

Service Manual

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping

CD Stereo System
SA-CH34

Colour

(K) ... Black Type



Remote Control
Transmitter

SB-CH34

SA-CH34

SB-CH34

Area

Suffix for Model No.	Area	Colour
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	

TAPE SECTION : SG20W MECHANISM SERIES
CD SECTION : RAE0150Z TRAVERSE DECK SERIES

Specifications

Amplifier Section

1 kHz continuous power output, both channels driven	2 x 20 W (THD 1%, 4 Ω)
RMS	2 x 30 W (THD 10%, 4 Ω)
Total harmonic distortion	
Half power at 1 kHz	0.1 % (4 Ω)
Frequency response	
CD	45 Hz – 20 kHz (–3 dB)
Input sensitivity and impedance	
AUX	250 mV, 47 kΩ
Load impedance	4 Ω

FM Tuner Section

Frequency range	87.50 – 108.00 MHz
Sensitivity	23.3 dBf
Total harmonic distortion	
MONO	0.3 %
STEREO	0.5 %
S/N	
MONO	60 dB
Image rejection at 98 MHz	35 dB
Stereo separation at 1 kHz	35 dB
Antenna terminal(s)	75 Ω (unbalanced)

AM Tuner Section

Frequency range	
MW	522 – 1611 kHz
LW	144 – 288 kHz
Sensitivity (for 500 mW)	
MW (at 999 kHz)	250 μV/m
LW (at 254 kHz)	500 μV/m

Notes :

- Specifications are subject to change without notice.
Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

System	Music Center	Speaker
SC-CH34 (E)	SA-CH34 (E)	SB-CH34 (E) (made in PAES)
SC-CH34 (EB)	SA-CH34 (EB)	
SC-CH34 (EG)	SA-CH34 (EG)	

Cassette Deck Section

Track system	4 track, 2 channel
Heads	
Playback	Solid permalloy head
Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s (17/8 ips)
Frequency response	
NORMAL	30 Hz - 14 kHz (+2 dB, –5 dB)
S/N (NORMAL type)	52 dB (A-WTD)
Wow and flutter	0.1 % (WRMS)
Fast forward and rewind time	Approx. 110 seconds with C-60 cassette tape

CD Section

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source/wave length	Semiconductor laser / 780 nm
Number of channels	Stereo
S/N	
CD UNIT OUT	95 dB (JIS. A)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)

General

Power consumption	91 W
Power supply	AC 50 Hz, 230 V (E, EG) AC 50 Hz, 230 – 240 V (EB)
Dimensions (W x H x D)	270 x 320 x 322 mm
Weight	6.3 kg

* MASH is a trademark of NTT.

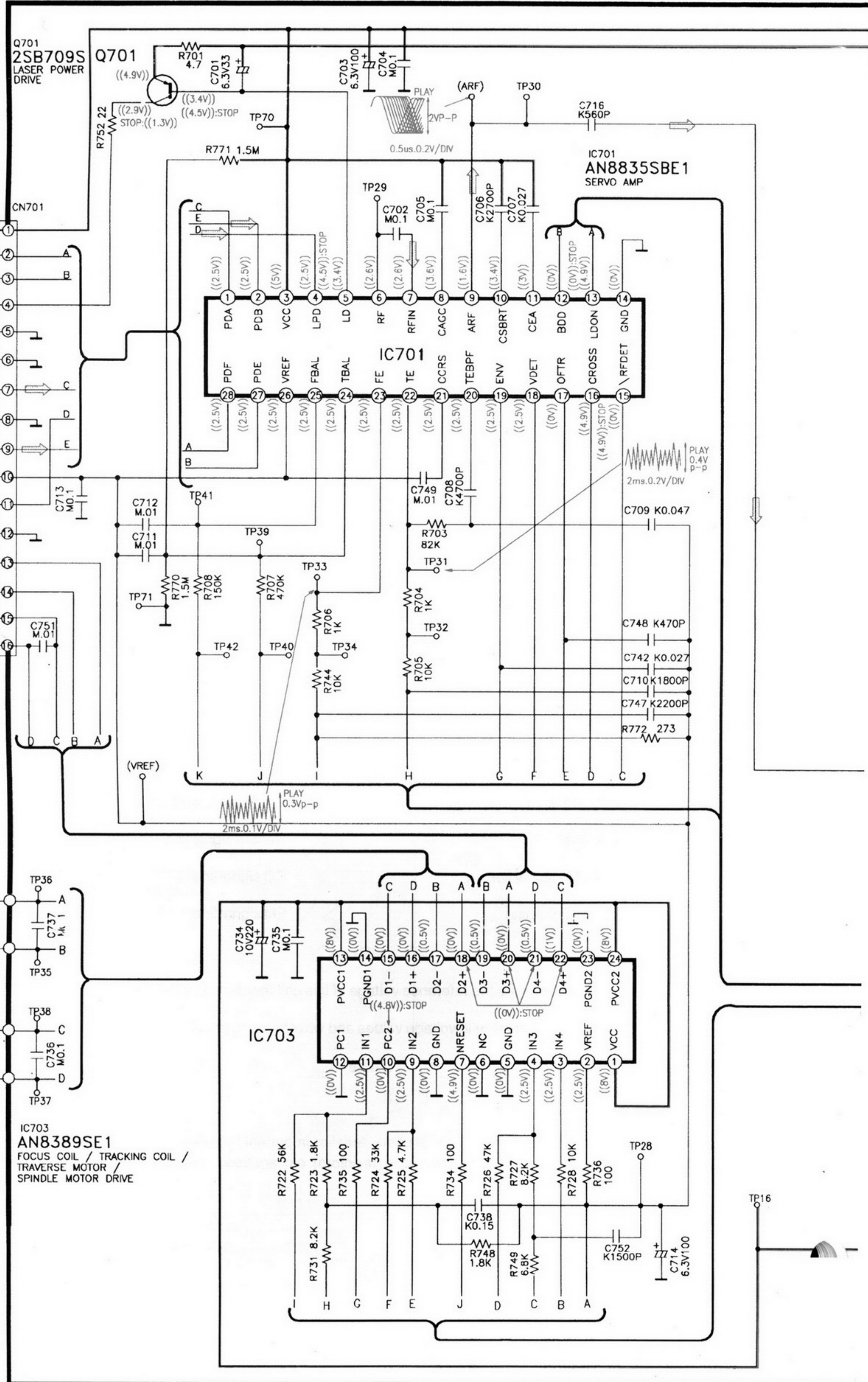
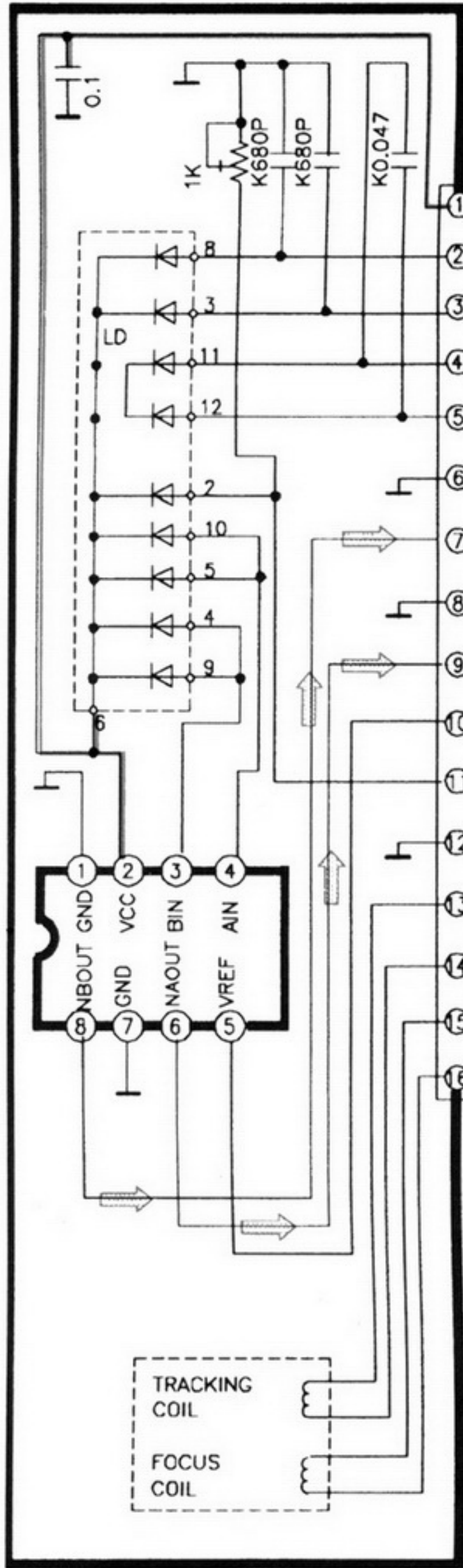
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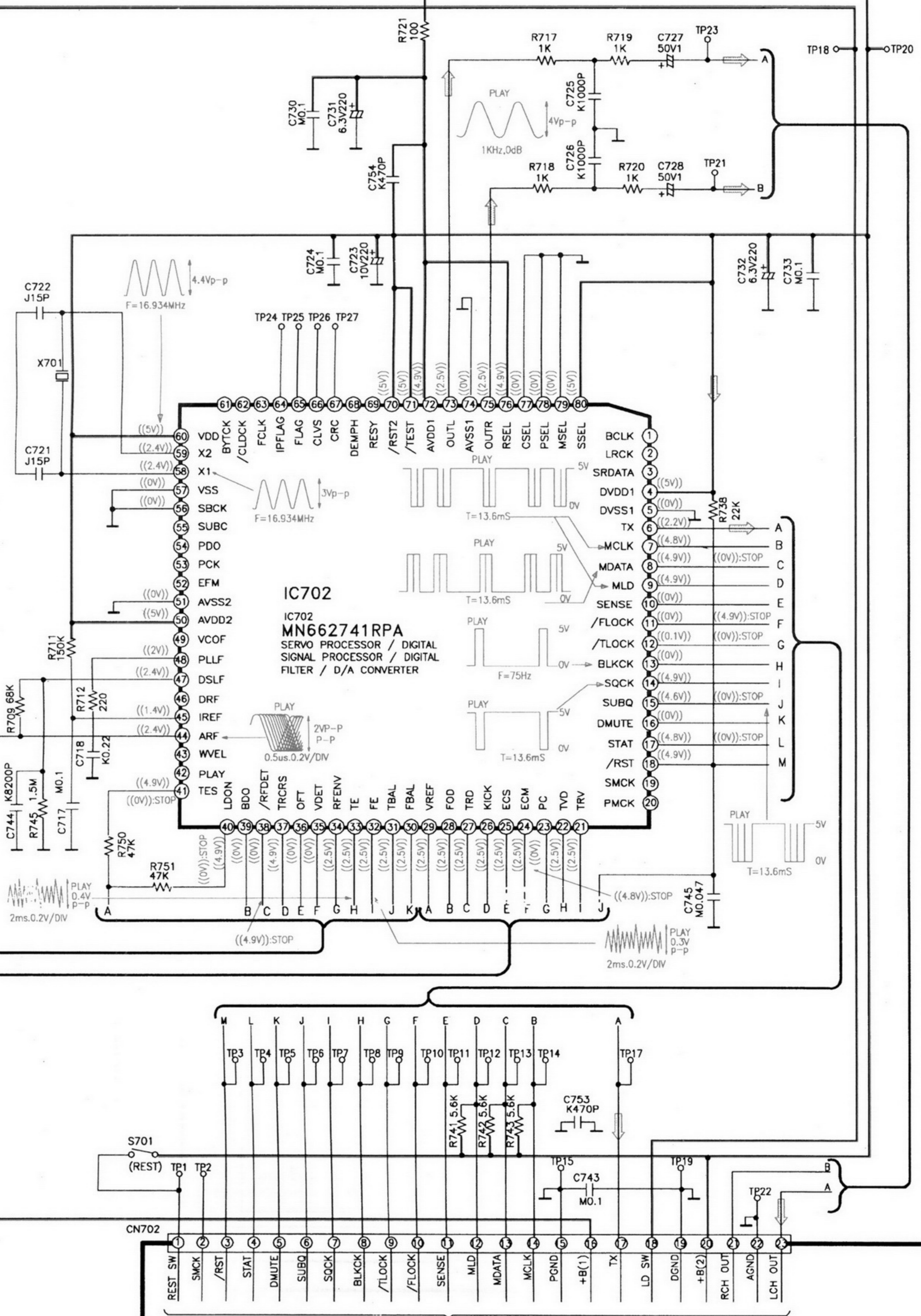
Panasonic[®]

