

Service Manual

Portable Stereo CD System

Radio Cassette
RX-DS650

COMPACT
disc
DIGITAL AUDIO

DIGITAL



Color

(K)... Black Type

Area

Country Code	Area	Color
(E)	Continental Europe.	(K)
(EB)	Great Britain.	
(EG)	F.R. Germany & Italy.	

RX-FD55 MECHANISM SERIES (AR300)

■ SPECIFICATIONS

General:

Power Requirement: AC; 220V, 50Hz...(E, EG)
240V, 50Hz...(EB)
Battery; 15V (10 UM-1, R20/LR20 batteries)

Power Consumption: 45W (AC only)
Power Output: 60W...PMPO
30W...MPO

Speakers: 2-Woofers; 16cm (2.7Ω)
2-Tweeters; 2cm

Input: AUX; 200mV/47kΩ
Output: Speaker; 2.7~8Ω
Headphones; 32Ω, φ3.5

Dimensions (W × H × D): 702 × 229 × 218mm
Main unit; 349 × 229 × 217mm
Speaker box; 185 × 218 × 183mm

Weight: 6.8kg without batteries

CD Player Section:

Sampling Frequency: 44.1kHz
D-A Conversion: 16-bit linear
Beam Source: Semiconductor laser
(wavelength 780 nm)

No. of Channels: 2 channels, stereo
Frequency Response: 20~20,000Hz (+1/-1dB)

S/N Ratio: 75dB (1kHz)
Measure point: speaker out
Wow and Flutter: Unmeasurable

Radio Section:

Frequency Range: FM; 87.5~108MHz
LW; 148.5~285kHz
MW; 520~1610kHz

Intermediate Frequency: FM; 10.7MHz
AM; 459kHz

Sensitivity: FM; 4.5μV/50mW output
(-3dB Limit Sens)
LW; 224μV/m/50mW output
MW; 142μV/m/50mW output

Tape Section:

Frequency Response: 40~13,000Hz (with normal tape)
40~14,000Hz (with CrO₂ tape)

Tape Speed: 1-7/8 ips (4.8cm/s)
Track System: 4-track 2-channel, stereo
Recording System: AC bias
Erasing System: AC erase
Monitor System: Variable sound monitor

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

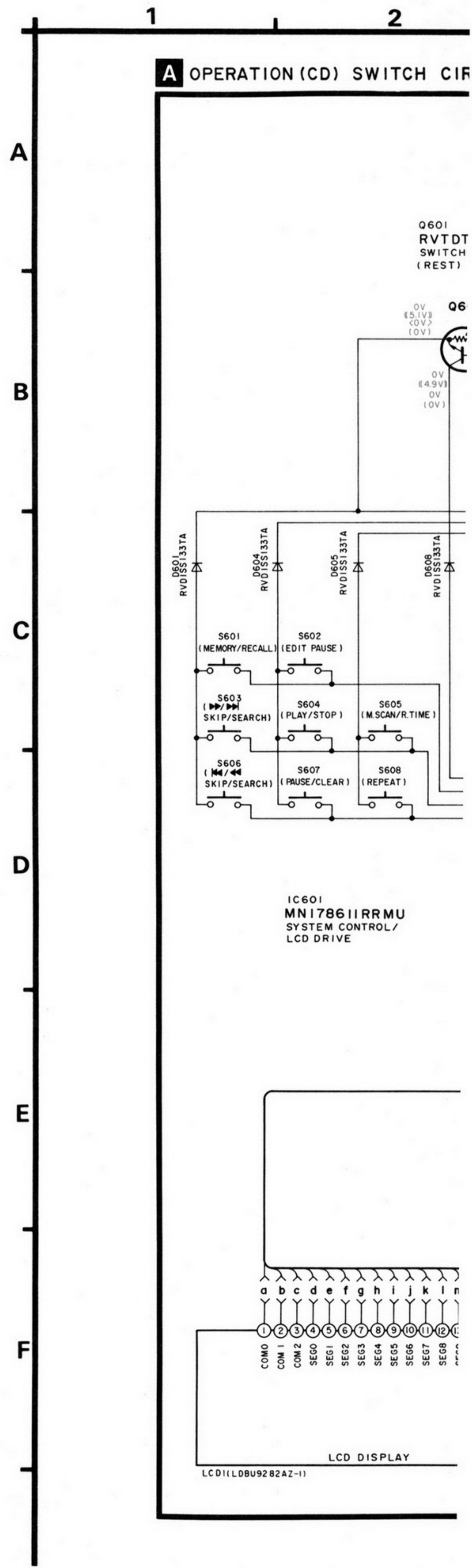
Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

