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Subject: K100-2 Speaker Cabinet Help

Posted by [tdbassman](#) on Fri, 17 Sep 2010 21:03:49 GMT

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Greetings. I'm new to the forum (always been a tube guy), but I like the old K100-2 amp (Kustom 100) with the 2-12 cabinet that I just got. It is missing a speaker and I need to find the 8 speaker mounting bolts/studs for the speaker cabinet. They seem to be a speciality bolt with a flat head that digs securely into the wood, and I can't seem to find a replacement. I'm not even sure what they are called - but none of the local hardware stores or speciality screw places have ever seen them. Also, where would I find the replacement grill cloth & footswitch? Thanks and regards, Tom D.

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Subject: Re: K100-2 Speaker Cabinet Help

Posted by [stevem](#) on Thu, 23 Sep 2010 13:53:48 GMT

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Hello and welcome to the joint!

This speaker mounting hardware is a pain to find, what I do now to remount speaker`s is as follows and note that all the items I list will be form the same supply source.

I use what is called Tee nuts to remount speakers when I have the grill cloth off.

These go into the grill cloth side/face of the baffle by means of drilling out the original screw stud hole a bit larger and then hammering them into the baffle board.

Also to be on the safe side I spread some epoxie under them and over the out side of them to keep them in place.

Before re-installing the grill cloth you can paint over them with flat black to hide them.

The part number for a 5 pack of them is S-NTN1032. These are 10/32 size, so to mount the speaker you will have to get the needed lenght 10/32 screws from a hardware store to bolt the driver down.

The black grill cloth is part number S-G296, and is 34" tall, so the purchase or one yard may do you, but be sue to check.

Next up is the speaker.

If the speaker cabinet is the orginal one that came with the -2 head, and was made before late 1969 It should have come from the factory with Jensen C12N drivers.

The lable on the rear of the magnet should be gold and black, on the mounting lip of the driver their should be a string of six digets, the first three should be 220 which is the Jensen code.

The speaker cabinet jack plate should say Jensen on it.

If it says CTS then this was a Bass guitar cab.

If it says KEI this is a real late issue cabinet and this driver was used for guitar and most had a shinny Aluminum voice coil cover with a black vent hole at its center.

In all of these cabinets the drivers where 16 ohm models wired in paralell for a 8 ohm load at the amp.

You should check your one driver you have left to confirm this.

The part number of the Jensen driver you should need to get things back to stock is P-A-C12N, you will have to select the 16 ohm model when placing a order.

Next up the foot switch.

Any two button foot switch will work as long as it has a 1/4" type guitar plug.

Note that on the K100 a switch is only needed to turn off the effect, not turn it on.

Most well stocked music stores carry them and alot of new ones have LEDs on them, you do not need that feture but they will still funtion for you.

A part number for a Marshall foot switch is P-H871.

All of these items are in the on line catalog of Antique electronics.

Let us know how things go.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [tdbassman](#) on Fri, 22 Oct 2010 13:00:02 GMT  
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Thanks greatly for the info. The filter caps date this K100 to 1970.

I put in the old style Fender speaker screws - the kind with wood threads on one end and metal threads on the other (from Mojo) and they work great. I've re-grilled it and it looks fantastic, though getting the speaker baffle board out and back in has been a near nightmare experience.

The speaker cab has a small plate on the bottom that states CTS speakers, though the head has reverb and tremolo. If CTS means bass speakers, is this cab original to the head or did they use reverb and tremolo for bass in the wild and crazy 70's?

I put in a Jensen C12Q reissue, and it sorta looks odd with the other speaker having an aluminum dust cap and the Jensen not having one. So far it sounds promising, and later on I will break in the Jensen with a variac (low voltage of course).

