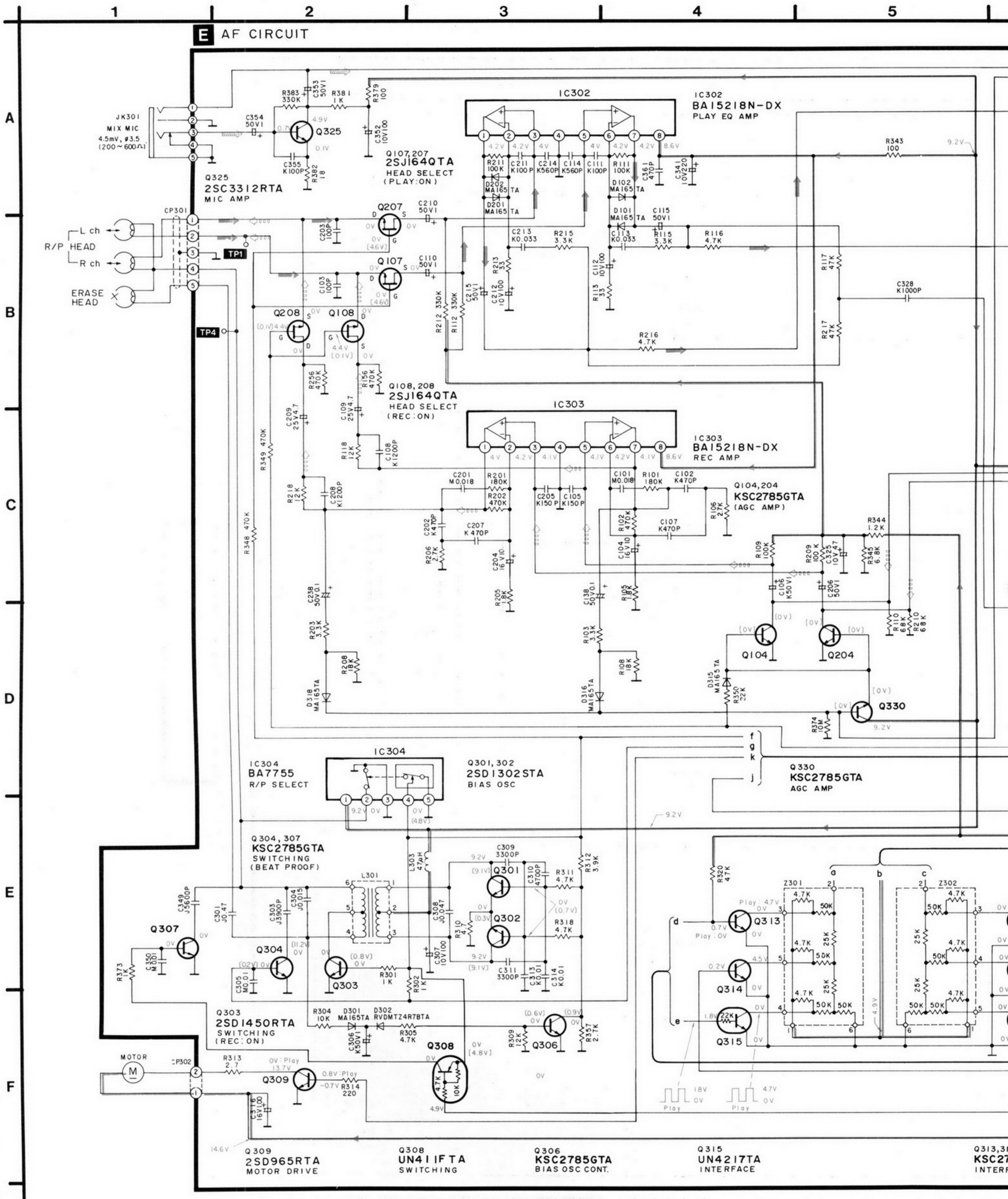




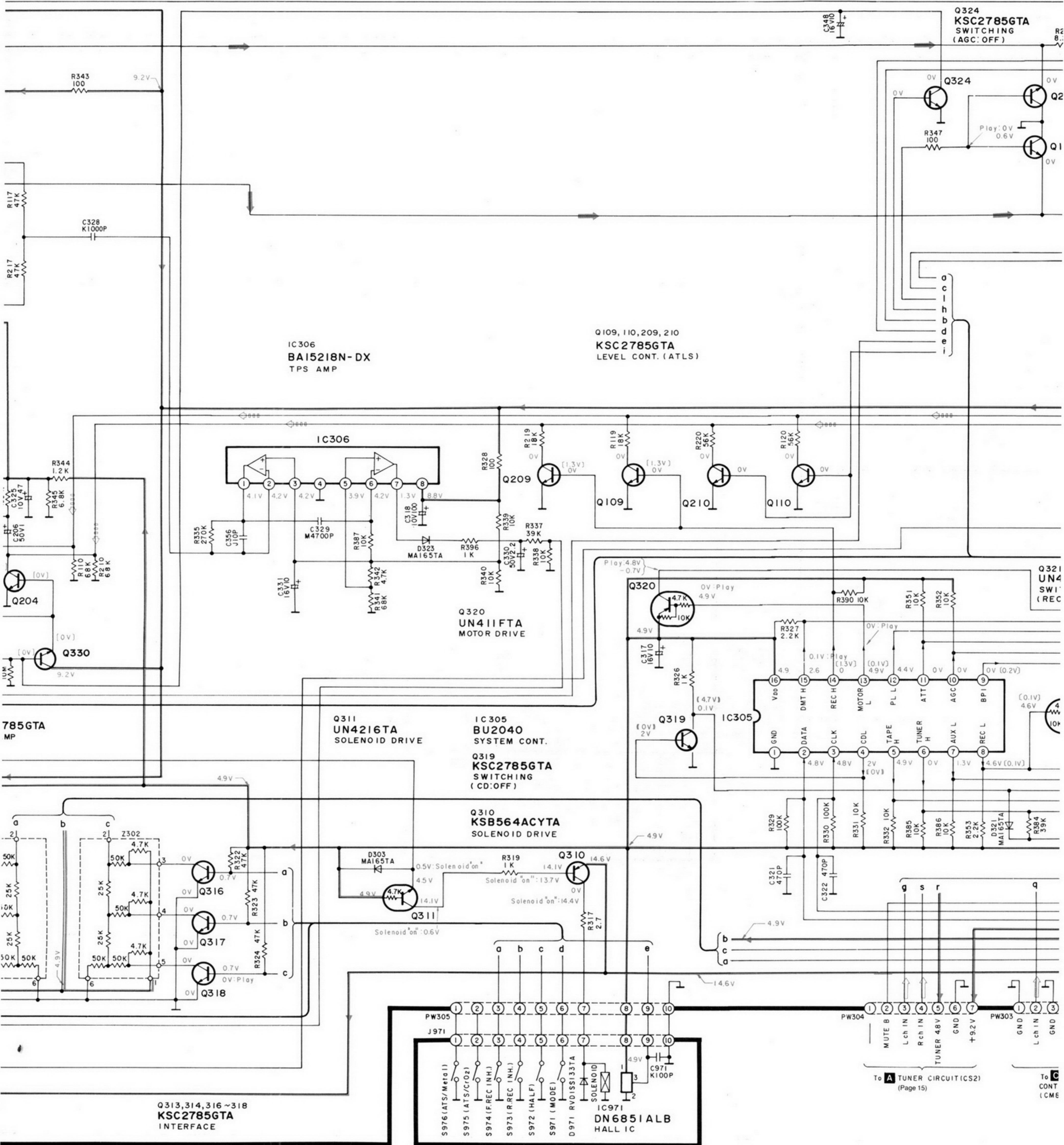


