

Service Manual

Portable Stereo CD System

Radio Cassette

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping

RX-DT37

Colour

(K) ... Black Type

Area

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



* MASH is a trademark of NTT.

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

Specifications

RADIO

Frequency range	
FM	87.50 – 108.00 MHz (50 kHz steps)
AM	522 – 1611 kHz (9 kHz steps)
Intermediate Frequency	
FM	10.7 MHz
AM	459 kHz
Sensitivity	
FM	17 dB/50 mW
AM	52 dB/m/50 mW

TAPE RECORDER

Track system	4 track, 2 channel, stereo
Recording system	AC bias
Erasing system	Magnet (Multi pole)
Monitor system	Variable sound monitor
Frequency range(Normal position)	50 – 12000 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: 60 W
Battery	12V (Eight R20/LR20, D size, UM-1 batteries)
Memory back-up for computer	6V (Four R6/LR6, AA size, UM-3 batteries)
Speakers	10 cm x 2 (6 Ω)
Jacks	
Output	Headphones; 32 Ω
Dimensions (W x H x D)	480 x 156 x 248 mm
Weight	4.8 kg without batteries

Notes :

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

WARNING

This service information is designed for experience repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

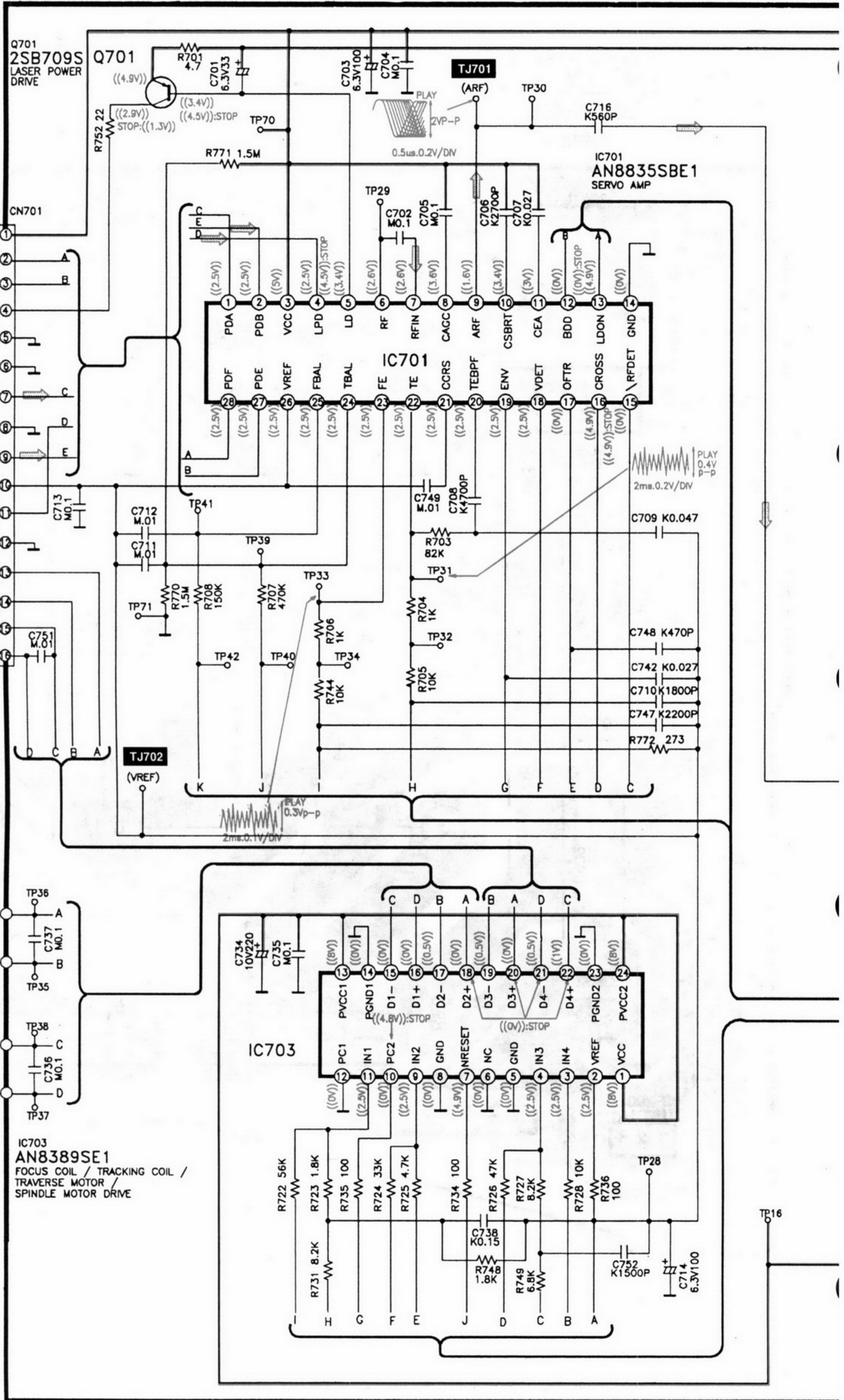
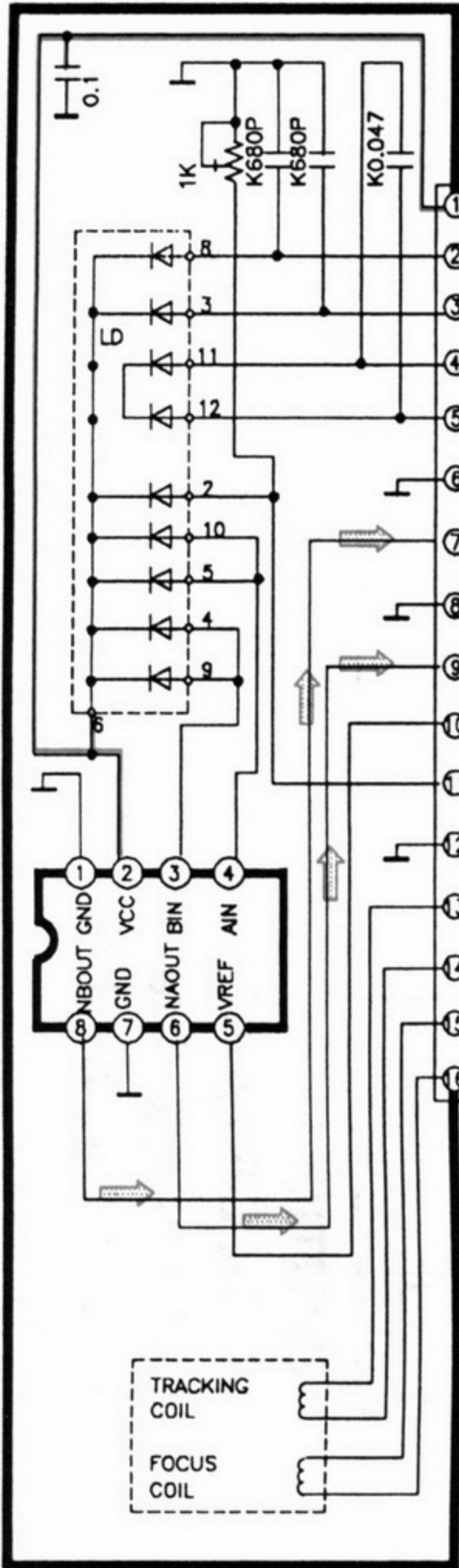
Panasonic[®]

