

# Service Manual

Portable Stereo CD System

Radio Cassette

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

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

**RX-DS520**

Colour

(K) ... Black Type

*Simplified*


## Area

Suffix for Model No.	Area	Colour
(PC)	Canada	(K)

Please file and use this Service Manual together with the Service Manual for Model No. RX-DS520 (P) Order No. MD9512126C1.

**Note :** This Simplified Service Manual is provided to indicate the main difference between the original Model No. RX-DS520 (P) and the subsequent Model No. RX-DS520 (PC).

## Change In Replacement Parts List

Notes: \* Mentioned in this parts list is only those different from Model No. RX-DS10 (P).

\* Important 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 these components, be sure to use only manufacturer's specified parts shown in the parts list.

\* [M] Indicates in the Remarks columns indicates parts supplied by MESA.

### ! WARNING

This service information is designed for experienced 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.

Ref. No.	Description	Change of Parts Number		Remarks
		RX-DS520P-K	 RX-DS520PC-K	
CABINET AND CHASSIS				
30	REAR CAB. ASS'Y	RFKHXDS520PK[M]	RFKHXDS520PC [M]	Changed
INTEGRATED CIRCUITS				
IC90	NAND GATE	UPD4011BC	_____	Deleted
IC303	MICRO-P	UPD753204013 [M]	UPD753204015 [M]	Changed
TRANSISTORS				
Q90	TRANSISTOR	2SC1740SRTA	_____	Deleted
DIODES				
D90	DIODE	RVD1SS133TA	_____	Deleted
D91	DIODE	RVD1SS133TA	_____	Deleted
D92	DIODE	RVD1SS133TA	_____	Deleted

### Notes :

Specifications are subject to change without notice.

Weight and dimensions shown are approximate.

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Ref. No.	Description	Change of Parts Number		Remarks
		RX-DS520P-K	RX-DS520PC-K	
D93	DIODE	RVD1SS133TA	_____	Deleted
D94	DIODE	RVD1SS133TA	_____	Deleted
D95	DIODE	RVD1SS133TA	_____	Deleted
D96	DIODE	RVD1SS133TA	_____	Deleted
<b>FUSE</b>				
F502	FUSE	_____	XBA1C25NBAL [M]	Added
<b>FUSE CLIPS</b>				
FC3	FUSE CLIP	_____	EYF52BC	Added
FC4	FUSE CLIP	_____	EYF52BC	Added
<b>RESISTORS</b>				
R90	2.2K 1/4W	ERDS2TJ222T	_____	Deleted
R91	2.2K 1/4W	ERDS2TJ222T	_____	Deleted
R92	10K 1/4W	ERDS2TJ103T	_____	Deleted
R93	100K 1/4W	ERDS2TJ104T	_____	Deleted
R94	100K 1/4W	ERDS2TJ104T	_____	Deleted
R95	2.2K 1/4W	ERDS2TJ222T	_____	Deleted
R96	120K 1/4W	ERDS2TJ124T	_____	Deleted
R97	47K 1/4W	ERDS2TJ473T	_____	Deleted
R115	4.7K 1/4W	ERDS2TJ472T	_____	Deleted
R215	4.7K 1/4W	ERDS2TJ472T	_____	Deleted
<b>CAPACITORS</b>				
C11	8.2P 50V	ECBT1H220JC5	ECBT1H8R2KC5	Changed
C30	6.8P 50V	ECBT1H5R6KC5	ECBT1H6R8KC5	Changed
C32	1000P 50V	ECBT1H102KB5	_____	Deleted
C90	4.7 50V	ECEA1HU4R7B	_____	Deleted
C91	4.7 50V	ECEA1HU4R7B	_____	Deleted
C92	0.01 16V	ECBT1C103MS5	_____	Deleted
C93	0.01 16V	ECBT1C103MS5	_____	Deleted
C335	100 16V	ECEA1CKA101B	ECEA1CU101B	Changed
C904	1000P 50V	_____	ECBT1H102KB5	Added
C905	1000P 50V	_____	ECBT1H102KB5	Added
<b>PACKING MATERIAL</b>				
P1	GIFT BOX	RPGX0229 [M]	RPGX0230 [M]	Changed
<b>ACCESSORIES</b>				
A1	INSTRUCTION BOOK ASS'Y	RQT3228-P [M]	RFKSXDS520PC [M]	Changed