SCHEMATIC DIAGRAM

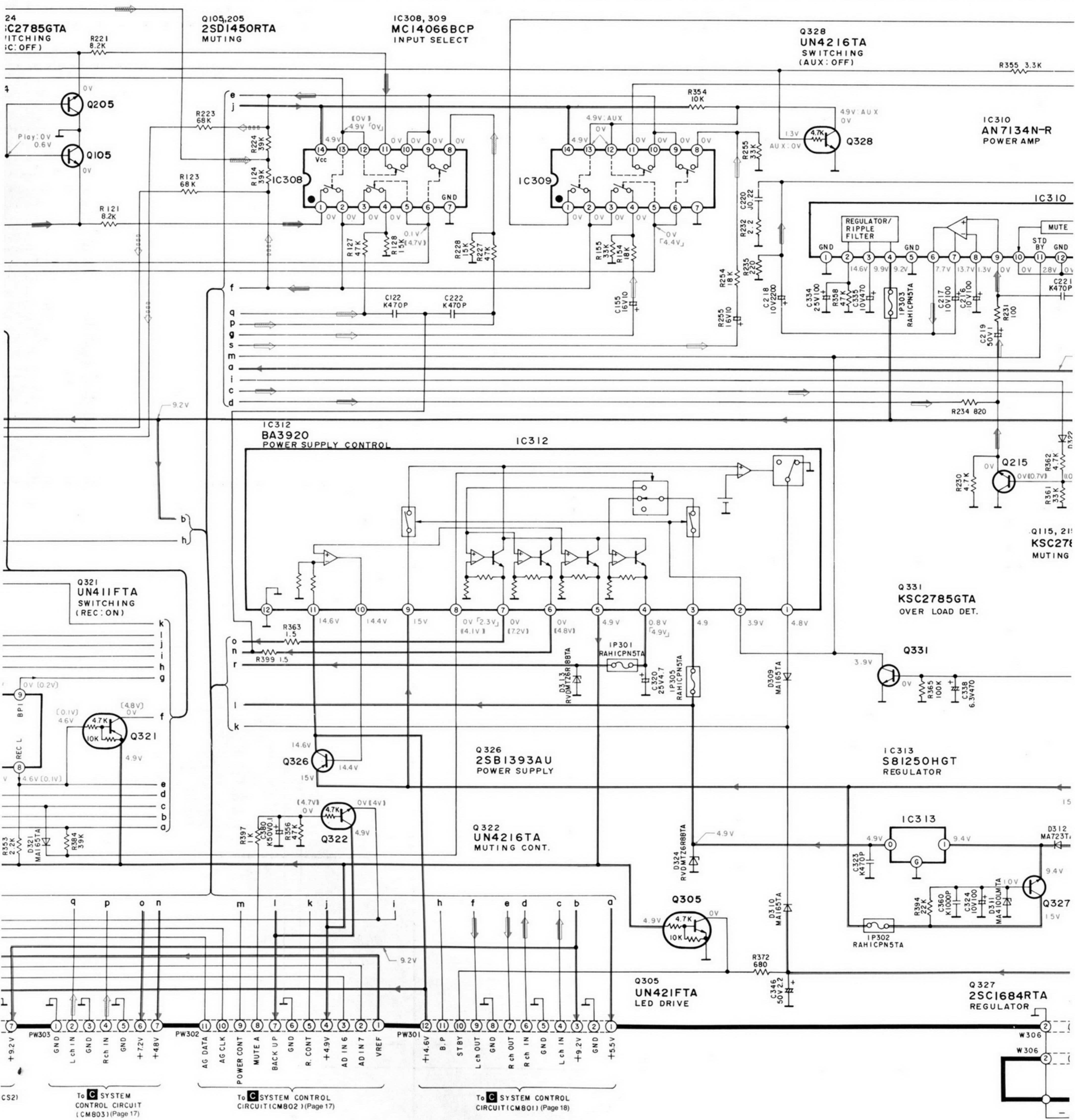
AF, MECHANISM AND POWER SUPPLY CIRCUIT (Parts list on pages 57

