

Service Manual

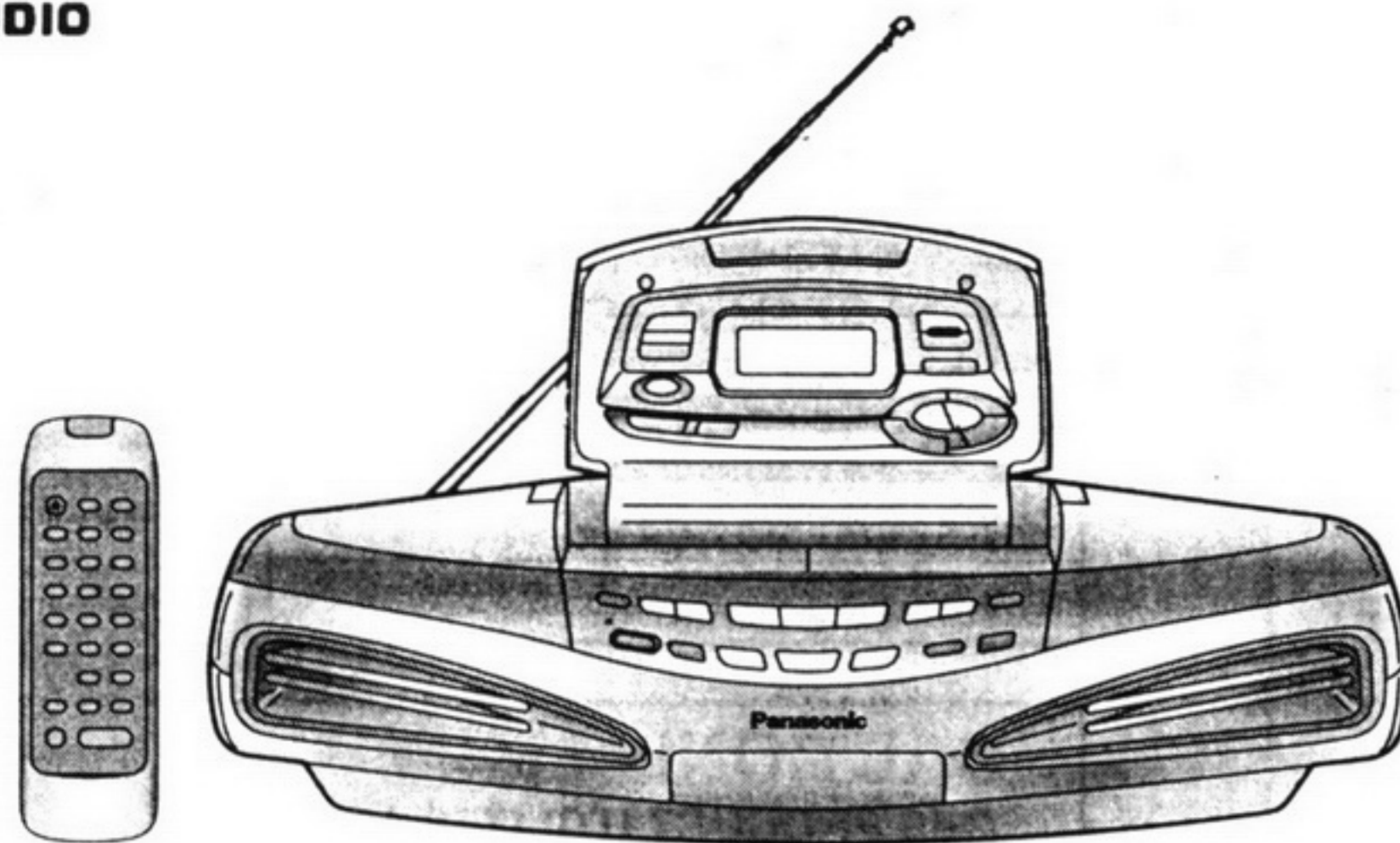
Portable Stereo CD System

Radio Cassette

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping

RX-ED77



Colour

(K) . . . Black Type

Area

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

* MASH is a trademark of NTT.

TAPE DECK : AR2 MECHANISM SERIES
TRAVERSE DECK : RAE0150Z MECHANISM SERIES

Specifications

RADIO

Frequency range	
FM	87.50 – 108.00 MHz (50 kHz steps)
LW	144 – 288 kHz (9 kHz steps)
MW	522 – 1611 kHz (9 kHz steps)
Intermediate Frequency	
FM	10.7 MHz
AM	459 kHz
Sensitivity	
FM	19 dB/50 mW
LW	54 dB/m/50 mW
MW	53 dB/m/50 mW

TAPE RECORDER

Track system	4 track, 2 channel, stereo
Recording system	AC bias
Erasing system	AC erase
Monitor system	Variable sound monitor
Frequency range	
Normal position	30 – 16000 Hz
High position	30 – 17000 Hz

CD PLAYER

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength; 780 nm)
No. of channels	2 channel, stereo
Wow and flutter	Less than possible measurement data
D/A converter	MASH (1 bit DAC)

GENERAL

Power requirement	
AC	230 – 240 V, 50 Hz
	Power consumption: 44 W
Battery	15V (Ten R20/LR20, D size, UM-1 batteries)
Memory back-up for computer/clock	6V (Four R6/LR6, AA size, UM-3 batteries)
Power Output	7.5 W x 2 ... RMS (max.)
Speakers	10 cm x 2 (2.7 Ω)
Jacks	
Output	PHONES: 3.5 mm stereo (16 – 32 Ω)
Input	MIX MIC: 3.5 mm (200 – 600 Ω)
Dimensions (W x H x D)	630 x 178 x 296 mm (Top panel close)
Weight	5.6 kg without batteries

Note :

Specifications are subject to change without notice.
Weight and dimensions are approximate.

