Elecraft K3
Routing KRX3 TMP Cables for Minimum Birdies

Revision A Review, March 10, 2010

Introduction

The positioning of the TMP cables between the KSYN3 synthesizers, the Reference oscillator and the KRX3 module has a great impact on the number and strength of spurious signals (birdies) you might hear. The routing shown in this document been shown to reduce these spurious signals significantly.

Parts Required

The following parts supplied as a modification kit from Elecraft. Order TBD.

Photo	Description	Quantity	Part Number
	Clamp, Nylon, 3/16” (4.76 mm)	1	TBD
	TMP Cable 12” (30 cm)	1	E850339
	Screw, Pan Head, Zn 4-40 3/8” (19 mm)	1	E700036
	Lock Washer #4, Split Ring	2	E700004

Installation Procedure

☐ Disconnect power and all cables from your K3.

☐ Remove the nine screws to free the top cover as shown in Figure 1. After the cover is open, lift it gently to reach the speaker wire connector. Unplug the speaker then set the top cover aside in a safe place.

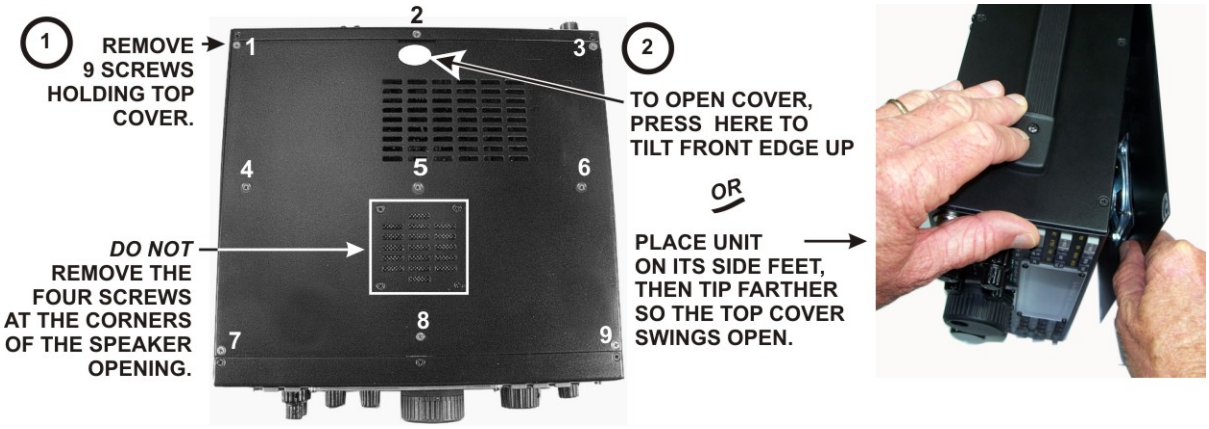

Figure 1. Removing K3 Top Cover.

⚠ CAUTION: Touch an unpainted metal ground or wear a grounded wrist strap before touching components or circuit boards inside the K3.

☐ If your K3 is equipped with the K144XV 2-meter option, remove the three 6-32 black flat head screws securing it to the left side panel so you can rest it out of the way on the KRX3 module. If you decide to remove the KRX3 module to gain better access to the KSYN3 board as described in the next step, unplug and remove the K144XV module as wall to avoid it striking components on the main RF board.

☐ Remove the 10” (24 cm) TMP cable connecting J84 on the Auxiliary KSYN3 board and J85 on the KRX3 module. Refer to the TMP Cable Connection Pictorial Diagram in your KRX3 Owner’s manual to identify the correct cable. If installed according to the original instructions, this cable will run along the K3 RF board. If necessary, remove the KRX3 module to gain access to the cable (see *Removing the KRX3 Module* in your KRX3 Owner’s manual for detailed instructions.) Note: If you remove the KRX3 module, you do not need to replace jumper W4.You will be replacing the module before operating your K3.

☐ Loosen the two screws holding the main KSYN3 board to the front panel shield while checking carefully to see if each screw has a split ring lock washer between the KSYN3 board and the threaded fitting on the front panel shield. If so, continue to loosen both screws until they are no longer threaded into the front panel shield and tilt the board away from the shield so you can remove the lock washers without losing them inside the K3. (Hint: Set the K3 on the side with the handle while removing these screws so if you lose a lock washer it will fall against the side panel and not down onto the RF board.)