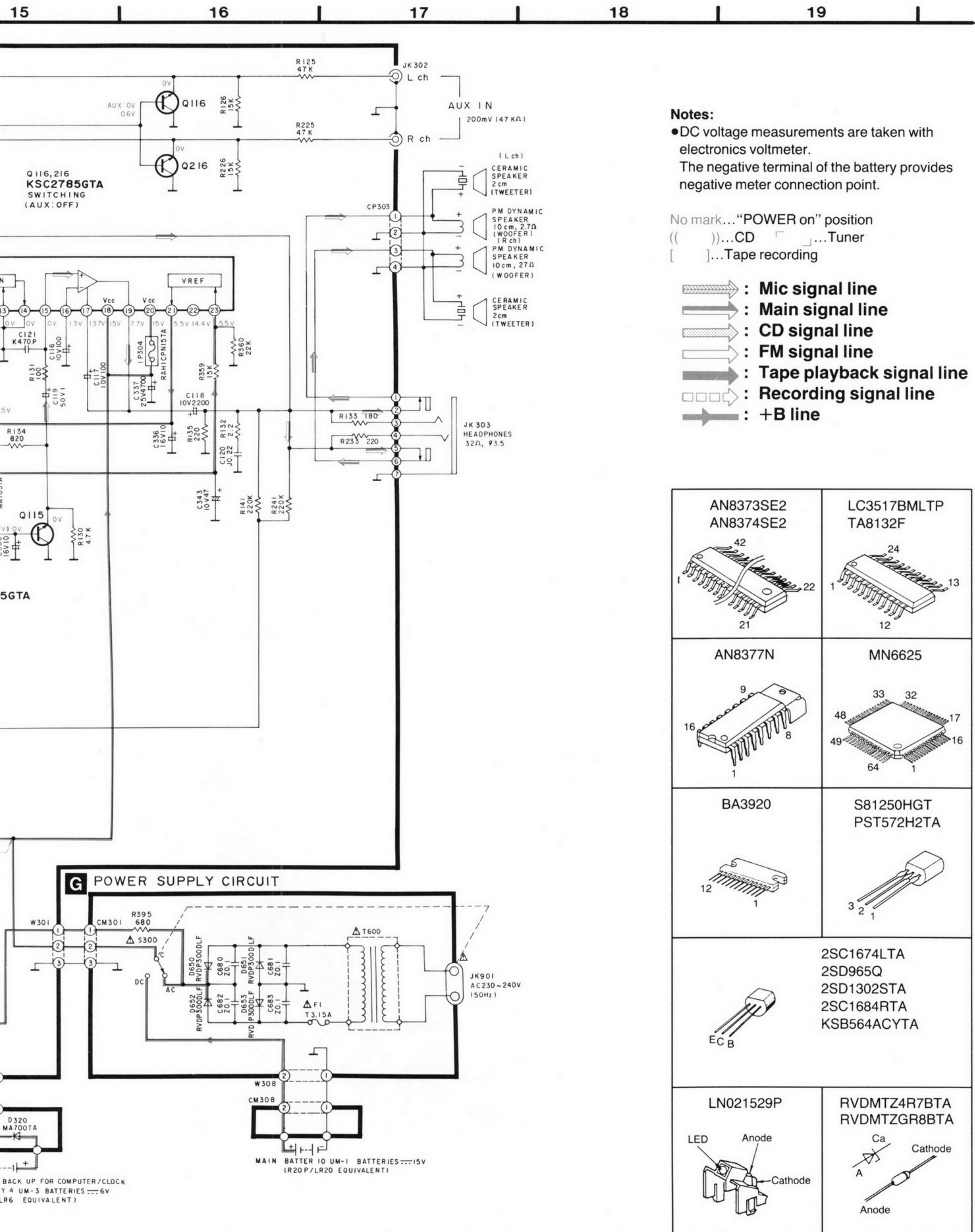


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F MECHANISM CIRCUIT





**Notes:**

•DC voltage measurements are taken with electronics voltmeter.  
The negative terminal of the battery provides negative meter connection point.

