



Service Bulletin

Title: **RMX 2450 AC Wire Replacement**
Bulletin #: RMX0005 Issue Date: December 13, 2000
Models Affected: RMX 2450 Bulletin Revision: A
Production Range: 01/2000–10/2000 (serial # 0100xxxxx–1000xxxxx)

Description

In the RMX 2450, the wiring to the AC switch is routed at the factory along the side of the chassis and secured with tie wraps to small loops (called bridge lances) in the chassis. One bridge lance lies right next to the toroidal power transformer with only a few millimeters to spare. In shipping or handling the amplifier, the potential exists for the transformer to shift and/or the chassis to flex, causing the transformer to pinch or abrade the wires against the bridge lance, and possibly cause it to cut through the insulation on the wire. This could short-circuit the AC current to the chassis, a very dangerous situation.

Bulletin RMX0004 described a procedure rerouting the AC wiring so it is not susceptible to being pinched and shorted to the chassis.

This bulletin is a companion to bulletin RMX0004 and describes the procedure for replacing AC wires that have been damaged by being pinched or crushed between the power transformer and the bridge lance. This wire replacement procedure is meant to be performed only in conjunction with the modification described in bulletin RMX0004.

NOTE: This procedure is a conditional part of a mandatory modification that corrects a potentially dangerous situation in all RMX 2450 amplifiers built in the affected production range.

NOTE: Repair to the AC primary wires as described in this bulletin must be performed at an authorized service center or the factory.

Units affected

The units affected are RMX 2450 amplifiers manufactured from January through October 2000.

AC wire inspection

Step 5 of bulletin RMX0004 instructs you to inspect the two brown AC wires for possible damage from being pinched or crushed between the power transformer and the bridge lance.

Examine the wires where they were tied to the bridge lance. Flex the wires to expose any possible deep cuts in the insulation or hidden wire breaks. See Figures 1 and 2.

Either of these conditions mandates the replacement of a damaged wire:

- A break in the insulation exposes any of the wire's strands.
- Any wire strands appear to be broken, whether visible or not.

Instructions

Parts required (order as needed from QSC Technical Services):

- 25" UL- listed 14 AWG brown wire, stripped and tinned one end, double-crimped insulated ¼" female quick-connect on the other end (QSC part # 1681-8010-C; use for wire from circuit breaker to AC switch).
- Heat shrink tubing, 6 mm inside diameter, 20 mm length (QSC part # 1660-0880-0; use with wire 1681-8010-C).
- 19" UL- listed 14 AWG brown wire, stripped and tinned one end, double-crimped insulated ¼" female quick-connect on the other end (QSC part # 7010-9664-0; use for wire from AC board to AC switch).



Figure 1. The insulation is pinched through to the conductor. The wire must be replaced.

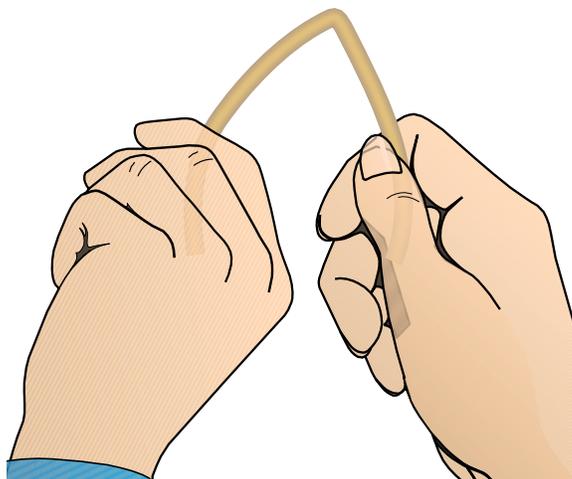


Figure 2. The wire bends very easily at one point, indicating that some of the conductor strands are broken. The wire must be replaced.

Tools and materials required:

- Long-nose pliers
- #2 Phillips screwdriver
- Soldering iron
- Rosin core solder (60/40 or 63/37 eutectic type)
- Desoldering equipment, solder braid, etc.
- Heat gun (optional)

Procedure: Replacing the circuit breaker-to-switch AC wire

1. If the AC wire from the circuit breaker to the switch is to be replaced, then cut the heat shrink tubing away from where the wire connects to the circuit breaker.
2. Cut the wire off and remove its remnants and the excess solder from the circuit breaker terminal.
3. Slip the heat shrink tubing over the wire and slide it out of the way.
4. Fashion the stripped and tinned end of the new 25" wire into a hook and attach it to the circuit breaker terminal. Using long-nose pliers, tighten the hook so it holds onto the terminal securely.
5. Solder the wire to the circuit breaker terminal.
6. Slide the heat shrink tubing over the solder joint so it fully covers the joint and the terminal. Shrink the tubing fully using the heat gun or by holding the tip of the soldering iron close to the tubing.

Procedure: Replacing the switch-to-AC board AC wire

1. If the AC wire from the switch to the AC board is to be replaced, then remove the AC board from the chassis.
2. Cut away any silicone or hot glue from where the wire joins the AC board. Unsolder and remove the wire. Clear the hole of excess solder.
3. Insert the stripped and tinned end of the new 19" wire into the hole on the AC board and solder it in place.
4. Reattach the AC board to the chassis.

Note: after replacing the AC wire(s), resume the modification in bulletin RMX0004 at step #6.

Contact information

To order replacement parts, or if you need any further information regarding this service procedure, please contact QSC Technical Services at the addresses or numbers below.

Telephone: 800-772-2834 (within USA only)
714-957-7150

Fax: 714-754-6173

E-mail: tech_support@qscaudio.com

Web site: www.qscaudio.com (product info/support)
www.qscstore.com (on-line accessory and replacement component sales)

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