☐ Remove both screws from the main KSYN3 board.

☐ Locate the 12” (30 cm) TMP cable and place the nylon cable clamp around it about in the middle. Also place the clamp around the TMP cable running between J2 on the KREF3 board and J83 on the main KSYN3 board as shown in Figure 2.

☐ Use the 4-40 3/8” zinc pan head screw supplied with the mod kit and the 4-40 1/4” (6.8 mm) zinc pan head screw you removed earlier to remount the KSYN3 board as shown in Figure 2.

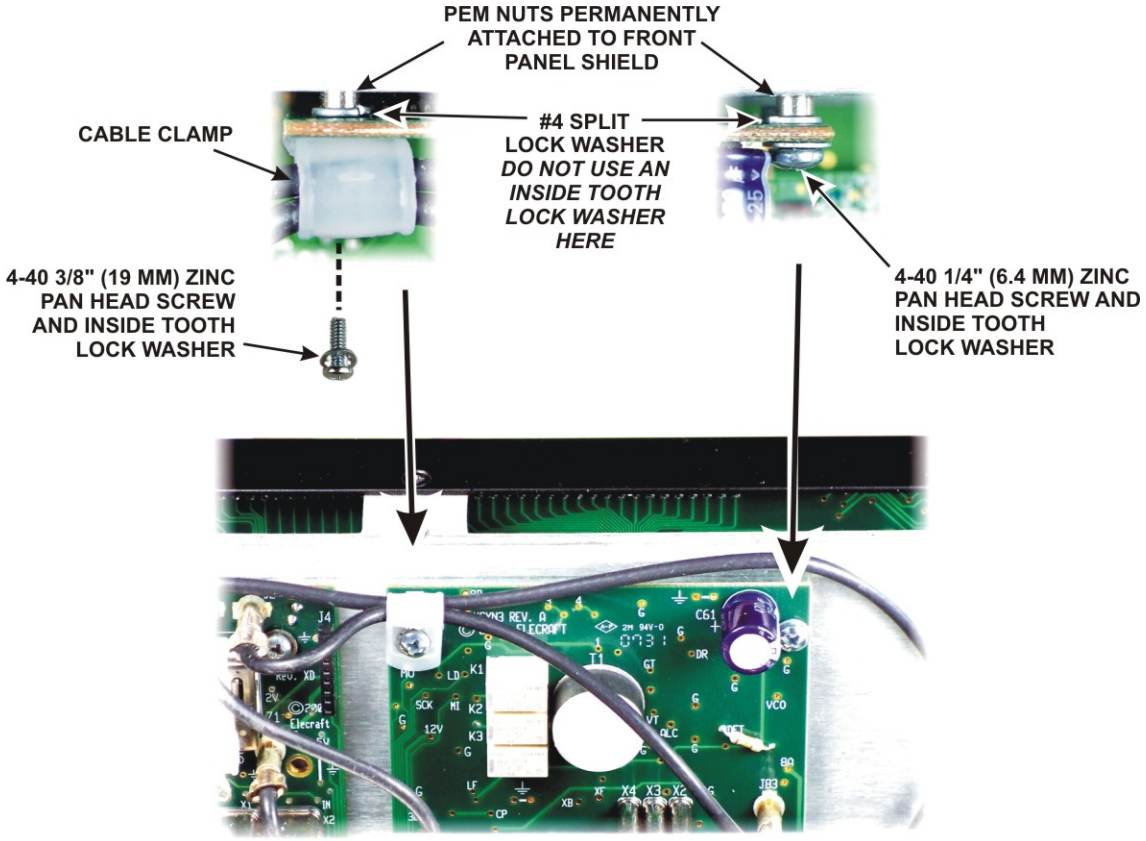

Figure 2. Installing the Cable Clamp.

☐ Connect one end of the new TMP cable to J84 on the Auxiliary KSYN3 board as shown in Figure 3.