Schematic Diagram

A SERVO CIRCUIT

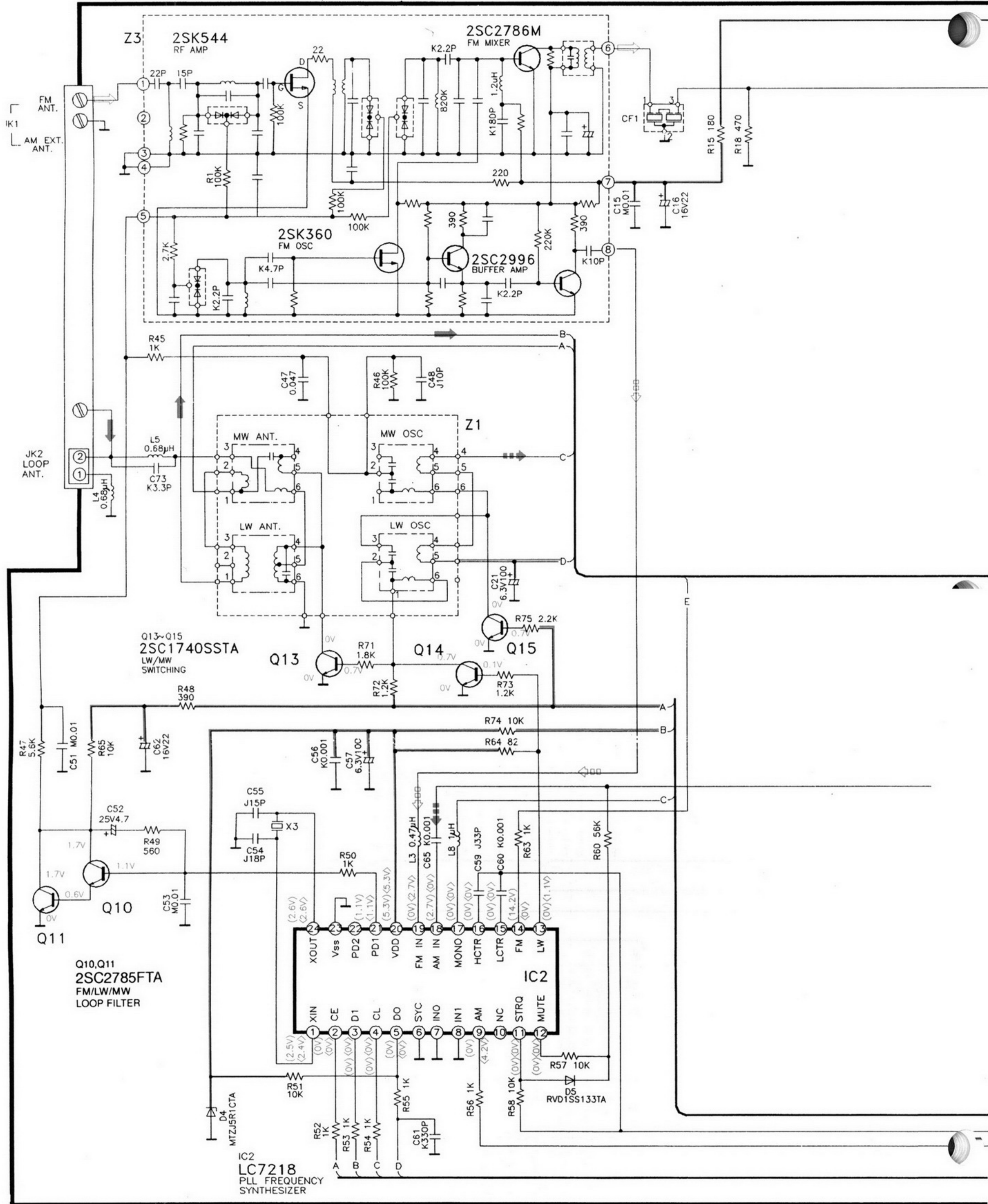
OPTICAL PICKUP

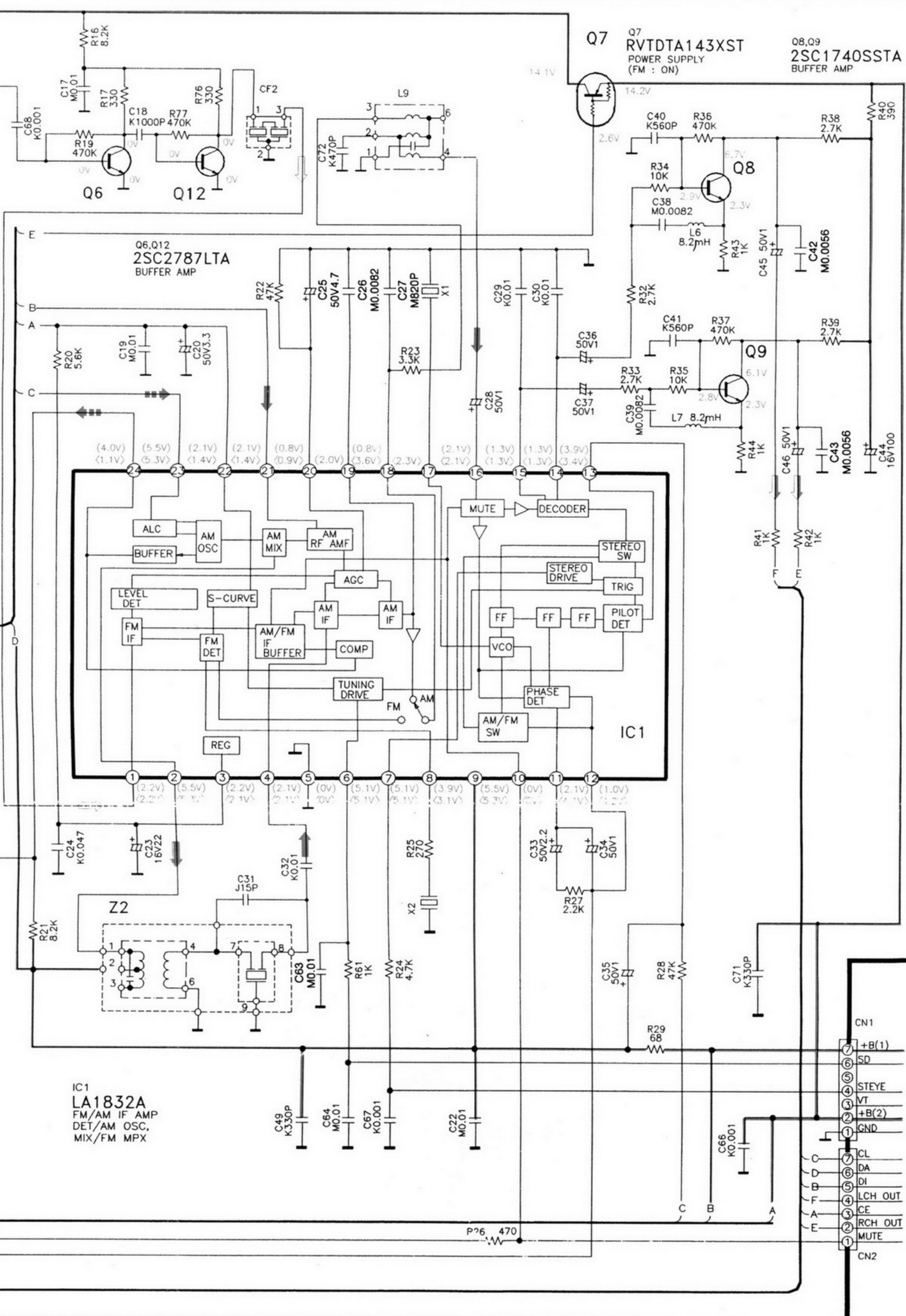




TO E PANEL CIRCUIT (CN804) (PAGE 42)

B TUNER CIRCUIT





IC1
LA1832A
FM/AM IF AMP
DET/AM OSC,
MIX/FM MPX

Q6,Q12
2SC2787LTA
BUFFER AMP

Q7
RVTDTA143XST
POWER SUPPLY
(FM : ON)

