

KPG-36X VP8000 Compatibility Check and Modification

Date: December 30, 2022

FSB-1222-KPG36X-VP8000-Mod

This bulletin is intended to assist users who do not have a new KPG-236UM programming cable available yet for programming their KENWOOD Viking VP8000 portable radio, and who wish to re-use an older KPG-36X programming cable. You will need to check your KPG-36X cable revision and determine if a modification is required. Please review the entire instructions before beginning any modifications, as such modifications are not covered under warranty and are performed at your own risk. KENWOOD will not replace items damaged in the process of following instructions in this bulletin.

Do I need to modify my KPG-36X?

Due to ferrite chip beads that were added for RF interference mitigation in later revisions of the KPG-36X, the later revisions are not capable of Hi-speed USB used on the VP8000. Check the revision number on the lower right corner of the front sticker on the rectangular assembly (a.k.a “puck”) in the middle of the cable as shown in Figure 1. Revision number 03550 will not need the modification and can be used with your VP8000 without modification. Revision number 03551 will need the modification and you may proceed to the modification instructions below. After modification, your cable should still also be able to program VP5000 and VP6000 radios.



Figure 1

How do I modify my KPG-36X?

These instructions apply only if you have revision number 03551. Modifications should be performed at an ESD-controlled electronic workbench to prevent damage to electrical circuitry. Modifications should be completed by a qualified technician who is comfortable with performing the electrical assembly modifications described.

Tools required:

- Phillips Screwdriver
- 2 Plastic Pry Tools (preferred) or small flat-head screwdrivers
- Soldering Iron and Solder

Instructions:

1. You will need to open the UDC radio side-connector by removing the 2 Phillips screws next to the gold pins as shown in Figure 2.

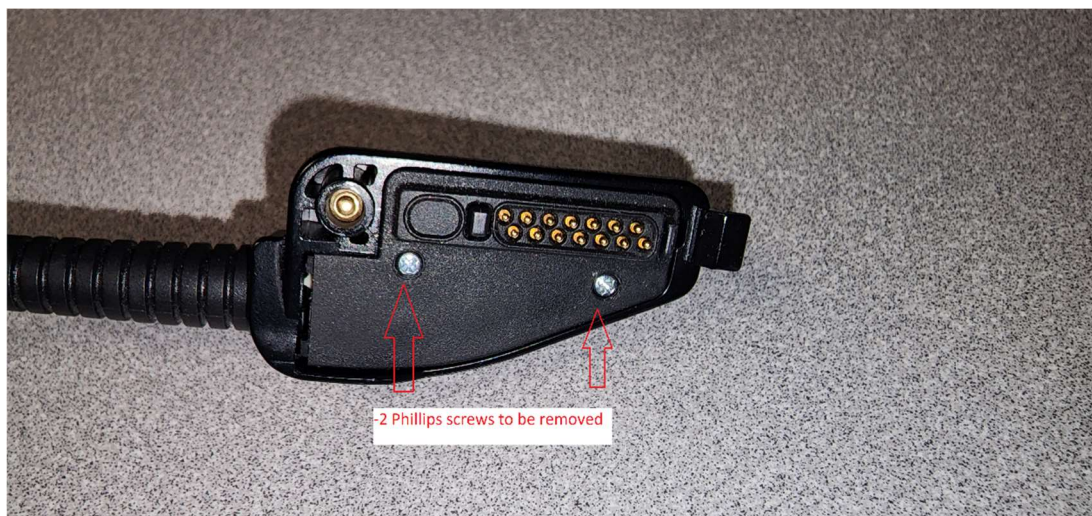


Figure 2

2. Use a small flat head screwdriver to gently pry up at the edge of the connector to open it as shown in Figure 3



Figure 3

3. Once open, unsolder the green and white wires. Then, solder them directly to the pins of the UDC connector as shown In Figure 4, with the Green Wire to the underside of the connector pin marked “D+” and the White Wire to underside of pin marked “D-”.



Figure 4

4. Reassemble the two halves of the UDC connector shell and re-install the 2 screws.
5. Next you will need to open the rectangular puck located in the center of the cable. Plastic pry tools are preferred to reduce marring or damage to the plastic shell, but small flat head screwdrivers may also be used. Place a pry tool between the strain relief and the plastic shell close to the one of the larger faces. Pry up separating the plastic shell along the seam, as shown in Figure 5. As shown in Figure 6, place a 2nd pry tool

FSB-1222-KPG36X-VP8000-Mod

along the separation line and continue to pry the 2 halves of the shell apart, working your way to the corner and being careful not to break the plastic pins holding the shell together. Once the corner pops open, repeat the step for the remaining corners.



Figure 5



Figure 6

6. Once the plastic shell is open, remove the circuit board, making sure not to lose the UART to USB switch. Replace the ferrite bead chips with a 0-ohm resistor, or create a solder bridge in place of the bead chips as shown in Figure 7 & Figure 8.