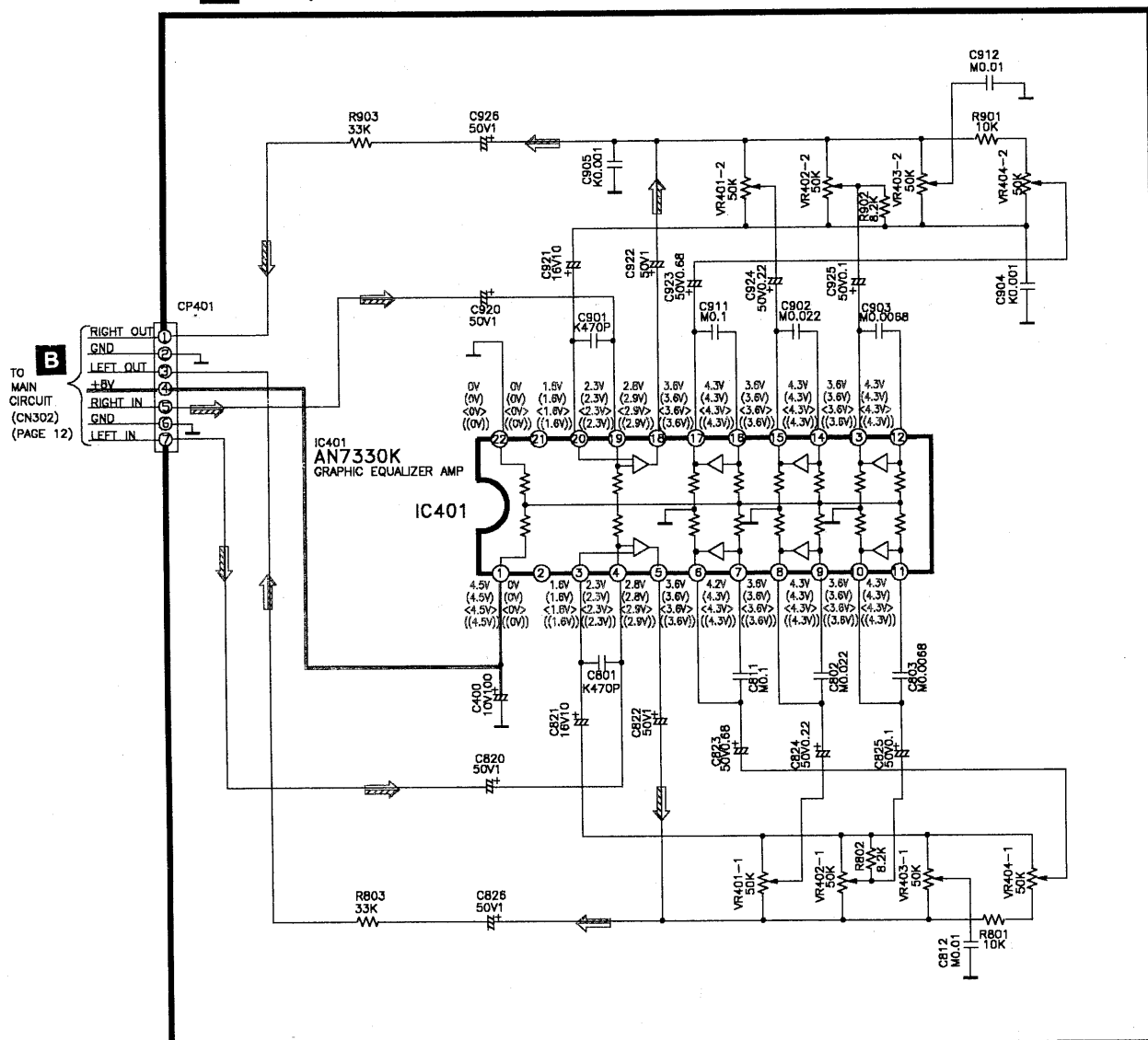
### • IC303 (UPD753204015) System Microprocessor