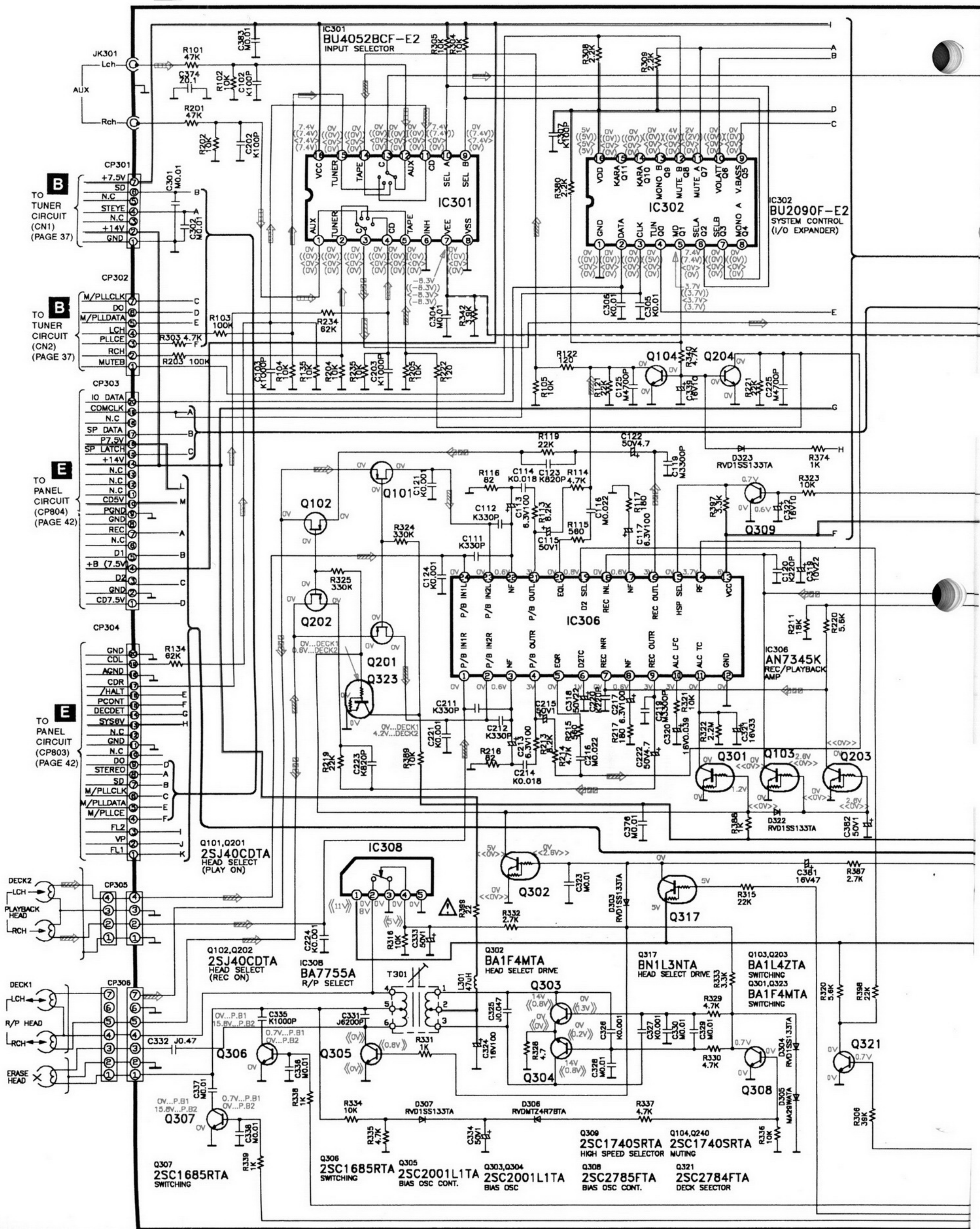
Q8,Q9
2SC1740SSTA
BUFFER AMP

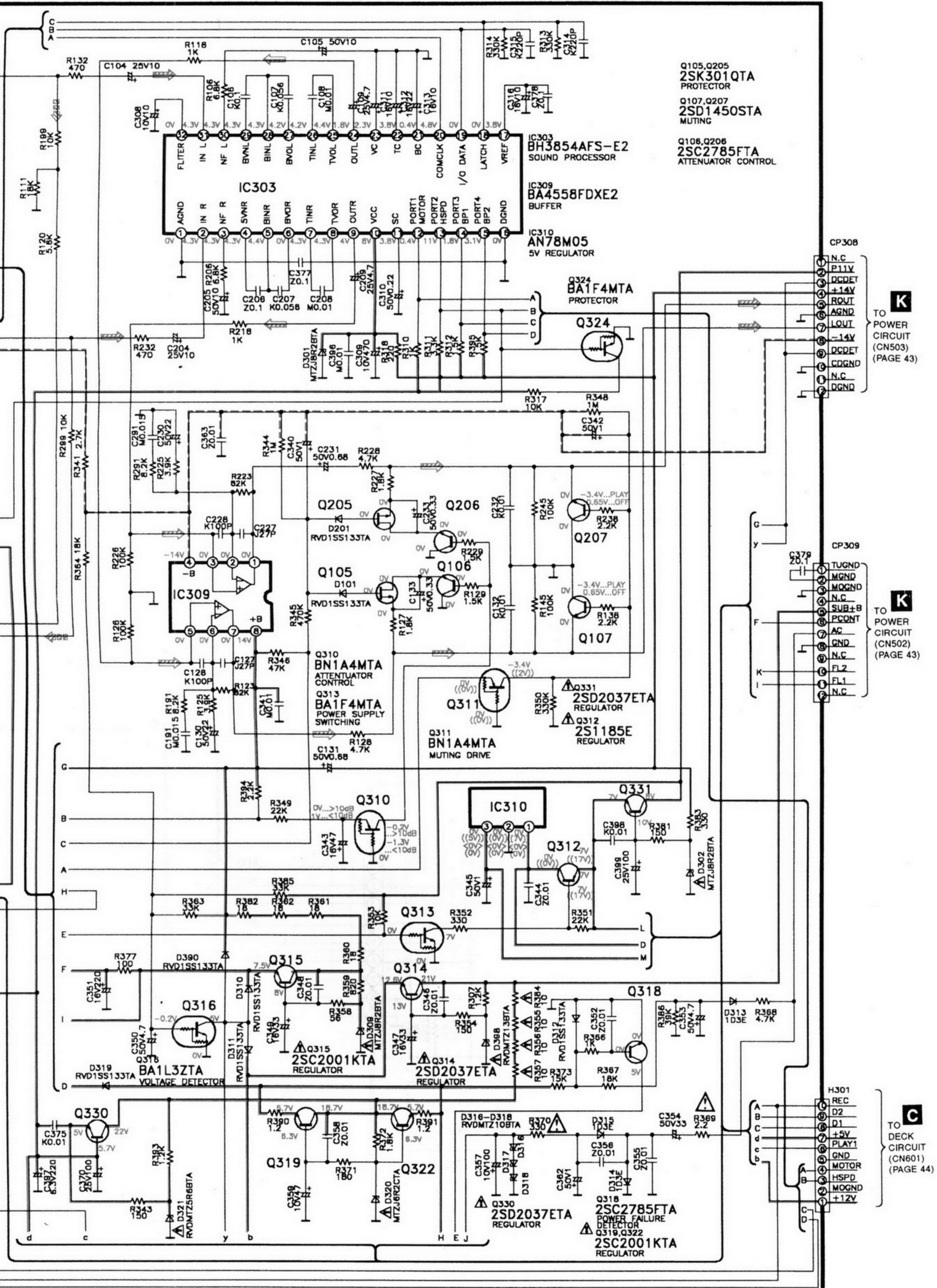
IC1
LA1832A
FM/AM IF AMP
DET/AM OSC,
MIX/FM MPX

TO MAIN
CIRCUIT
(CP301)
(PAGE 38)

TO MAIN
CIRCUIT
(CP302)
(PAGE 38)

D MAIN CIRCUIT





Q105, Q205
2SK301QTA
PROTECTOR

Q107, Q207
2SD1450STA
MUTING

Q106, Q206
2SC2785FTA
ATTENUATOR CONTROL

CP308

1	N.C.
2	P11V
3	DCDET
4	+14V
5	ROUT
6	AGND
7	LOUT
8	-14V
9	DCDET
10	CDGND
11	N.C.
12	DGND

TO POWER CIRCUIT (CN503) (PAGE 43)

CP309

1	TUGND
2	MGND
3	MOGND
4	N.C.
5	SUB+B
6	PCONT
7	AC
8	GND
9	N.C.
10	FL2
11	FL1
12	N.C.

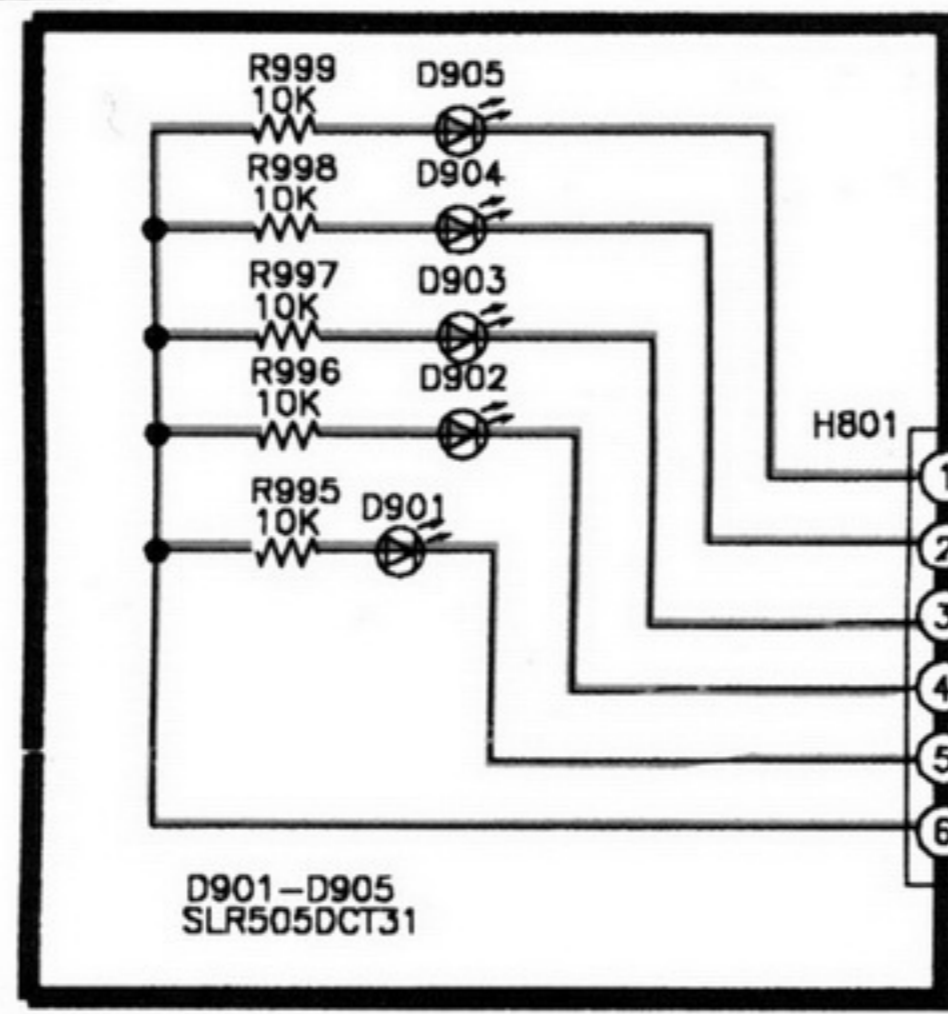
TO POWER CIRCUIT (CN502) (PAGE 43)

