

IC-730\_relay\_fix.txt

Hi,

Since I bought my much loved ICOM IC-730 on EBay (what was the seller thinking of!), the preamp has never worked.

Icom wanted silly money for a new one, so as a temporary measure, I removed the relay and linked in the preamp with two wire links.

Not happy with givng ICOM my money or having a preamp that was always on, I though of how to remedy the problem.

These relays fail, not because the contacts get burned, but because there is not enough current flow through the contacts to keep them clean.

If anyone knows whats involved in the factory mod for these relays, I'd really like to hear from them.

Still... I had a duff relay sitting on my work table and wondered if the contacts could be cleaned by brute force and cunning.

Thats when I hit on an idea... cycle the relay MANY times while forcing cleaning fluid into the contacts. That turned out to be really easy. I just used an old 9V transformer and an IN4148 diode connected to the relay coil to 'cycle' the relay at 25Hz for several minutes while I fed some switch cleaner into it.

If you try this trick, use a non-oily switch cleaner. I expect that Isopropyl alcohol would also work fine.

I gave the relay about 4 minutes of this treatment. Thats about 6000 work cycles. The idea was to clean it... not wear it out!

I let the relay sit for ten minutes to flash off any remaining fluid and then replaced the cover and soldered it back into the RF board.

It works beautifully. I have my switchable preamp back.

I've had, and still have quite a number of radios. All are good radios in their way but the ICOM 730 is a real winner. It's small, performs superbly and is very robust. The modular design makes it a delight to work on.

Thus far, I've had to repair the RF board, PLL board, detector board and display board but apart from botched mods done by the previous owner almost all the faults have been down to age and dry joints.

This old IC-730 has is rapidly becoming my favourite HF radio.

So, if your preamp relay has thrown in the towel, try the simple trick outlined above before you remortgage your home for a new relay from ICOM.

Kind Regards,  
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