

Tibia and Flute Filters.

There is not so much to tell about this module that is located just under the lower manual. Of course, in order to have easy access to this assembly, the scanners block should be removed.

This Tibia and Flute filters are mostly composed of two batteries of 24 coils and capacitors. Behaviour of coils in function of the time is generally quite good. For film capacitors, the ones used in X-66 console do not suffer too much of aging as well. Most of them have been measured and their values have not been altered at all. So, not to be too much worry with those capacitors and coils.

Only the filter capacitor of 1000 μ F/25Vdc feeding the switching relay was systematically replaced.

Switching relay

Nevertheless, the switching relay (IBM 769023) entails some attention. This relay is assuring the "Tibia" switching and hence is very important in the whole X-66 concept. The relay itself is plugged in a relay-socket and may be easily unplugged. When having this relay on hand, several points were noted:

- comb switching contacts: the distance between the resting position and contact position is extremely short (one or two thenths of a millimeter!). When inspecting all those contacts, they seem already being in contact due to accumulation of dust, debris, greasy pellicle and the like.

This means: high time for cleaning. How ?

First by air-pressure but not sufficient indeed. Then a little piece of blotting paper impregnated with alcohol is slided between the airgap in rest position. Then, contacts have to be closed by hand and the piece of paper slightly slipped back and forward. It's surprising to notice the gross black marks left on the paper.



Here again, I have a serious handicap in doing that since I have only two hands and this operation requires three hands !

After cleaning, all contacts are now well separated from and spotless.

In both Rest & Contact position (i.e. On & Off), it is recommended to measure the contact resistance that must be anyhow in the range of 0.2 Ω to 0.3 Ω ! During those tests, some 'crazy' values were noted. That was simply caused by poor contacts on the pins itself. After cleaning, normal value was restored.

The DC resistance of the solenoid has to stay in the range of 48.0 Ω up to 52.0 Ω . Check it, just to be 100% sure.

- pinning: most of male pins on the back side of this relay also exhibit some traces of verdigris that have been simply removed with alcohol before re-installing on the relay socket.



Note: the same type of switching relays is also used somewhere else in the Sforzando part of the X-66 console and should be treated in the same way when needed. Dust protection sheets have been added on top side of those IBM relays.