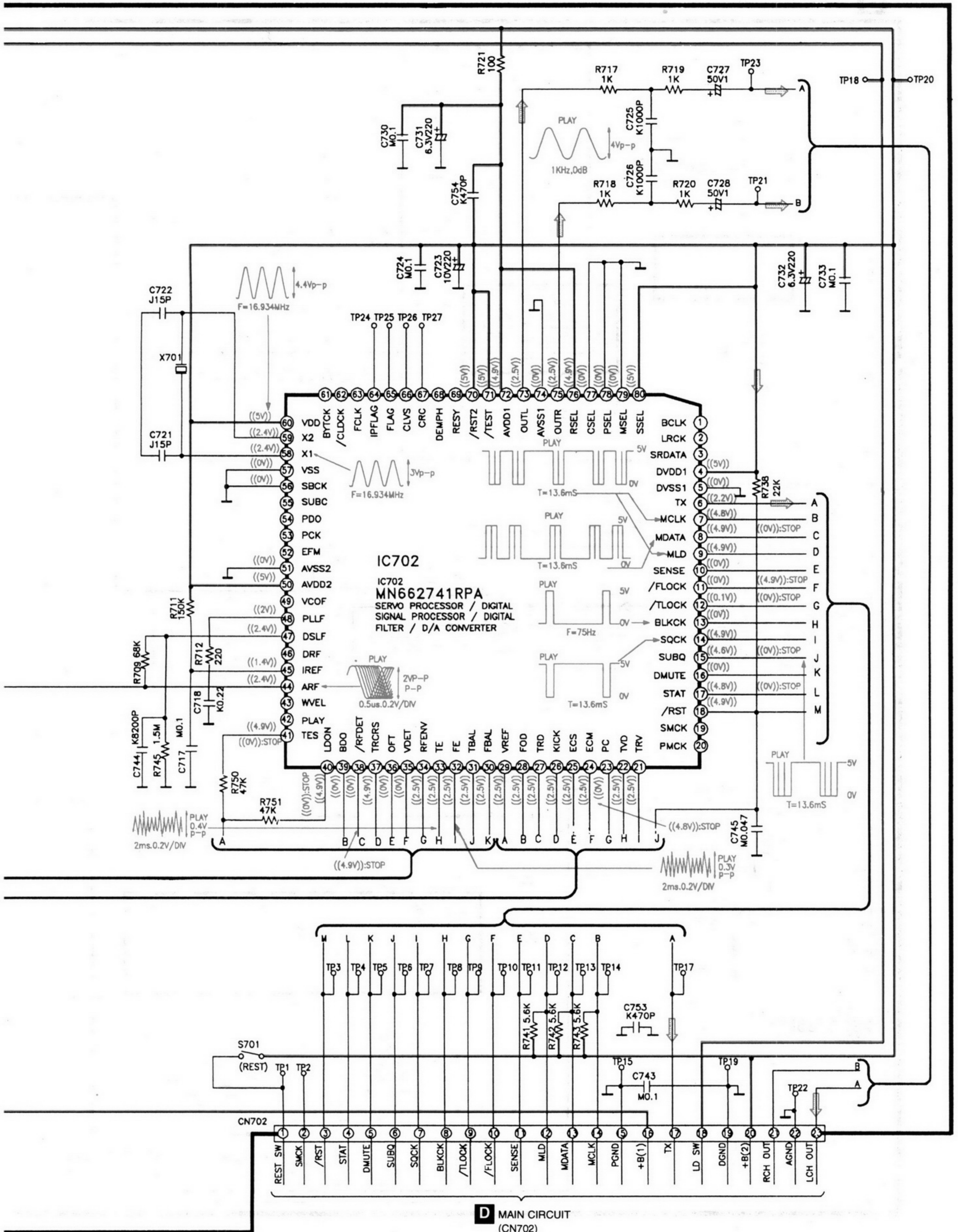
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Schematic Diagram