H301

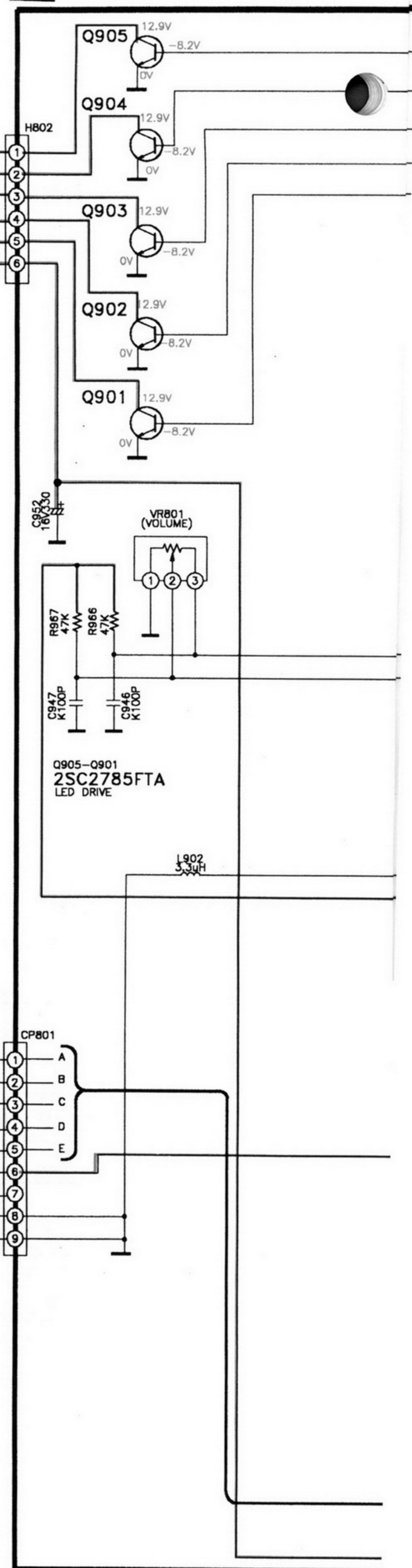
1	REC
2	D2
3	D1
4	+5V
5	PLAY1
6	GND
7	MOTOR
8	HSPD
9	MOGND
10	+12V

TO DECK CIRCUIT (CN601) (PAGE 44)