Pin No.	Mark	I/O	Function
1-4	C0~C3	O	LCD common signal output
5	BIAS	I	LCD bias voltage
6-8	VLC0~VLC2	I	LCD bias reference voltage
9	/FLOCK	I	CD focus lock signal input
10	/TLOCK	I	CD tracking signal input
11	SENSE	I	CD sense signal input
12	CLOSESW	I	CD close detect switch signal input
13	VSS	—	GND
14	CDRST	O	CD reset output
15	MCLK	O	CD signal process IC control signal output
16	MDATA	O	CD signal process IC data output
17	MLD	O	CD signal process IC strobe signal output
18	STOPKEY	I	CD stop switch input
19	R.SKIP	I	CD R.Skip/R.Search switch input
20	F.SKIP	I	CD F.Skip/F.Search switch input
21	PLAY	I	CD play/pause switch input
22	VDD	I	VDD (+5V)

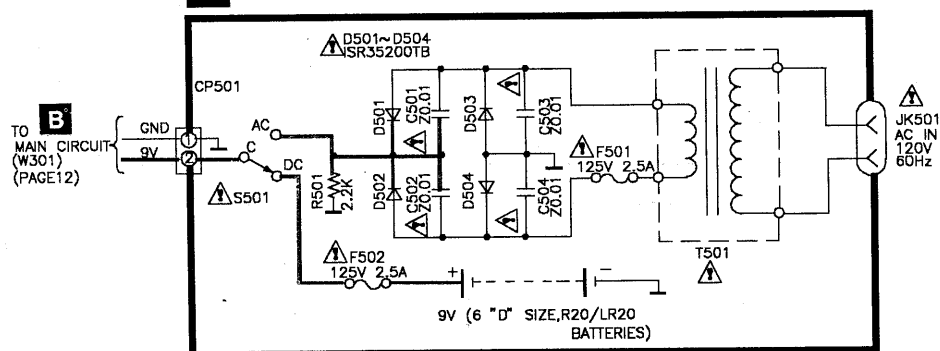
Pin No.	Mark	I/O	Function
23	X1	I	System clock OSC
24	X2	O	
25	IC	I	Connect to VDD (+5V)
26	RESET	I	System reset signal input
27	BLKCLK	I	CD subcode block clock signal input
28	SQCK	O	CD subcode clock output
29	—	—	
30	SUBQ	I	CD subcode data input
31	RESETSW	I	Reset SW (S701) signal input
32	STAT	I	CD status signal input
33	DMUTE	O	CD muting control signal output
34-35	—	—	Not used
36	MUTEA	O	AF muting control signal output
37	RECH	I	REC detect signal input
38-44	—	—	Not used
45-48	S0-S3	O	LCD segment signal output