A SERVO CIRCUIT

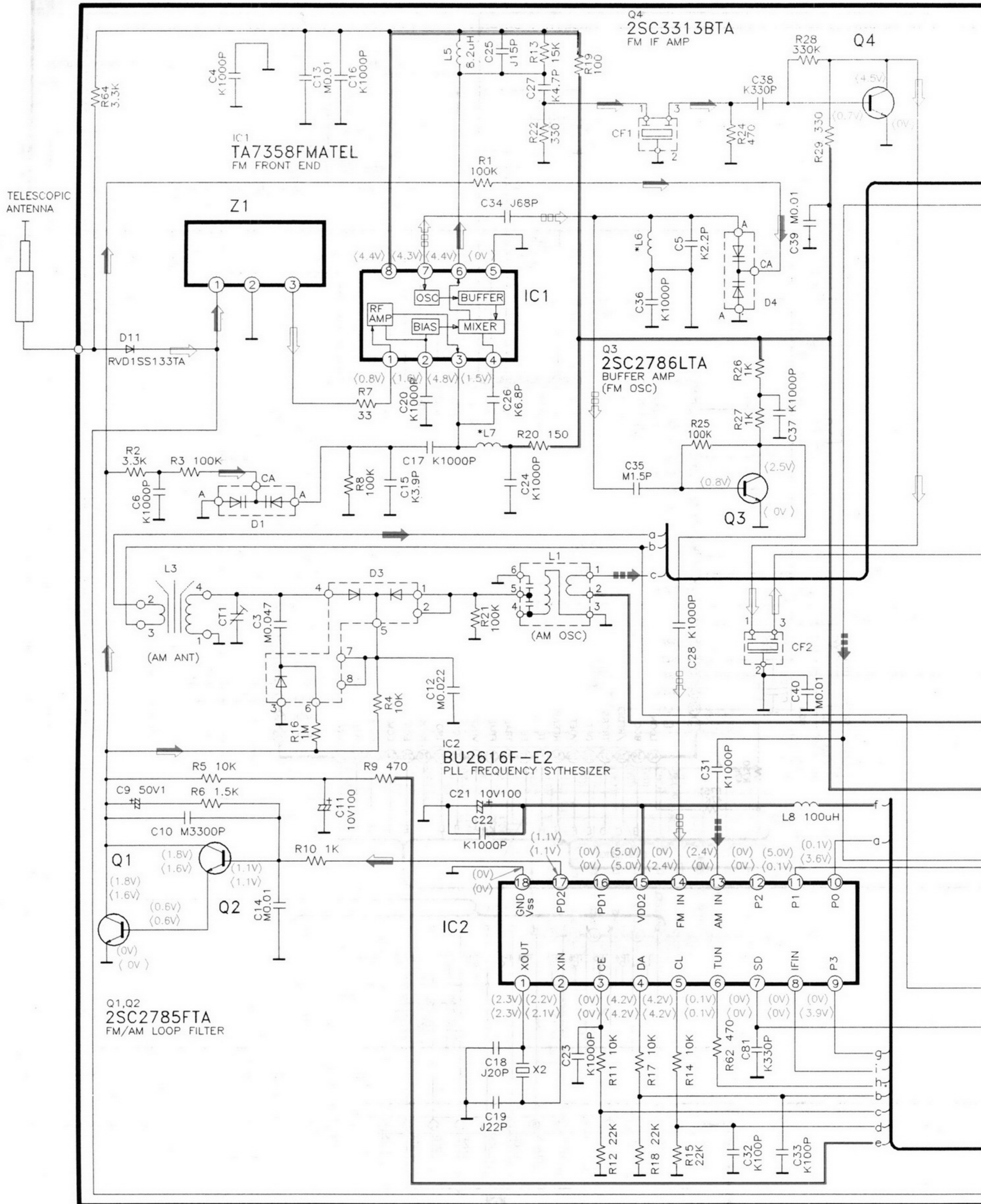
OPTICAL PICKUP