No mark... "POWER on" position  
( ( ) )...CD [ ]...Tuner  
[ ]...Tape recording

- : Mic signal line
- : Main signal line
- : CD signal line
- : FM signal line
- : Tape playback signal line
- : Recording signal line
- : +B line

<p>AN8373SE2 AN8374SE2</p>	<p>LC3517BMLTP TA8132F</p>
<p>AN8377N</p>	<p>MN6625</p>
<p>BA3920</p>	<p>S81250HGT PST572H2TA</p>
<p>EC B</p>	<p>2SC1674LTA 2SD965Q 2SD1302STA 2SC1684RTA KSB564ACYTA</p>
<p>LN021529P</p>	<p>RVDMTZ4R7BTA RVDMTZGR8BTA</p>

**Notes:**

- S300 : AC/DC select switch in "AC" position.
- S971 : Deck mode detect switch.
- S972 : Deck cassette tape insertion detect switch.
- S973 : Deck record prevention tab detect switch. (REV)
- S974 : Deck record prevention tab detect switch. (FWD)

●Battery current:


Vol min....199 mA (MW/LW)  
 202 mA (FM)  
 268 mA (Tape)  
 390 mA (CD)

Vol max....461 mA (MW/LW)  
 561 mA (FM)  
 762 mA (Tape)  
 1430 mA (CD)