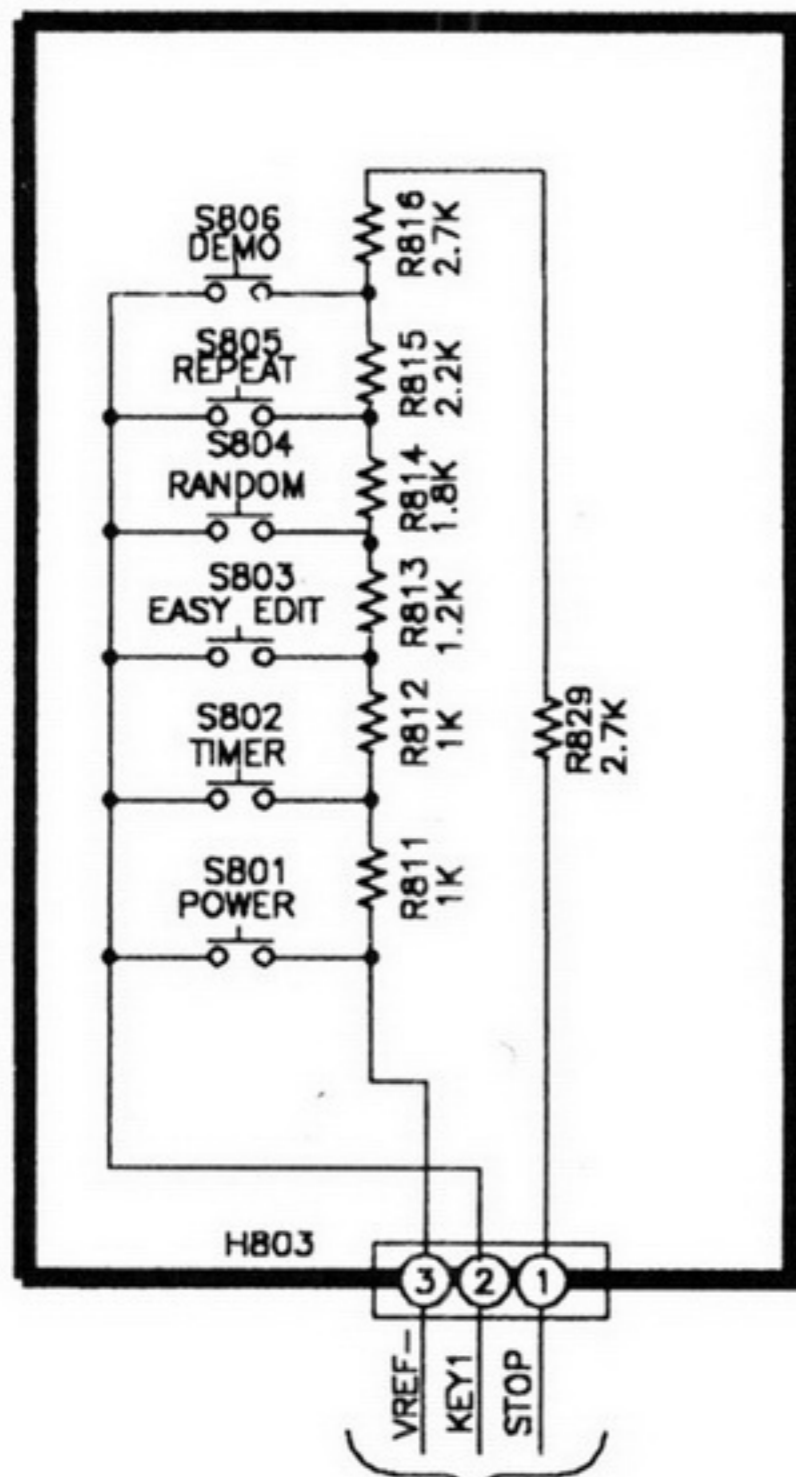
F LED CIRCUIT



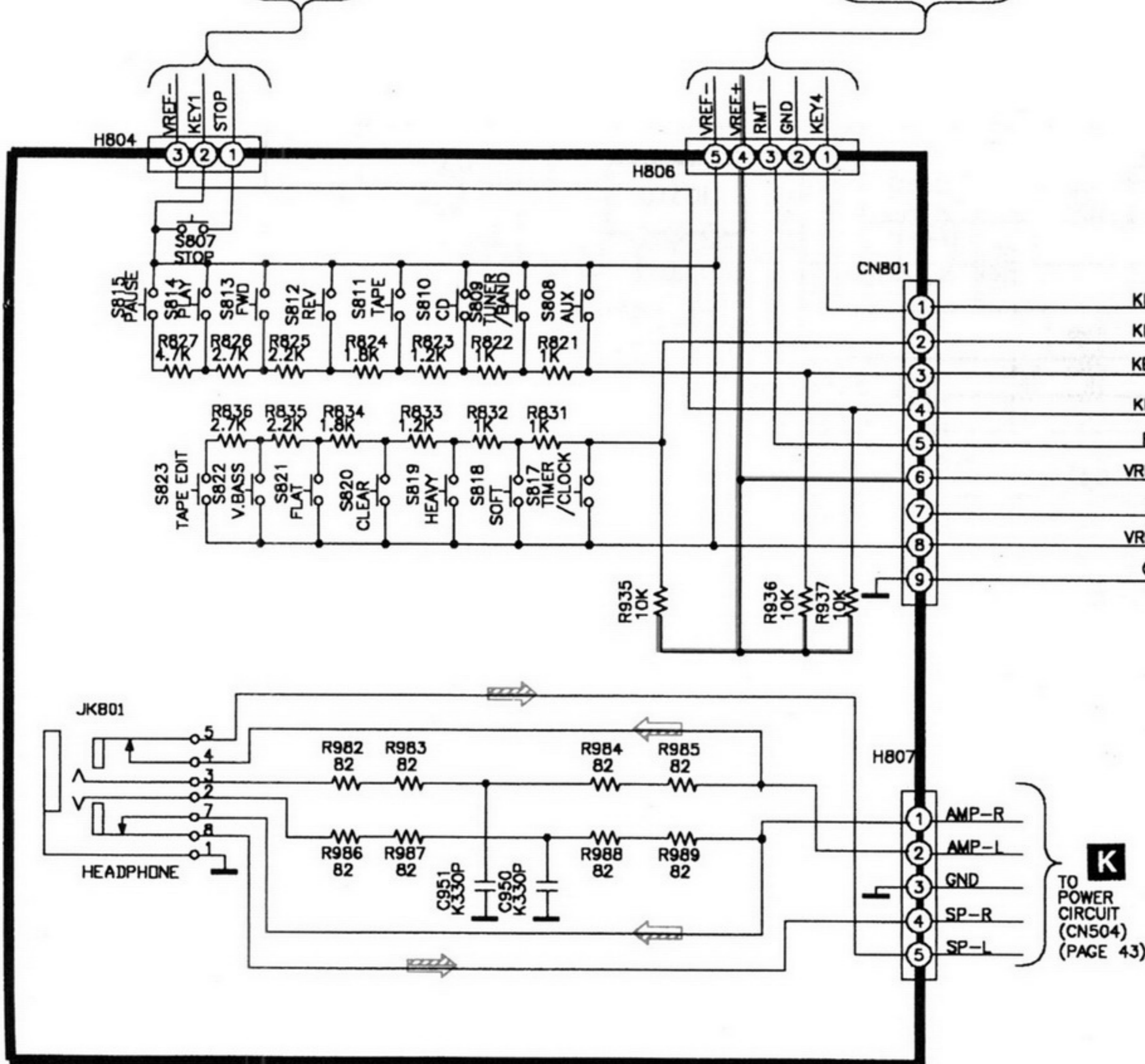
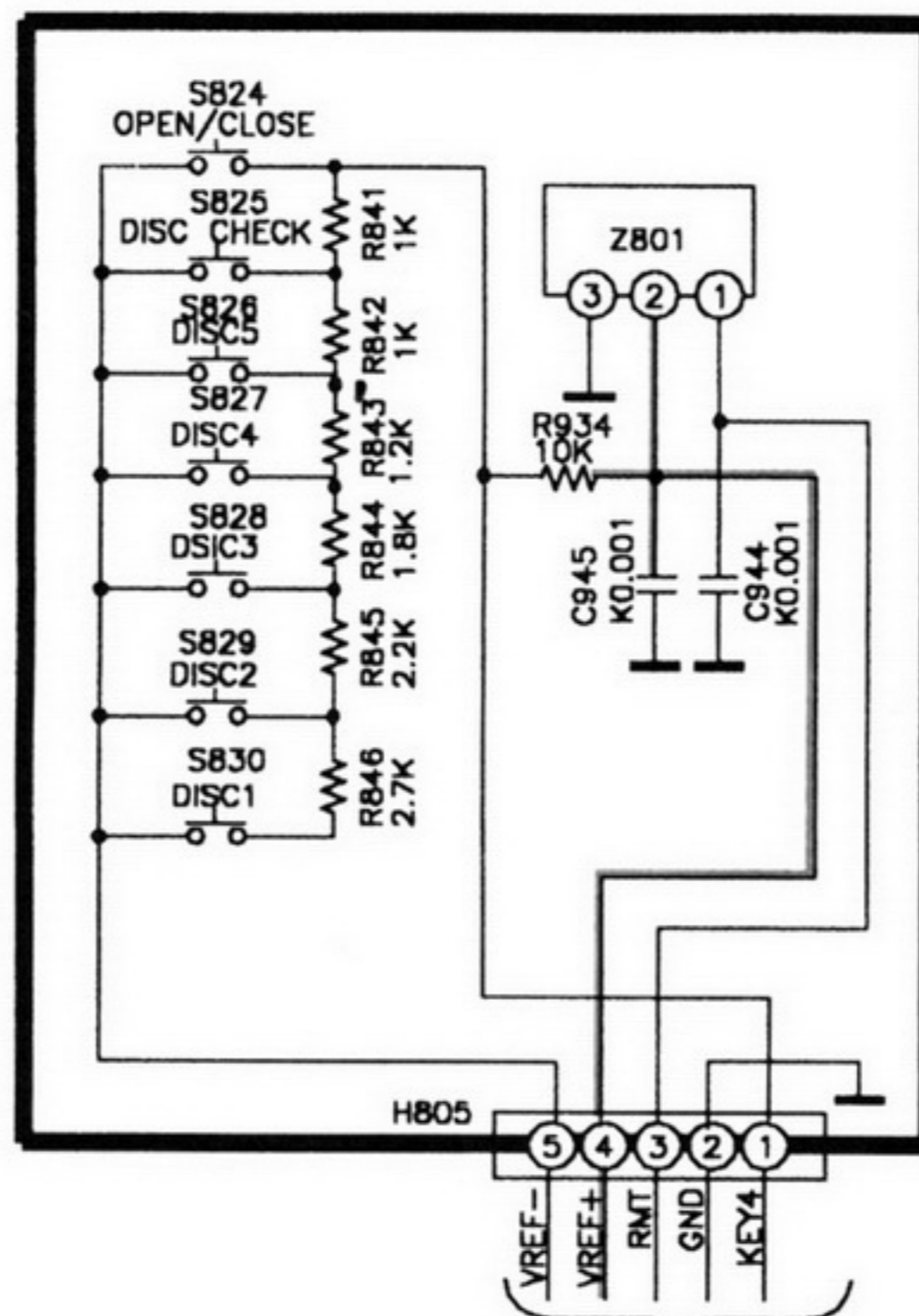
E PANEL CIRCUIT