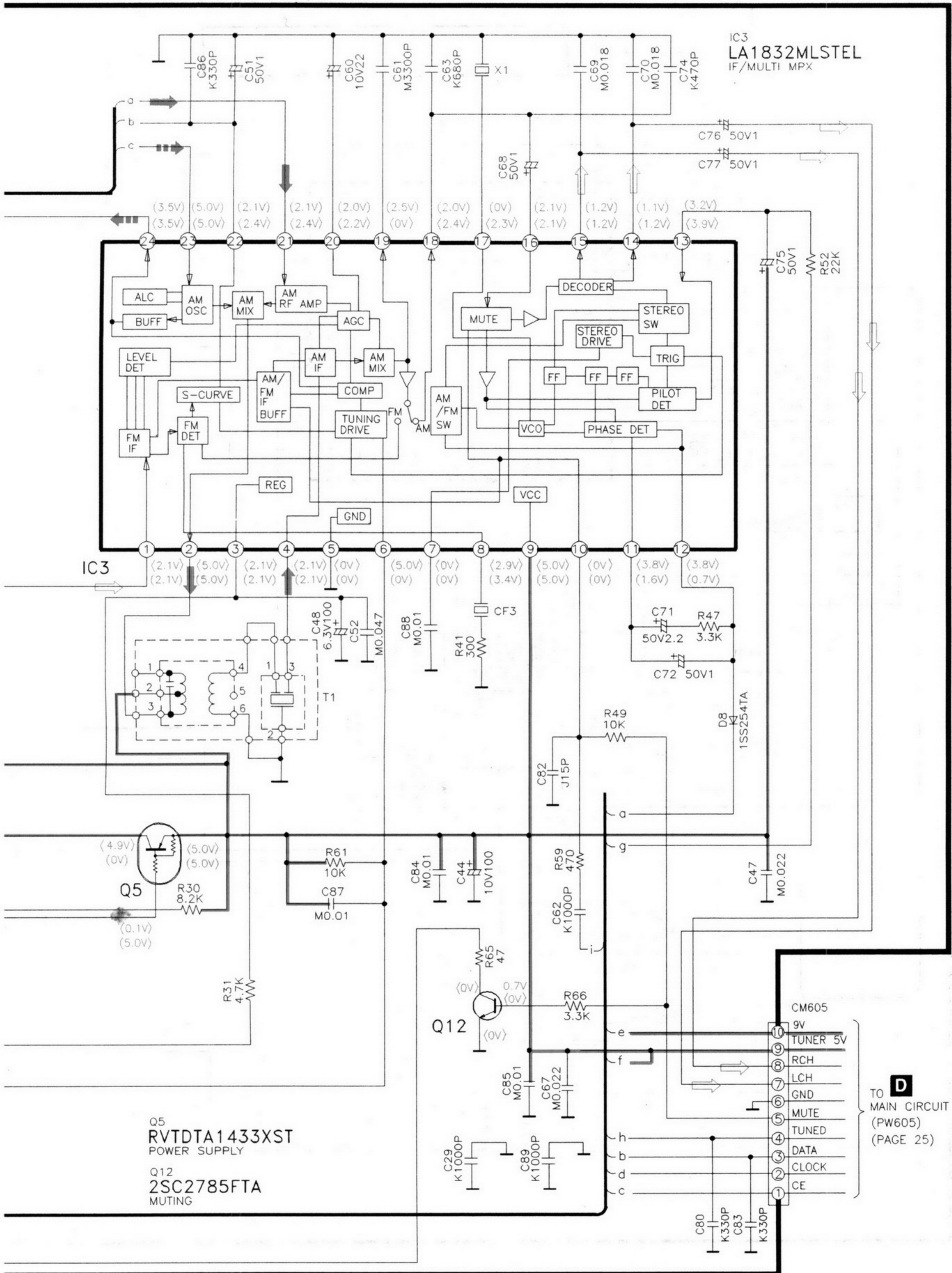




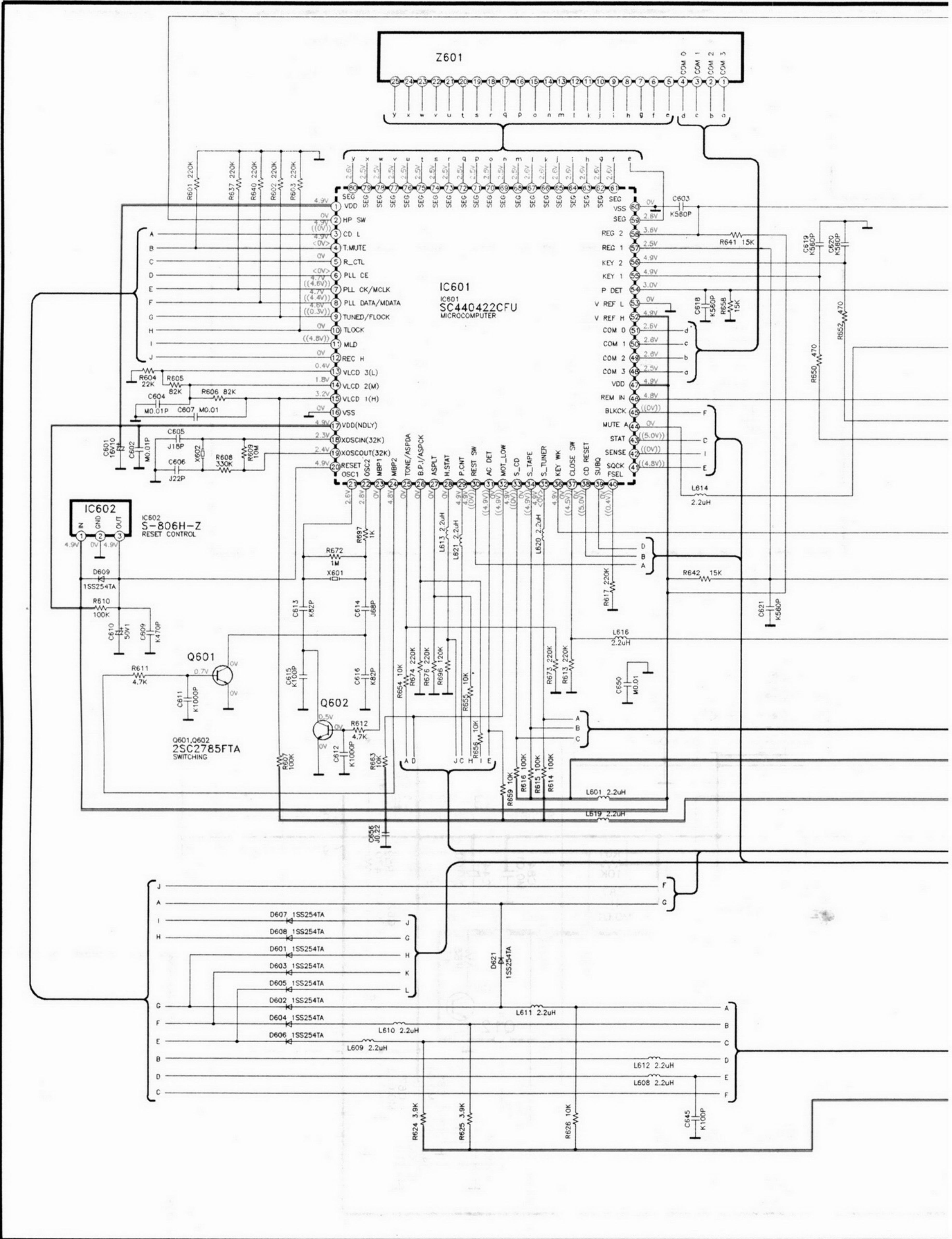
D MAIN CIRCUIT (CN702)

