

UK Vintage Radio Repair and Restoration

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AA072 AA072D IC replacement.

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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.


Closed

Thread Tools 

24th Apr 2015, 2:51 pm

#1

[hsbhachu3d](#)

Pentode


 Join Date: Nov 2013
 Location: Coventry, West Midlands, UK.
 Posts: 151

AA072 AA072D IC replacement.

I have a pair of these that need replacement. Any idea of how to go around it as I have not found any replacements anywhere?

24th Apr 2015, 3:33 pm

#2

[Radio Wrangler](#)

Dekatron


 Join Date: Mar 2012
 Location: Fife, Scotland, UK.
 Posts: 7,357

Re: AA072 AA072D IC replacement.

Any maker's logo, or any clues from where they're used?

David

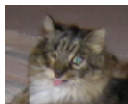
Can't afford the volcanic island yet, but the plans for my monorail and the goons' uniforms are done

24th Apr 2015, 6:00 pm

#3

[Nickthedentist](#)

Dekatron


 Join Date: Jan 2005
 Location: Oxford, UK.
 Posts: 12,416

Re: AA072 AA072D IC replacement.

They wouldn't be the same as **TL072**, would they?

https://www.st-andrews.ac.uk/~www_pa...pamps/071.html

24th Apr 2015, 11:29 pm

#4

[hsbhachu3d](#)

Pentode

Re: AA072 AA072D IC replacement.

The IC is made by TAIYO AA072 and is 8 pin upright made of bright orange plastic. There is a grey greenish colour one which is the AA072D. Also 8 pin.

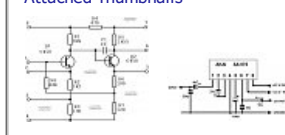
They were made for Akai Reel to reels like the X-2000SD, X-200D, X-250D and the M-10.



Join Date: Nov 2013
Location: Coventry, West Midlands, UK.
Posts: 151

There are no details online wherever about them but I managed to get hold of a schematic on the akai M-10 that shows where its installed. Also, Someone online posted of a workaround schematic on a russian website. I couldn't read so I've just assumed. I will post pictures here and you guys can judge

Attached Thumbnails



24th Apr 2015, 11:38 pm

#5

[dmaillard](#)

Triode



Join Date: Nov 2009
Location: Adelaide, South Australia
Posts: 46

Re: AA072 AA072D IC replacement.

Hi,
These are IC's that were used in early 1970's audio gear such as Akai M-10 reel to reel decks. Unobtainable these days unless you can find a parts deck. It is possible to construct a replacement using discrete components.

See this previous thread,
<http://www.vintage-radio.net/forum/s...ad.php?t=41131>

Regards
David

25th Apr 2015, 1:54 am

#6

[hsbhachu3d](#)

Pentode



Join Date: Nov 2013
Location: Coventry, West Midlands, UK.
Posts: 151

Re: AA072 AA072D IC replacement.

What is the Value of C1? 22pF or uF?

25th Apr 2015, 7:14 am

#7

[Radio Wrangler](#)

Dekatron



Join Date: Mar 2012
Location: Fife, Scotland, UK.
Posts: 7,357

Re: AA072 AA072D IC replacement.

Very certainly pF.

With a source impedance of 92k for the first stage, the capacitor on the second stage will make it an integrator, so the second transistor gain will be throttled-back to unity at about 0.1 Hz, and will drop further proportional to frequency, so its gain at 1kHz will be very low.

With 22pF, there is a high frequency roll-off, but the frequencies will be about a million times higher.

One way round this one is to get some tiny PCBs made and load them with surface mount components. It sounds like there could be a ready market for them. BC109 equivalents or MMBT3904 or any of a large number of different transistor types would do nicely. Someone's already opened one and sussed out the circuit, which is the hard part.

David

Can't afford the volcanic island yet, but the plans for my monorail and the goons' uniforms are done

25th Apr 2015, 7:35 am

#8

[vidjoman](#)

Octode

Join Date: Jun 2013
Location: East Sussex, UK.
Posts: 1,367

Re: AA072 AA072D IC replacement.

The (2S)C458 transistors shown in the circuit diagram are a common low noise Japanese transistor of the period. Similar to a BC109 but plastic cased.

25th Apr 2015, 9:44 am

#9

[Radio Wrangler](#)

Dekatron

Re: AA072 AA072D IC replacement.



Join Date: Mar 2012
Location: Fife, Scotland, UK.
Posts: 7,357



Looking at the values and assuming that the resistors in the original part were either Ruthenium Oxide or else Tantalum Nitride, then if you fdo build an SMT replacement, choosing metal film resistors ought to give a worthwhile reduction in noise.

David

Can't afford the volcanic island yet, but the plans for my monorail and the goons' uniforms are done



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