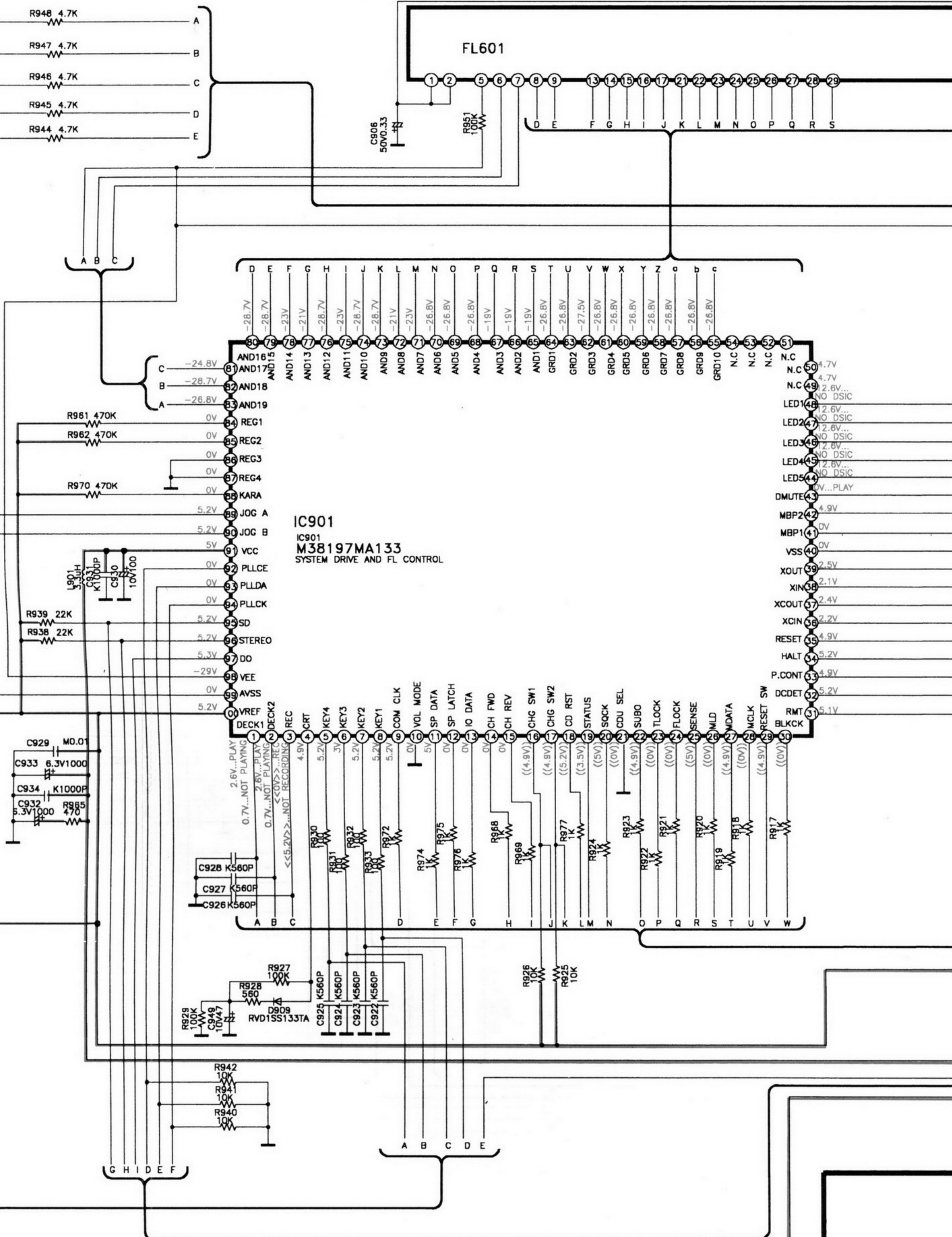
I OPERATION (POWER) CIRCUIT

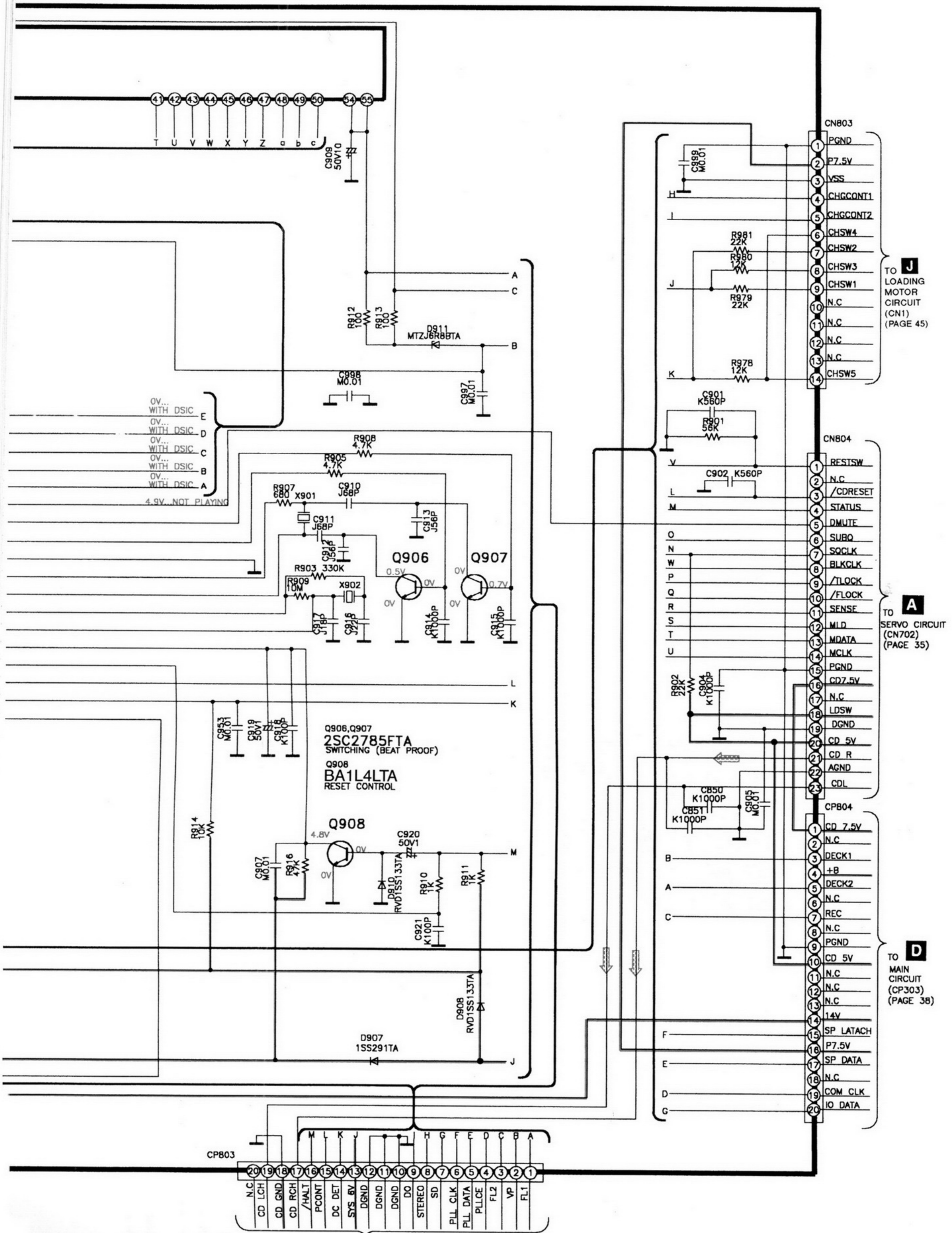


H SENSOR CIRCUIT



G OPERATION CIRCUIT





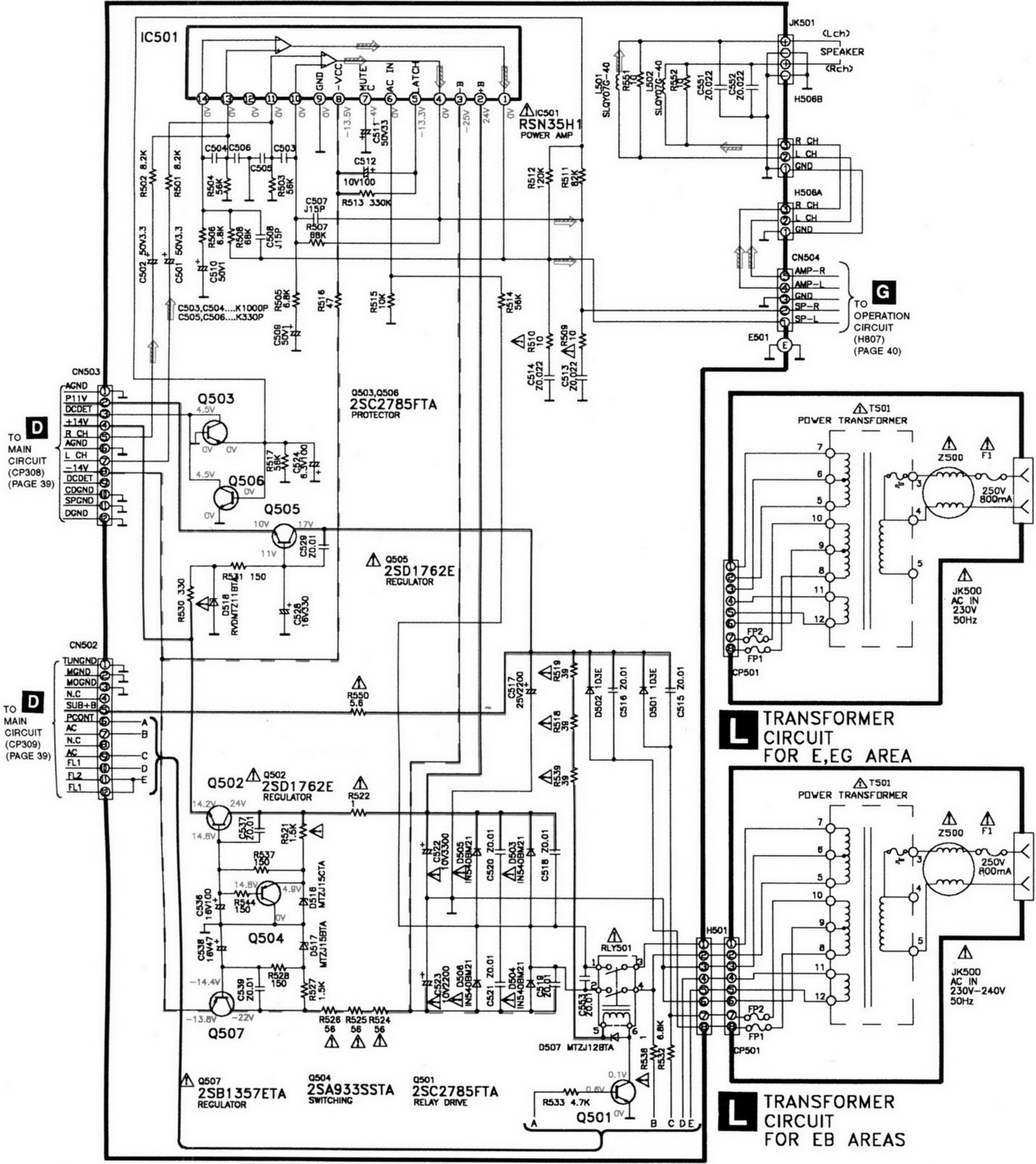
J
TO LOADING MOTOR CIRCUIT (CN1) (PAGE 45)

A
TO SERVO CIRCUIT (CN702) (PAGE 35)

D
TO MAIN CIRCUIT (CP303) (PAGE 38)