B TUNER CIRCUIT



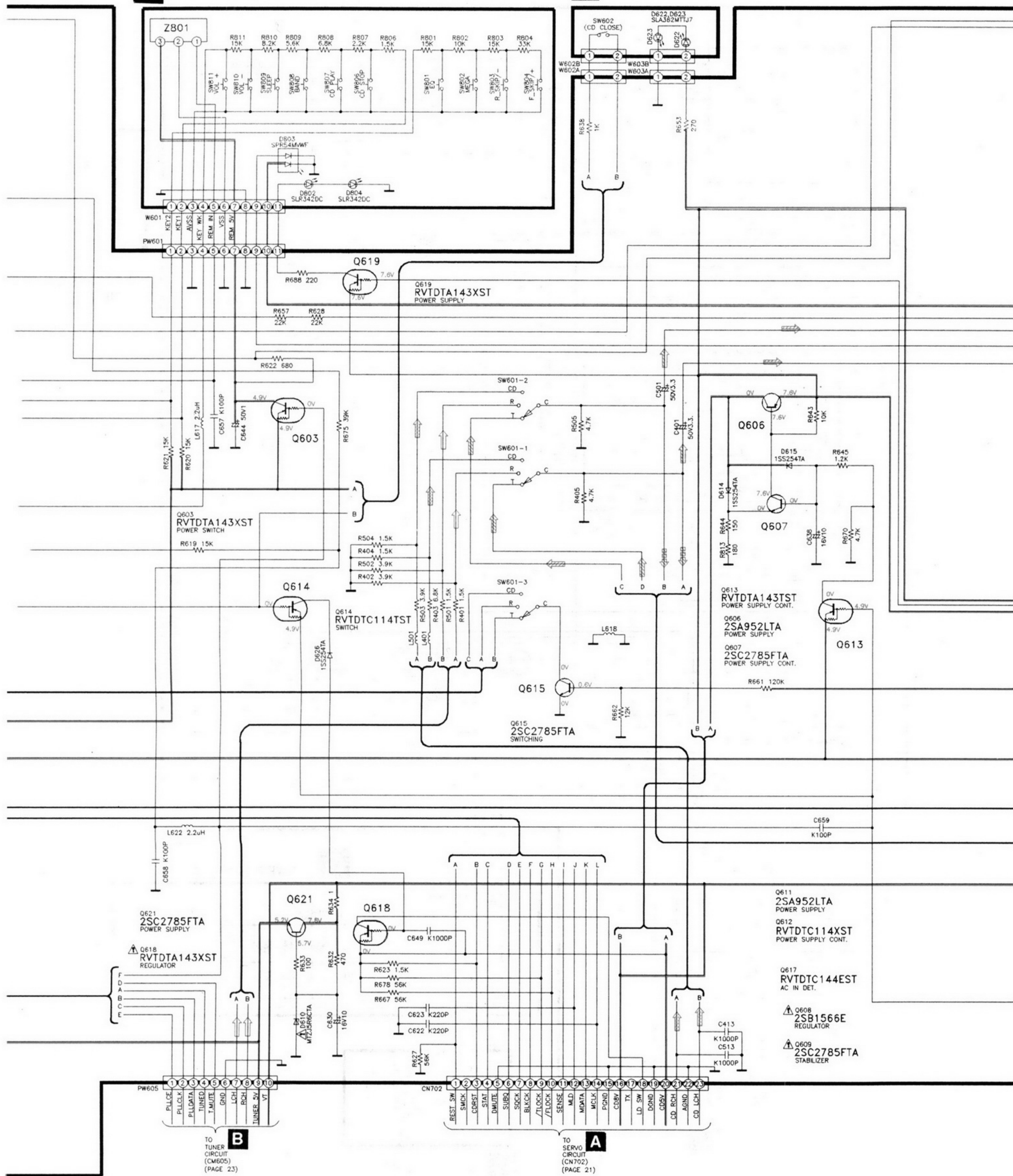


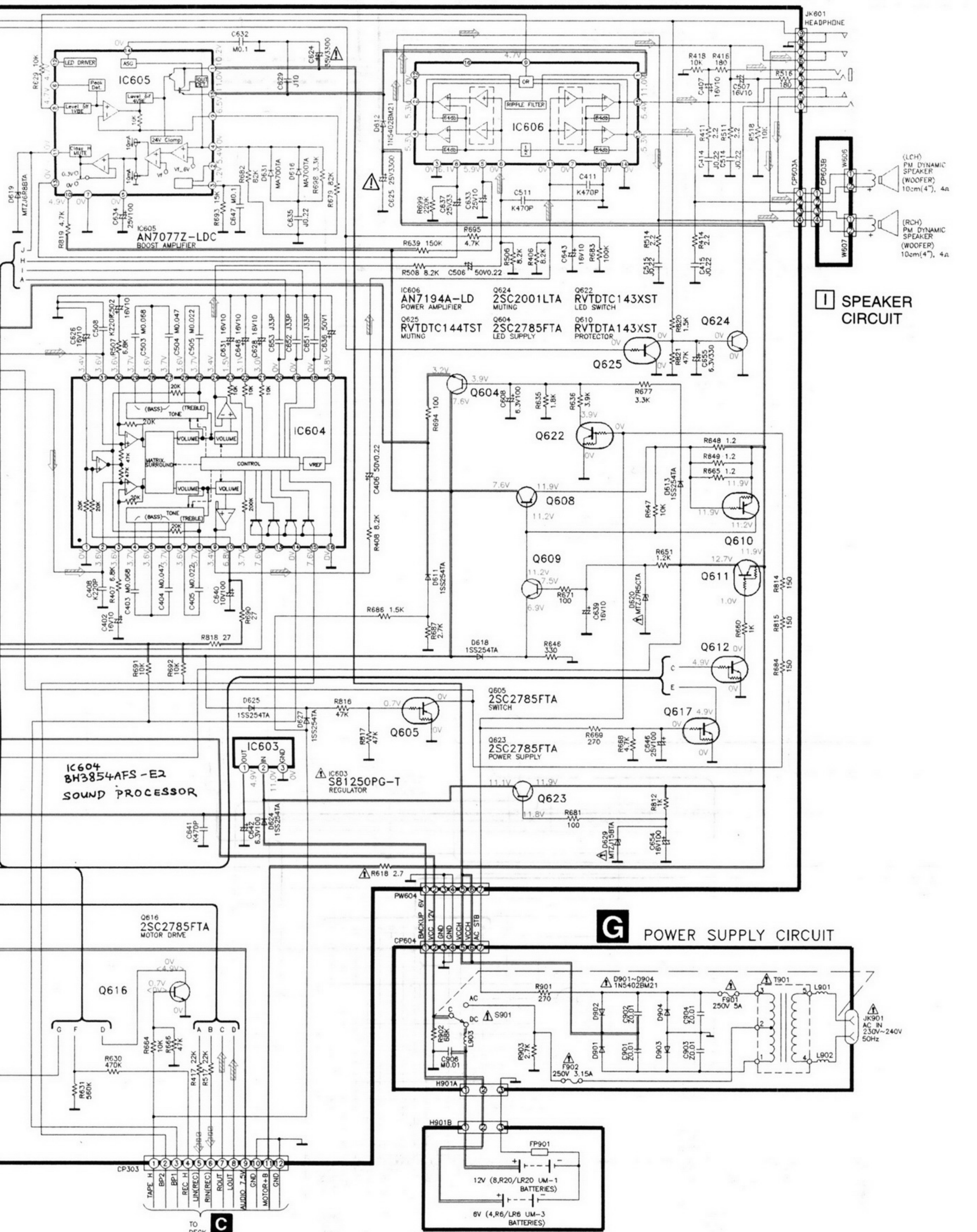
D MAIN CIRCUIT



E OPERATION CIRCUIT

F SWITCH CIRCUIT





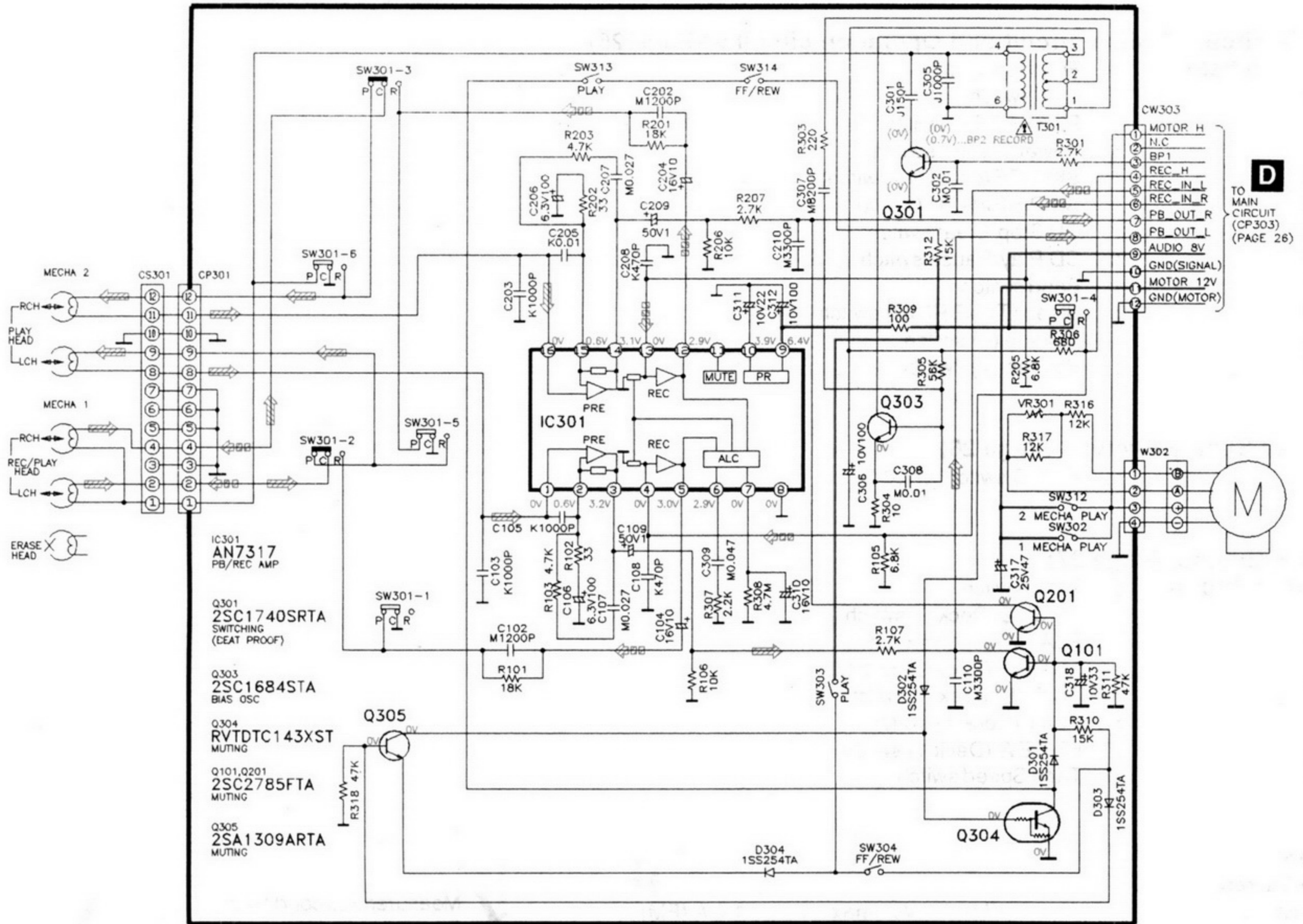
I SPEAKER CIRCUIT

G POWER SUPPLY CIRCUIT

H BATTERY CIRCUIT

TO DECK CIRCUIT (CW303) (PAGE 27)

C DECK CIRCUIT



■ Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

Note :

< for Servo circuit > (Page 21)

- S701 : Rest switch

< for Main circuit, Switch circuit and Operation circuit > (Page 25)

- SW601-1 ~ SW601-3 : Function switch
- SW602 : Leaf switch
- SW801 : PRESET EQ switch
- SW802 : Power Blaster switch
- SW803 : SKIP/SEARCH (-) switch