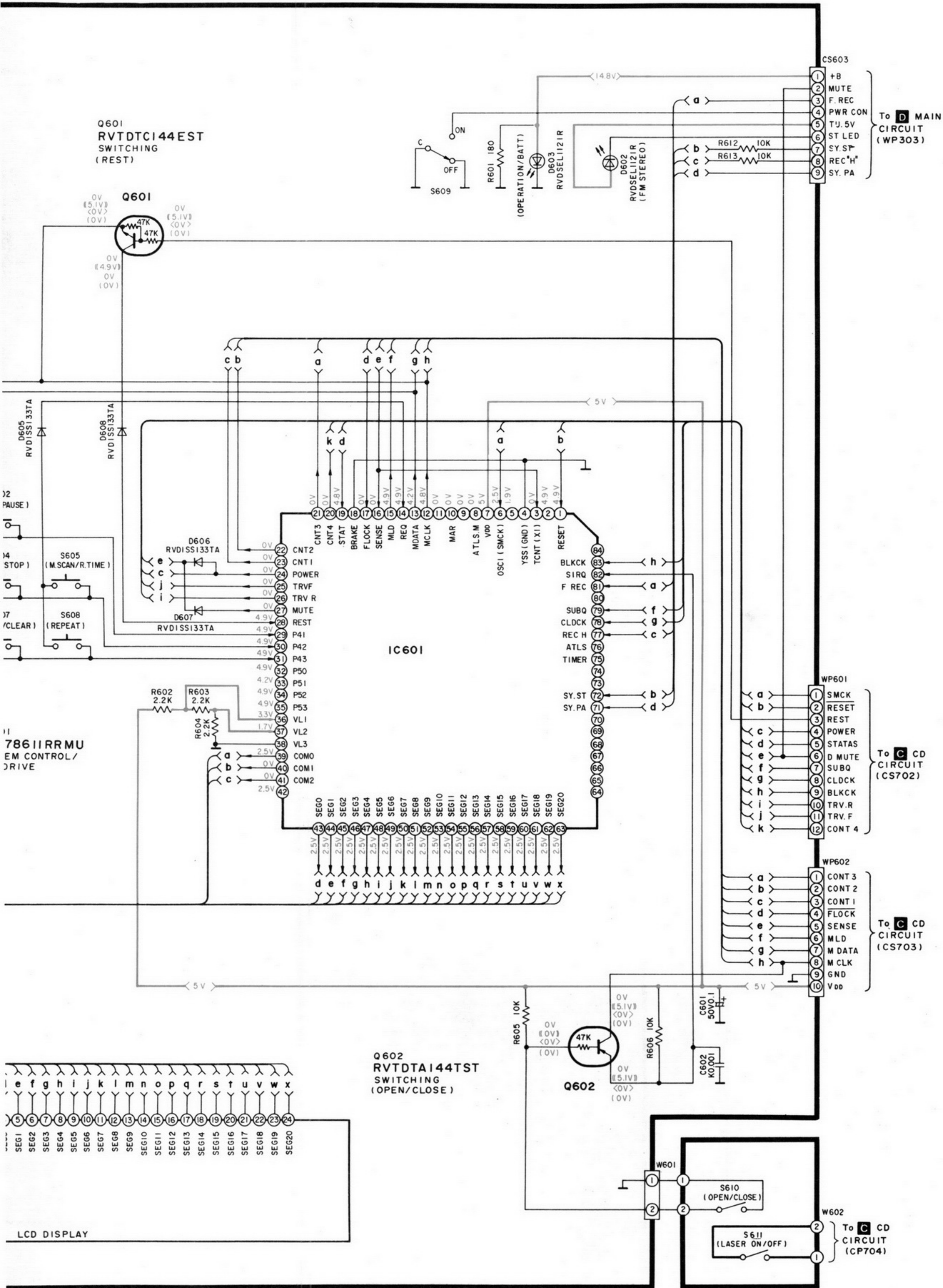
SCHEMATIC DIAGRAM (for CD Operation Circuit Section)

Notes:

1. S601 : Memory/Recall switch.
 2. S602 : Edit pause switch.
 3. S603 : Skip/Search switch (▶▶/▶▶▶).
 4. S604 : Play/Stop switch.
 5. S605 : Music scan/Remaining time switch.
 6. S606 : Skip/Search switch (◀◀/◀◀◀).
 7. S607 : Pause/Clear switch.
 8. S608 : Repeat switch.
 9. S609 : Power switch in "OFF" position.
 10. S610 : Open/Close switch. (CD lid close detection)
 11. S611 : Laser ON/OFF switch.
 12. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
No mark: Playback, < >: FM, (): AM, (()): CD
< >: Voltage lines
- This schematic diagram may be modified at any time with the development of new technology.



