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Akai AA072D IC

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Vintage Tape (Audio), Cassette, Wire and Magnetic Disc Recorders and Players Open-reel tape recorders, cassette recorders, 8-track players etc.



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Thread Tools ▾

27th May 2009, 7:44 am

#1

[richardm](#)

Diode

Join Date: May 2009

Location: Waterlooville

Posts: 2

Akai AA072D IC

I noticed a few postings about loss of channel or noise in channel for old AKAI R2Rs. This often boils down to a faulty AA072D IC which is not very difficult to obtain. Fortunately, is a simple device and I was lucky enough to be able to split mine and reverse engineer the circuit. I made the following posting a while back on another forum and since then I've had e-mail from a couple of folk who made up an AA072D replacement from discrete components. If you're stuck here's the details:

if you have the YAYIO newer device in vitreous green then pin 1 is the longer lead (to the right looking at the writing). If the older brick with plastic shell and epoxy filling then pin 1 is to the left as you look at the writing.

1 = input
 2 = transistor 1 external emitter bypass capacitor (1)
 3 = transistor 1 external emitter bypass capacitor (2)
 4 = ground
 5 = transistor 2 external emitter bypass capacitor (1)
 (other side to earth)
 6 - output
 7 = Vcc at +23V
 8 = output voltage rail dropped to +21.6V

This device is incredibly simple and would be very easy to make up in discrete components. In fact the circuit is almost identical to the TR3/TR4 stage of the GX230

The device comprises a 2-stage directly coupled transistor amp with -ve feedback from stage 2 to stage 1 and -ve feedback on stage 1 via the emitter bias.

8 ---+ --- 470R -----+--- 7 23V Vcc

```

| |
92K |
| 1K55
1-+-| |
| > --+---- 6
| | = |
| | | |
| +-----+---+
| +-2 >
| 1.2K |
| | +- 5
68K +-3 |
| | 100R
| 130R |
| | |
+---u-----+
| |
| 120R
| |
4----+-----+

```

In the GX230 circuit the feedback cap from c to b of tr 2 is 22pF and the transistors are 2SC458LG. Something similar would do here and I guess I could measure HFE to get a more precise fit.

If someone can tell me how to stop the spaces from being edited out of the schematic I'll try to make a better job of posting it.

Richard.

27th May 2009, 8:12 am

#2

Station X Moderator



Join Date: Jan 2003
Location: Ipswich, Suffolk,
IP4, UK.
Posts: 10,157

Re: Akai AA072D IC

Can you not post a picture or scan of the schematic?

Graham. Forum Moderator

Keep the soldering iron hot.

27th May 2009, 10:30 am

#3

Dave Moll

Nonode



Join Date: Feb 2005
Location: West Cumbria
(CA13), UK
Posts: 2,755

Re: Akai AA072D IC

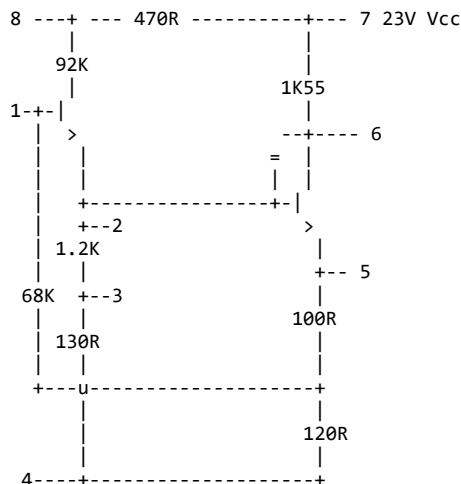
Quote:

Originally Posted by **richardm**

If someone can tell me how to stop the spaces from being edited out of the schematic I'll try to make a better job of posting it.

By wrapping the BBcodes [code] and [/code] round it, here is a more readable version.

Code:



Mending is better than Ending (cf *Brave New World* by Aldous Huxley)

28th May 2009, 6:18 am

#4

richardm

Diode

Join Date: May 2009
Location: Waterloooville
Posts: 2

Re: Akai AA072D IC

That's how it's done.

Thanks!

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