

# 1. SERVICE PRECAUTIONS

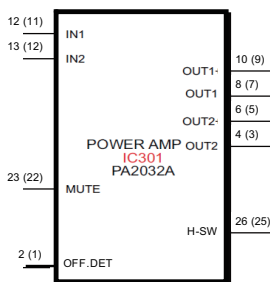
## 1.1 SERVICE PRECAUTIONS



1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
3. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.
4. Notes about installation and pin number description of Power IC (IC301: PA2032A)  
The Power IC, PA2032A used on the Tuner Amp Unit is a 25 pin IC.  
The same PCB of the Tuner Amp Unit is used for other models that use a 27 pin IC, too.  
So, the PCB has lands for a 27 pin IC.  
When you replace the Power IC, install the Power IC onto 25 pins (2- 26 pin) located in the center of 27 pins for IC301.

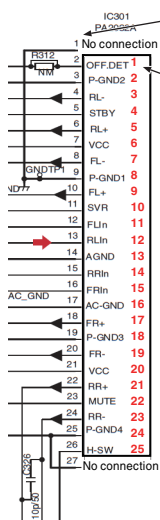
Therefore, when you check the Power IC on the block diagram, the schematic diagram and the PCB connection diagram, you have to pay attention as follows.

BLOCK DIAGRAM



The pin number is a number on the PCB (silk printing).  
The number in parentheses means the pin number of IC itself.

SCHEMATIC DIAGRAM



The pin number of left side is a number on the PCB (silk printing).

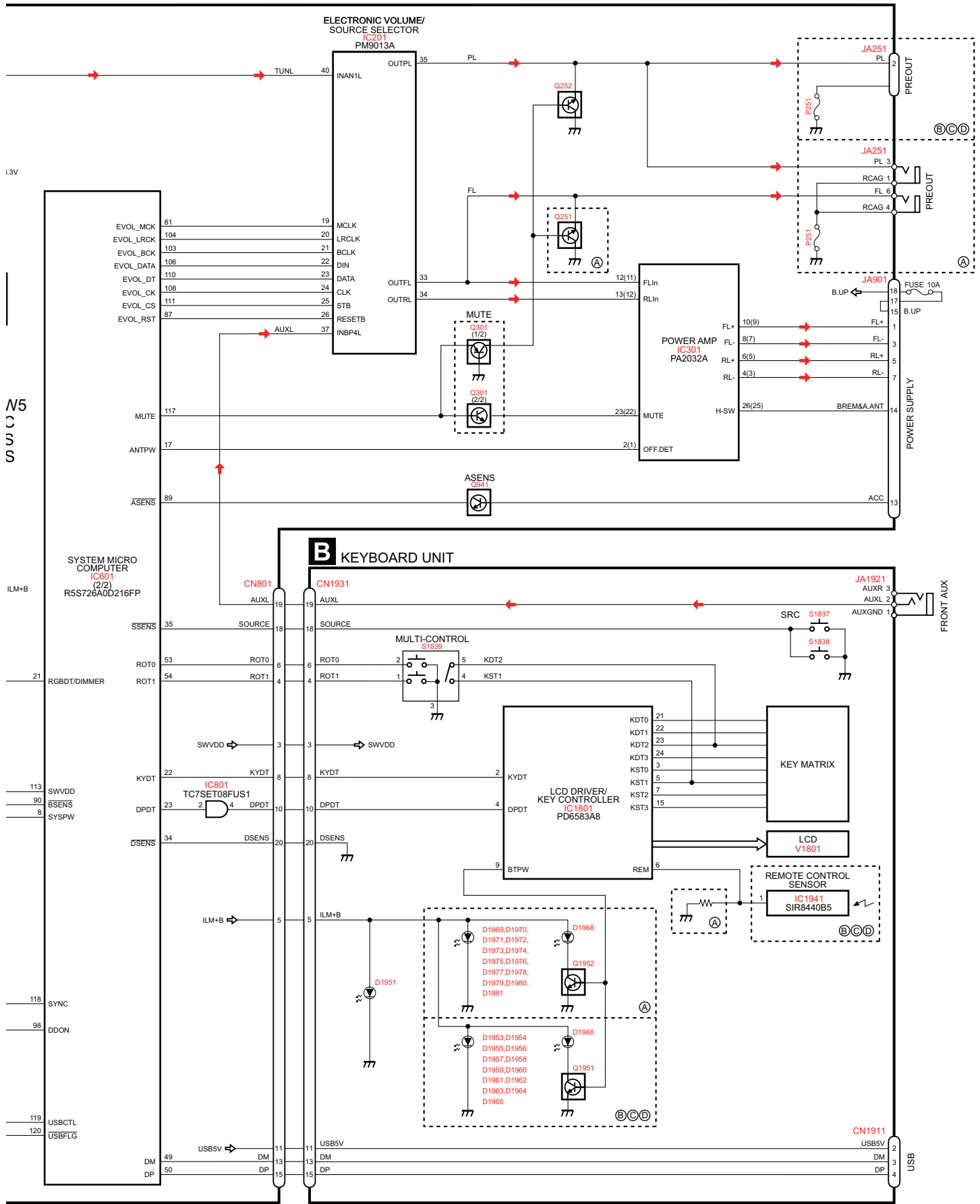
The pin number of right side (in the IC frame) means the pin number of IC itself.