CD) SWITCH CIRCUIT

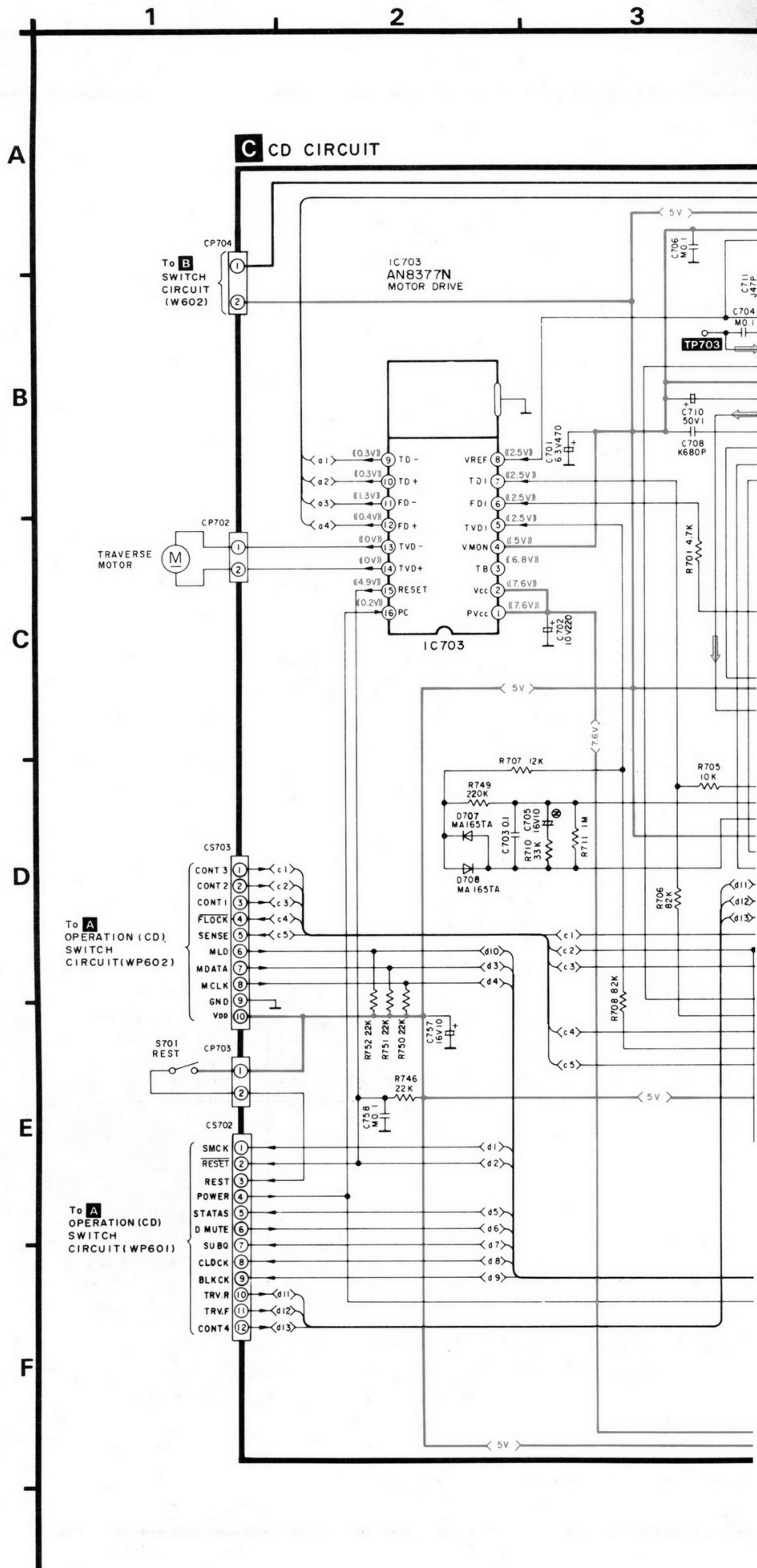


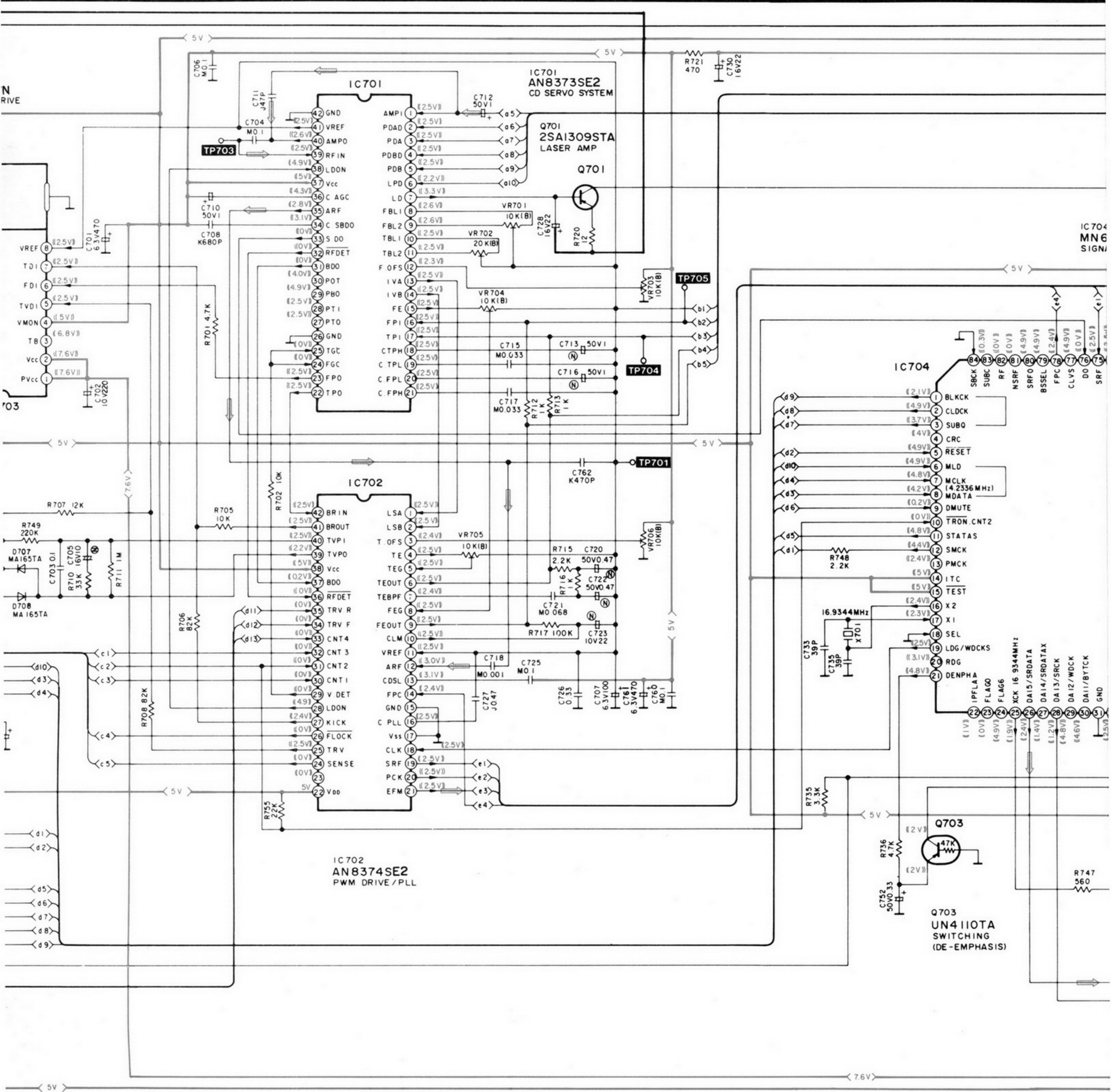
B SWITCH CIRCUIT

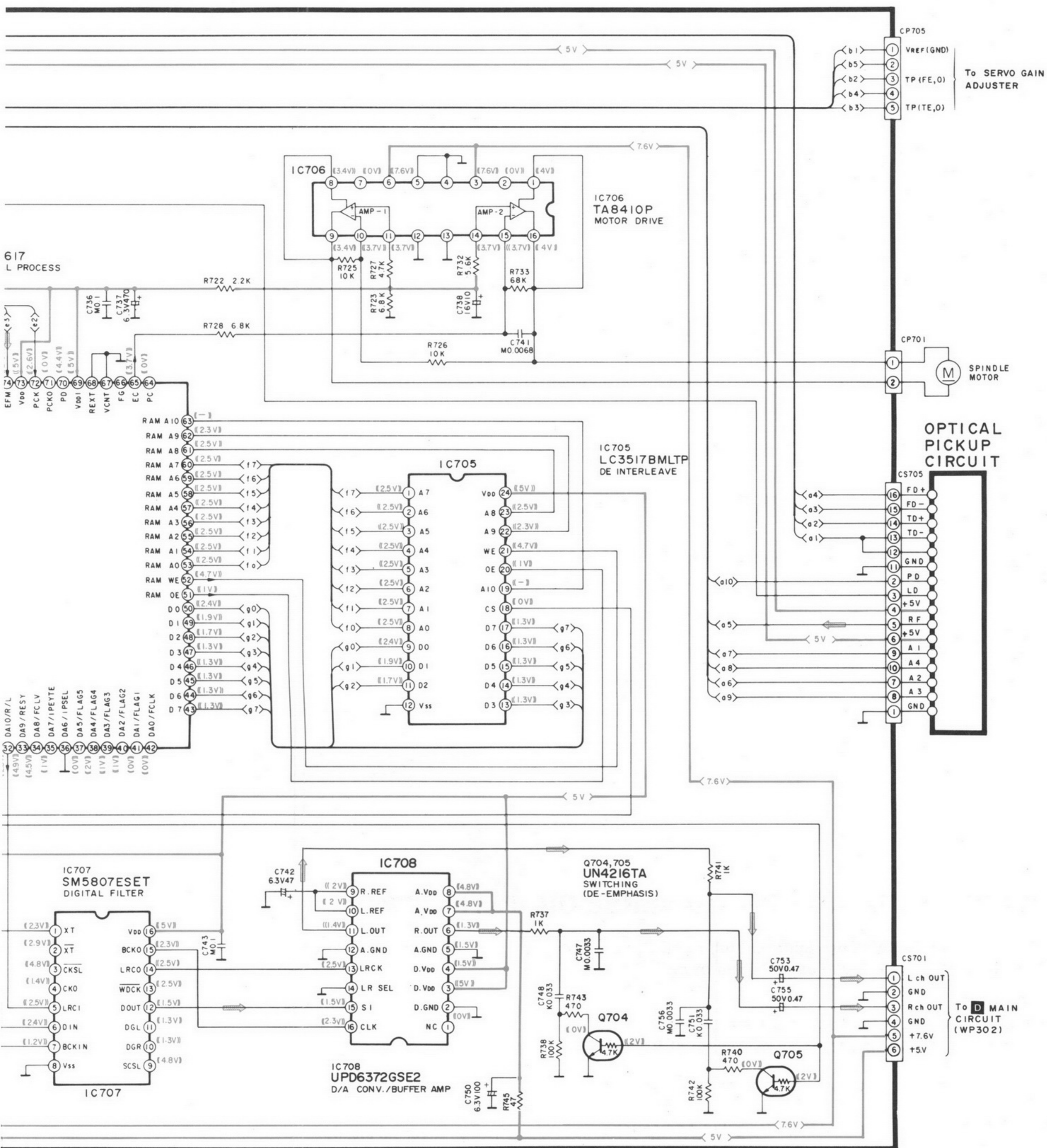
SCHEMATIC DIAGRAM (for CD Circuit Section)

Notes:

1. S701 : Rest switch.
2. VR701 : Best eye adjustment VR.
3. VR702 : Tracking balance adjustment VR.
4. VR703 : Focus offset adjustment VR.
5. VR704 : Focus gain adjustment VR.
6. VR705 : Tracking gain adjustment VR.
7. VR706 : Tracking offset adjustment VR.
8. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
- (()): CD
- < > : Voltage lines
- : CD signal
9. The mark (■) shows test point. e.g. TP1 = test point 1.
- This schematic diagram may be modified at any time with the development of new technology.







SCHEMATIC DIAGRAM (for Main, G. EQ, Mechanism and Power Supply Circuit Section)

Notes:

1. S1-1~ : Band selector switch in "FM" position.
S1-6 (F...FM, L...LW, M...MW)
2. S2 : FM mode/Beat proof switch in "STEREO/|||" position.
(M/I...MONO/|, S/II...STEREO/||, S/III...STEREO/|||)
3. S3 : AC/DC select switch in "AC" position.
4. S301-1~ : Function selector switch in "TAPE" position.
S301-4 (A...AUX, CD...CD, R...TUNER, T...TAPE)
5. S612 : Fast/TPS switch. (◀◀ TPS)
6. S613 : Reverse playback switch. (◀)
7. S614 : Forward playback switch. (▶)
8. S615 : Stop switch.
9. S616 : Fast/TPS switch. (▶▶ TPS)
10. S617 : Rec pause switch.
