

# Service Manual

Portable Stereo CD System

Radio Cassette

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

**MASH\***  
 multi-stage noise shaping

**RX-DS10**

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 DECK : SG-20 MECHANISM SERIES**  
**TRAVERSE DECK : RAE0113Z MECHANISM SERIES**

## ■ Specifications

### ■ Radio

Frequency range	
FM	87.5 – 108 MHz
MW(E,EB)	520 – 1610 kHz
LW(E,EB)	148.5 – 285 kHz
AM(EG)	520 – 1610 kHz
Intermediate frequency	
FM	10.7 MHz
AM	459 kHz
Sensitivity	
FM(E,EB)	12.5 dB/50 mW (– 3 dB limit sens.)
FM(EG)	14.5 dB/50 mW (– 3 dB limit sens.)
MW(E,EB)	54 dB/m/50mW
LW(E,EB)	58.5 dB/m/50mW
AM(EG)	54.5 dB/m/50mW

### ■ Tape Recorder

Track system	4 track, 2 channel, stereo
Recording system	AC bias
Erasing system	Multi pole magnet
Monitor system	Variable sound monitor
Frequency range	
Normal	50 – 12,000 Hz

### ■ CD Player

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength 780nm)
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 – 240V, 50 Hz
Battery	Power consumption; 20W
Power Output	9V (Six R20/LR20, UM-1 batteries)
Speakers	4W (2W x 2) ...RMS (max.)
Jacks	2 Woofer; 10 cm
Output	Headphones: 32Ω
Dimensions (W x H x D)	470 x 181 x 259 mm
Weight	3.5kg without batteries

#### Note :

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

# Panasonic®

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## Terminal Guide of ICs, Transistors & Diodes

AN8389SE1 	AN8802SCE1V 	MNB4532REBD 64 Pin MN66271RA 80 Pin 	TA8227P 	AN7317 	BA1442A 	
BA7755A 	AN7205 	PST600DTA 	2SA952LTA 2SC1684STA 2SC2001L1TA 		2SC2785FTA BA1A4MTA BA1A4ZTA BN1A4MTA 	
2SC1740SRTA BN1A3QTA 	2SB1185E 	2SB709S 	2SJ40CDTA 	RVD1SS133TA 	RL154M11 	RVDMTZ5R6BTA MTZJ6R2ATA MTZJ8R2BTA 

## Schematic Diagram

### NOTES:

- SW1-1 ~ SW1-8 : Band Select Switch. (F...FM, M...MW, L...LW) ...for E,EB areas
- SW1-1 ~ SW1-2 : Band Select Switch. (FM ST...FM STEREO, FM...FM, AM...AM) ...for EG area
- SW301-1 : Beatproof Switch. (I...BEATPROOF I, II...BEATPROOF II, III...BEATPROOF III(E,EB) )
- SW301-2 : FM Stereo switch. (M...MONO, ST...STEREO) ...for E,EB areas
- SW302-1 ~ SW302-4 : Function Select Switch. (CD...CD, R...RADIO, T...TAPE/OFF)
- SW303 : Record Switch.
- SW304 : Motor Switch.
- SW801 : CD Play/Pause Switch.
- SW802 : CD Forward Skip/Search Switch.
- SW803 : CD Reverse Skip/Search Switch.
- SW804 : CD Stop Switch.
- SW805 : CD Open/Close Switch.
- VR301-1 ~ VR301-2 : XBS Control VR.
- VR302-1 ~ VR302-2 : Volume Control VR.
- S701 : Rest Switch.
- S501 : AC/Battery Select Switch.(JK501)

### Battery Current consumption:

Vol. min..... 40mA (FM)  
20mA (AM)(MW/LW)  
40mA (TAPE)  
60mA (CD)

Vol. max..... 60mA (FM)  
60mA (AM)(MW/LW)  
90mA (TAPE)  
150mA (CD)

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(MW/LW)