# **Schematic Diagram**

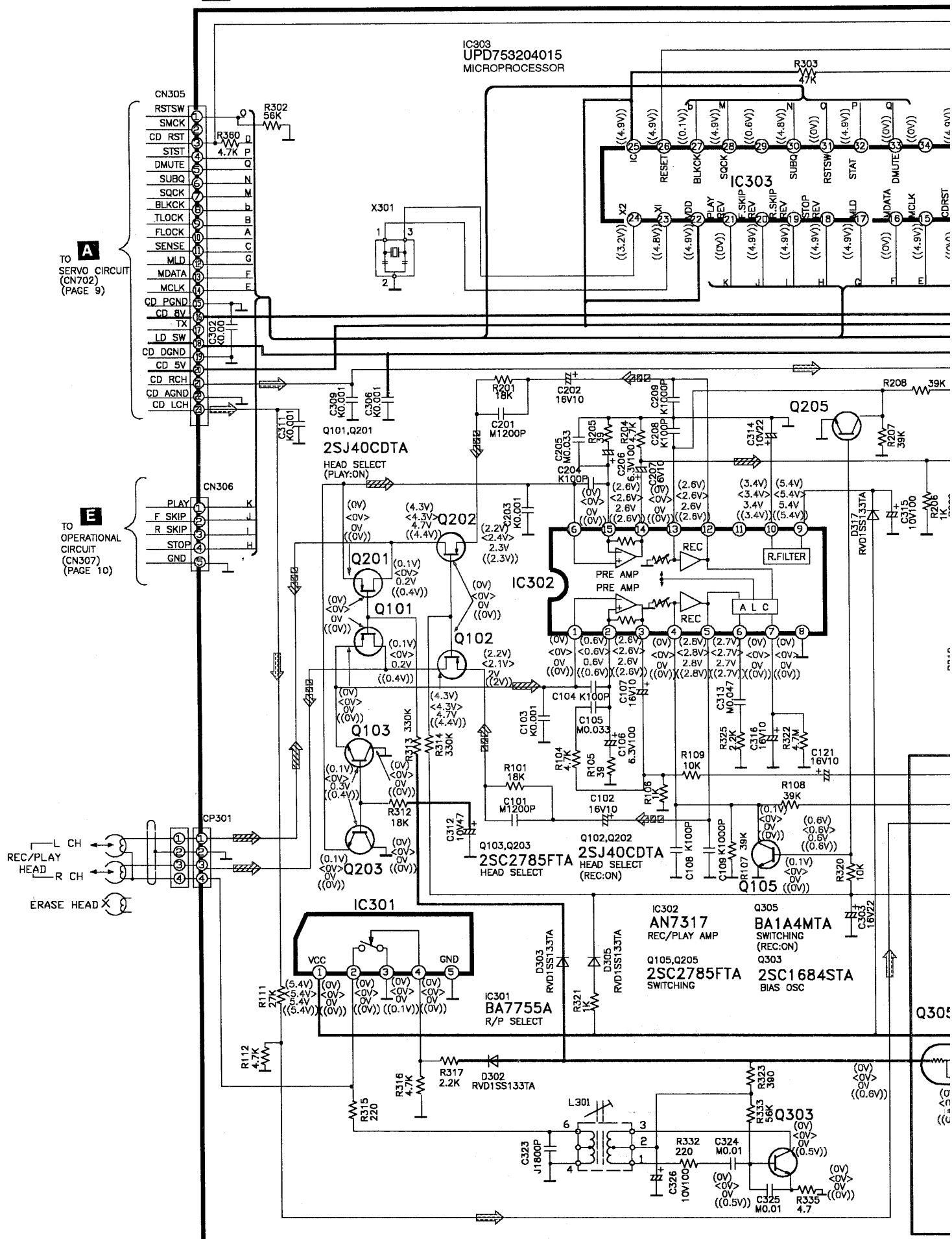
## **D** G.E.Q. CIRCUIT



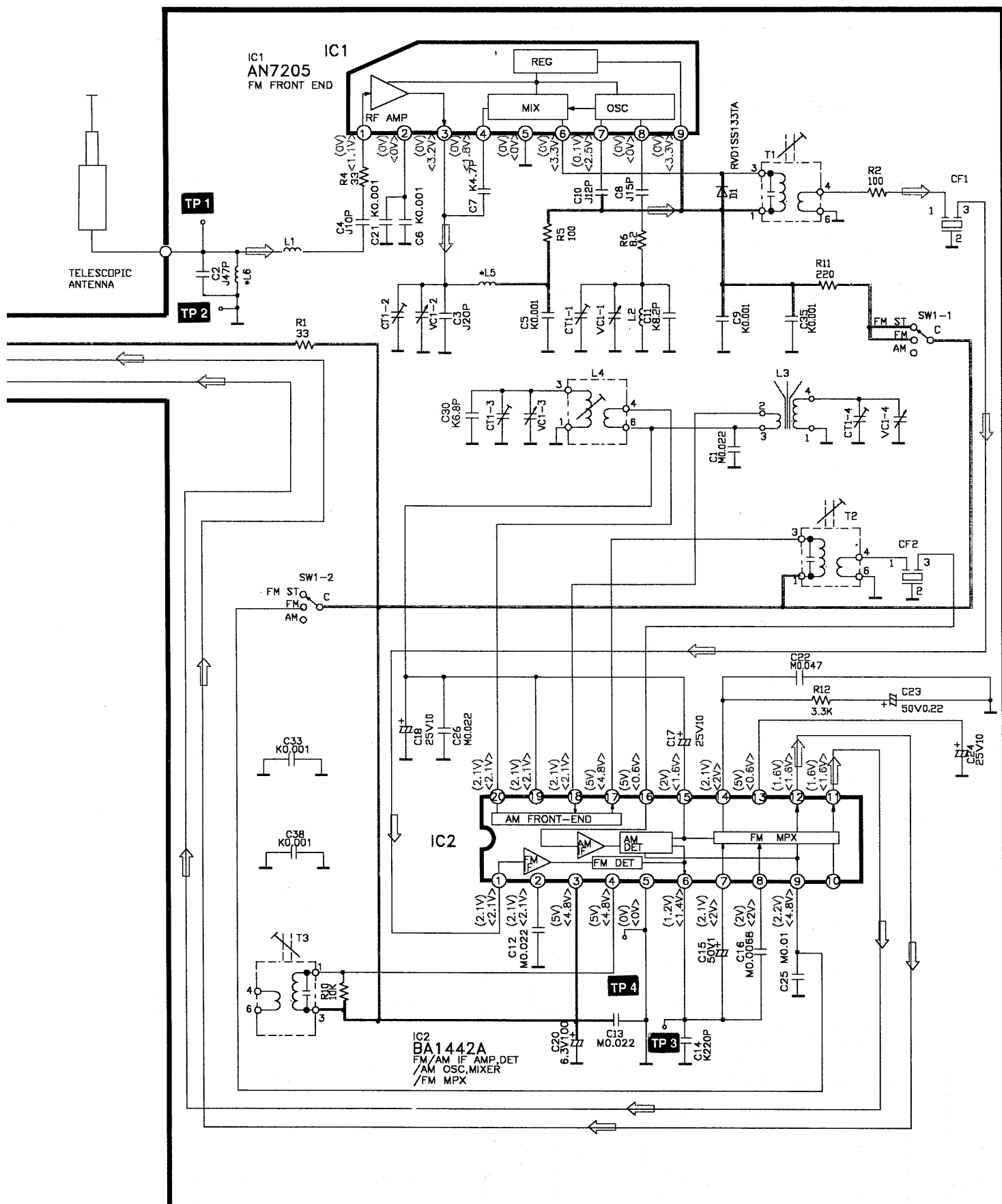
