



Welcome to DSP for the PK-900

Enclosed find your DSP upgrade kit. Follow the instructions carefully and you should have no problem in getting the unit on the air. If you do have questions, Timewave has technical support available at (651) 489-5080 and DSP@timewave.com

You will want to experiment with different parameter settings in order to optimize your new DSP Multi-mode controller. We have found that changing the value of Audelay will improve performance in many stations. If you operate in a traffic net then changes in the AUdelay at both ends of the connection may further optimize traffic flow.

You may also need to slightly adjust the drive to the radio using the TX Level 1 control to get the same level of drive that you had before upgrading the PK-900.

To take advantage of the new CW filters, you can set the 50/100/200 Hz filters by selecting the proper CW modem 12,13 or 14 (Do a DIR command to see your new modems) or If you are using the new PK-Term for Windows program, The CW filter selection is done from the menu.

If you would like a demo copy of PK-Term for Windows download one from <http://www.cssincorp.com/>.

Thanks again for choosing Timewave for your digital station.

PK-900/DSP Upgrade Kit

Thank you for purchasing the PK-900/DSP upgrade. Here are the tools you will need:

- Wire Cutters
- Phillips Screwdriver
- Needle nose pliers
- Flat head screwdriver
- Solder pencil and solder
- Solder sucker tool or solder wick for cleaning the pads on C69, C89 and the U55 "VIA"

Please check the contents of the kit at this time. You should have received:

- PK-900/DSP Upgrade board assembly
- Package with 1 metal and 1 plastic standoff
- PK-900/DSP installation instructions (This document – 4 pages)
- Manual supplement request form (1 page)
- Warranty card

Clean off an area to work on your PK-900. You should take standard static electric precautions when working on any ham equipment.

Here are the steps in the upgrade procedure:

- 1) Remove Power
- 2) Remove 4 screws holding chassis top
- 3) Locate and remove U36, U37 and U44 (See figure A.)

Slide the flat blade of the screwdriver under the chip and elevate carefully. Do the same thing at the other end of the IC and it will pop out cleanly. BE SURE the screwdriver is between the IC and the chip socket, NOT between the chip socket and the board

- 4) Locate and remove C69 and C89 (see figure B)

We recommend that when you remove the capacitors that they be removed by clipping the leads of the capacitor close to the body of the capacitor. Then while holding the lead with the needle nose pliers CAREFULLY heat the solder just until the lead can be removed without force. Be very careful not to pull the barrel from the board by pulling before the solder flows. DO NOT OVERHEAT. The hole can then be cleaned with the solder sucker tool or solder wick.

5) Locate the “VIA: hole by U55 (closest to pins 2 & 3 (See figure B)

You will also need to clean the solder from the VIA by U55. Observe the same precautions as above and do not overheat the board.

6) Remove screw in corner by U60

7) Insert metal standoff supplied into the hole of the screw just removed.

- a) Inspect the PK-900/DSP board for damage, bent pins or chips that may have become unseated. Reseat if necessary.
- b) Peel paper back from the plastic standoff and insert in the hole in the upper right hand side of the DSP board (near U5). The standoff is inserted from the bottom of the board.
- c) Carefully insert the DSP board into sockets U36 and U44 (See Fig A)

