

# 1. SERVICE PRECAUTIONS

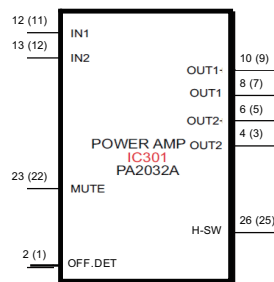
## 1.1 SERVICE PRECAUTIONS



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. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
4. After replacing the pickup unit, be sure to check the grating.
5. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.
6. 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.

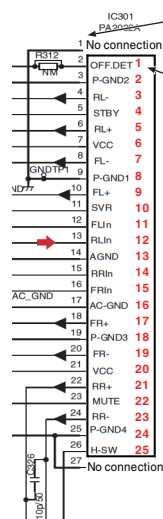
Therefore, when you check the Power IC on the block diagram, the schematic diagram and the PCB connection diagram, you have to pay attention as follows.

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.