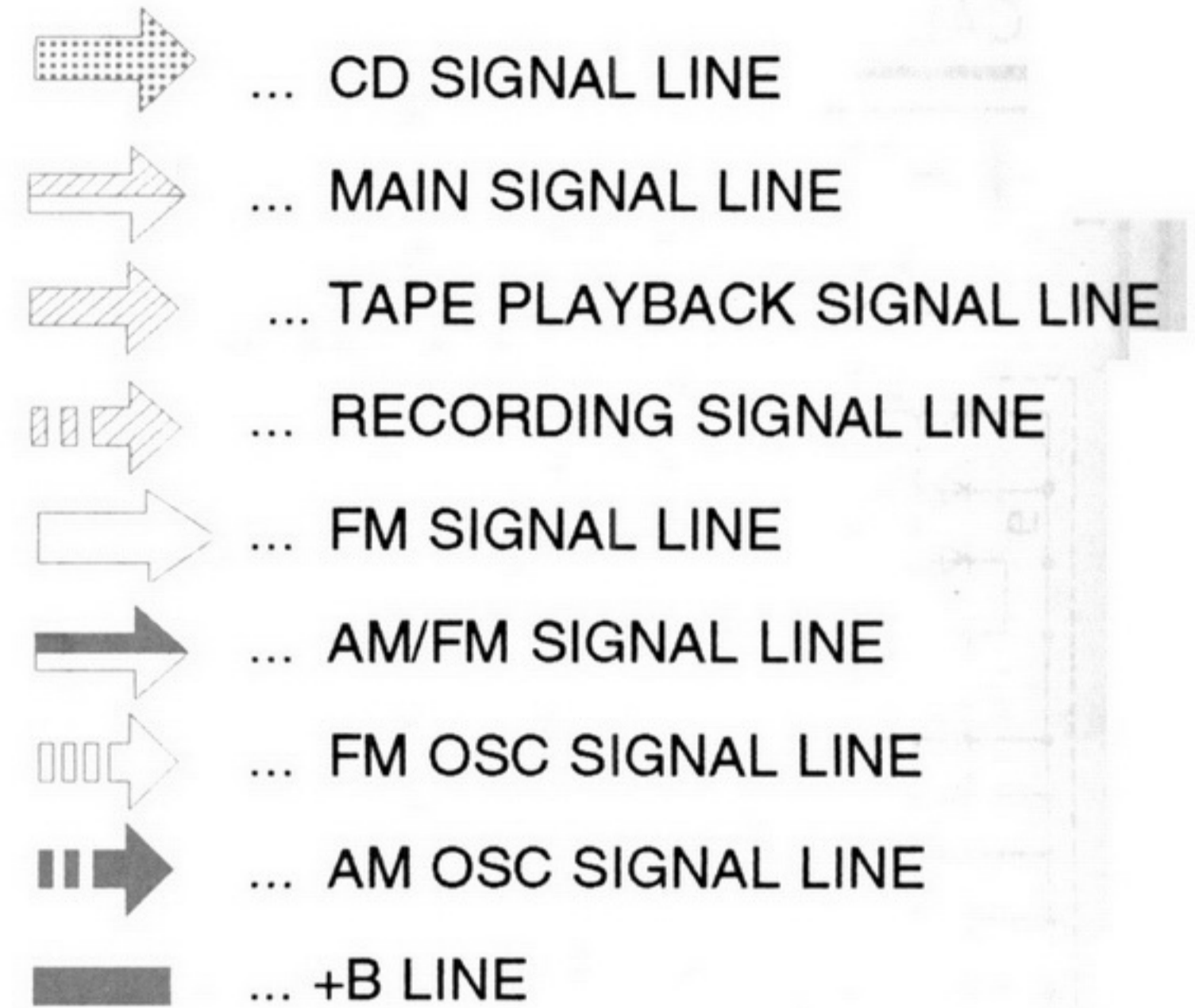
Panasonic®

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Schematic Diagram

NOTES:

- S701 : Rest Switch.
- S801 : Timer Adjust Switch.
- S802 : Memory/Clear Switch.
- S803 : Clock Adjust Switch.
- S804 : Tuning/Time Set Switch.(increase)
- S805 : Tuning/Time Set Switch.(decrease)
- S806 : Record Timer Switch.
- S807 : Play Timer B Switch.
- S808 : Play Timer A Switch.
- S809 : Tape Edit Switch.
- S810 : CD Record Mode Switch.
- S811 : Record/Record Pause Switch.
- S812 : S. Virtualizer Switch.
- S813 : Preset EQ Switch.
- S951 : Cassette Mode Detect Switch.(Deck 1)
- S952 : Cassette Tape Detect Switch.(Deck 1)
- S953 : CrO₂ Tape Detect Switch.(Deck 1)
- S971 : Cassette Mode Detect Switch.(Deck 2)
- S972 : Cassette Tape Detect Switch.(Deck 2)
- S973 : CrO₂ Tape Detect Switch.(Deck 2)
- S974 : Reverse Side Record Prevention Tab Detect Switch.(Deck 2)
- S975 : Forward Side Record Prevention Tab Detect Switch.(Deck 2)
- S1001 : CD Open/Close Switch.
- S1002 : Deck 2 Eject Switch.
- S1003 : Top Panel Open Switch.
- S1004 : Top Panel Close Switch.
- S1005 : Stop/Function Switch.
- S1006 : Volume Control Switch.(increase)
- S1007 : Volume Control Switch.(decrease)
- S1008 : Deck 1 Eject Switch.
- S1009 : Power Switch.
- S1010 : Tape Forward/TPS CD Skip/Search Switch.
- S1011 : Tuner Band Select Switch.
- S1012 : Tape Rewind/TPS CD Skip/Search Switch.
- S1013 : Deck 1/2 Select Switch.
- S1014 : Tape Play/Direction Switch.
- S1015 : CD Play Pause Switch.
- SW790 : CD Tray Open Detect Switch.
- SW791 : CD Tray Close Detect Switch.
- SW901 : AC/Battery Select Switch.(JK901)



• Battery Current consumption:

Vol. min..... 375mA (FM) 375mA (AM) 395mA (TAPE) 515mA (CD)	Vol. max..... 1220mA (FM) 860mA (AM) 1720mA (TAPE) 1900mA (CD)
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Measurement condition:
 (Radio : FM 60 dB, 30%mod
 AM 74 dB/m, 30%mod)
 (Tape : 315 Hz, 0dB
 CD : 1kHz, 0dB)

• The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark ... Tape Playback < > ... FM (()) ... CD
 () ... AM << >> ... RECORD

CAUTION !

IC and LSI are sensitive to static electricity.
 Secondary trouble can be prevented by taking care during repair.

