

History



The Founders



75
Jahre

SEIT 1928

KONDENSATORMIKROFONE
FÜR STUDIO - UND MESSTECHNIK

MICROTECH GEFELL



a company of the Georg Neumann KG



The Founders



Georg Neumann - The Founder Microtech Gefell - The Company of the Georg Neumann KG

1898

Georg Neumann born on October 13th in Chorin. Chorin is located near to Berlin, north of the Oder-Havel Canal.

Its greatest attraction is the Chorin cloister, begun in 1273.

Today, its remains are considered to be among the most beautiful examples of brick gothic.

Georg Neumann received his professional training in Berlin at Mix & Genest and at the AEG Kabelwerk Oberspree under the supervision of Eugen Reisz.

When **Eugen Reisz** leaves AEG in order to found his own company, Georg Neumann continues to work for him.

1923

Germany's first radio station in Berlin uses the famous **Reisz microphone in a marble block**, which has been developed to a large degree by Georg Neumann.

1928

Georg Neumann and **Erich Rickmann** establish the limited partnership **Georg Neumann & Co.** The idea behind this new company lies in manufacturing microphones following the capacitive transducer concept.

An aim they manage to achieve for the first time in serial production with the **condenser microphone CMV 3**.

The company also develops new forms of electromagnetic cutters and pick-ups for wax discs. These new devices allow highly improved recordings and are therefore increasingly used by the recording industry as well as radio stations.

1933

participation at the „Große Deutsche Funkausstellung“ leads to a massive rise of sales within Germany and of exports.

During this time, representations are set up in England, France, the USA and India.

1934

Georg Neumann & Co. is able to offer the level recorder **P 2** that becomes the standard device for acoustic measurement in the following years.

1936

the Olympic Games in Berlin provide the first live test for the classic **M 7** electrode in a tube set-up as developed by Georg Neumann. It is still manufactured to this day.

The so-called „**Neumann bottle**“ can already be equipped with different capsules in order to change patterns.

The path that the company has chosen since its founding proves to be the right one. Extensive practical experience leads to a continuous improvement of products.

Thus, the following products were created:

- Transportable recording devices
- Record players
- Dynamic pick-ups
- Condenser microphones with defined patterns
- Level recorders
- Movie theatre gongs
- Pause signals
- Measurement microphones with linear frequency range
- Pistonphones

1938

Erich Rickmann dies. Despite the heavy loss, Georg Neumann is able to continue leading the company to full extent and according to the ideas of his deceased co-partner - due to his close cooperation with **manager Erich Kühnast** ever since the founding days.

The company celebrates its **tenth anniversary**. See a picture of the **company chronic 1928-1938** below.





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1939

Georg Neumann & Co. produce under their first trademark.



This brand will continue to be used on product seals up until the mid 1970s.

1940

stylised sound waves are added to the trademark.



This brand is used until 1949.

1943

during the Second World War, the principal laboratory on Michaelkirchstraße in Berlin undergoes damage both by fire and bombs. To avoid further bombings, the **entire company and the principal laboratory are transferred to Gefell**.

Both the **Neumann and Kühnast families, as well as almost all employees relocate to Gefell** and there continue their work in the quarters of a former textile firm.

In **Gefell**, production continues of the „**Neumann-bottle**“ **CMV 3** using the large diaphragm capsule **M 7** developed by Georg Neumann.

In the following years, fabrication of the M 7 capsule reaches enormous quantities and to this day, it remains a major product in the studio division of the company.

1945

materials required for manufacturing capsules are amongst other ways secured by dismantling a four-engine fighter plane that had crashed during the Second World War near by.

The M 7 microphone capsule is later used in the following microphones:

U 47 U 48 M 49
CMV 563 UM 57 UM 70 M 71
UMT 71 S MT 71 S UM 92.1 S M 92. S
UMT 800 UM 900 (tube microphone with 48 V phantom powering)

During the years **1945/46**, Germany is divided into four sectors after the surrender. Thuringia, initially occupied by the Americans is exchanged for a part of Berlin (Potsdam Treaty) and handed over to the Soviet Union, which changes the situation in Gefell completely.

1946

employees returning from Gefell establish a small workshop in Berlin (West) mainly for repair of microphones. This workshop becomes Georg Neumann GmbH, the **second Neumann company**, now owned by Sennheiser.

1947

Georg Neumann moves from Gefell to **Heilbronn**. There, he sets up a production of **nickel-cadmium accumulators** following his own patents.

He succeeds in manufacturing completely sealed versions, allowing these accumulators to be used in all electronic devices.

As a by-product, the renowned **stabilizer cells** emerge.

