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Number 5

APPLICATION NOTE

Use of Stabilant 22 on RTS Dual Plug Bays

Background:

The jack fields used in most broadcast and studio consoles employ a variation on a connector developed originally for telephone switchboards. The main feature that has kept the design active has been the amount of switching that can be hung-on to the jack permitting very involved interrupt or bridging variations to take place upon the insertion of the plug.

However, by its very nature, the sleeve contact does not always make a good connection. and while this contact is used for the shield, and the other contacts maintain the balanced line conditions in most applications, even the presence of rectifying films in a shield circuit can cause problems with RFI.

Good contact is of course necessary in the signal path, when it is not made, problems with poor signal to noise ratio, microphonics, RFI, and even distortion are present.

Existing Solutions:

The treatments previously available fall into two general classes; cleaners, and protective oils. Most cleaners are based on solvents such as perchloroethylene, or one of the Cellosolve™ products either singly or in combination. (These were trademarked form 1924 by a division of Union Carbide Corp.) The protective oils range from silicones through vegetable oils. A third class would be the combination of solvents with oils.

However, a problem often encountered with oils is their tendency to "varnish" or form a tough film on the surface of the connector. This is especially aggravated by the presence of sulphur from the high-sulphur or free-machining brass stocks used in the manufacture of many of the jack field contact parts. Quite a number of the vegetable oils (such as palm oil) can be cross-linked (literally vulcanized) by free sulphur, forming a varnish-like deposit in the process.

The use of Stabilant 22/22A:

Where varnishing has been experienced it is important to clean off any such deposits from the connector before applying Stabilant 22/22A. We would suggest the use of any of the cleaners which do not contain silicone or oil of any other kind.

By then applying a thin coating of either Stabilant 22 or Stabilant 22A to the ring, tip, & sleeve contacts (or just tip and sleeve contacts of the 2-wire circuit plugs) not only will the signal to noise ratio be improved, but harmonic distortion can be reduced as well.

Be sure to apply Stabilant 22/22A to the switching connections in the jack field as well.

Results to be expected:

It is suggested that only one channel be treated initially and compared with an untreated channel. The difference is usually audible as a smoother more musical sound on the treated channel.

NATO CAGE/Supplier Code 38948

15ml Stabilant 22 (Concentrate), NATO Part # 5999-21-909-9981

15ml Stabilant 22A (Isopropanol Diluted), NATO Part # 5999-21-900-6937

15ml Stabilant 22E (Ethanol Diluted), NATO Part # 5999-21-909-9984

The Stabilants are patented. Because the patents cover contacts treated with the material a Point-of-Sale license is granted with each sale of the material.

SAFETY DATA SHEETS ARE AVAILABLE ON REQUEST

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