### CAUTION !

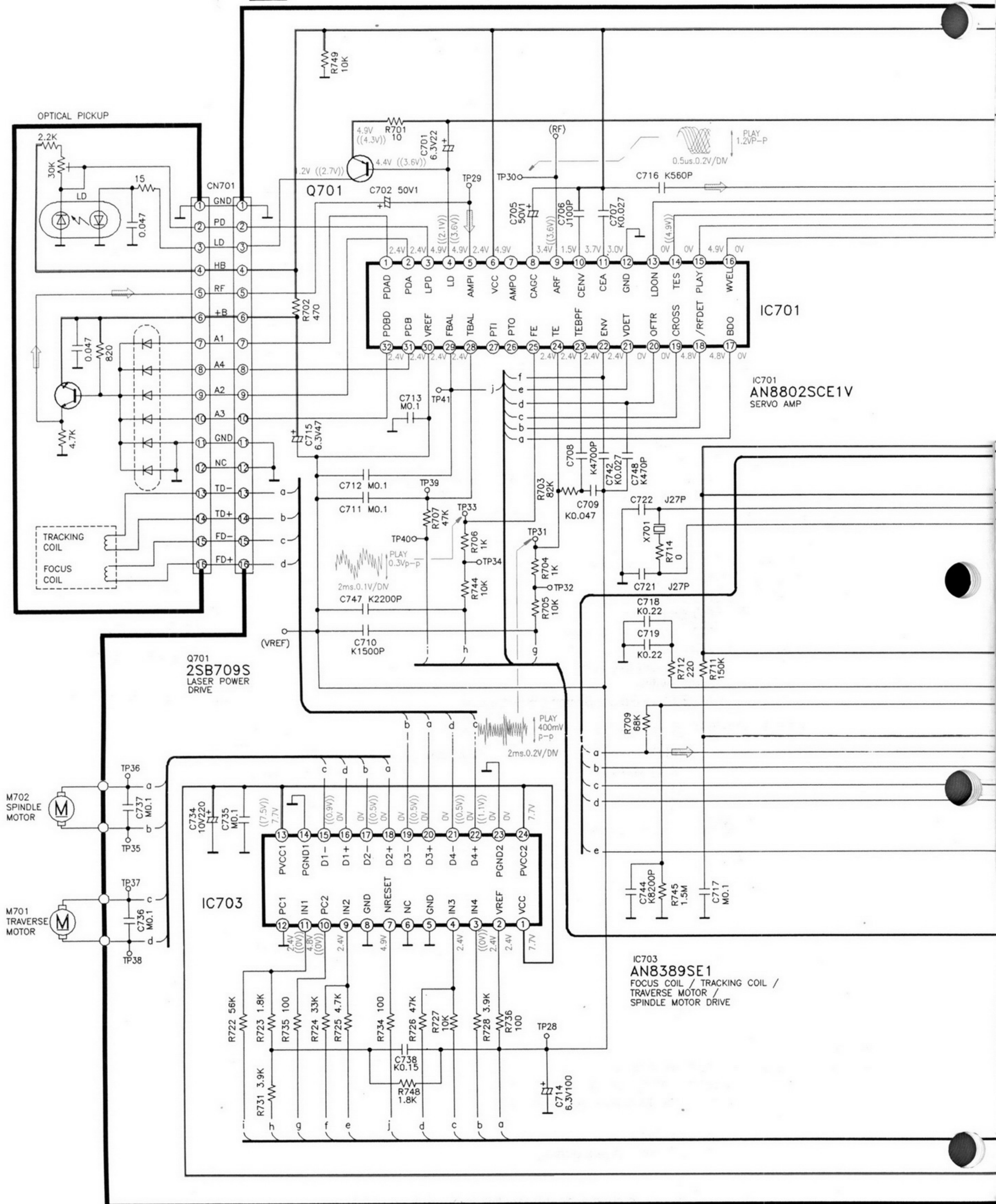
- IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