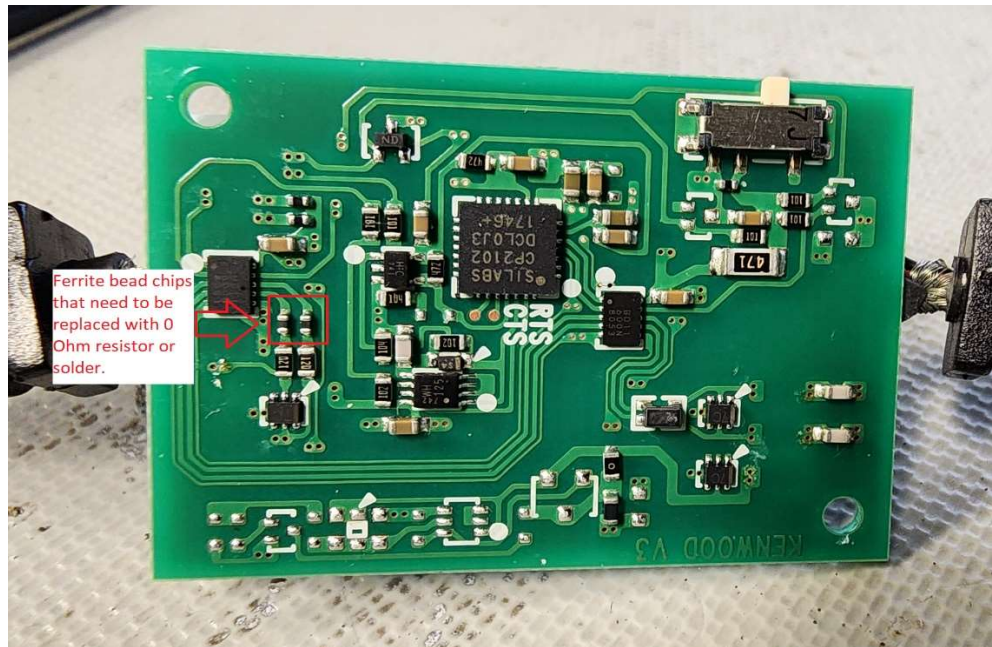


Figure 7

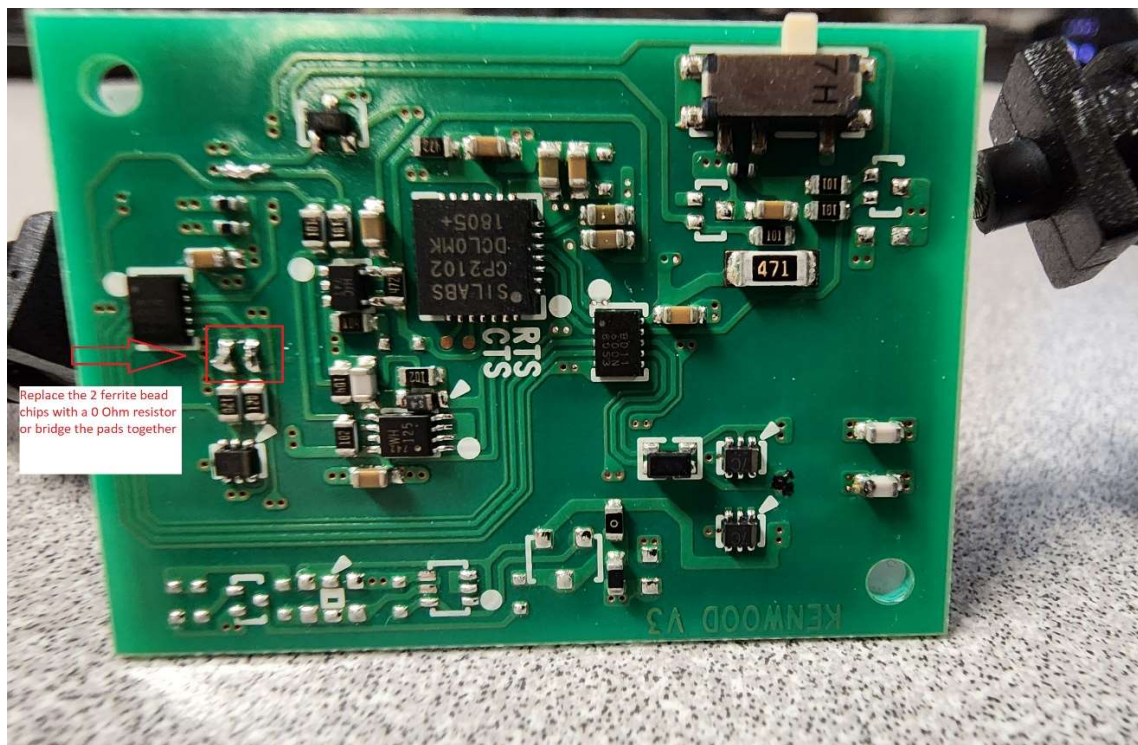


Figure 8

7. When reassembling the puck, start with the half of the shell showing the Kenwood sticker facing down. With the shell and circuit board oriented with the switch in the upper left, place the plastic switch in the upper left of the shell as shown in Figure 9. Then place the circuit board in, lining up the stand offs with the holes in the board as shown in Figure 9. Make sure to line up the switch on the circuit board with the notch in the plastic switching lever. Verify the switch actuates and does not get stuck.