11. S618 : Reverse mode selector switch in "(↻)" position.
(↻ ...Auto-continuous, ↻ ...Auto-reverse, ↻ ...Non-reverse)
12. S620 : XBS switch in "OFF" position.
13. S971 : Mode switch in "OFF" position.
14. S972 : Cassette half detection switch in "OFF" position.
15. S973 : Rev. Rec Inhibit switch in "OFF" position.
16. S974 : For. Rec Inhibit switch in "OFF" position.
17. S975 : ATS (CrO₂) switch in "OFF" position.
18. VR1 : FM MPX VCO adjustment VR.
19. VR301 : Rec bias voltage adjustment VR.
20. VR601 : Balance control VR.
21. VR602 : Graphic E.Q. (100Hz)/XBS level control VR.
22. VR603 : Graphic E.Q. (330Hz) control VR.
23. VR604 : Graphic E.Q. (1kHz) control VR.
24. VR605 : Graphic E.Q. (3.3kHz) control VR.
25. VR606 : Graphic E.Q. (10kHz) control VR.
26. VR607 : Volume control VR.
27. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
No mark: Playback, < >: FM, (): AM,
[]: Recording, (()): CD
→ : FM signal
→ : Playback signal
→ : CD signal
→ : Recording signal
→ : Main signal
< >: Voltage lines
28. Battery current: No signal (Radio) 330mA (VR MIN)
Maximum output (VR MAX)
Radio..... 1120mA
Tape (PLAY) 1530mA
CD Play..... 1850mA
- Measurement instruction
(Radio: FM 60dB, 30% Mod.)
(Tape: 315Hz, 0dB)
29. The mark (■) shows test point. e.g. TP1 = test point 1.
30. 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.