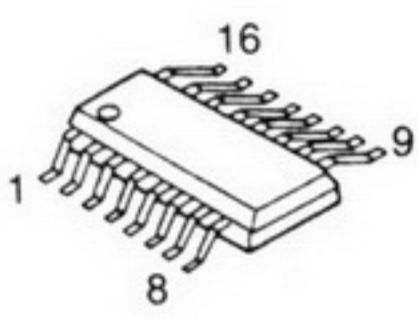
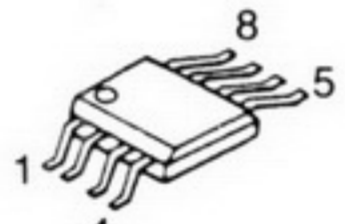
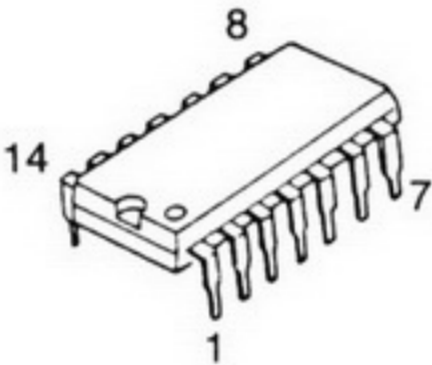
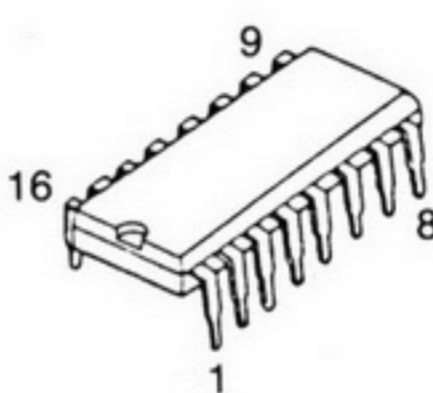
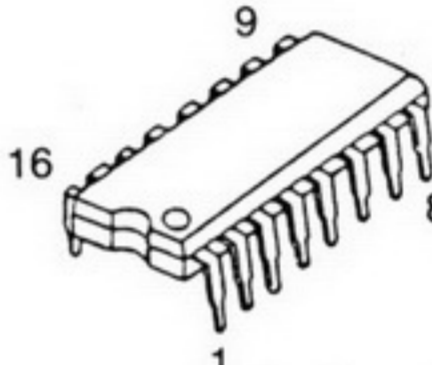
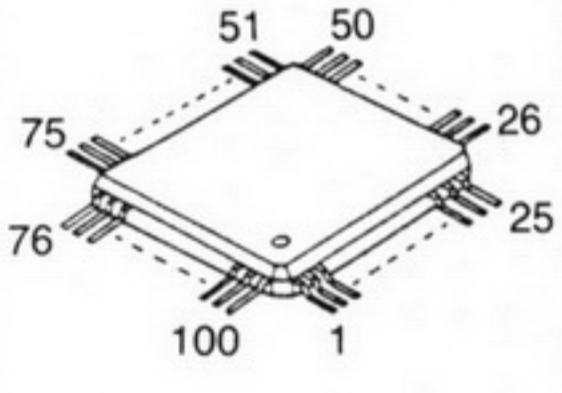
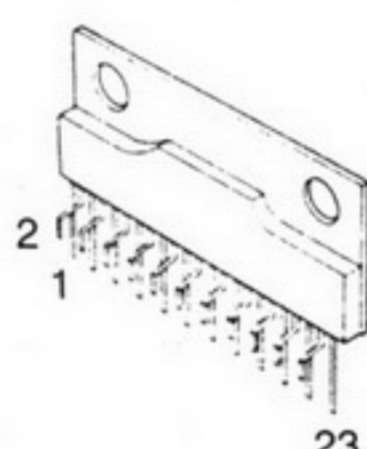
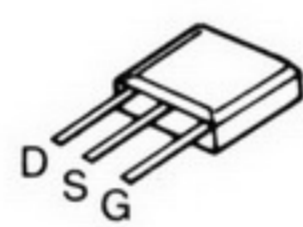
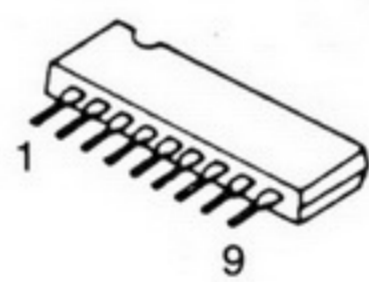
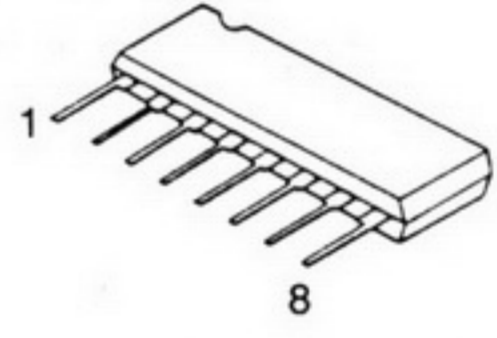
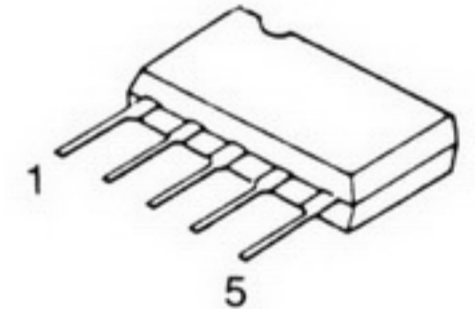
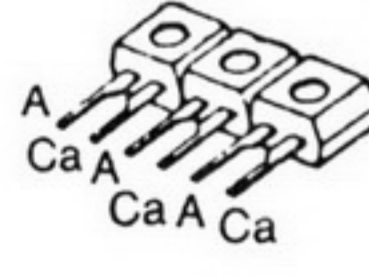
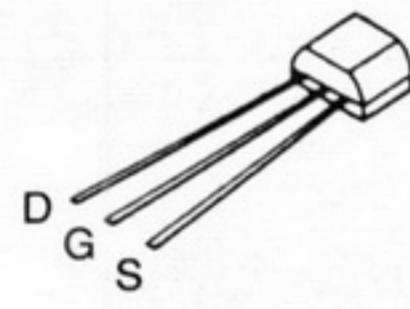
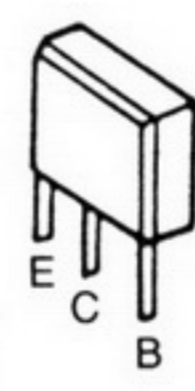
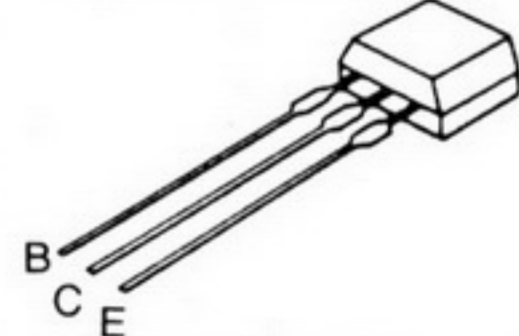
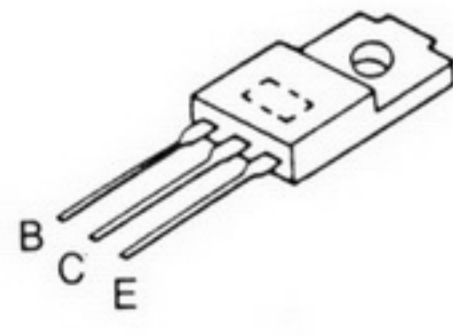
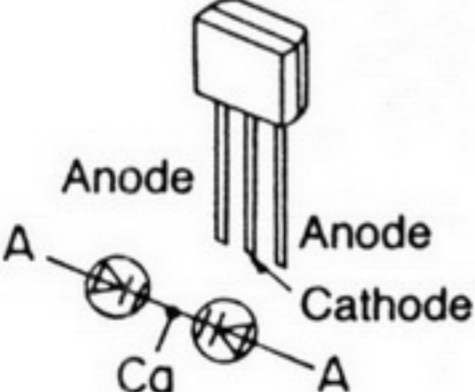
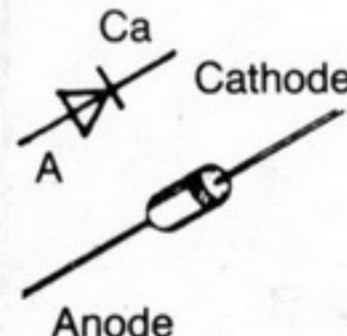
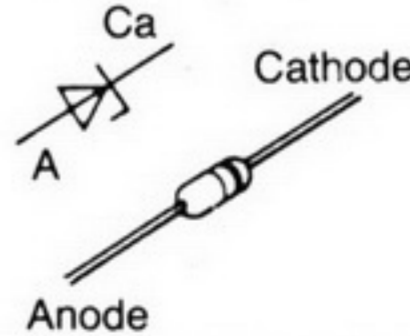
