

## Nº 133 SERVICE BULLETIN



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**TO:** Parts & Service Managers

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SUBJ: Monopoly® & Austin Powers CPU/Sound Board Modification

Low Volume Setting Hum



and



Symptom:

Undesirable hum and some audible distortion when the volume is set below **Level 4** in the **Volume Menu** (accessed by pressing the "Red" Button first of the Service Switch Set on the Coin Door; Level Range is 0 - 31).



## **Explanation:**

Due to the large number of games being sold in the "Home Market," it was brought to our attention that *at very low* volume settings, there is an undesirable hum in the audio. To eliminate the hum (at very low volume), we are suggesting two (2) Resistor changes which will reduce the gain of the amplifier, however, will ensure the proper balance between the upper and lower channels are intact.

- Note 1: This will reduce the overall loudness of the game; you will need to set the Volume Level higher to achieve the same level you had before.
- Note 2: This update on the CPU/Sound Board (SPI Part Number: 520-5136-16) is backwards compatible, though you may have to TURN UP or DOWN the factory default volume setting depending on the game.

## Solution:

Have a qualified technician change **R110** to a **33K**  $\Omega$  1/4 Watt Resistor and change **R106** to a **10K**  $\Omega$  1/4 Watt Resistor.

Resistor Color Codes	
<b>33K</b> $Ω$ 1/4 Watt Resistor	ORG-ORG-ORG-GOLD
<b>10K</b> $\Omega$ 1/4 Watt Resistor	BRN-BLK-ORG-GOLD

View the following page for the locations of R106 & R110 on the CPU/Sound Board.