A

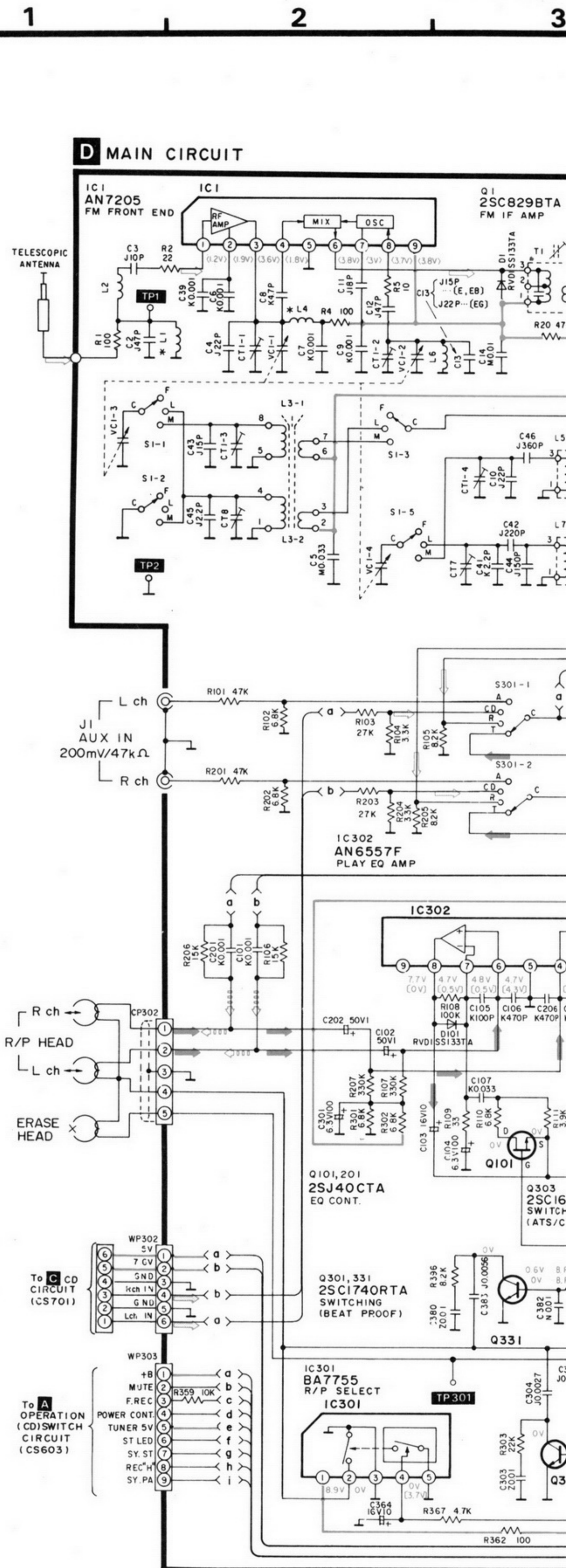
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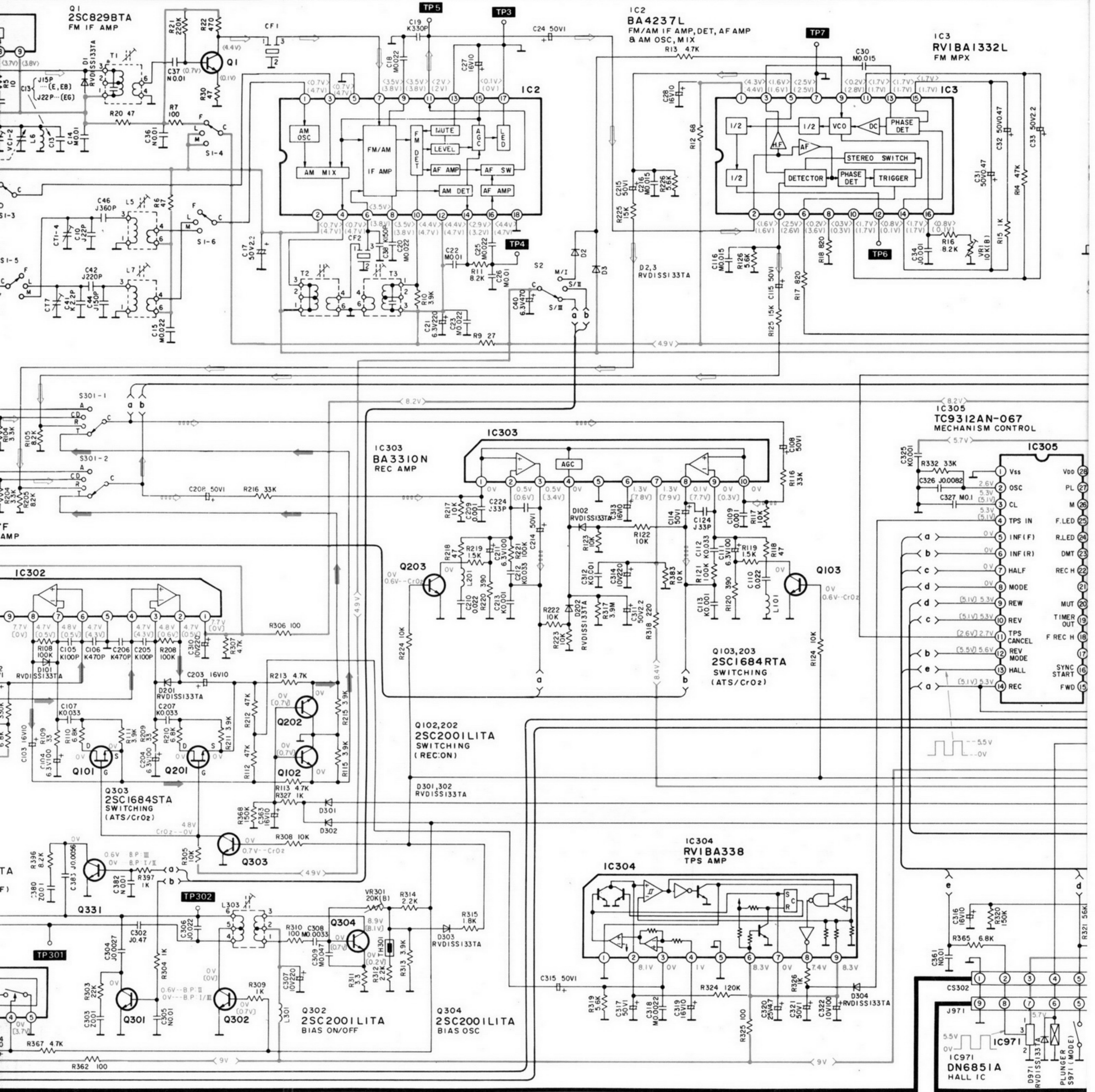
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D