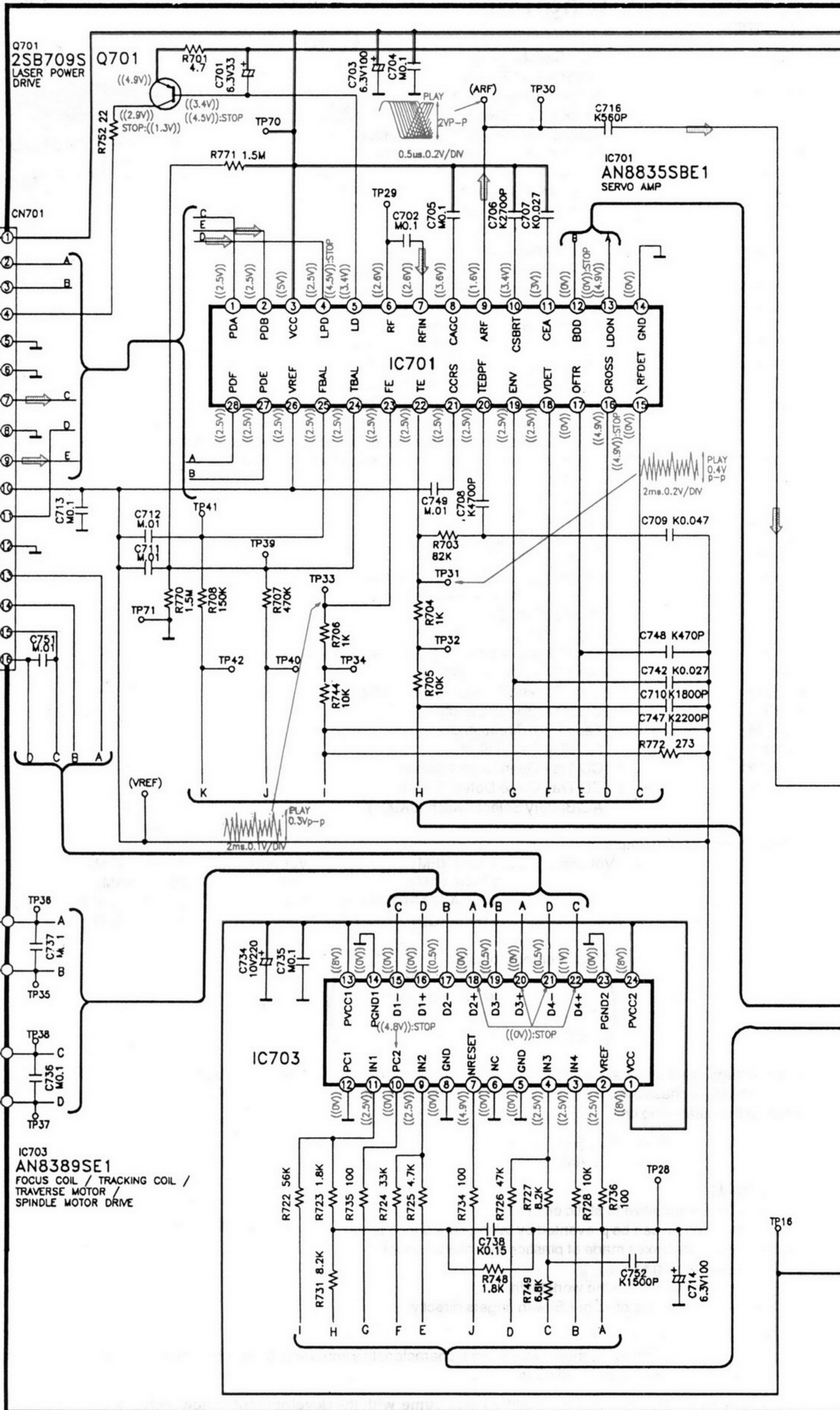
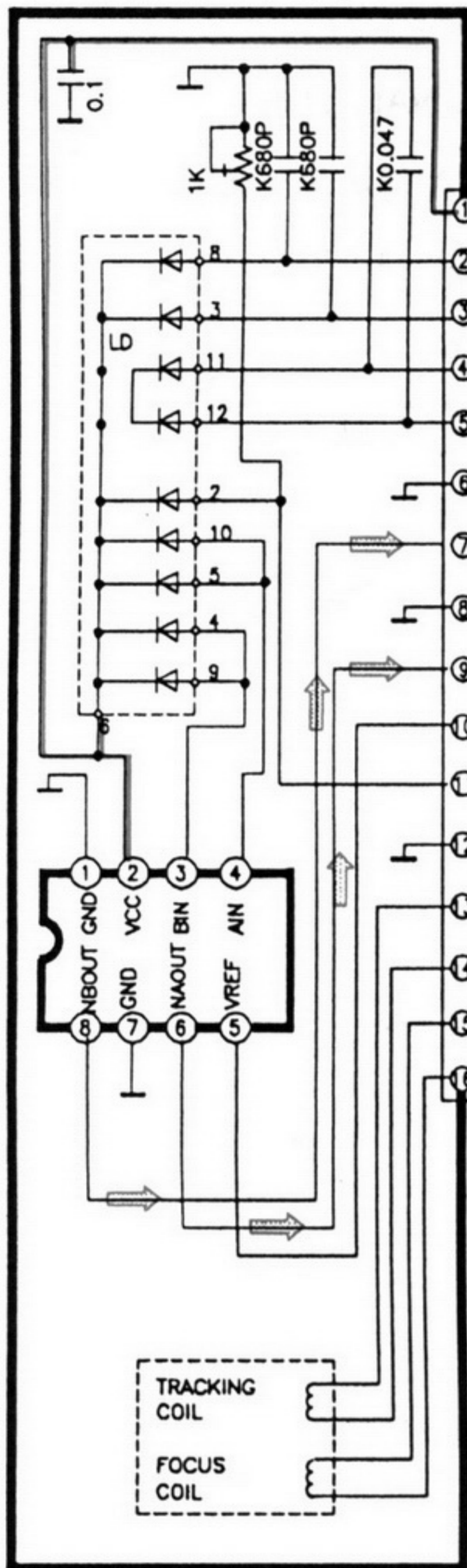
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

• 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 anytime with the development of new technology.