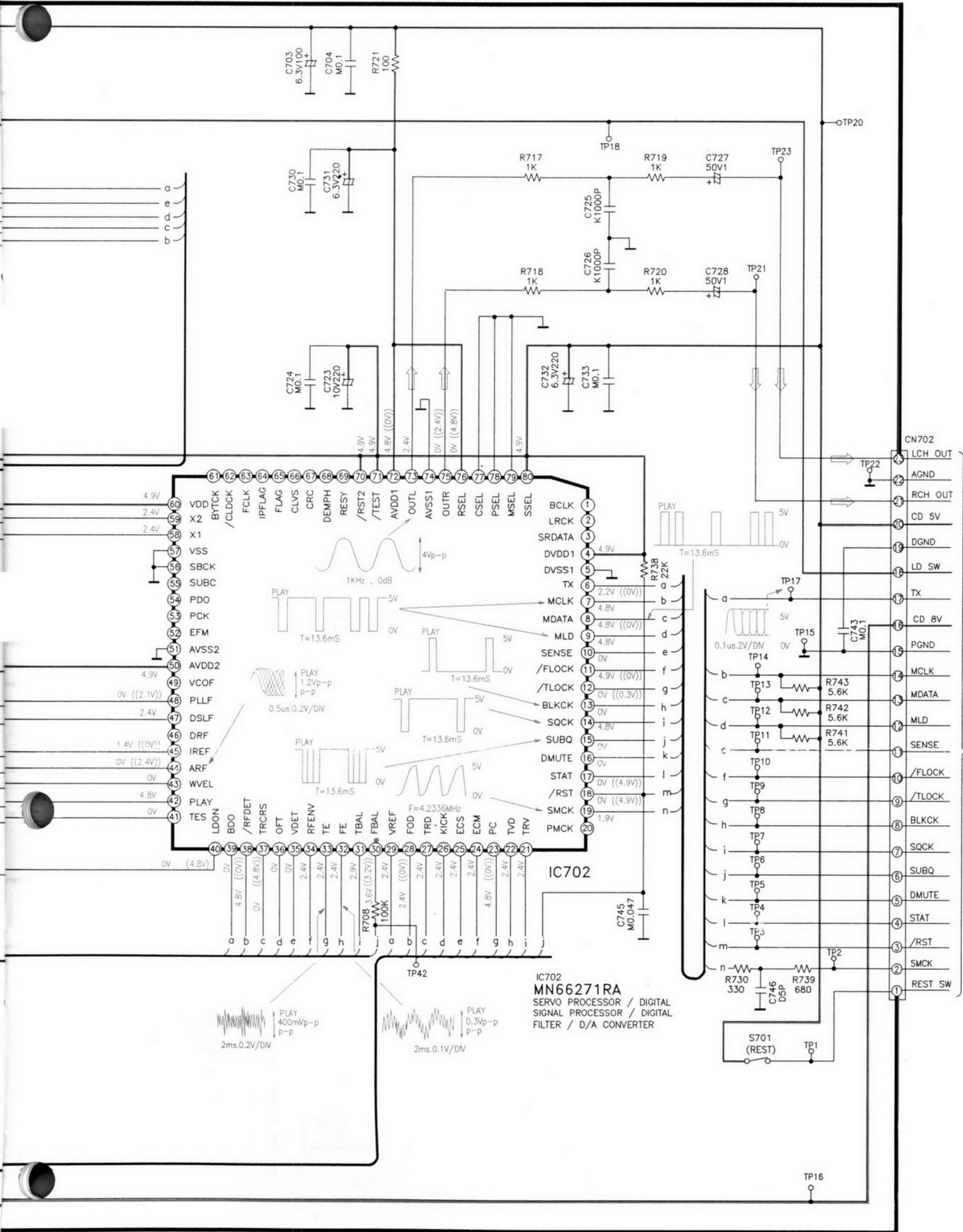
### Important safety notice :

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.

