



Living Sustainability

SERVICE AT NEUMANN.BERLIN

Owning a legendary microphone like the U 47 or M 49 is akin to possessing a rare treasure – one that's hard to imagine living without. Ensuring these invaluable tools remain in peak condition is crucial, making it all the more important to entrust their maintenance and repair to the most capable hands. Georg Neumann GmbH stands among the few manufacturers offering premium service in close collaboration with their in-house development team. We sat down with Medzid Veseli, Head of the Service Department at Neumann's headquarters in Berlin.

Interview with Medzid Veseli; **Fotos:** Markus Thiel, Lisa-Melissa Knap; **Translation:** Julian David

— When did you start at Neumann, and what was the state of the service department back then?

I joined Neumann in 1990. At that time, the service was part of the testing department. Essentially, service operations were conducted where final product inspections took place. Apart from comprehensive testing equipment for evaluating all product parameters, the adjoining anechoic chamber was also available for measurement purposes. When I first started, I spent a

significant amount of time in the test bay, working with the 400-series mixing console modules. After the company phased out its consoles manufacturing division, I transitioned into the microphone department.

— Is that where you began working as a service technician?

Exactly! When manufacturing relocated from Berlin to Wedemark in the early '90s, the associated testing facilities were

also moved. However, it was clear that we needed to continue offering a high-quality in-house service. This led to the creation of a dedicated centralized service department, where I started working as a technician.

— From what I understand, Neumann has a long tradition of proactively stocking spare parts. Is that still the case today?

Absolutely. This philosophy hasn't changed. We provide service for all Neumann

microphones dating back to 1947 and strive to maintain a well-stocked inventory of spare parts at all times. Even today, our storage includes original components from the 1960s, such as housing tubes and head baskets for the M 49—some even in special color variations, like a batch of black M 49 parts still in their original packaging. If, on rare occasions, a particular spare part for a vintage microphone is no longer available, we can remanufacture it in our workshop using the original blueprints. Neumann's service department has long benefited from the company's ability to produce prototypes in-house.



Original NOS spare part for the M49 in dark colour

— **So, is there almost nothing you can't reproduce and repair on-site?**

As far as mechanical parts go, yes! However, it becomes more challenging when it comes to rare Telefunken tubes, for example, which haven't been produced since the 1960s. In these cases, we have to rely on the existing, albeit shrinking, market. On the other hand, we offer our customers the option of testing and verifying the usability and quality of NOS (New Old Stock) and vintage tubes in-house to ensure they are suitable for specific microphone models.

— **What do you find to be the biggest challenges in restoring a microphone?**

The most challenging aspect is often the wiring, as older cables can become very brittle. This is especially tricky when working with transformers, where repairs must be done with extreme caution since a damaged transformer is not easy to reproduce. Additionally, we strive to keep all devices as original as possible, replacing only the most necessary components. The wiring issue is particularly relevant to many microphones from the 1950s, like the U 47 or M 49, where the cable insulation can become rigid and brittle due to the



The microphone's self-noise is measured in a soundproof container ("Rauschbombe").



Neumann microphones are now gradually being delivered with a service booklet.

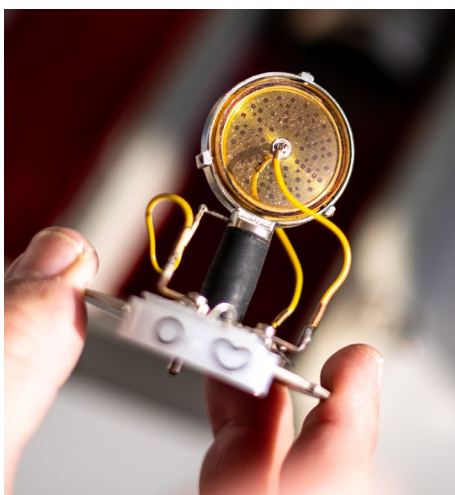


thermal stress caused by the tubes. Replacing such cables is crucial to prevent potential short circuits and ensure the microphone continues to function safely. The delicate part of this process is that replacing a wiring harness requires the entire device to be disassembled.