## **C** POWER SUPPLY CIRCUIT



## B MAIN CIRCUIT

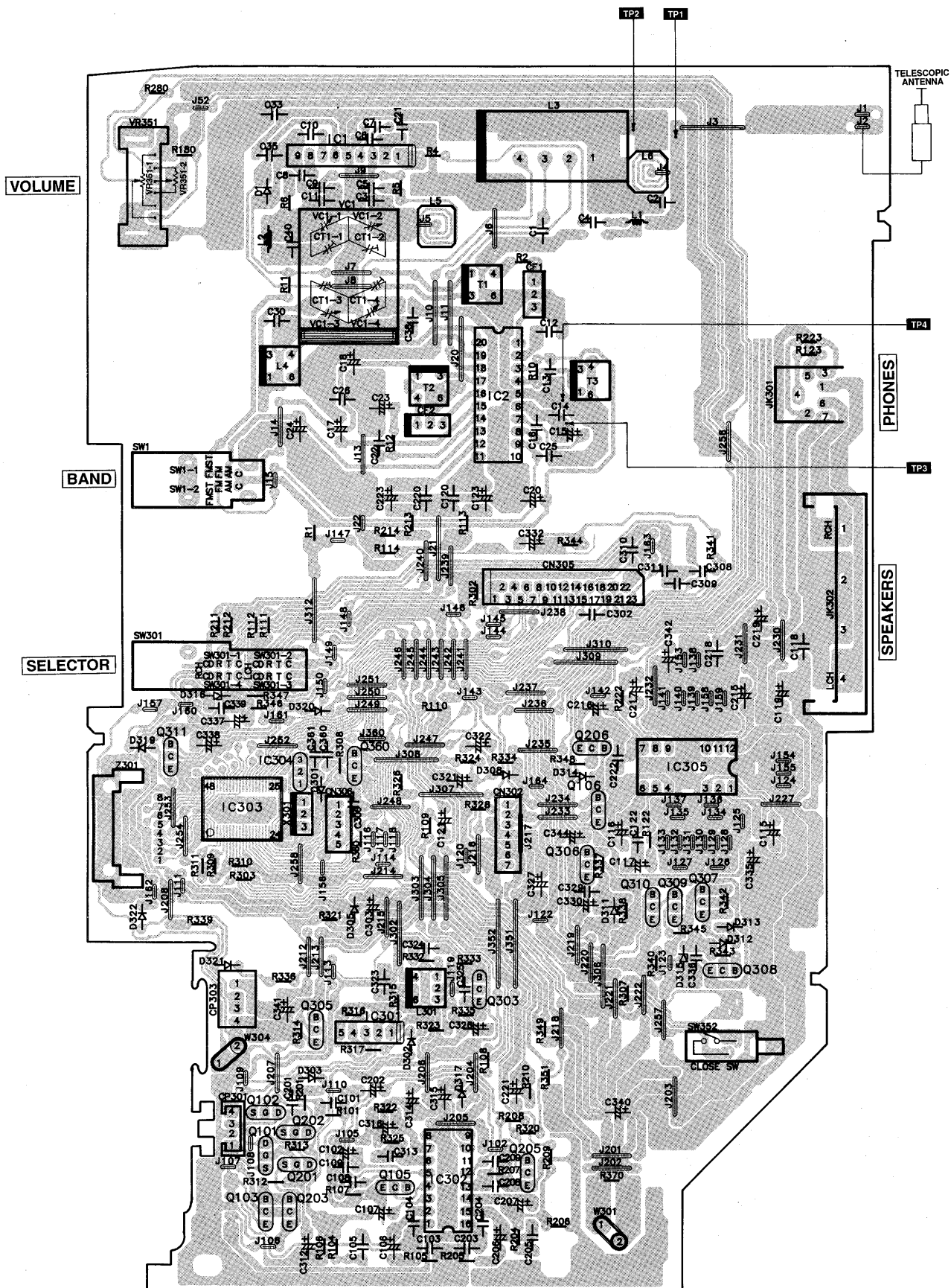


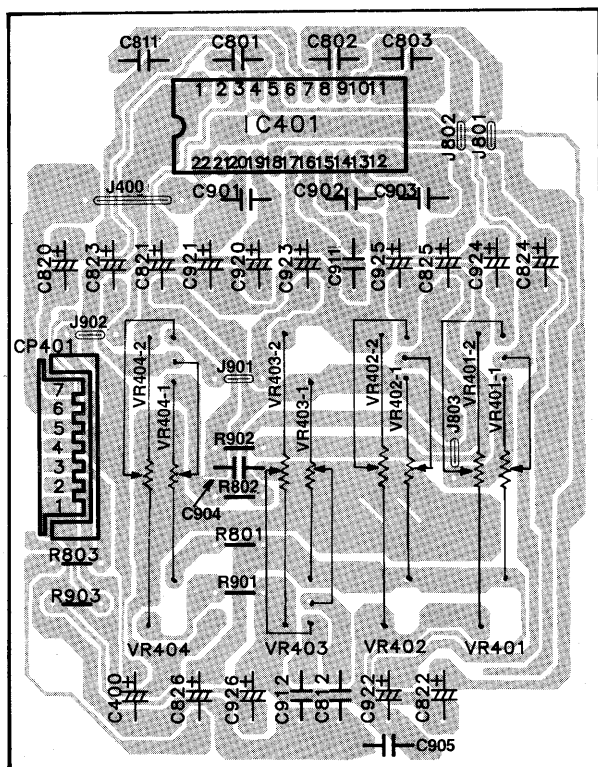




## ■ Printed Circuit Board

**B MAIN P.C.B. (REPX0098)**



**D** G.E.Q. P.C.B. (REPX0099)**XBS LEVEL****GRAPHIC EQUALIZER****C** POWER P.C.B. (REPX0100A)