A SERVO CIRCUIT

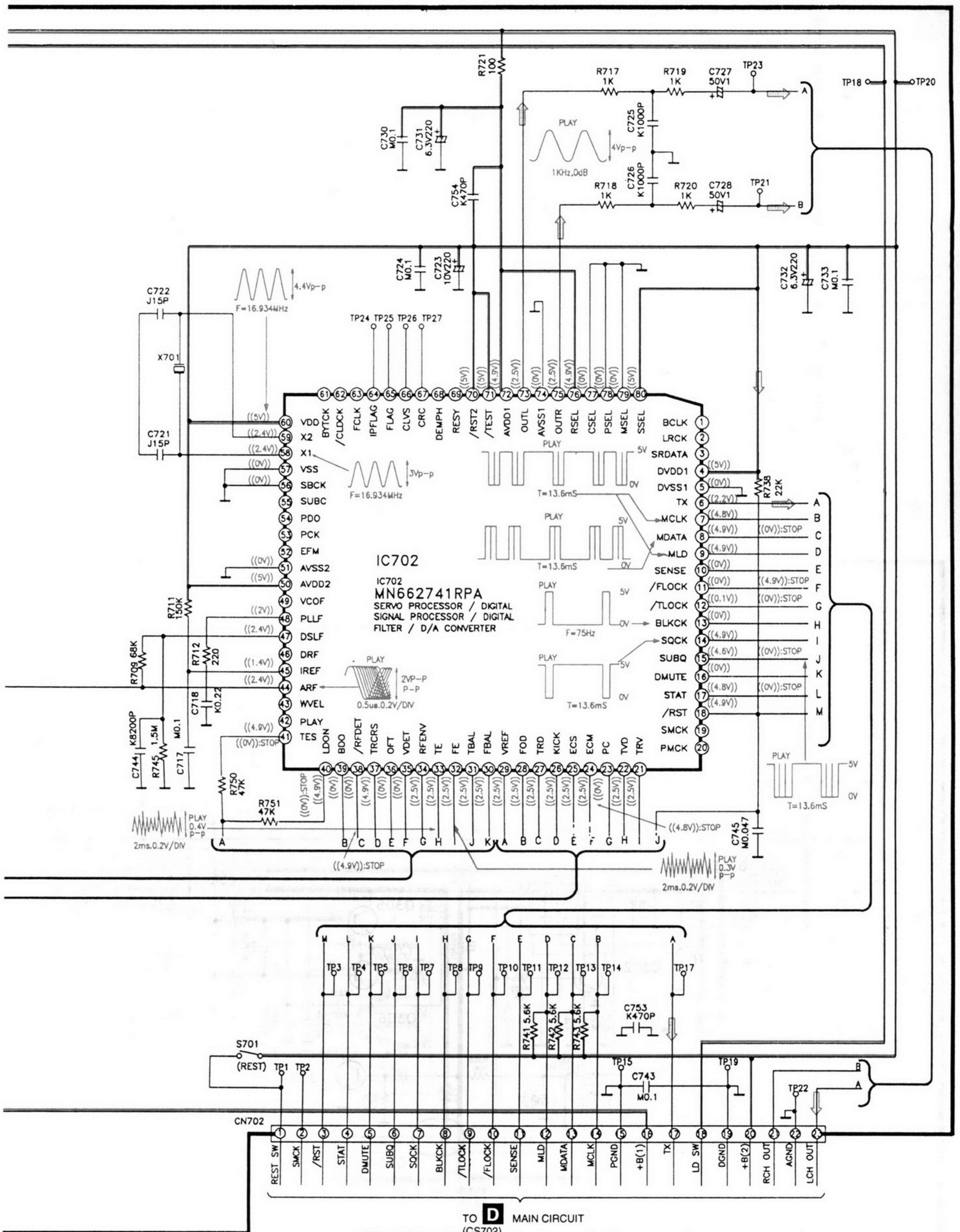
OPTICAL PICKUP



M702 SPINDLE MOTOR

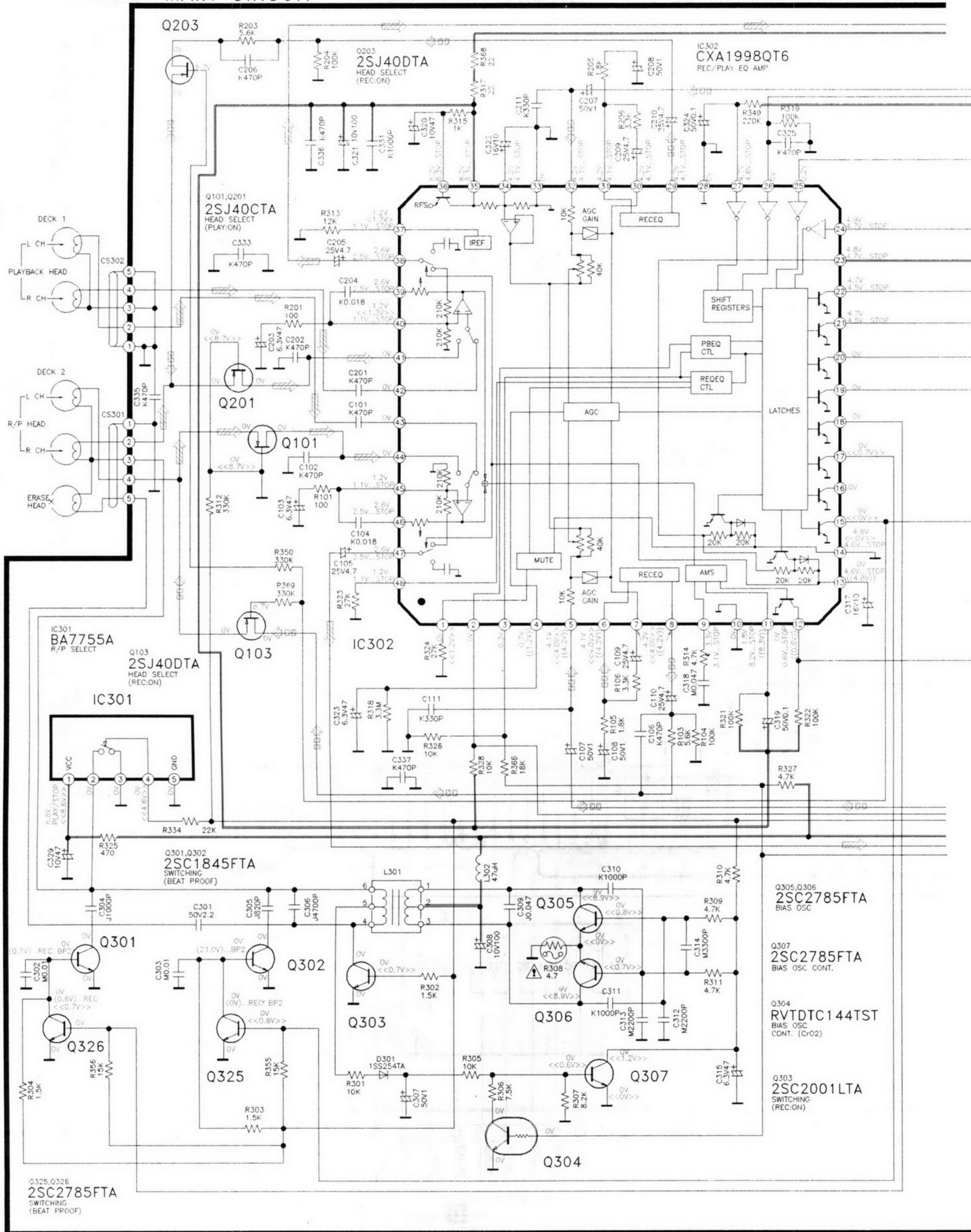
M701 TRAVERSE MOTOR

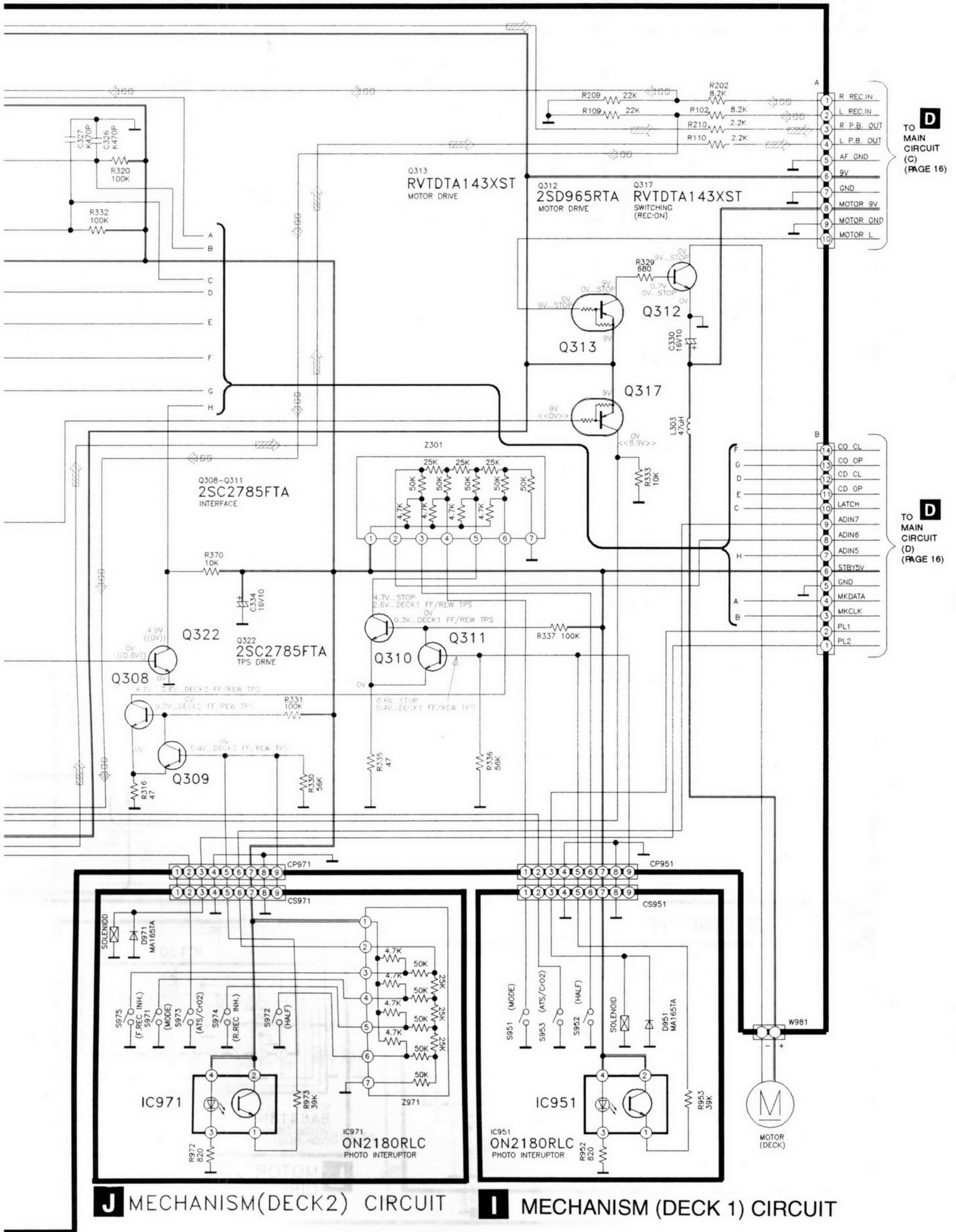
IC703
AN8389SE1
FOCUS COIL / TRACKING COIL /
TRAVERSE MOTOR /
SPINDLE MOTOR DRIVE