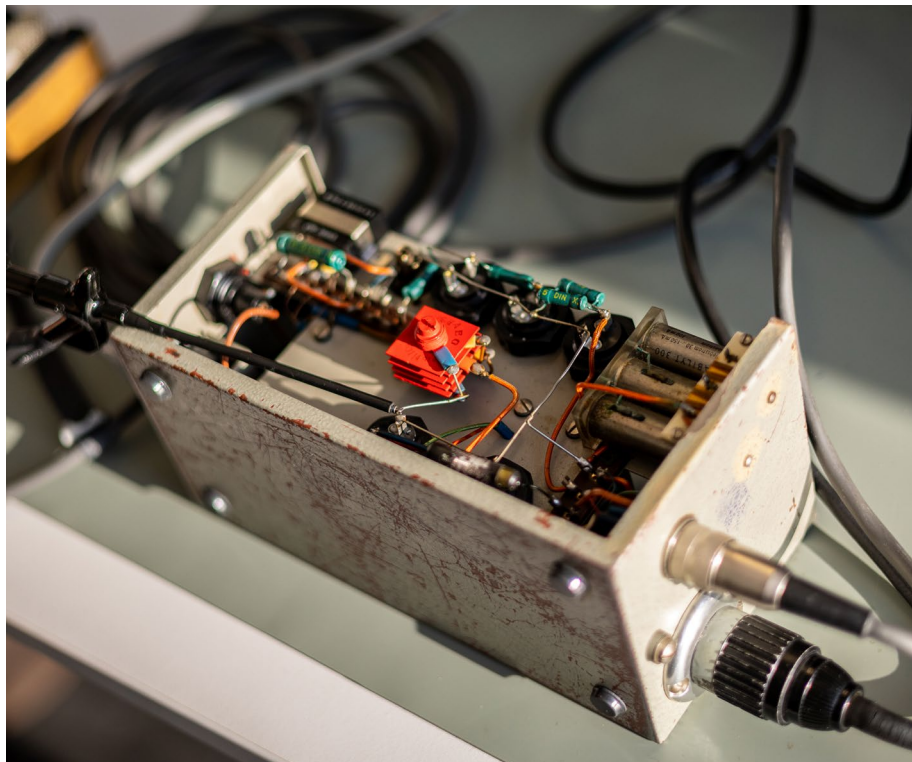
— What steps does a microphone go through when sent in by a customer?

It always starts with the initial intake and a functional test in its current condition. This is followed by a detailed fault analysis where we precisely measure the output stages, the amplifier, and the device's insulation under

high humidity. The standard procedure also includes cleaning contacts in the high-impedance area, checking frequency response, distortion, and the microphone's self-noise. We also thoroughly inspect the capsule and its assembly. Finally, we measure the frequency response in the anechoic chamber to ensure it



The Neumann service team has access to an anechoic chamber for acoustic measurements.



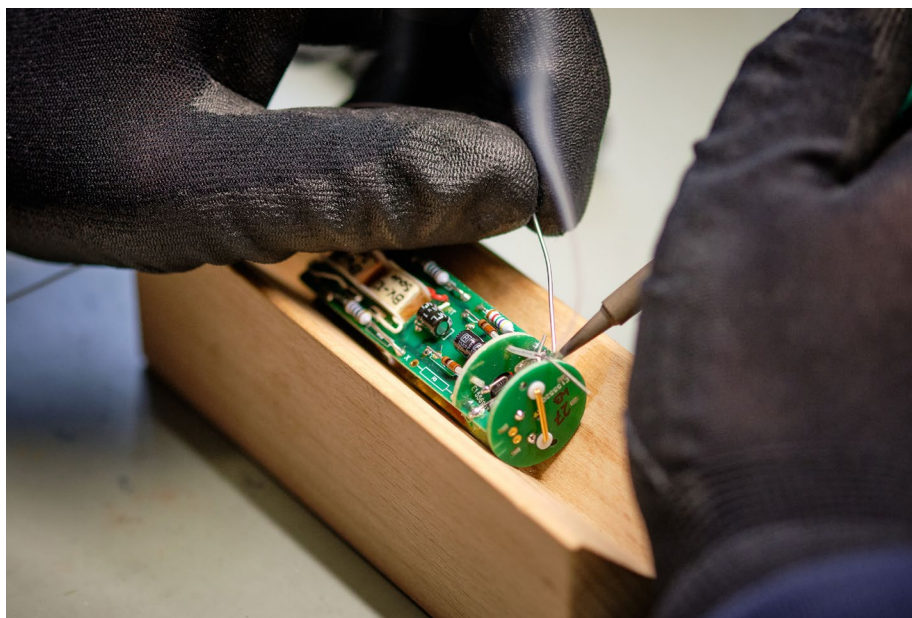
meets our quality standards. All measurements and results are archived for each specific unit, allowing for future comparison during any subsequent service work.

— **So, you maintain a detailed history for every microphone that has ever been serviced by you?**

Yes, that's correct. Nowadays, this is obviously done electronically, but we also maintain a paper archive where the repair history of individual devices can still be traced back through decades-old index cards using their serial numbers. This is supplemented by an extensive archive of schematics for all revisions made to our models over the years, which is accessible to all our in-house technicians. As a result, we can reliably guarantee that a refurbished device will meet the exact specifications it had when originally calibrated—even if that was decades ago. This applies not only to microphones but also to Neumann's studio monitors and headphones.

— **What is the overall philosophy behind your service workshop?**

Our service philosophy and the fact that we can keep older devices alive with our expertise, is something we are deeply passionate about. It's a unique joy for us to be able to maintain or repair a device, knowing it will once again serve as a reliable tool in recording sessions. That's one of the greatest rewards for us service technicians. Moreover, we intentionally employ a high percentage of younger team members to ensure that our knowledge is passed on to the next generation of technicians, maintaining the high standards of Neumann service. In the end, our experience, precision, and passion lead to the best possible and sustainable, future-oriented results for both us and our customers.



Medzid Veseli, Head of the Service Department at Neumann