D
TO MAIN CIRCUIT (CP304) (PAGE 38)

K POWER CIRCUIT



TO MAIN CIRCUIT (CP308) (PAGE 39)

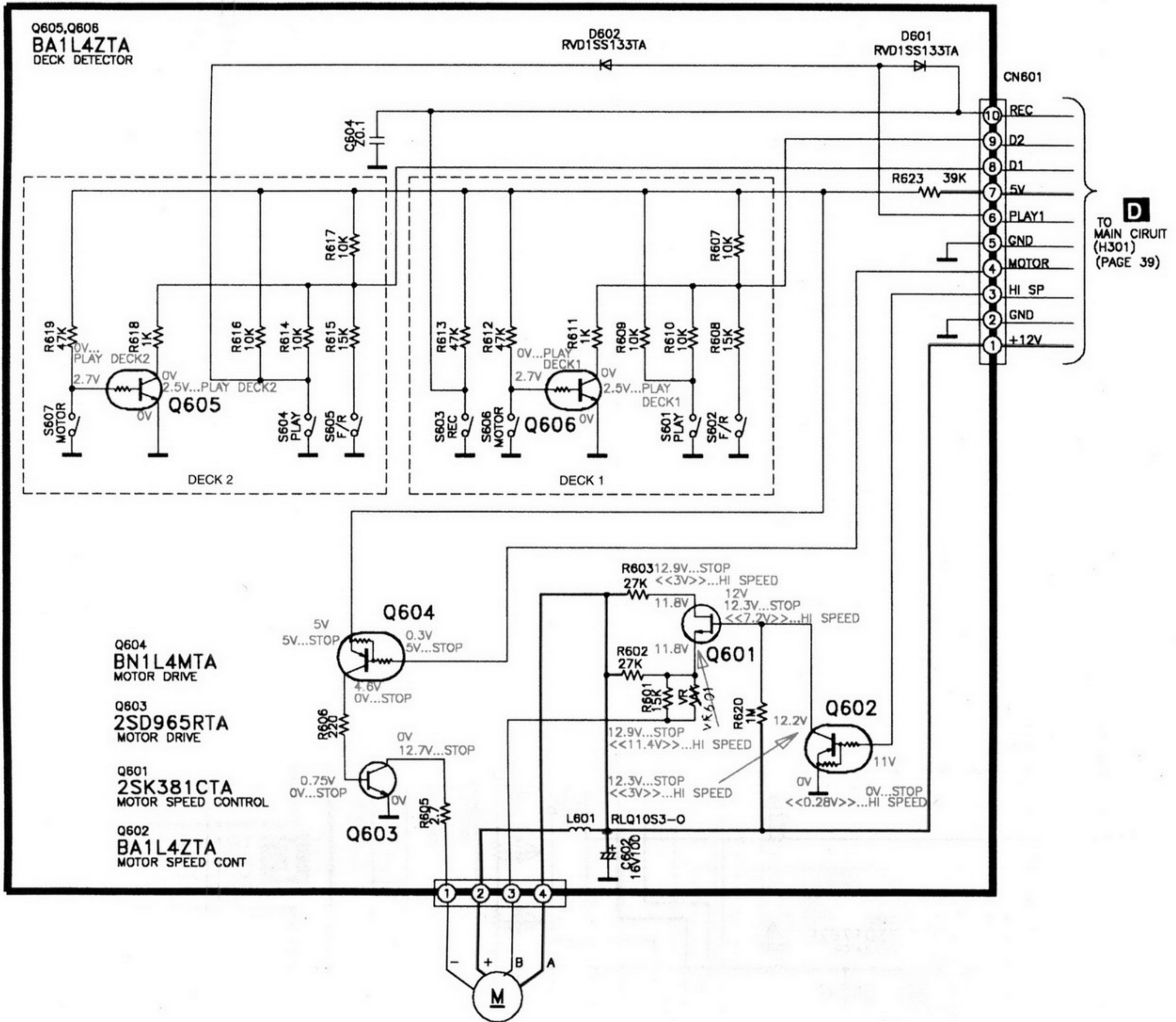
TO MAIN CIRCUIT (CP309) (PAGE 39)

TO OPERATION CIRCUIT (H807) (PAGE 40)

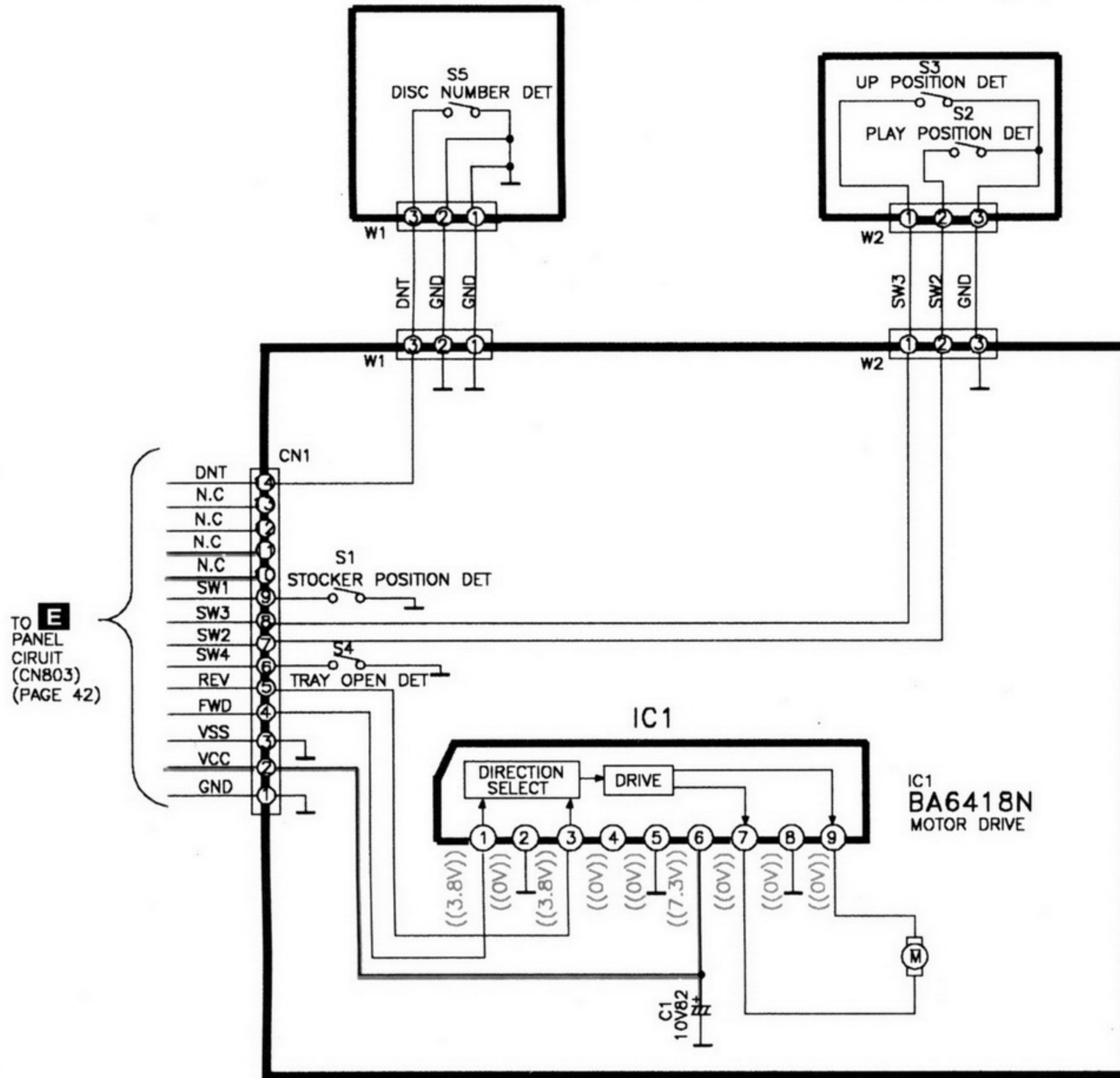
TRANSFORMER CIRCUIT FOR E, EG AREA

TRANSFORMER CIRCUIT FOR EB AREAS

C DECK CIRCUIT



DETECTING SWITCH (1) CIRCUIT DETECTING SWITCH (2) CIRCUIT



J LOADING MOTOR CIRCUIT