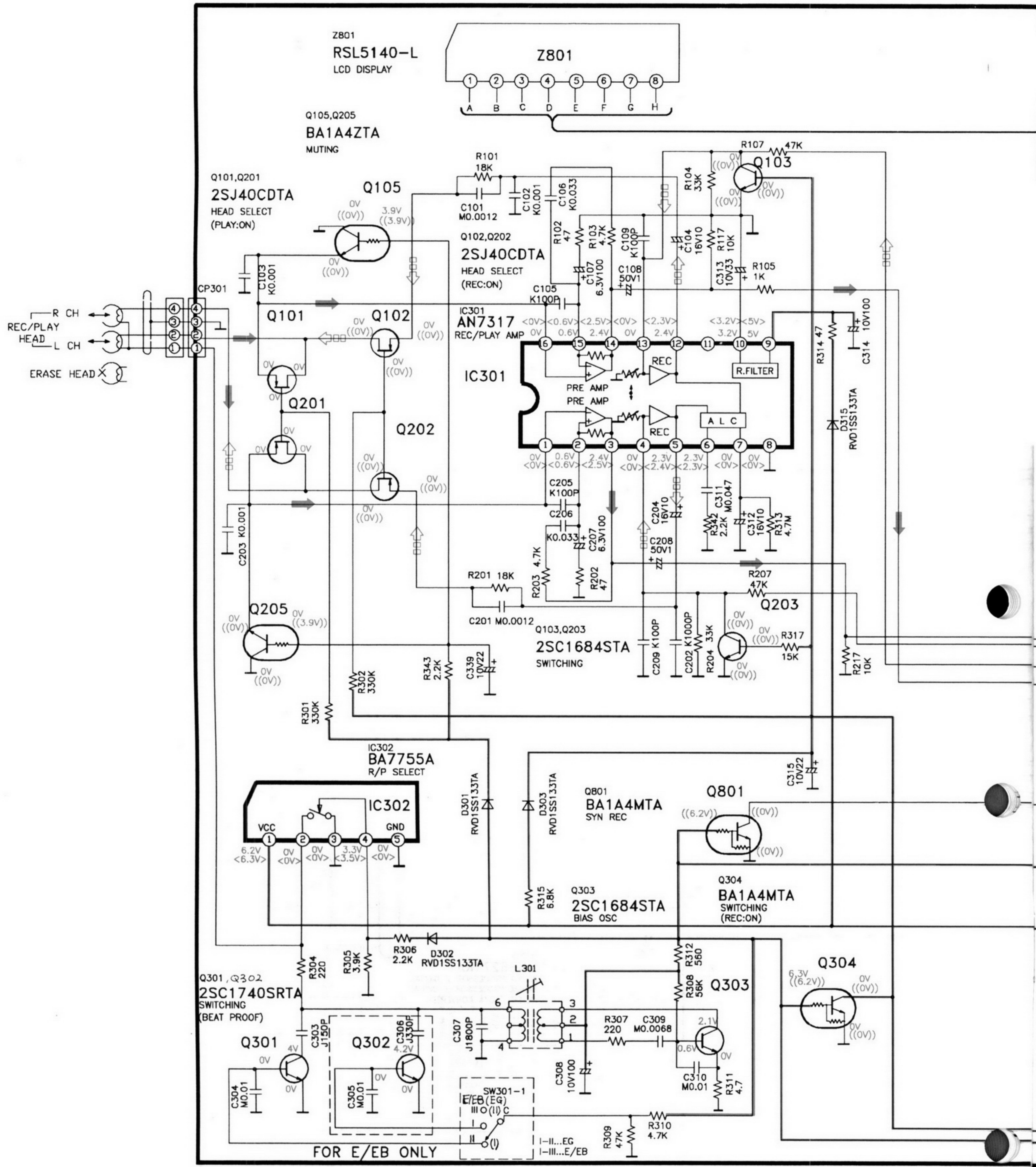
# A SERVO CIRCUIT