TO **D** MAIN CIRCUIT
 (CS702)
 (PAGE 17)

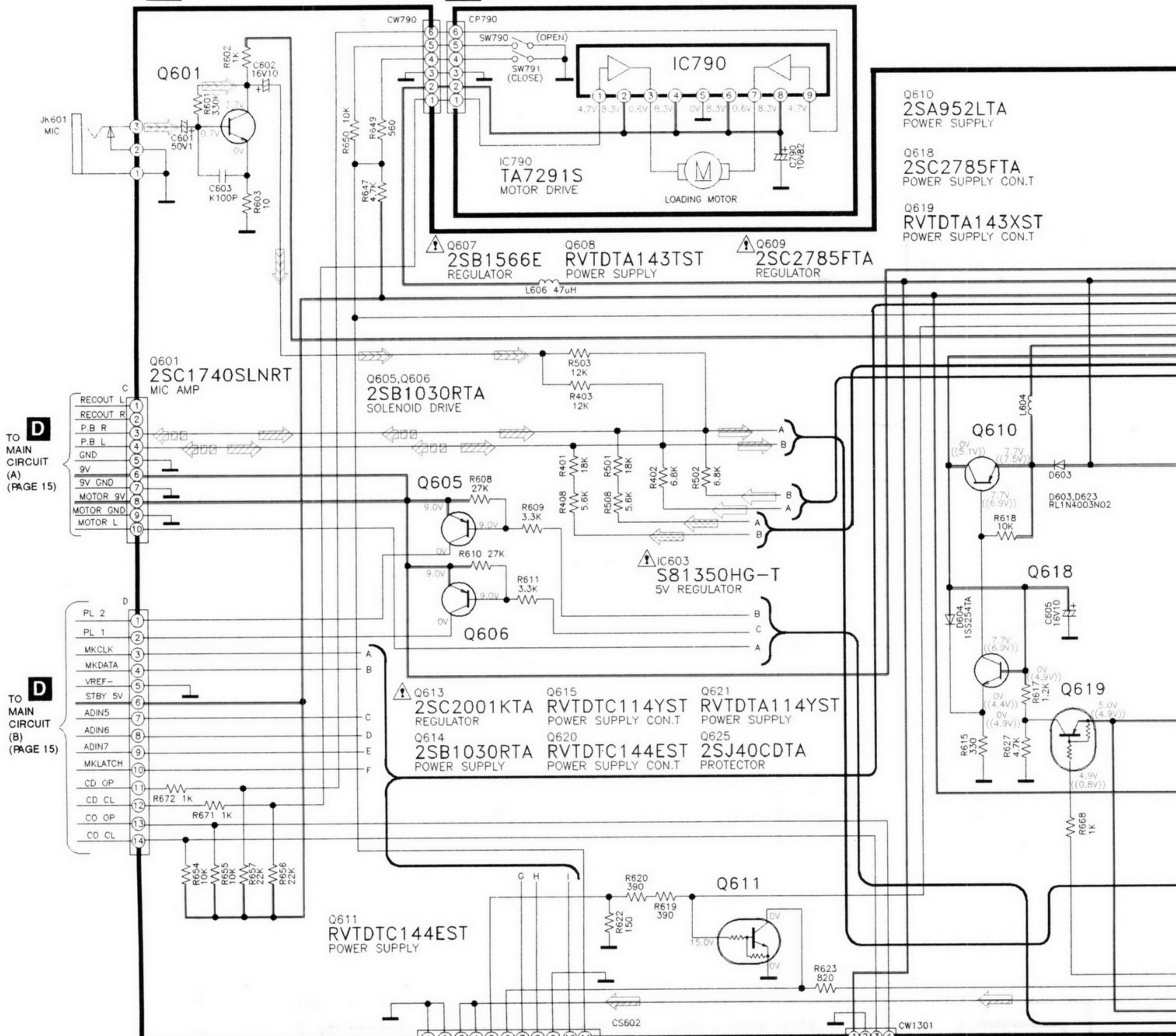
D MAIN CIRCUIT



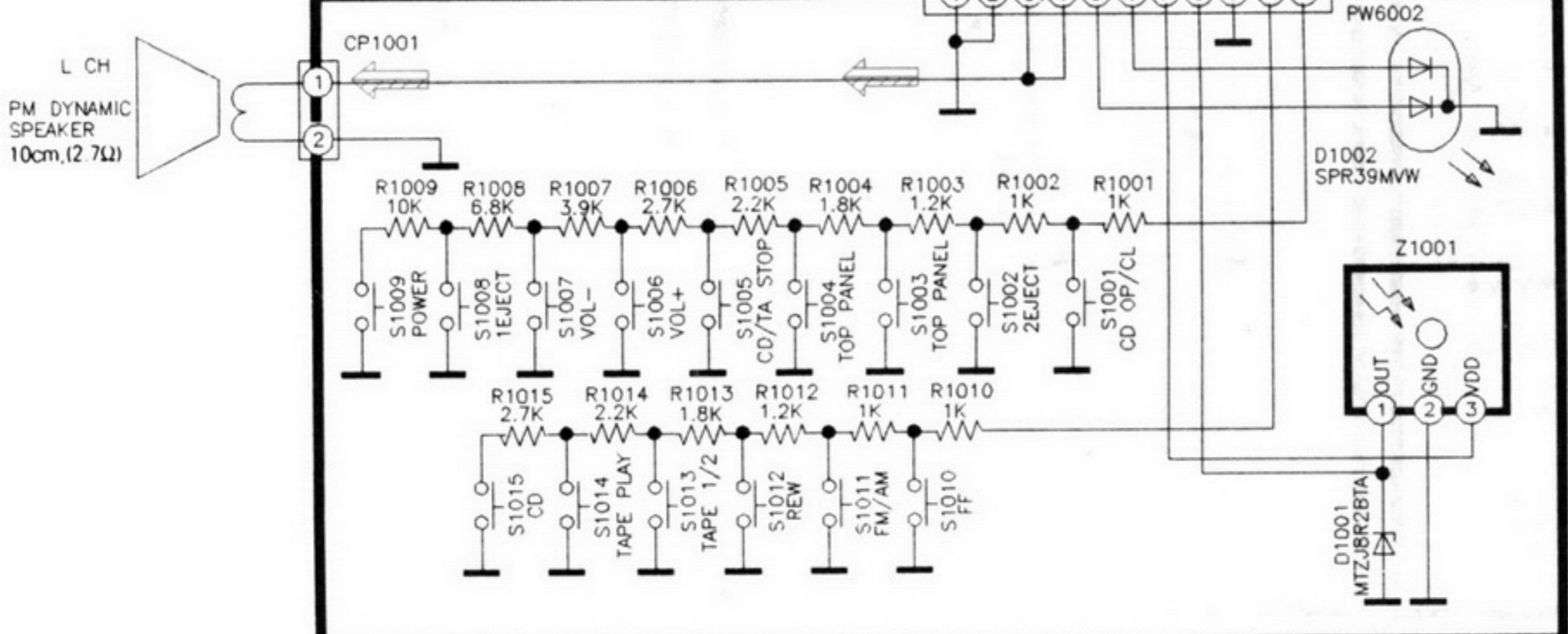


D MAIN CIRCUIT