E

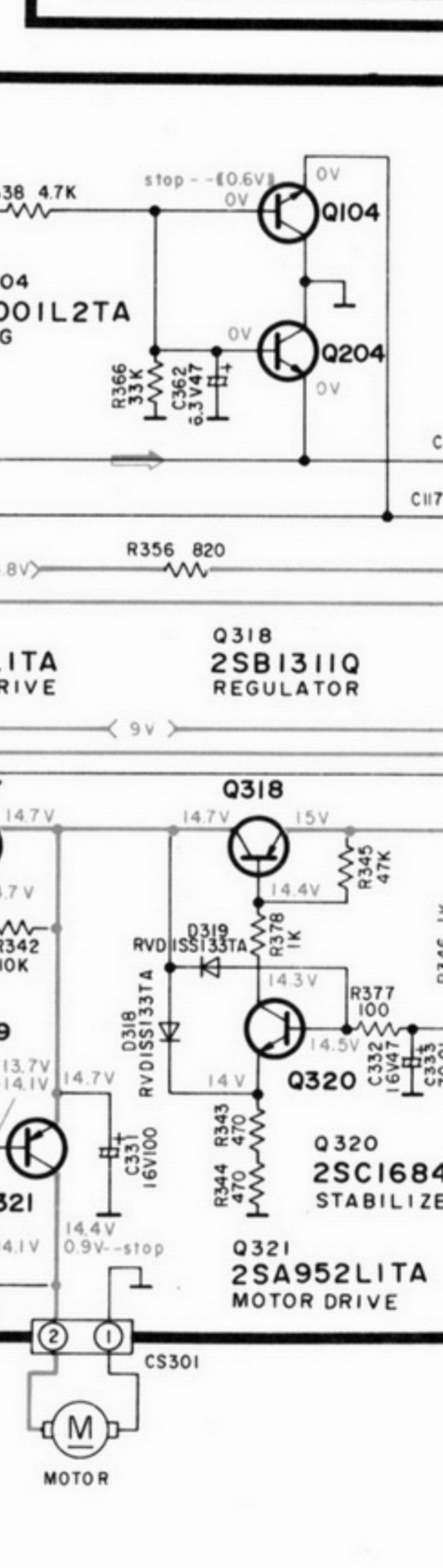
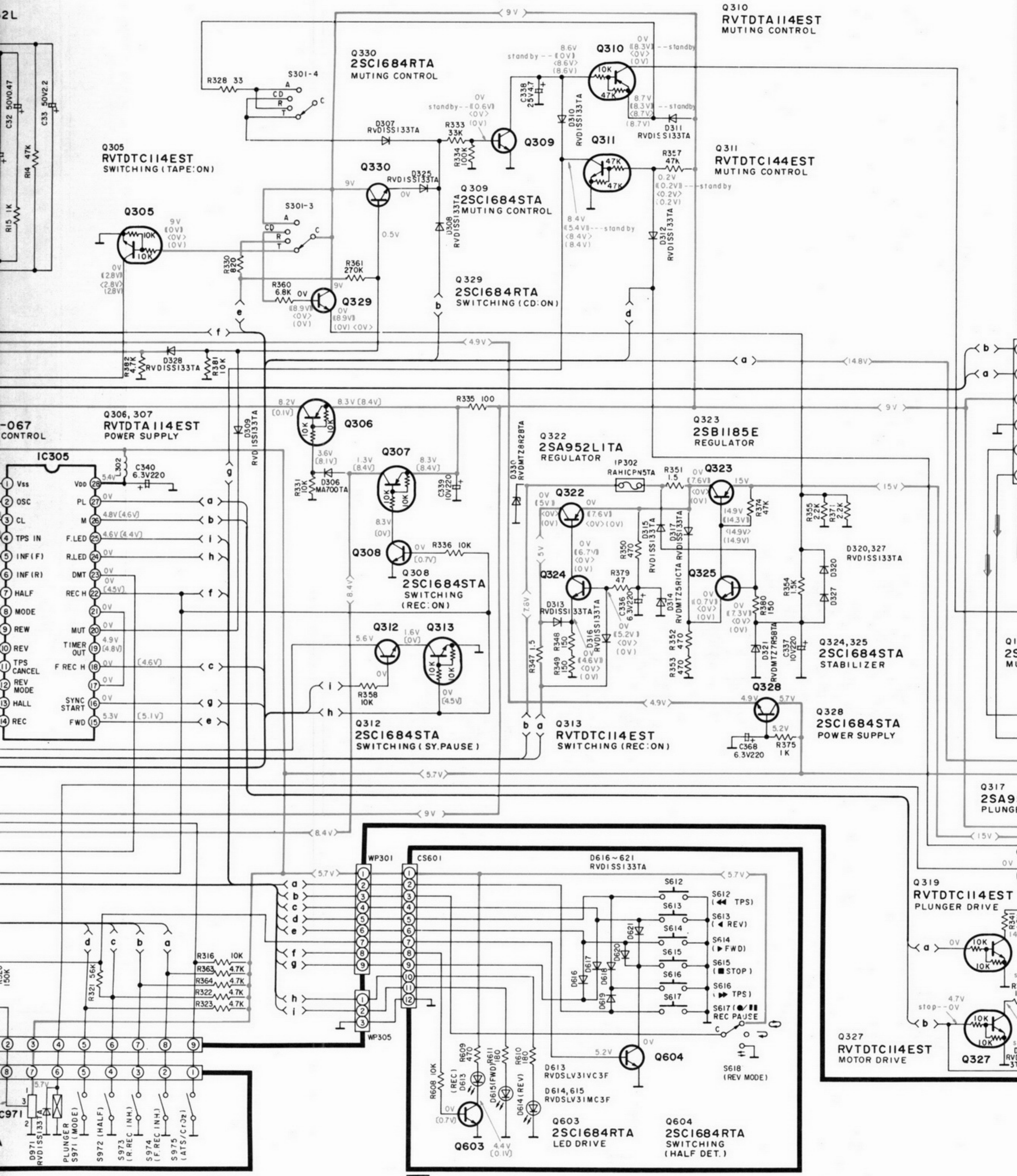
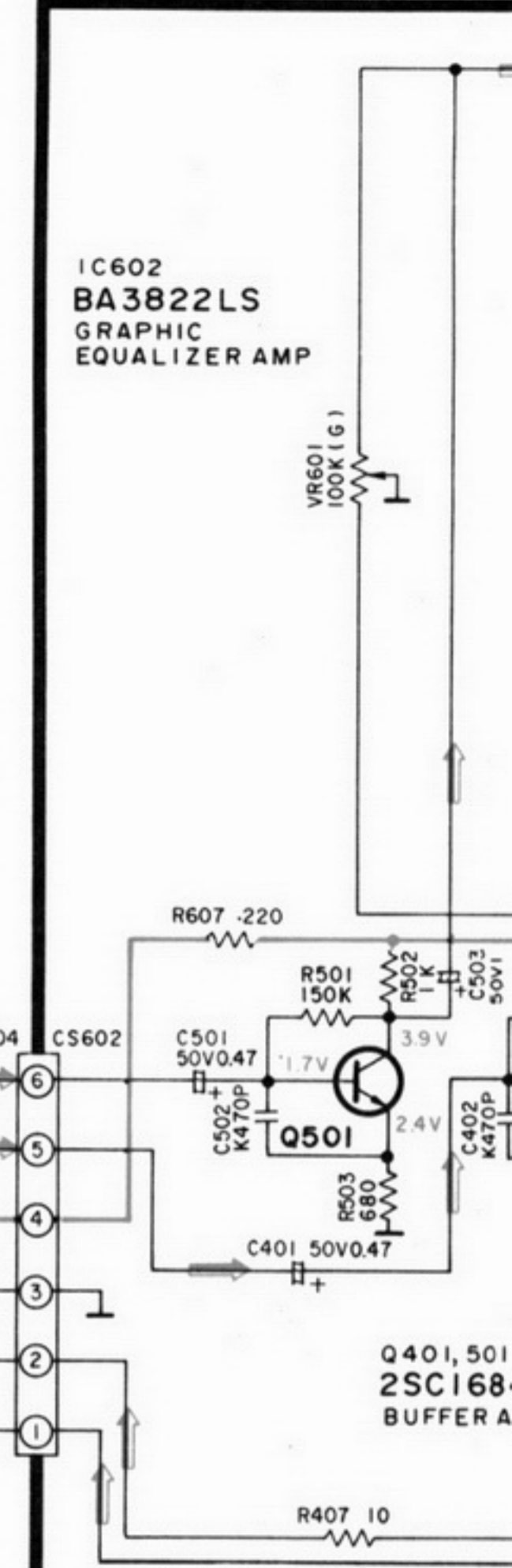