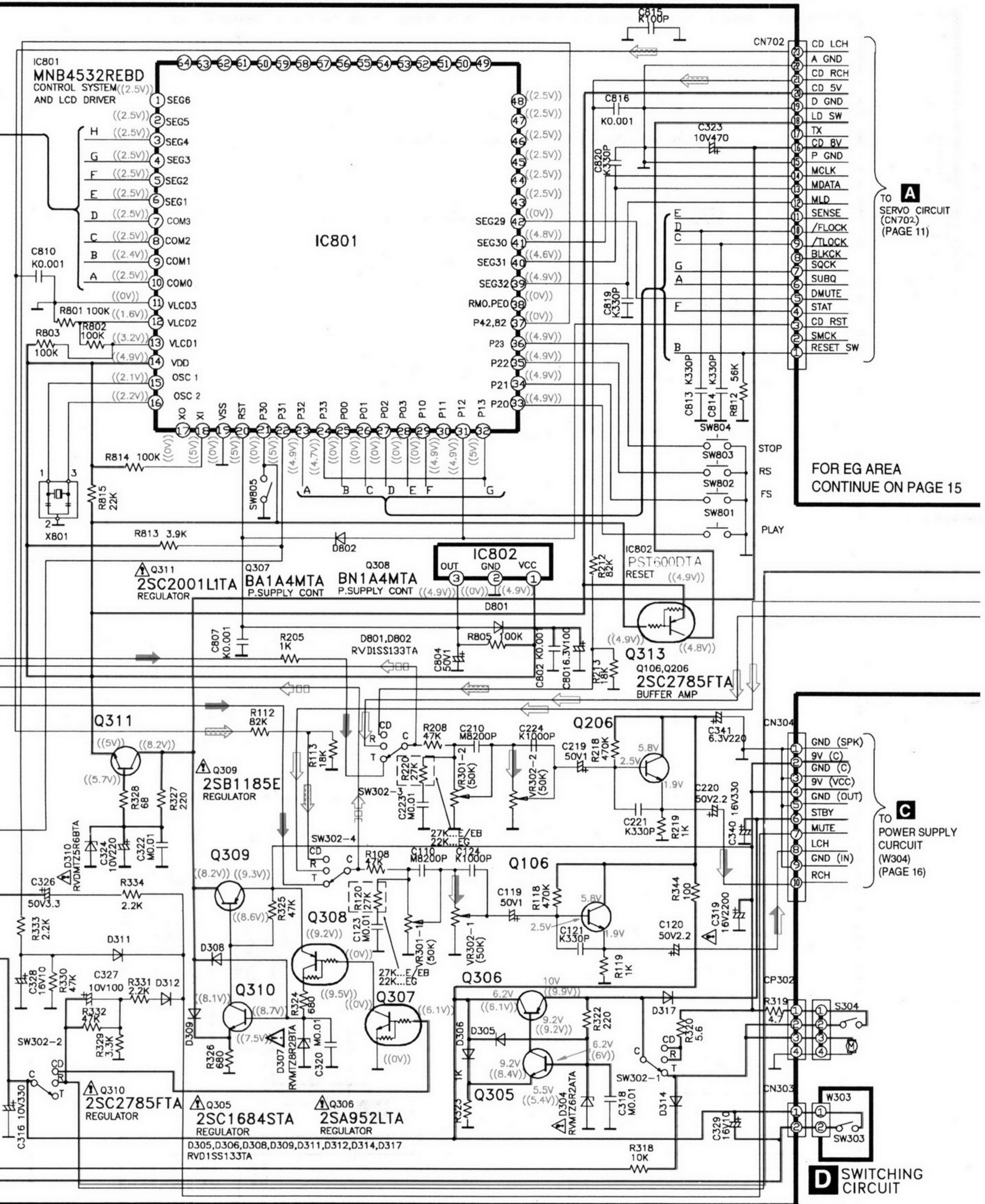




TO **B**  
 MAIN  
 CURCUIT  
 (CN702)  
 (PAGE 13)