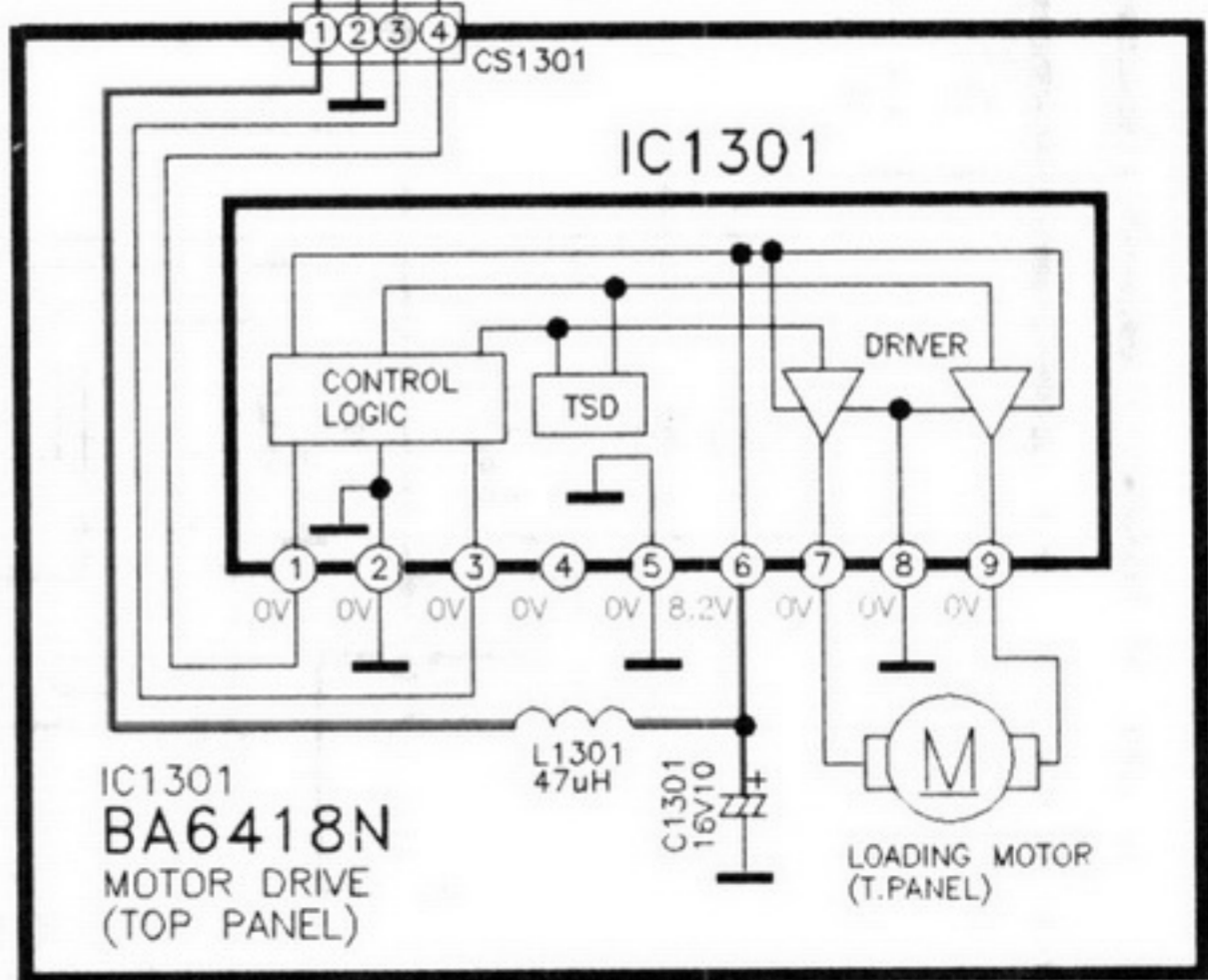
K LOADING MOTOR CIRCUIT



E CONTROL CIRCUIT



L MOTOR (TOP PANEL) CIRCUIT

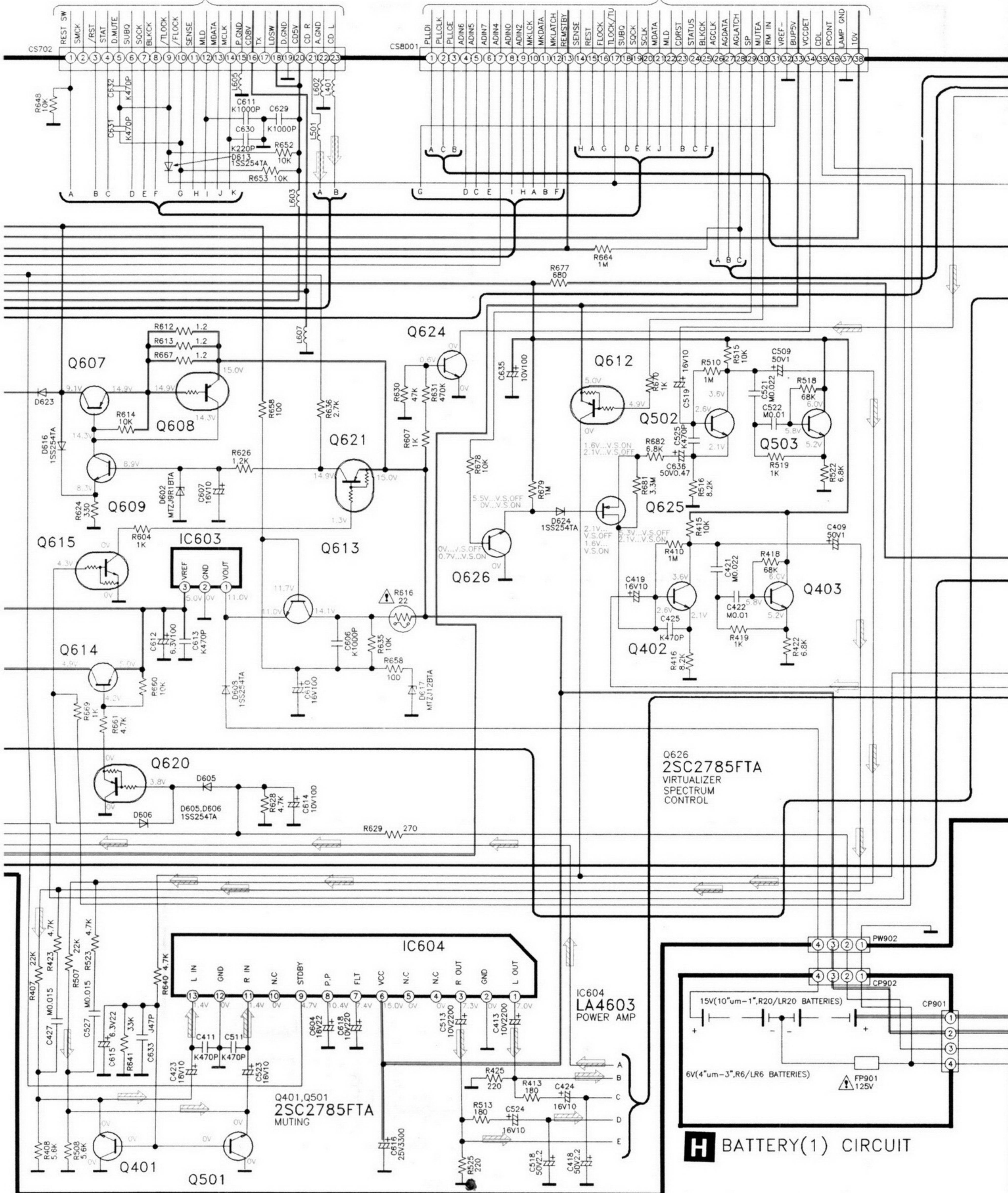


TO MAIN CIRCUIT (A) (PAGE 15)