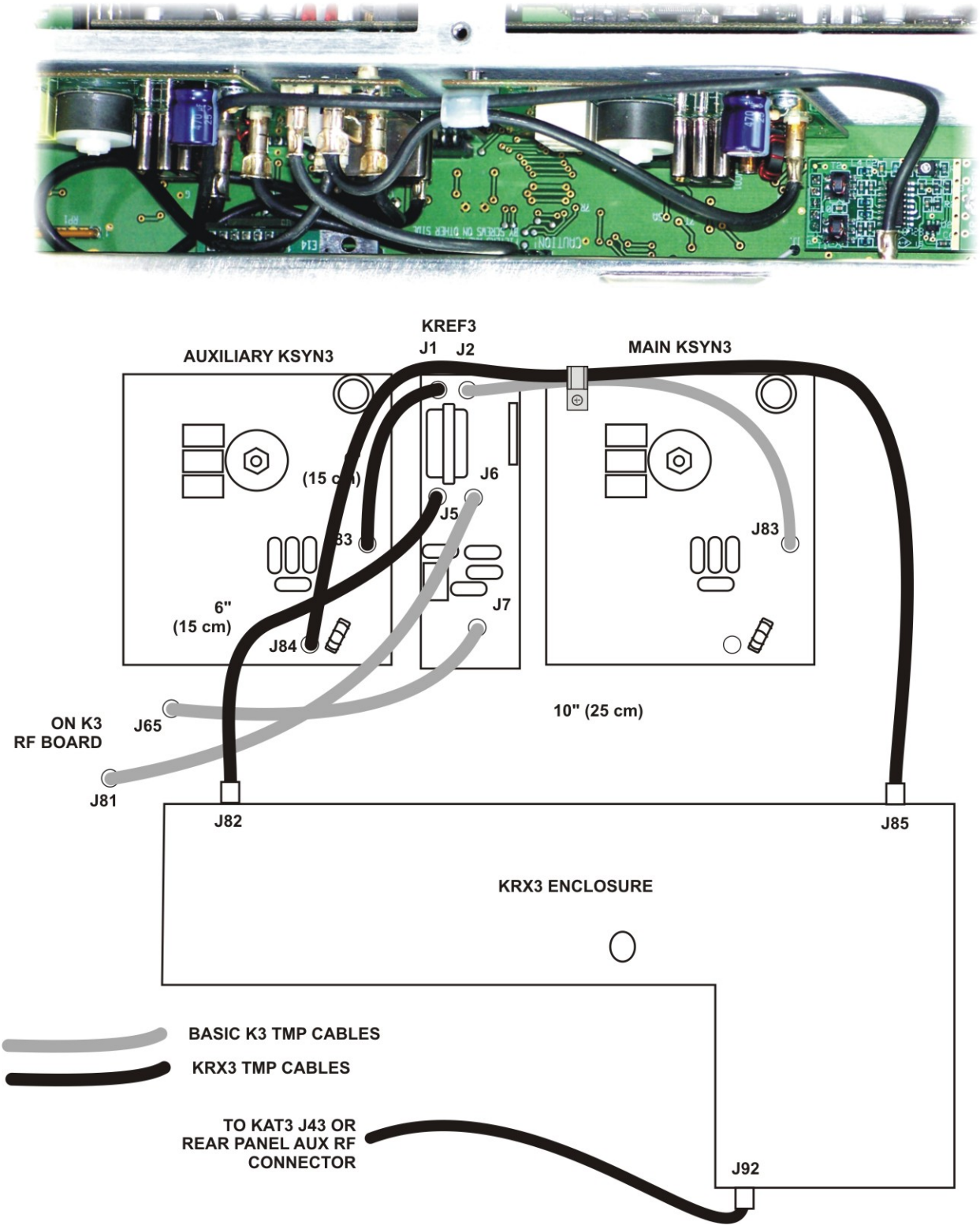

Figure 3. TMP Cable Connections.

☐ Ensure the cables are all plugged into the correct locations as shown in Figure 3. The cables held by the nylon clamp should be positioned as shown.

☐ If you removed the KRX3 module, turn to your *KRX3 Subreceiver Installation and Operation* manual, *Installing the KRX3 Subreceiver Module* section to replace it. Be sure the cover on battery BT1 on the K3 RF board is in place to avoid short-circuiting the battery against the bottom of the KRX3 module. If you have the K144XV option, do not replace the chassis stiffener until the next step below.

☐ If you removed the K144XV module, refer to *Installing the K144XV Module in the K3* in your K144XV manual to reinstall it and reconnect the cables.

That completes the modification. Keep this document with your KRX3 Installation and Operation manual so you can refer to it if you need to remove and replace the KRX3 module again.