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Title:	RAVE 161s-24 Audio Dropouts		
Bulletin #:	RAV0003	Issue Date:	April 15, 2004
Models Affected:	RAVE 161s-24	Bulletin Revision:	A
Production Range:	06/2002 through 01/2004 (serial# 0602xxxxx-0104xxxxx)		

## Description

RAVE 161s-24 units manufactured between June 2002 and January 2004 were built with an incorrect SRAM component. Each RAVE unit employs a bank of three 32K x 8-bit static random access memory (RAM) chips for 24-bit wide memory access. These three chips are U100 – U102. The misused SRAM chips are IDT 71256SA12Y. Cypress CY7C199-10VC SRAM chips should have been used instead.

## Symptoms

A 2 to 3 second audio dropout is observed. When a RAVE 161s-24 unit warms up to operating temperature, the SRAM chips begin to slow down their working speed due to their rise in temperature. The result might overload the SRAM bank causing the unit to reset itself, hence the 2 to 3 second audio muting or audio dropout.

## Instructions

Remove and replace SRAM chips if needed.

### Tools and materials required:

- Soldering equipment capable of extraction and insertion of 28 lead Dual Inline Package (DIP)/Small Outline J-Bend (SOJ) package chips (WARNING: Severe PCB damage can occur without proper Solder/Desolder equipment)
- Rosin-core solder (diameter 0.015 eutectic type recommended) and flux
- #1 Phillips screwdriver
- General purpose tweezers
- Three Cypress CY7C199-10VC SRAM chips (QSC part number: IC-000234-30)

**CAUTION: Take appropriate anti-static precautions to guard against electrostatic discharge(ESD)**

### Procedure: Remove and Replace U100 – U102 if necessary

1. Unplug the RAVE 161s-24 unit from AC service and remove any audio input, Ethernet and/or BNC connections. Remove the RAVE 161s-24 unit from its position and place the unit in a suitable work area.
2. Open the top of the unit by removing the seventeen #6-32 X 1/4" black Phillips screws that secure the top cover to the chassis. The top comes off by lifting the back end of the top while sliding the top forward.
3. Locate the three SRAM chips U100 – U102. If the components are IDT 71256SA12Y, then proceed with step 4 as these chips need replacing. Otherwise skip to step 7.
4. Remove the three IDT 71256SA12Y SRAM chips, U100 – U102. Replace with three Cypress CY7C199-10VC SRAM chips (QSC part number: IC-000234-30).
5. Apply AC power to the RAVE 161s-24 unit and verify proper boot-up sequence.
6. Unplug AC power and reinstall the top cover of the unit.
7. Re-attach the top cover with the seventeen screws removed in step 2.
8. Return the RAVE 161s-24 unit to use.

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*Continued on next page →*

## Contact information

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