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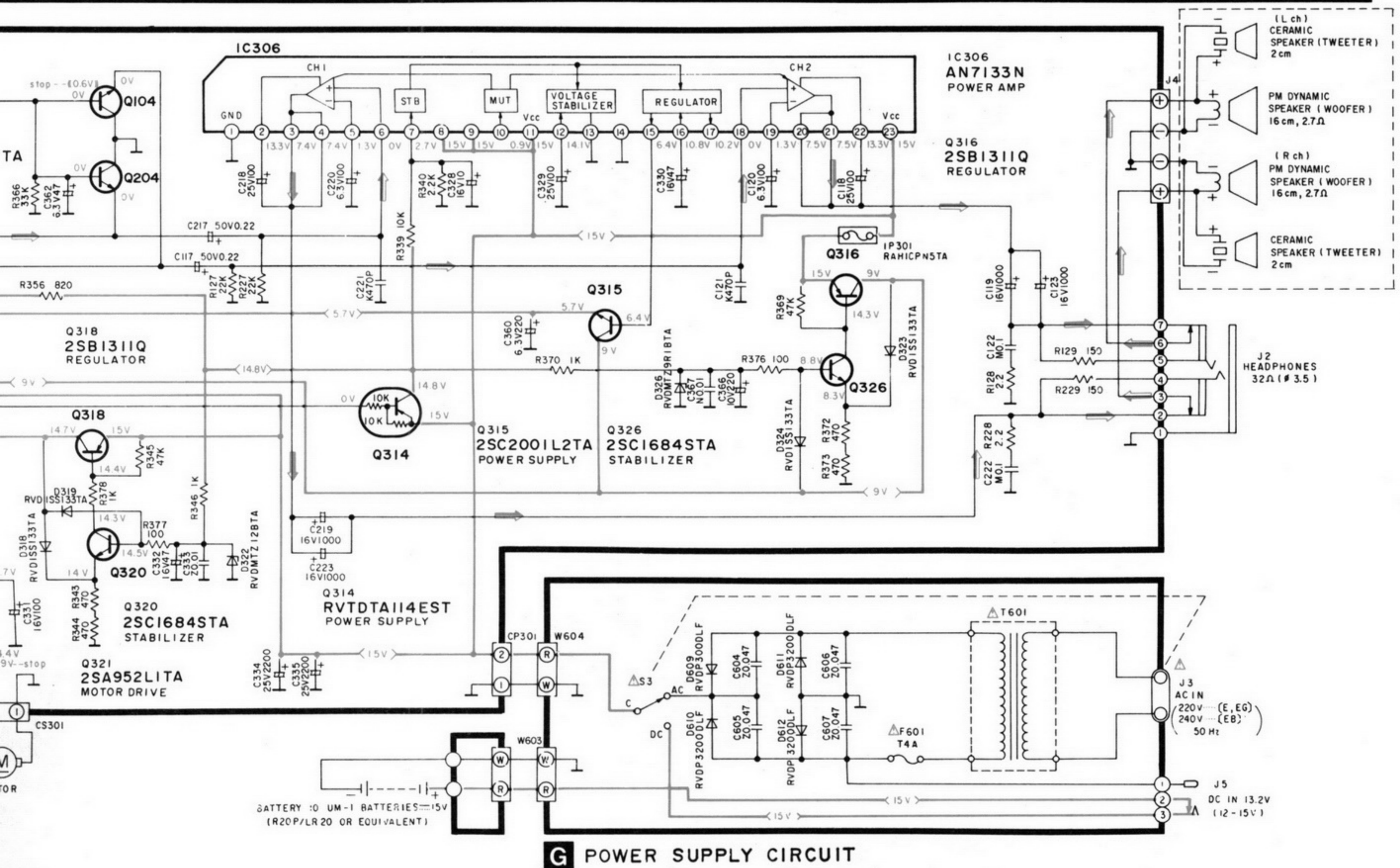
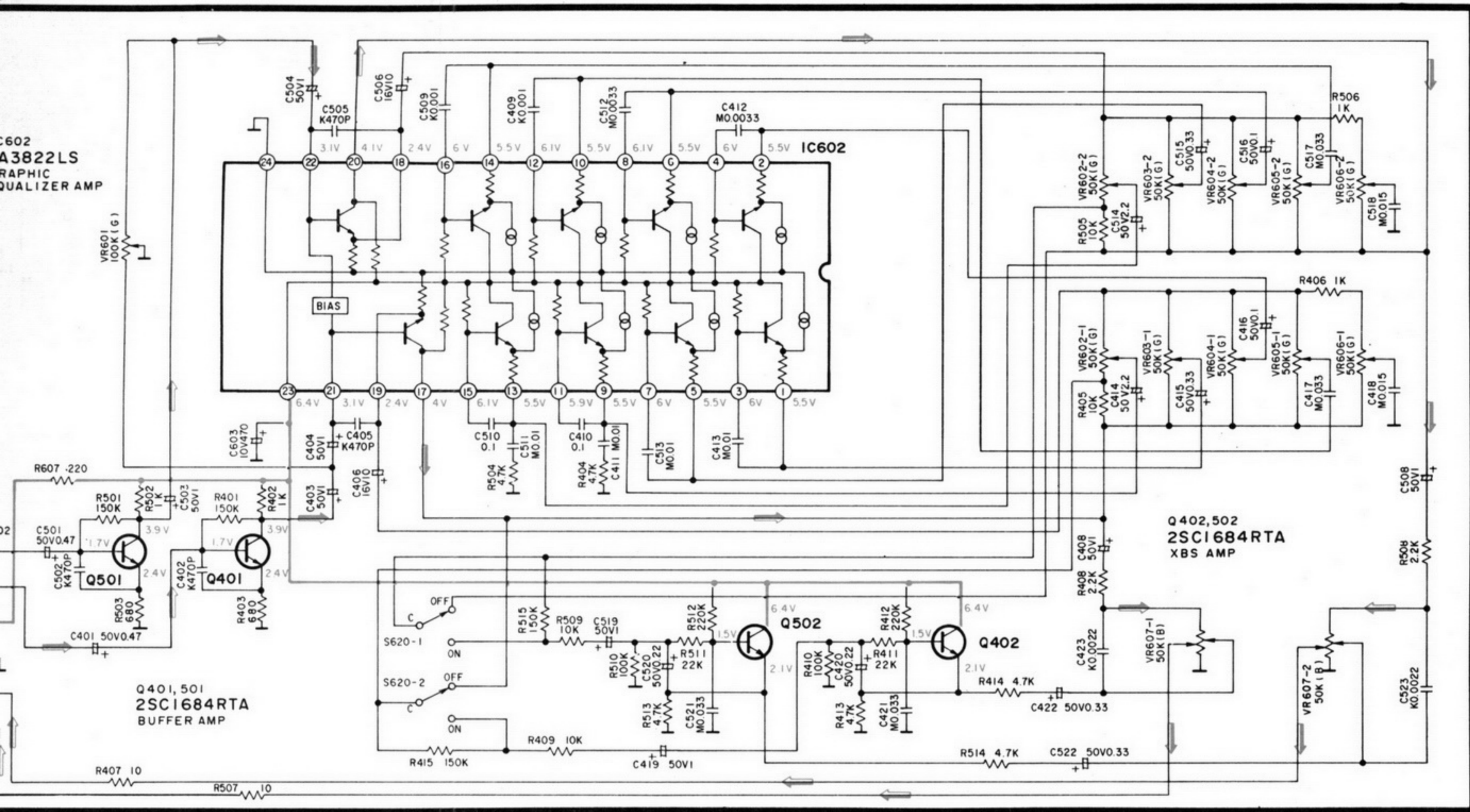
H MECHANISM CIRC

E GRAPHIC EQUALIZER



F DECK CONTROL SWITCH CIRCUIT

GRAPHIC EQUALIZER AMP CIRCUIT



POWER SUPPLY CIRCUIT