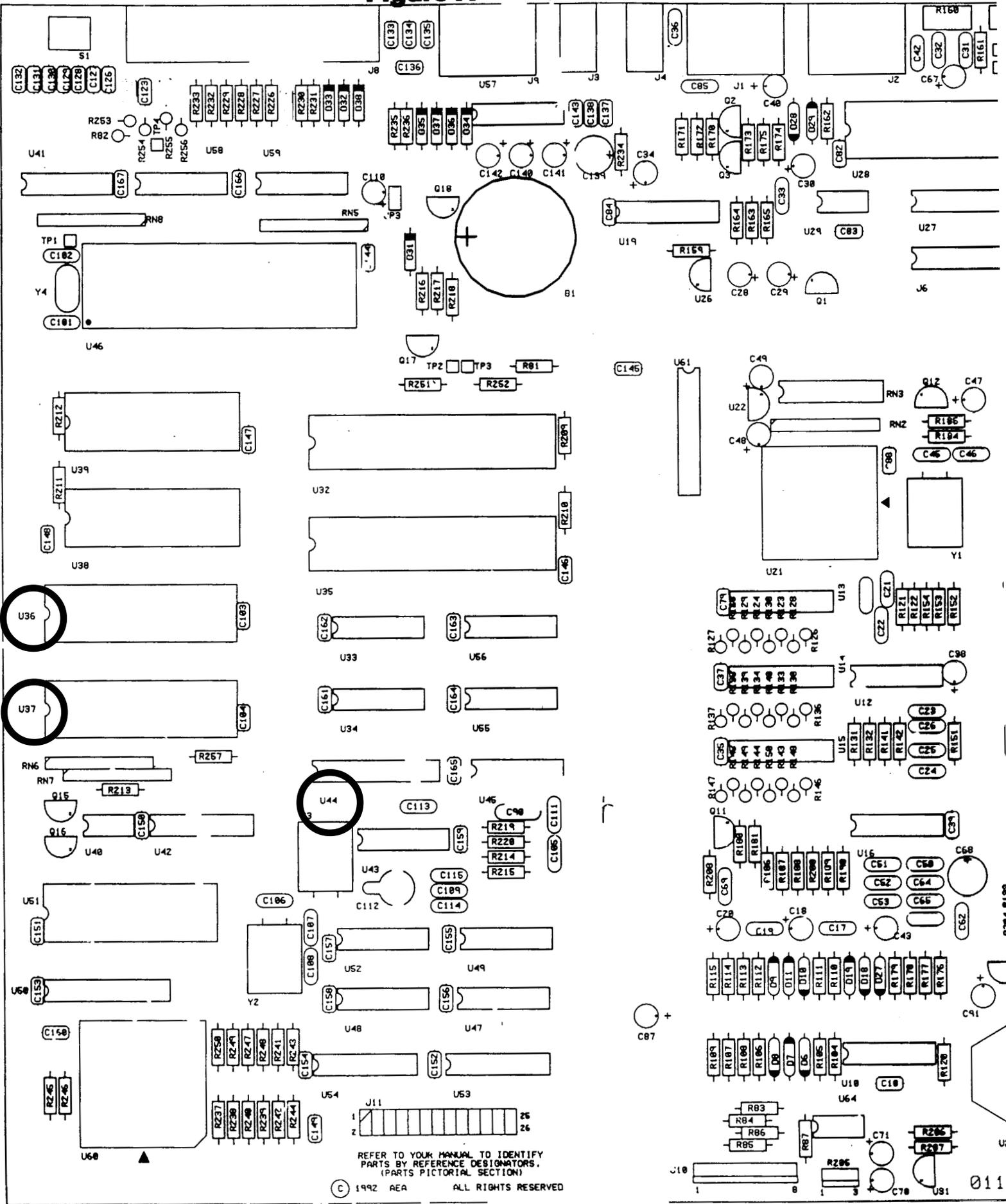
8) Re-install screw removed in step 6 through the board into standoff to secure the board.

9) Solder the wires from the DSP board as follows (See fig B). The wires are labeled on the DSP board:

C89 Rear Pad
C89 Front Pad
U55 “VIA” hole
C69 Front Pad

10) Secure the chassis top with all 4 screws, reconnect the unit and reset when powering on for the first time.