Thanks for the advice on the footswitch. I was hoping someone made an authentic style re-issue, but until they do, I'm using a Fender pedal with an adapter from RCA to a 1/4" stereo jack. Thanks again Steve for your help. Regards, Tom D.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [stevem](#) on Fri, 22 Oct 2010 16:06:53 GMT  
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I did not know the CTS driver in your cab had the Al dust cover, in that case they are, or it is the original guitar speaker of that cabinet.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [pleat](#) on Fri, 22 Oct 2010 17:37:40 GMT  
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Some interesting things mentioned. Normally the CTS head would be sold with a K100-1 head. Think back 40 years, dealers all over the country were selling kustoms. A dealer may have had some Jensen cabs, CTS cabs and different K100 heads. Could have been a mix up at the dealer, the customer may have requested the reverb head with the CTS cab for what ever reason. Dealers may have had a hard time getting inventory, so they just sold what ever they had in stock at the time. The head and cabinet may have been the result from someone having one or the other and bought one or the other to make a complete rig. The CTS speakers didn't come standard from the factory with the aluminum dust caps. You may have a CTS speaker that is a recone and at the time of the recone they installed the cone with what they had in stock. If that is the case, then you will want to check the impedance of the speaker to make sure it's 16 ohms. This is part of the intrigue of buying old T&R and removing the back to make sure what is really in the cabinet. Most times everything is original, and sometimes it's a crap shook as to what you may find in the cabinet, not only what brand and condition of the speakers, but what kind of stuff has been inserted into the port holes. I've found golf balls, toys, pop cans and one 3x15 Cab I bought had about 10" of broken long neck beer bottles in the bottom. There is a collector in Vegas that was making the original round footswitches. He even had the round labels made up for the function of the switches.

pleat

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [braud357](#) on Fri, 22 Oct 2010 20:18:08 GMT  
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If you are interested, I can help you with some original Kustom - Jensen C12-N speakers. I have 3 of them for sale. They came out of a 3-12" Kustom cabinet that I recently purchased, and they have the aluminum dust covers. Very good condition, no rips, tears, and no dents in the aluminum dust covers.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [stevem](#) on Mon, 25 Oct 2010 11:48:42 GMT  
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What is the 6 diget white stamped number code on the mounting lip of those Jensens?

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [braud357](#) on Mon, 25 Oct 2010 18:32:41 GMT  
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Numbers are as follows:  
C12N - C87744

220021

I have (3) with these matching numbers

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [tdbassman](#) on Mon, 25 Oct 2010 19:11:24 GMT  
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Thanks all. The mystery deepens - there are no Jensen numbers (nor any numbers or letters) on the speaker. The speaker is black with a heavy round magnet (weren't the CTS speakers square?) and a heavy cone with the aluminum vented dust cap.

Apparently it has been reconed, as a Kustom factory label on the magnet states: "Remanufactured to original specifications", and a notation of 16 ohms and the part number for ordering.

The RI 16 ohm Jensen C12Q has been broken in and placed in the cab with the other speaker and the sound is way too bright. Even on the low input, I'm having to run the amp with the treble on 1 and bass on 9 to get a decent sound and it is even brighter on the high channel. Is this much treble normal for K100's? I don't have this problem with my other amps. If this is normal, I can see why someone would want bass speakers with something this bright.

The impedance of the cab is the correct 8 ohms (measured 7.4 ohms). Any thoughts or suggestions? Regards, Tom D.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [pleat](#) on Mon, 25 Oct 2010 20:15:49 GMT  
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On the 12" CTS the magnets were round. I've had some KEI 12" with both square and round magnets, and had the aluminum dust caps.

Photo's of the speakers will tell us a lot of what we think you may have. The remanufactured sticker is a speaker that was blown and sent to Kustom and they reconed it and put it back in service.

From everything I've read on your amp and cabinet, you have the K100-2 reverb/trem single BRIGHT channel amp. The low and high inputs are tone preference inputs. The K100-2 amp has no bass to speak of to begin with. Treble was the big thing back in the day. A lot of manufactures offered high frequency horns in their guitar and PA systems. Acoustic Control Corp. offered horns in their amps to increase treble response.