**B** MAIN CIRCUIT





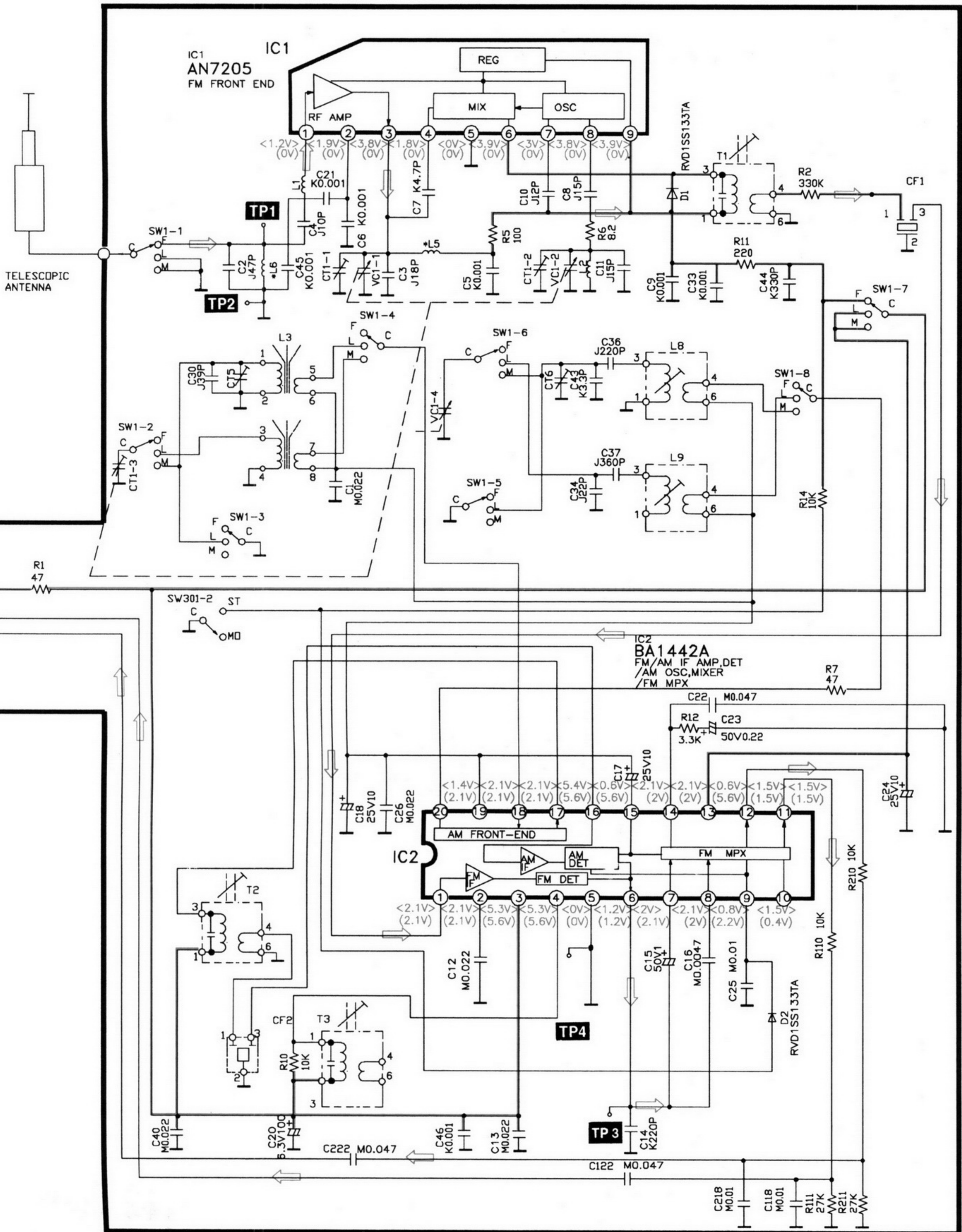
**A**  
TO SERVO CIRCUIT  
(CN702)  
(PAGE 11)