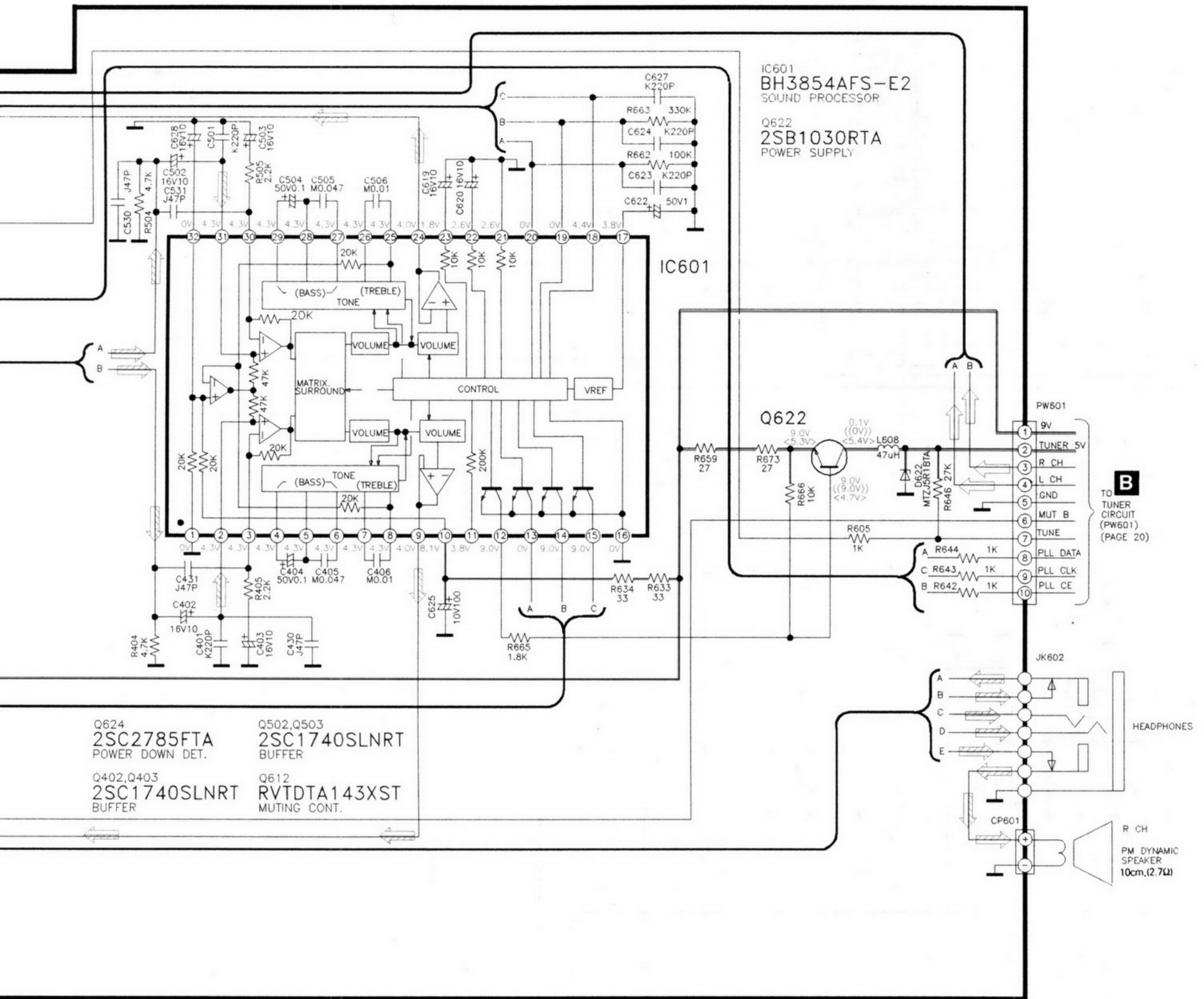
TO MAIN CIRCUIT (B) (PAGE 15)

TO SERVO CIRCUIT (CN702) (PAGE 13)

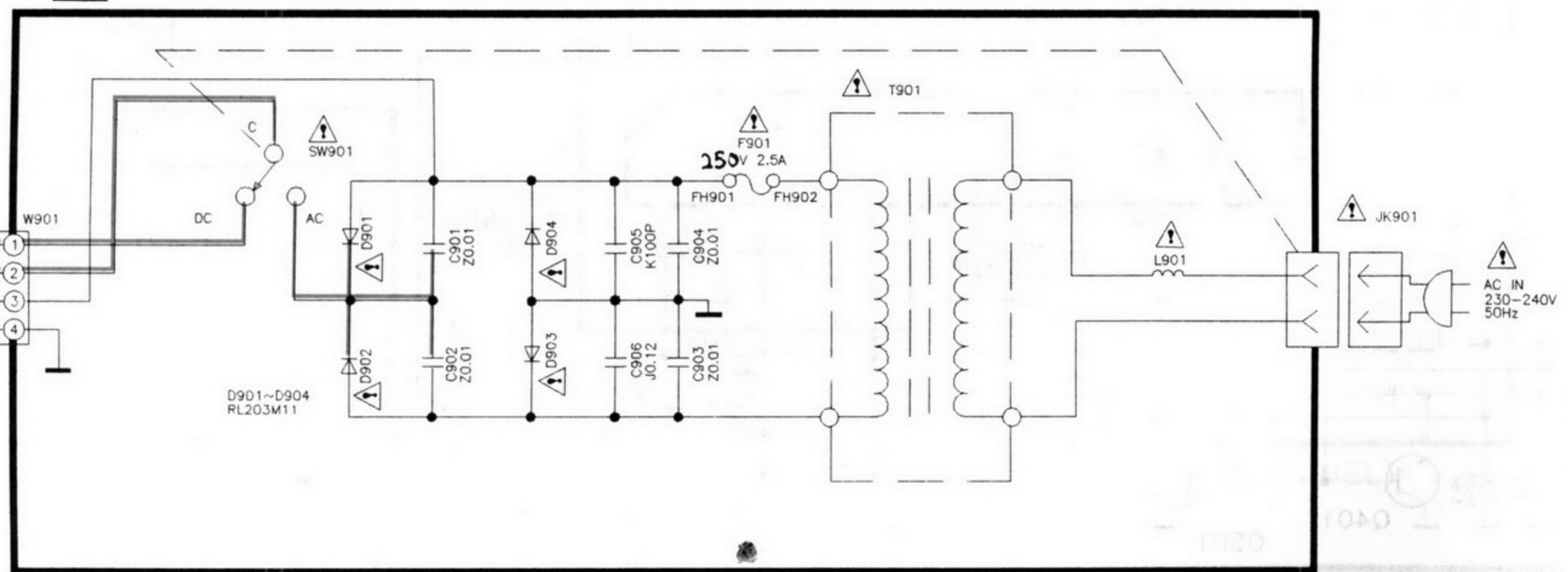
TO LCD CIRCUIT (CS801) (PAGE 19)