- SW804 : SKIP/SEARCH (+) switch
- SW806 : CD Stop/Clear switch
- SW807 : CD Play/Pause switch
- SW808 : Band switch
- SW809 : Sleep (TUNER/CD) switch
- SW810 : Volume (-) switch
- SW811 : Volume (+) switch

< for Power Supply circuit > (Page 26)

- S901 : AC/DC switch (JK901)

< for Deck circuit > (Page 27)

- SW301-1 ~ SW301-6 : REC. switch
- SW302 : FF/CUE (Deck 2) switch
- SW303 : PLAY (Deck 2) switch
- SW304 : FF/REW (Deck 2) switch
- SW312 : FF/CUE (Deck 1) switch
- SW313 : PLAY (Deck 1) switch
- SW314 : FF/REW (Deck 1) switch
- VR301 : Tape Speed switch

< General >




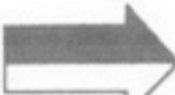






• Battery Current

Vol. min

330 mA (FM)	Vol. max	1.0 A (FM)
320 mA (AM)		700 mA (AM)
420 mA (TAPE)		1.50 A (TAPE)
540 mA (CD)		2.25 A (CD)

Measurement condition:	
Radio	: FM 60 dB, 30%mod AM 74 dB/m, 30%mod
Tape	: 315 Hz, 0dB
CD	: 1kHz, 0dB

•Signal line


	: +B line		: Record signal line		: AM OSC signal line
	: FM/AM signal line		: CD signal line		: FM OSC signal line
	: Main signal line		: FM signal line		
	: Playback signal line		: AM signal line		

•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 : Playback << >>.....Rec { } : Tuner (()) : CD () AM < > FM

•Importance safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

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