FOR EG AREA  
CONTINUE ON PAGE 15

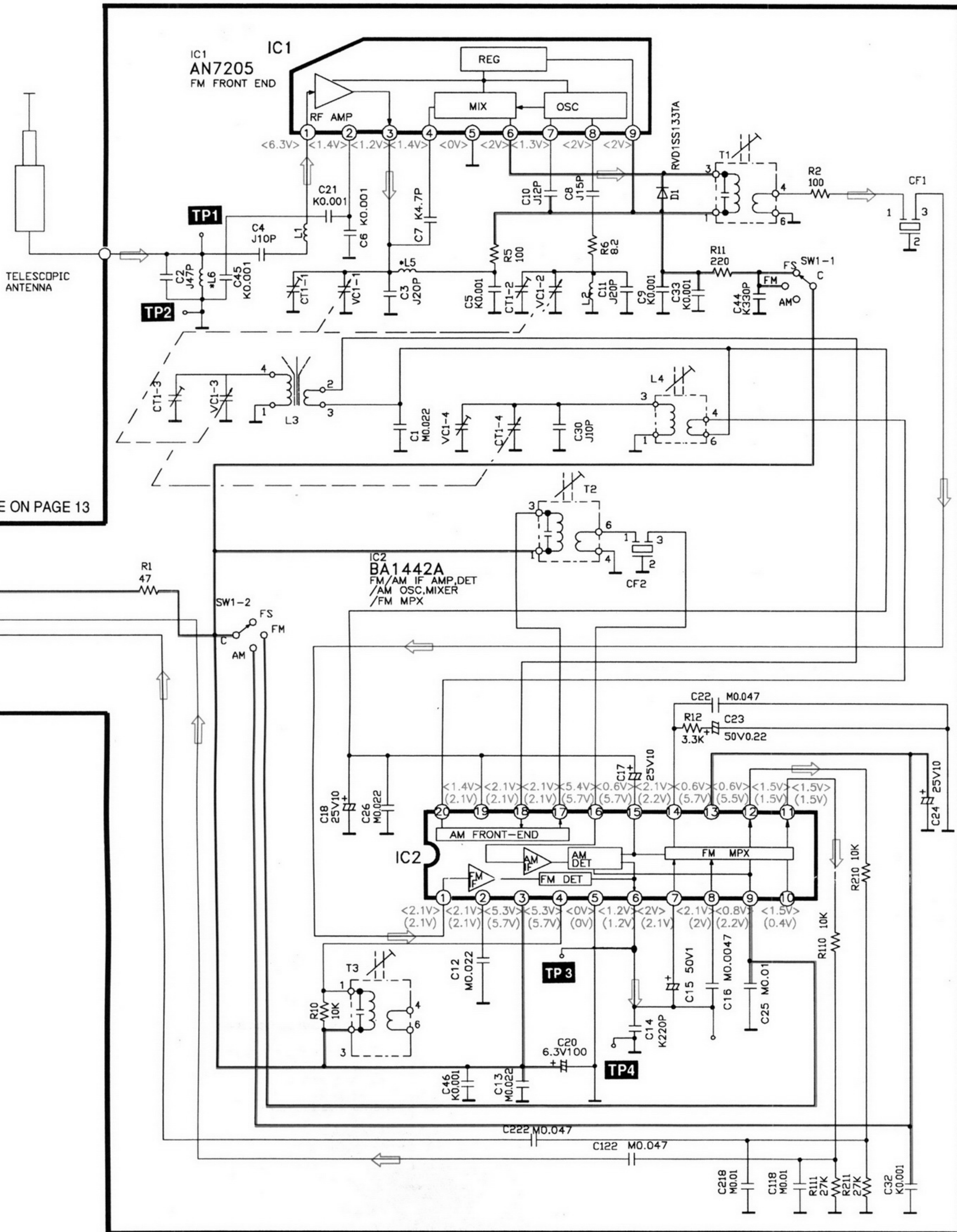
**C**  
TO POWER SUPPLY  
CURCUIT  
(W304)  
(PAGE 16)