## 1.2 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.  
Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.
  - Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40°C.  
Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373°C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.
- Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:

- Parts numbers of lead-free solder:  
GYP1006 1.0 in dia.  
GYP1007 0.6 in dia.  
GYP1008 0.3 in dia.



N5  
C  
S

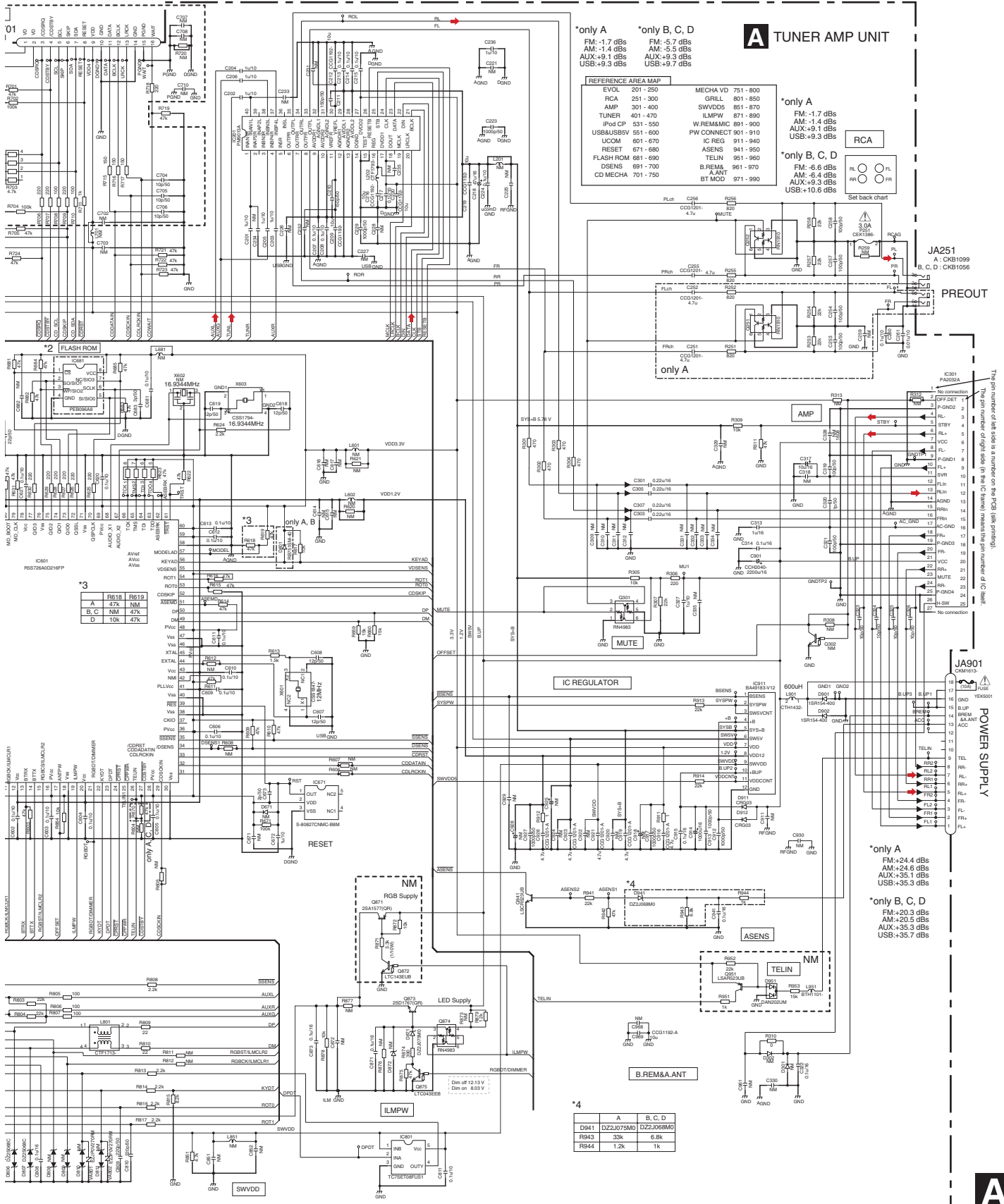
ILM+B

113 SWVDD  
90 BSENS  
8 SYSPW

118 SYNC  
98 DDON

119 USBCTL  
120 USBFLG

# A-b



# A TUNER AMP UNIT

\*only A  
FM: -1.7 dBs  
AM: -1.4 dBs  
AUX: +9.1 dBs  
USB: +9.3 dBs

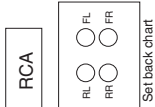
REFERENCE AREA MAP  
EVOLO 201 - 250  
RCA 251 - 300  
AMP 301 - 400  
TUNER 401 - 470  
W.REM&M 891 - 900  
IC REG 911 - 940  
ASENS 941 - 960  
FLASH ROM 881 - 890  
DSENS 891 - 700  
CD MECHA 701 - 750