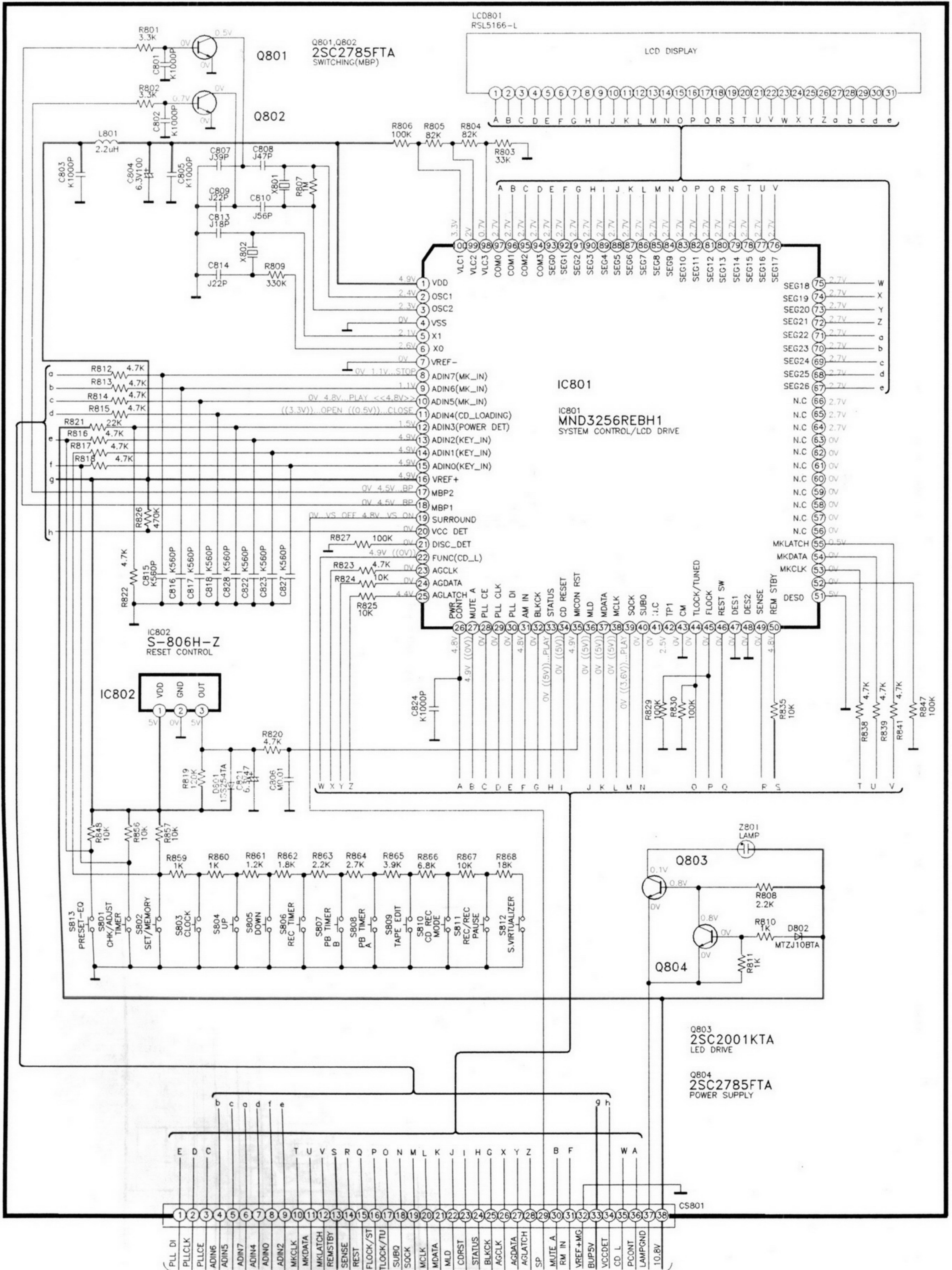
BATTERY(1) CIRCUIT



F POWER SUPPLY CIRCUIT

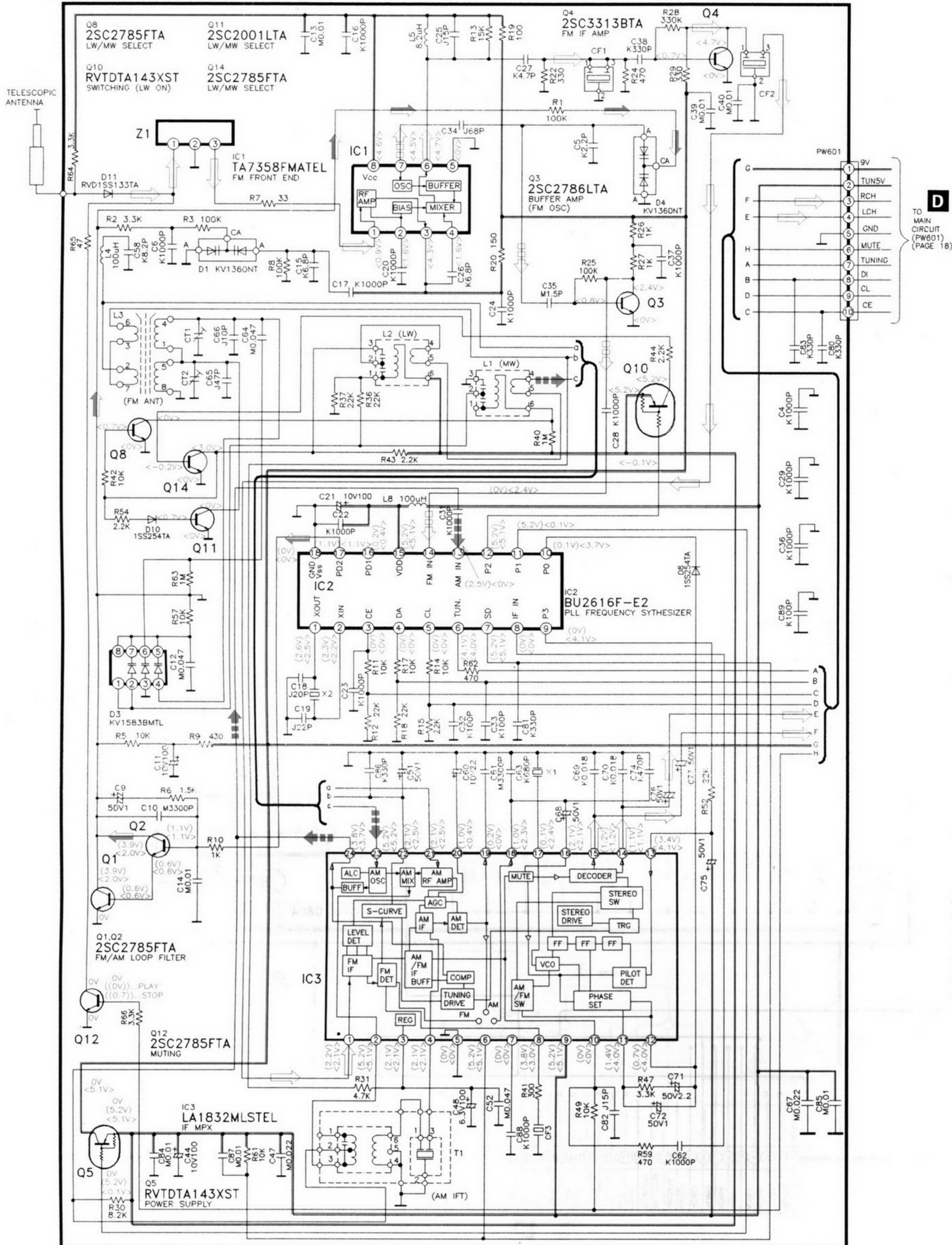


C LCD CIRCUIT



TO MAIN CIRCUIT (CS8001) (PAGE 17)

B TUNER CIRCUIT



D

TO MAIN CIRCUIT (PW601) (PAGE 18)