The K100-1 is a two channel head has both bright and normal channel pre amps with the High and Low tone inputs on each channel. The normal channel on the K100-1 head is a really great channel for tone. I don't own or want to own the reverb model head. Way to bright in tone. Since I run a processor pedal with my K100-1 head, using the normal channel, I get all the fat full sound, and my processor pedal gives me reverb or any other effect I want. If your plan is to run the system for bass guitar, you really need to swap the K100-2 head for a K100-1 head. Night and

day difference when you use the normal channel. The left or Bright channel on the K100-1 head is the same as the single channel of the K100-2. Maybe someone can look at both schematics and see if some components could be changed on the K100-2 head to match the tone of the K100-1 Normal channel tone.

pleat

pleat

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [chicagobill](#) on Mon, 25 Oct 2010 21:30:44 GMT  
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Pleat:

I didn't know that the two models of the K100s sounded different. I've never owned either one, but it seems odd that they would design them to sound differently from each other.

I'll have to look at the schematics to see what I can find out.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [C4ster](#) on Mon, 25 Oct 2010 23:56:49 GMT  
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I have both types and the -2 is more like the bright channel in a -1. It can get very thin when driven hard. I am beginning to like CTS 12's or even JBL E140's for guitar an a 1x15 cabinet. I am still experimenting.

Conrad

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [tdbassman](#) on Tue, 26 Oct 2010 01:30:27 GMT  
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A plate on the back of the amp identifies it as a K100-2, and the description of "no bass to speak of" fits it well. Apparently, all K100's are not created equal.

Can someone suggest any mods to make the low input be more in line with the K100-1? I can do the work myself; however, I've had trouble finding any version of the K100 schematics.

I am not planning to use this amp for bass, I'm just trying to get a decent sound with my Franken-strat and its 62 RI pickups.

Regards, Tom D.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [pleat](#) on Tue, 26 Oct 2010 01:37:36 GMT  
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There is a huge difference in tone between the two models. The K100-1 model states in the catalog, features bass Boost circuitry. The K100-2 model with resonant treble boost circuitry. The catalog states Recommendations: Highly recommended for those who like a bright reproduction of lead instruments. If that dosen't scream treble tone, I don't how else to put it.  
pleat

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [stevem](#) on Tue, 26 Oct 2010 16:17:51 GMT  
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At a quick first glance it looks possible to convert the one channel of the -2 model into the normal/none brite channel of the -1 head. basicaly you need to break off the input to Q105 and feed it to Q108 I think, but do not take the for gosple right now until I check it out longer.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [tdbassman](#) on Mon, 01 Nov 2010 12:15:44 GMT  
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Thanks Steve.

In the Fender community, it is fairly common knowledge how to modify tube amps to achieve the sound you want, such as changing capacitor values on the tone stack, coupling caps and resistors within reason. And all this is done on amps running at 400 volts or more. On original Ampeg SVT's with well over 500 volts (Electric Chair levels), you can answer for yourself the existential question whether God exists. I myself have seen stars (and not the Elvis variety) when I've gotten my fingers where they didn't belong.

I was hoping that a similar value juggling knowledge was applicable and available in the Kustom world.

Regards, Tom D.

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Subject: Re: K100-2 Speaker Cabinet Help  
Posted by [stevem](#) on Mon, 01 Nov 2010 14:14:30 GMT

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Try working on a Marshall Major, or a Highwatt 200.

The Marshall has 620 volts at idle on the output tube plates, and the Highwatt will wake you up with 730 volts!

Tube amp preamps are very easy to change out a cathode bypass cap and a coupling cap and get drastic change in highs or lows, the 100-2s treble boost circuit is not quite that easy to tweak.

Of course rolling the guitars tone control down should help in the mean time.

A simple low pass resistor and cap set up may hooked up across the amps speaker output may give you enough attenuation in high end and there are many programs you can download to model what value components you need to make it.

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