Subject: K250-1

Posted by RobbieNuke on Sun, 29 Apr 2012 02:11:35 GMT

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Just scored a K250-1 (black, 1972) on eBay. Very good+ aesthetics. During initial try-outs the front control panel rattled at high volumes (a layer of Scotch VHB tape around the contact edges fixed that). All controls functioned Ok, but some cold solder joints on J3 and a broken J2 assembly crimp (how rare!) created a 'popping' sound when 'jiggling' the phone plug during insertion/removal (BTW, it liked Switchcraft better than G&H brand plugs).

Anyway, I need help trying to source the following parts for replacement:

- 1. What is the correct IC (integrated circuit chip) for the Channel 1/Selectone PCB (PC5067)? The IC installed is dated 1974 but has no ID on it. It also isn't sitting level and the solder points do not look like the rest of the PCB indicating this was repaired at some point in time. This preamp has a very faint & rapid 'popping'... (sounds a bit like Morse code) that I attribute to the IC... even without any instruments/cables plugged in. Loudness increases/decreases with volume control. No such noise in Channel 2.
- 2. I would like to get an exact replacement Bass control pot for the Channel 2 (a CentraLab unit seems to have been installed at some point in time. It is a bit deformed trying to fit and the bushing is too short). Anybody know the exact CTS p/n for the 50k Ohm unit I would need? It doesn't have to be code dated 1972.
- 3. The original Power/Polarity switches are present and functional...except for the lamps inside. Are they easily serviced? If so, what is the part number for the lamp?

If anyone can provide me with exact and/or suitable equivalent substitute parts I would surely appreciate it. Thanx!

Subject: Re: K250-1

Posted by stevem on Sun, 29 Apr 2012 11:38:00 GMT

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Hi.

A cross for the 14 pin IC chip is a NTE725, or a ECG725, and you can even still find the orignal u739 from surplus stockers, but they go for some 15 bucks each, and some supplyers have a minimum dollar amount per order.

The new ones make less noise, but all brands will sound a tad different if you listen close or do a frequency sweep of the output you can see it.

Since the chip has been replaced once before, at this point I would install a 14 pin IC socket to save the board traces from any further damage, just practice forming the leads of the old chip to get it load into the socket easy as to not distroy and mess up the pins on the new chip.

I find that keeping the leads at the angle them come in on one side and then rolling the leads on the other side into a arc of some 120 degress makes for a near easy slip in fit.

While you are odering parts I would pick up some of the 4 lead FETs that is used in one channel,

as these are going to be getting hard to come by soon and it may be a good idea to have some on hand!

A replacment is a ECG221, or a NTE221.

Pots for these amps are hard to come by, I have been using standard pots that need to be installed with short wires to make the connection back to the board.

You need to mount the pots with the terminals up and run the wires down, just make sure you swap left and right end wires due to the new up mounting position.

I can never recall the lamp number off the top of my head, but if you do a search of postings here its been covered many times, just make sure you hold the white portion of the switch when loading back in the blue lamp cover as many times the force of doing that is enough to snap the old dry threaded mounting portion of the switch.

Using some small clear fish tank or car vaacume hose makes removing and installing the bulbs a snap.

Also on many of these preamp boards I have found the solder connections on some of the large orange drop caps to be bad, so give them a look over too.

Subject: Re: K250-1

Posted by RobbieNuke on Sun, 29 Apr 2012 21:55:53 GMT

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The pilot lamps are GE 335 or 606-CM335.

I re-invaded the chassis for more details to post. I have found the CTS Bass pot can be ordered using the following CTS code;

```
450 - X - 3 - 10 - F - 503 - B - 2 - A - 1
24mm -PC mount- .375"bushing- .312shaft - flatted - 50K - 20% - audio taper - no switch - tab on left
```

Antique Electronics Supply/Tubes list what appears to be an exact replacement 50K Bass pot as the p/n R-V50KA-PC (on page 58 at http://www.tubesandmore.com/cemirror/pages52-58.pdfThey have an entire page of pots for Kustom amps... they look like NOS...

Channel 1/Selectone PCB (PC5067) has an IC chip SL22211 which appears to be a replacement. Is this an OEM part or correct as a suitable substitute? Kustom P/N 007-7015-00 is a 14 pin DIP Dual Op-Amp and I got the following cross-parts from this sight: uA739 / XR4739 / nte725.

Channel 2/Normal PCB (PC5066) has a Texas Instrument SN16810N which appears to be original. However, again the Kustom P/N is 007-7015-00 with the same cross parts: uA739 / XR4739 / nte725.

I will be using this amp for electric bass guitar, mostly 4-string/occasional 5-string as well as synth bass (pedal/keys), so any suggestions for low noise, etc would be appreciated.

Subject: Re: K250-1

Posted by stevem on Mon, 30 Apr 2012 10:54:51 GMT

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The only other suggestion I have would be in regards to the things you plug into the amp. If eitheir of your basses is active I would use the number two input so you have less of a chance of clipping the preamp(s), yes in these amps you can parallel the channels if you care to as I do for my bass, the K100-1 and K200-1 channels are out of phase with each other and this does not work.

Modern keyboards also have a ton of output and should use the #2 input.

Kustom made a production change in these amps for more gain, but I would have to look for the date on that in regards to your 72 model, anyway if your both of your basses are active and your head has the production mod you may want to go back to the gain level these amps where first made with, or on the number two input double or tripple the value of the input resistor to drop the signal level some, just make sure to use a metal film type resistor, not a carbon comp type.

Subject: Re: K250-1

Posted by RobbieNuke on Mon, 30 Apr 2012 11:39:48 GMT

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Thanks for the tips. I have already patched the channels together (internally); and my model has the factory mods (Rev 1) for more gain. I may increase the resistors at channel 2 input jack since I occasionally run a keyboard and one of my basses is active.

Subject: Re: K250-1 (update)

Posted by RobbieNuke on Sun, 03 Jun 2012 04:33:30 GMT

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Replaced the Selectone channel IC with a NOS Fairchild uA739. This eliminated the "popping" noise. Replaced blown bulbs w/ correct GE335 type in the power/polarity switches. Eliminated the polarity function (removed cap) and upgraded the power cord with a grounded (3-pin) unit from a Bissell vacuum about 25 ft long. The Antique Electronics Supply 50k bass pot was not an exact fit... shaft/bushing a tad too long. Unit sounds much better.. deemed gig worthy!

Subject: Re: K250-1 (update)

Posted by stevem on Sun, 03 Jun 2012 12:11:55 GMT

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Yea, I though so about those AES pots, all the ones listed for Kustoms are for their 80s and new stuff!