

Elecraft KXPA100

Serial Data Noise Suppression

Revision A, February 4, 2014

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Introduction

Under certain conditions when the KX3 and the KXPA100 are connected to a personal computer via the RS232 port, noise from serial data may be audible in the receiver. Adding a bypass capacitor eliminates this noise.

Parts and Tools Required

You will need a temperature-controlled ESD-Safe soldering station, fine solder, and your normal hand tools such as needle nose pliers and diagonal cutters.

A kit containing the required parts is available from Elecraft. Order KXPAMDKT1.

QUANTITY	DESCRIPTION	ELECRAFT PART NUMBER
1	Capacitor, 0.01 μ F, 50V, 0.1"LS	E530019
1	Capacitor, 0.01 μ F, 0805 SMD	E530305

Procedure

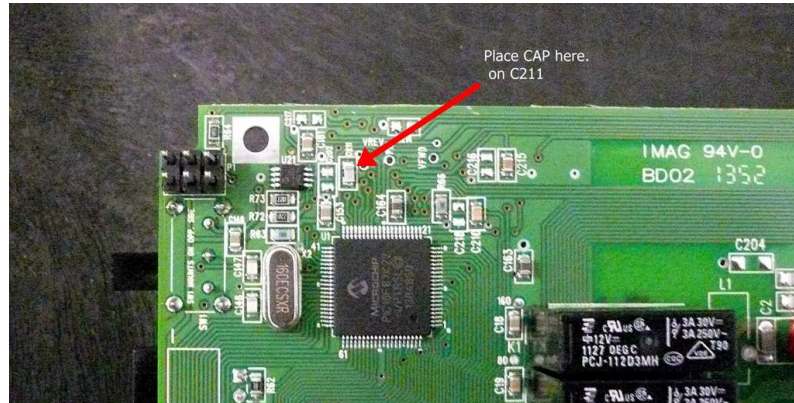
⚠ A grounded wrist strap and ESD dissipating mat are recommended whenever you work inside your KXPA100. Optionally, touch a bare metal ground frequently while working.

1. Remove the KXPA100's bottom cover.
2. Remove the front and rear panel. Unplug the TMP jacks from the SO-239 Antenna connections to the boards.
3. Remove the KXAT100 antenna tuner board, if installed.

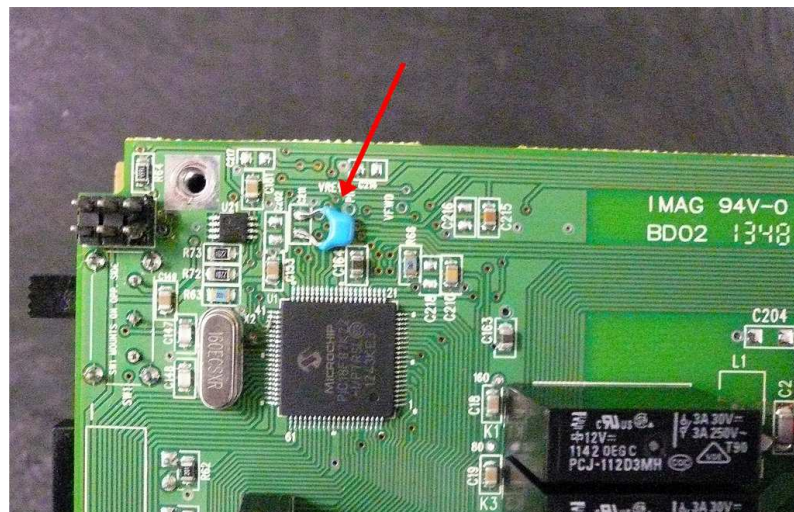


4. With the LED bar graph at the front of the amplifier turned to your left, locate the square microprocessor, U1 near the upper left corner of the LPF board. Locate the capacitor position C211 above the microprocessor. You do not need to remove the LPF board from the PA board.

5. Install ONE of the supplied capacitors in location C211 as shown below. Either the surface mount or the leaded capacitor may be used. Only one is necessary.



Installing a 0.01 μ F surface mount capacitor at C211



Installing a 0.01 μ F leaded capacitor at C211.

6. If you do not have the KXAT100, skip to step 10.
7. Reinstall the KXAT100 Antenna Tuner board using the four 4-40 machine screws and four split lockwashers that you removed earlier.
8. Connect the TMP plug from the rear panel ANT 2 to the ANT 2 TMP jack on the rear of the KXAT100 board.
9. Connect the TMP plug from the rear panel ANT 1 to the ANT 1 TMP jack on the rear of the KXAT100 board.
10. Connect the TMP plug from the rear panel RF IN to the RF IN TMP jack on the rear of the LPF board.

- 11. If you do NOT have the KXAT100, connect the TMP plug from the rear panel ANT 1 to the ANT OUT TMP jack on the rear of the LPF board. *Note that ANT OUT is not used when the KXAT100 is installed.*
- 12. Replace the bottom cover, taking care to replace all of the screws into the heat sink.
- 13. Replace the front panel, taking care to align the LED bar graph(s). replace all of the screws.
- 14. Replace the front panel. Replace the feet and all hardware. This completes the modification.