Figure A

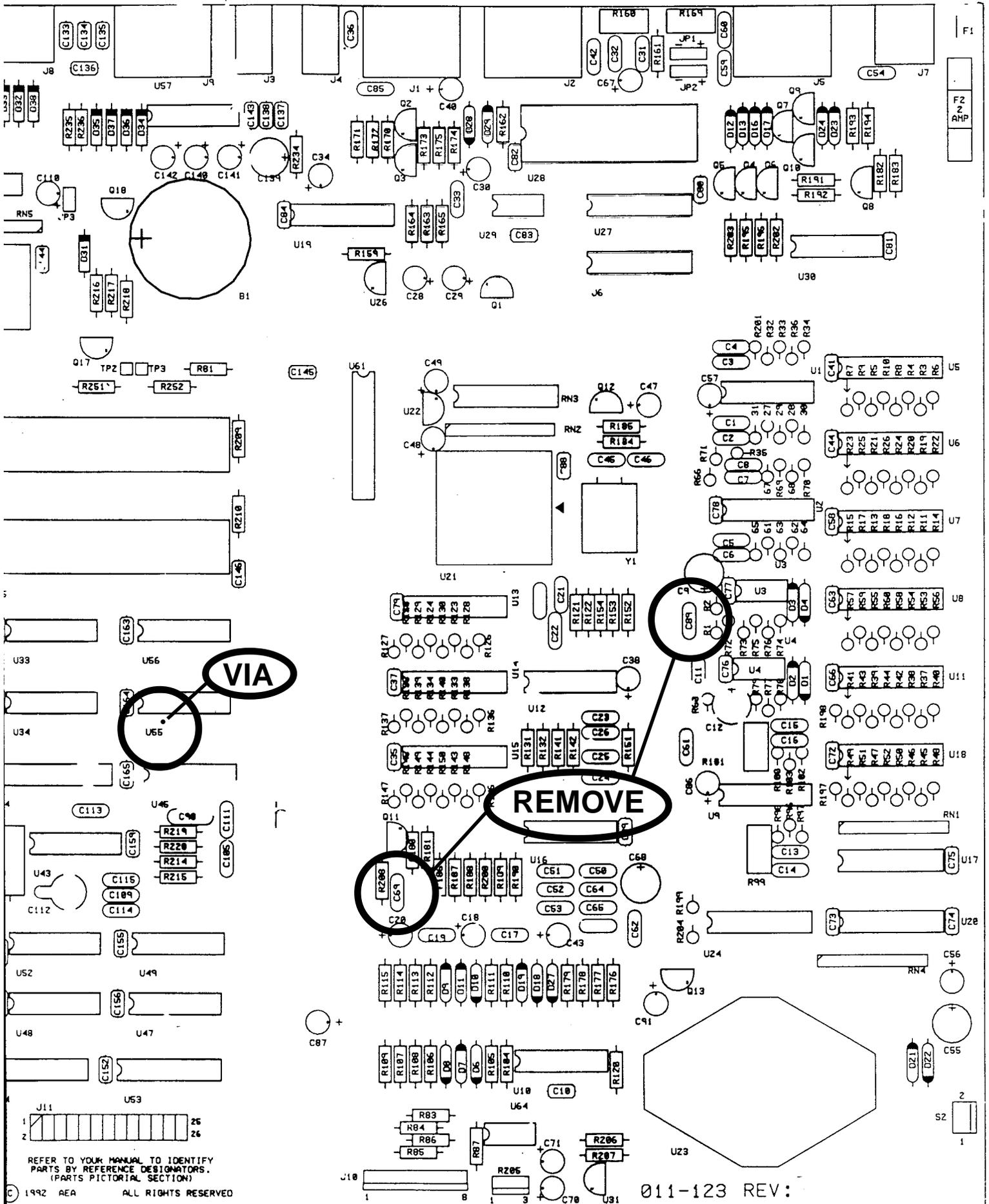


REFER TO YOUR MANUAL TO IDENTIFY PARTS BY REFERENCE DESIGNATORS. (PARTS PICTORIAL SECTION)

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Figure B



REFER TO YOUR MANUAL TO IDENTIFY PARTS BY REFERENCE DESIGNATORS. (PARTS PICTORIAL SECTION)

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