MECHA VD	751 - 800
GRILL	801 - 850
SWVDD5	851 - 870
ILMPW	871 - 890
W.REM&M	891 - 900
IC REG	911 - 940
ASENS	941 - 960
FLASH ROM	881 - 890
DSENS	891 - 700
CD MECHA	701 - 750

\*only A

FM: -1.7 dBs  
AM: -1.4 dBs  
AUX: +9.1 dBs  
USB: +9.3 dBs

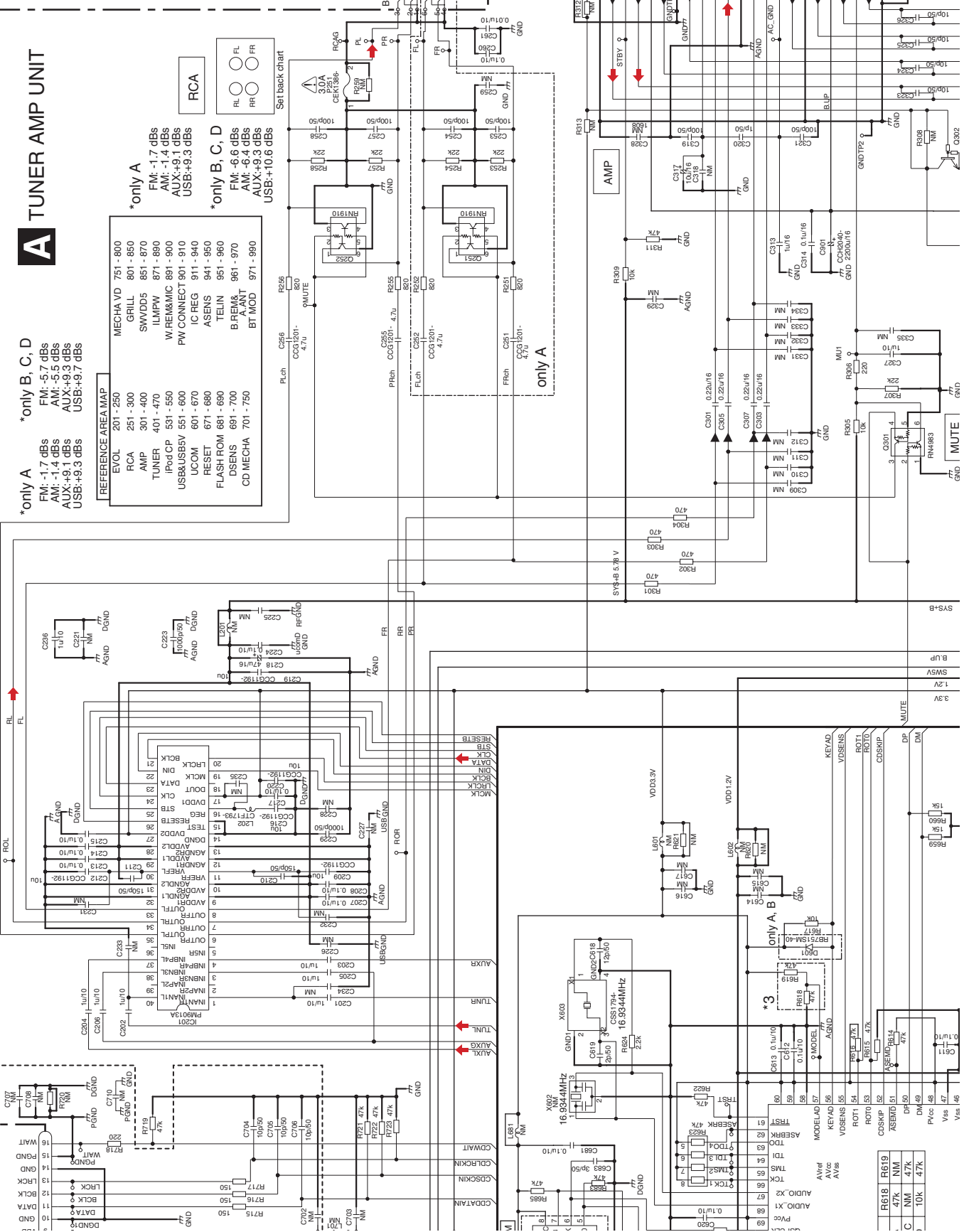
\*only B, C, D  
FM: -6.6 dBs  
AM: -6.4 dBs  
AUX: +9.3 dBs  
USB: +10.6 dBs



JA251  
A: CKB1089  
B, C, D: CKB1056

## PREOUT

The pin number of left side is a number on the PCB (silk printing).  
The pin number of right side (in the IC frame) means the pin number of IC itself.



A

B

C

D

E

F

A-a

A-b

MVH-X360BT/XINEW5