LUBRICANTS.
TECHNOLOGY.
PEOPLE.

CHALLENGE

SOLUTION

Audio potentiometer restoration powered by Rheolube 716A

CASE STUDY

Industry: Audio Equipment Service

Localization: Poland

CASE

In many vintage audio systems — especially those produced 50–60 years ago — potentiometers suffer from increasing issues such as crackling, signal distortion, and background noise. This is caused by mechanical wear and oxidation of the contact surfaces. Replacement is often not an option — original parts are no longer available, and substitutes do not offer the same sound quality.

CHALLENGE

Restoring proper operation of potentiometers by reducing crackling, audio signal disturbances, and noise.

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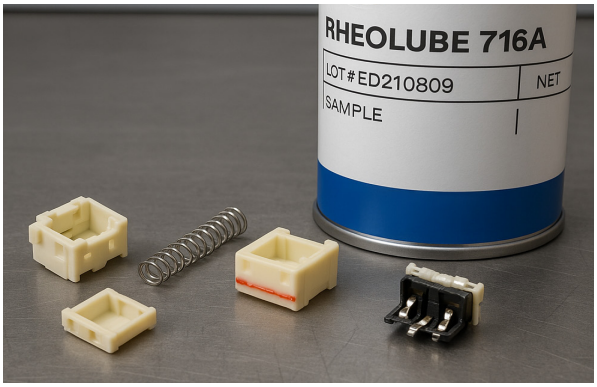
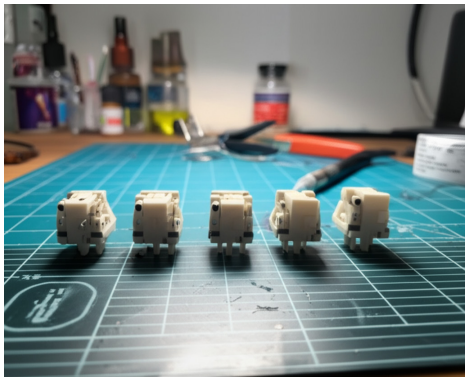
SOLUTION

The service team implemented a regeneration process, which included:

- Precise chemical-mechanical cleaning without damaging the delicate silver-coated surface,
- Application of Rheolube 716A — a high-performance lubricant with insulating and conductivity-enhancing properties.

Despite its insulating nature in thicker layers, Rheolube 716A conducts at the contact point, providing signal stability and protecting against further degradation. Rheolube 716A combines unique insulating and conductive properties, enabling the precise restoration of functionality even in the most sensitive contacts. As a result, it was possible to achieve conductivity parameters superior to those found in many new components.





RESULTS

- **Resistance dropped from approx. 60 Ohms to 0.03 Ohms after regeneration.**
- **After 10 days: stable value at 0.021 Ohms.**
- **Improved audio signal quality – elimination of noise and crackling.**
- **Reduced surface friction, positively impacting component longevity.**

CONCLUSIONS

Using Rheolube 716A is an effective method for restoring classic audio equipment. It allows for the reliable recovery of functionality in components no longer available on the market and contributes to preserving valuable audio devices from the past.

This is a perfect example of how modern lubricants can support enthusiasts and professionals in restoring unique devices.

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