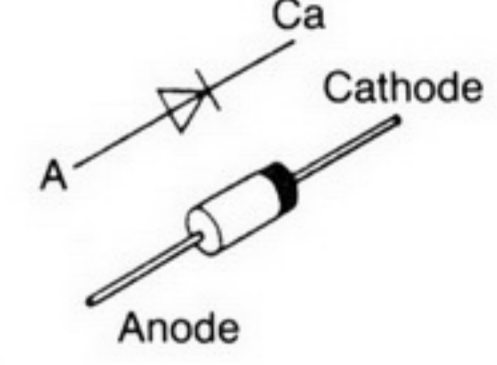
Measurement instruction

( MW/LW: 400 Hz, 30% Mod, 74 dB/m  
 FM: 1 kHz, 30% Mod, 60 dB  
 CD: 1 kHz playback  
 Tape: 315 Hz, 0 dB playback )

●Important safety notice.

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

●This schematic diagram may be modified at any time with the development of new technology.

SM5807ESE2 UPD6376GSE2 	RVITA7358FT 	MC14066BCP 	BU2040 	LM7001 TA8410P 	
MN1871610RRX 	AN7134N-R 	2SJ164QTA 	BA6418N 	BA15218N-DX 	BA7755 
RVDKV1235Z2 	2SK381CTA 		2SA1309STA 2SC3311AR 2SC3311R 2SC3312RTA 2SA1309R 2SC3313B 2SD1450RTA UN411FTA	UN421FTA UN4110TA UN4115 UN4216TA UN4217TA UN4216-S	RVTDTA143XST RVTDTA114TST KSC2785GTA 
2SB1393AU 	1SV147T4MATU 		MA165TA MA700TA MA723TA MA165		
MA4051MTA 