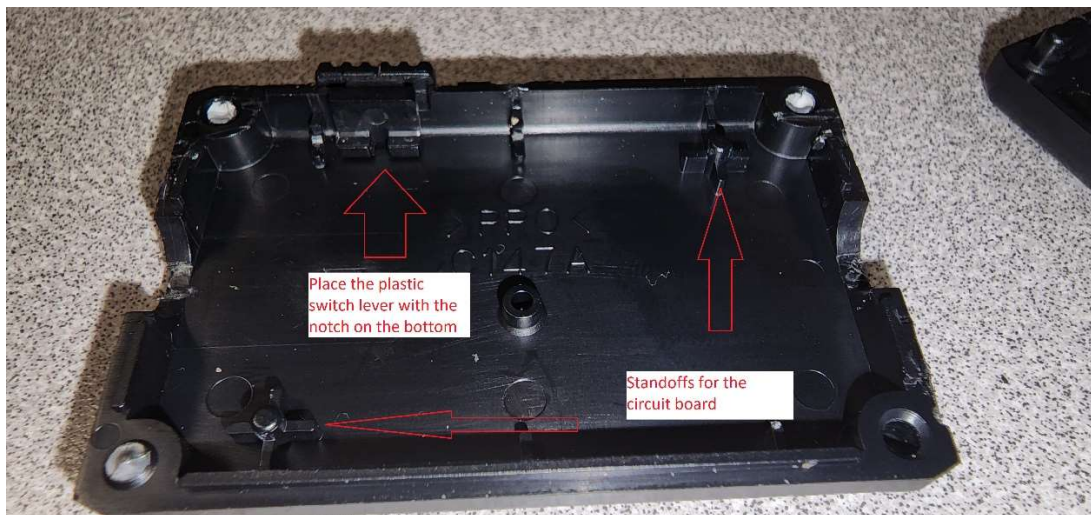


Figure 9

8. Place the 2 strain reliefs in the slots on each end, as shown in Figure 10. Finally, place the other half of the shell on the back and press the corners to reseat the pins holding the shell together.

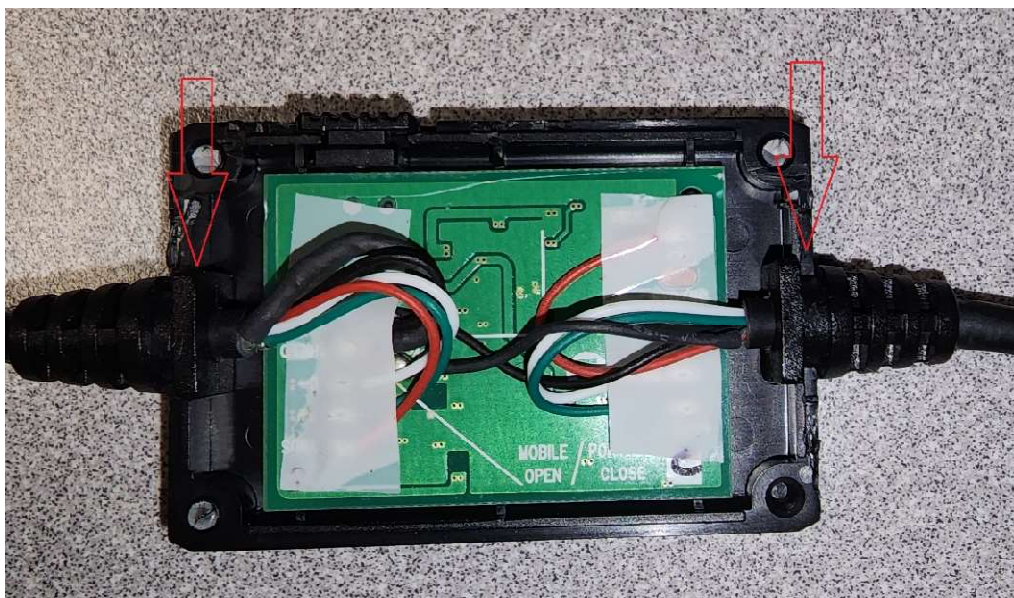


Figure 10

9. Place the switch in "USB" position. Verify that the cable operates correctly with your VP8000 by connecting it to your computer running Armada, and you should see that the radio can be read.
10. You may wish to mark the puck with a permanent marker or with a separate sticker label to note that it has been modified for use with VP8000, such as "VP8000 Mod".

For questions regarding this Bulletin, please contact the KENWOOD Viking team at 1.800.328.3911, option 3.

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