**D** SWITCHING  
CIRCUIT

FOR E,EB AREAS



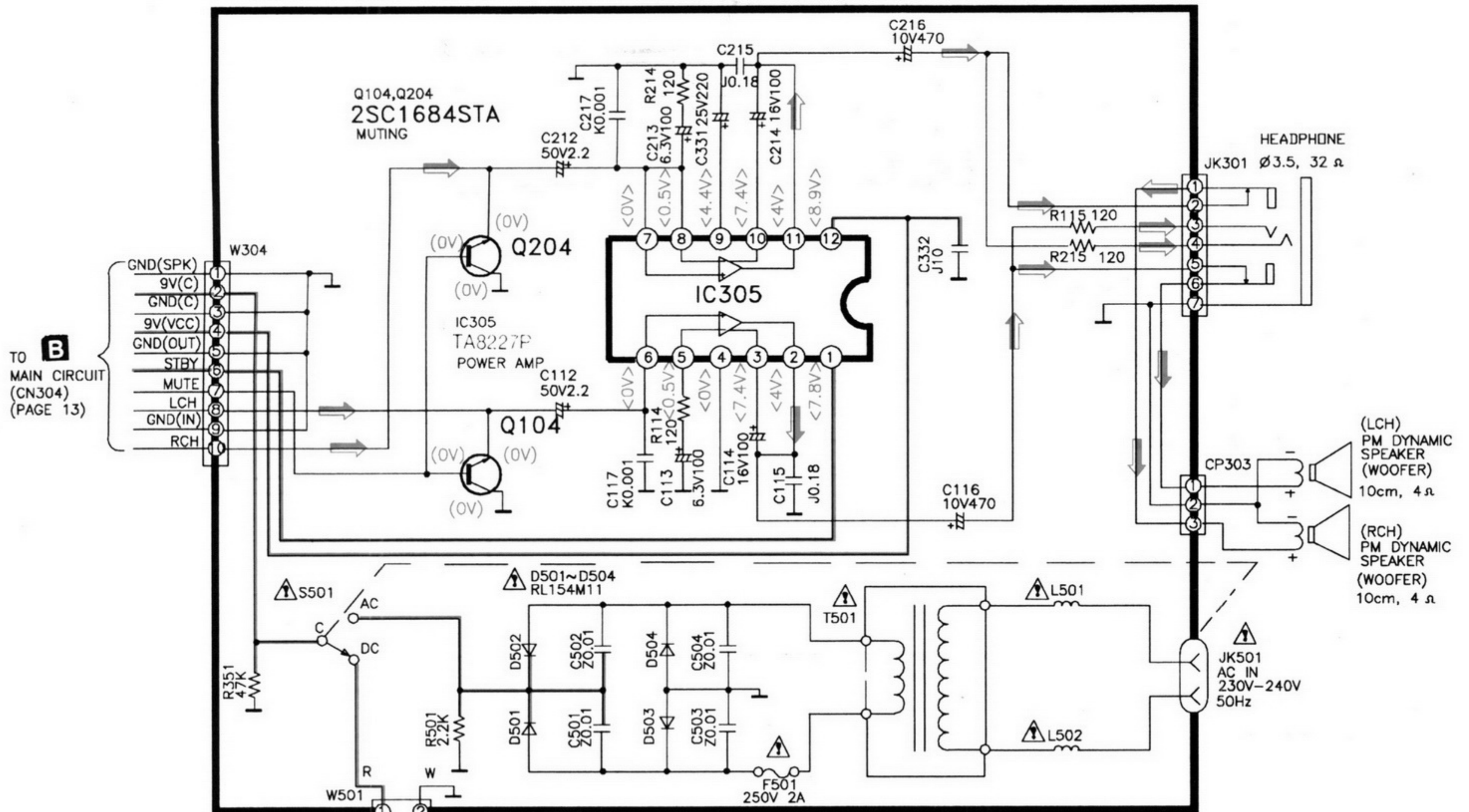
FOR EG AREA



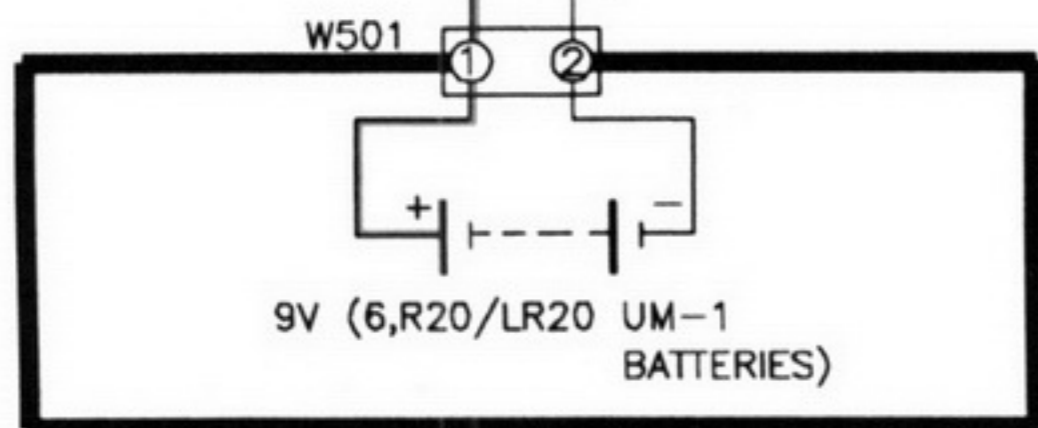
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**C** POWER SUPPLY CIRCUIT



**E** BATTERY CIRCUIT



■ Printed Circuit Board

**E** BATTERY P.C.B. (REP2177D)

