



Service Bulletin

Title: **CM16a Processor Board Standoff Update**
Bulletin #: CM160004 Issue Date: July 01, 2002
Models Affected: CM16a Bulletin Revision: A
Production Range: 01/2002–04/2002 (serial # 0102xxxx–0402xxxx)

Description

A CM16a Amplifier Network Monitor contains two printed circuit board (PCB) assemblies: the processor board and the audio board. This bulletin addresses a mechanical tolerance issue on the processor printed circuit board. The processor PCB has four keyed mounting holes where the board locks into and rests atop four standoffs. One of the keyed holes in the PCB is not isolated electrically; there is no separation between the hole and the conductors within the board. In order to prevent this “live” keyhole from touching its standoff, the head of the chassis standoff must be cut off at the shoulder. The remaining lower part of the chassis standoff supports the processor board without the risk of shorting the conductors.

Symptoms

The CM16a Amplifier Network Monitor will not start up, go through initial diagnostics, or exhibit normal LED behavior when turned on. The voltage between the 3.3 volt supply and chassis ground will be approximately zero, indicating a short circuit.

Instructions

Tools and materials required:

- #1 Phillips screwdriver
- Dremel or similar power tool with cutter and sanding bits, or a bolt cutter and small metal file
- 15" x 18" cloth or plastic sheet to protect the exposed electronics from debris

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

Procedure: Cutting of the key hole head

1. Turn the CM16a off and disconnect it from AC. Also remove any audio input, DataPort, Ethernet and/or contact closure connections.
2. Open the top of the unit by removing the thirteen 6-32 x 1/4" black Phillips screws that secure the top cover to the chassis.
3. Locate the processor PCB; it is the smaller board that is located at the front of the chassis. Detach and remove the seven wire harnesses and two screws from the processor PCB. Slide the PCB toward the back of the unit to free it from the four standoffs, then lift the PCB from the chassis.
4. Locate the standoff in the chassis, near the center, that is to be cut (Figure 1).
5. Use the Dremel tool with its cutting bit or the bolt cutters to shear off the standoff at the shoulder, the point where the head meets the wider, lower part of the standoff (Figure 2). Be sure to protect the exposed electronics from any debris.
6. Use the sanding bit or a metal file to smooth the top of the standoff.
7. Reinstall the Processor board and attach the wire harnesses and screws.
8. Secure the top cover with the thirteen screws removed in step 2.
9. Connect AC to the CM16a, turn it on, and watch for normal start-up functions. If the CM16a starts up correctly, it can be returned to use. If the unit still malfunctions, it requires further servicing. Please contact QSC Technical Services for repair instructions.

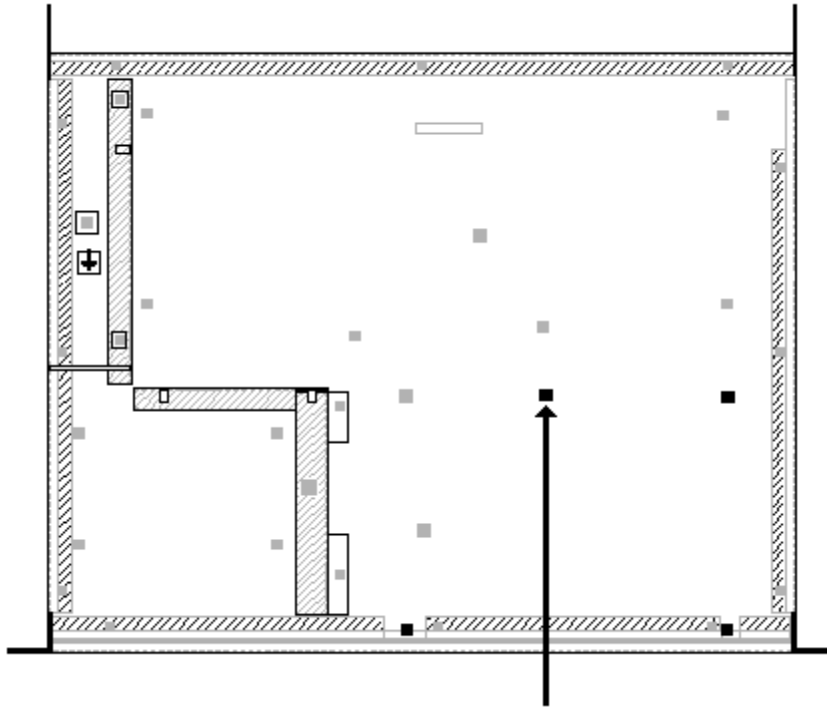


Figure 1. Location of the key hole stand-off that is to have its head cut.

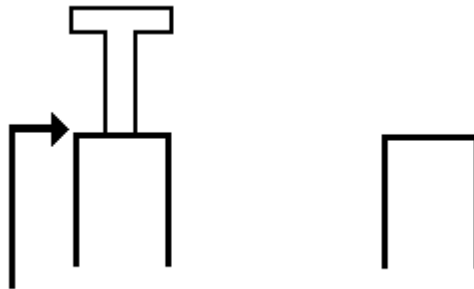


Figure 2. Cut off the head of the standoff flush with the shoulder.

Contact information

If you need any further information regarding this service procedure, please contact QSC Technical Services at the addresses or numbers below. You can also order parts; to expedite processing please use the correct part number when ordering.

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