Together with the rest of the staff, **Erich Kühnast** remains in Gefell, a part of Germany that is now under Soviet occupation. **Georg Neumann assigns to him the management of the limited partnership Georg Neumann & Co.**

At first, the following products are manufactured:

- **Condenser microphone CMV 4 with capsule M7 (cardioid) or 026/2 (omni)**





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- Condenser microphone GN M 14 a with transformer housing GN T 14
- Condenser microphone CMV 5/B with the capsules M 7, M 8, M 9 and 026/2
- Microphone connector 5... NS 64/65 and NS 66/67
- Microphone connector 6... NS 84/85 and NS 86/87

The year **1946** also marks the founding of the **Georg Neumann GmbH** by Georg Neumann in Berlin.



1949

Erich Kühnast designs this modified trademark in Gefell:



In addition, it shows a stylised microphone bottle in the middle with the inscription Neumann. (The use of this brand is prohibited by GDR authorities as part of the forced nationalization of the limited partnership Georg Neumann & Co. in 1972.)

1950

the company Georg Neumann & Co. increases its activities in the field of acoustic measurement technology, based on its traditions dating from the 1930s.

New condenser measurement microphones are developed and become part of the serial production. These new developments are carried out in cooperation with the Heinrich Hertz Institute of the AdW. The following types were produced:

- 1" capsules MK 101, MK 102 (MK 630)
- 1/2" capsules MK 201 (MK 650)
- 1" measurement microphone preamplifier MV 630, MV 101 tube, MV 102 FET





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1956

the centralist regime of the GDR forces private companies to accept state co-ownership. Like thousands of other companies, Georg Neumann & Co. becomes a so-called **BSB („Betrieb mit staatlicher Beteiligung“ – company under state participation)**.

Nevertheless, Georg Neumann, concerned about his employees, offers his assistance in further expanding the company.

During the 1950s, radio stations in Berlin are rebuilt and production in Gefell continues, both of the known microphone types and of new ones:

- Tube microphone preamplifier CMV 563
With the microphone capsules M 55 (omni), M 7 (cardioid), M 8 (figure eight) and M 9 (omni) as well as M 7 S, M 8 S and M 9 S with short handles
- Tube condenser microphone UM 57, switchable patterns, omni-cardioid-figure eight
- Measurement microphone MM 10 b



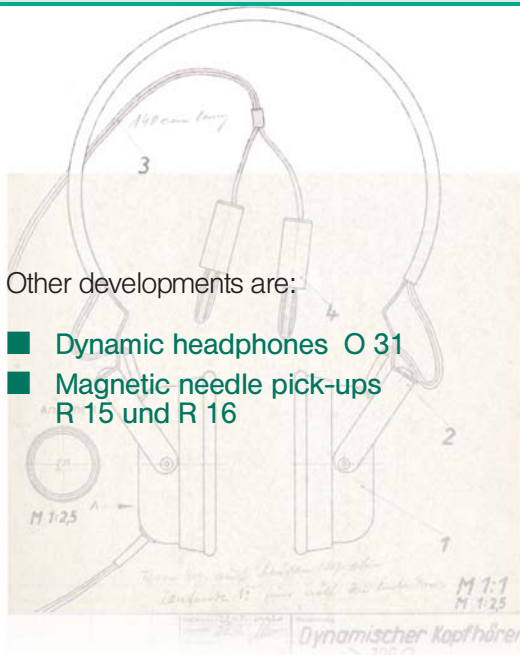
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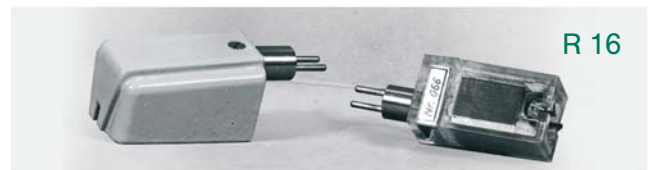


Other developments are:

- Dynamic headphones O 31
- Magnetic needle pick-ups R 15 und R 16



R 15



R 16

Around 1959

the limited partnership Georg Neumann & Co. and Georg Neumann GmbH agree to equally use the **Gefell trademark as created by Erich Kühnast**. In order to distinguish both companies, Georg Neumann GmbH adds a rhombus in the background.

1961

the building of the Berlin Wall sets a seal on the division of the city. The socialist GDR also cuts off all communication that has existed to this point between Georg Neumann & Co. in Gefell and Georg Neumann GmbH in Berlin.

Still, the managements of the two companies stay in contact – illegally as far as the GDR authorities are concerned.

Erich Kühnast's son **Jochem Kühnast** relocates from Berlin to Gefell and becomes part of the **technical management in the area of microphone development**.

During the three decades from the 1960s to the 1980s, production in the studio sector is mainly carried out according to the demands of radio applications. In close cooperation with „Rundfunk und Fernseh-technisches Zentralamt RFZ“ (central radio and television council) the following microphones are developed and produced **until 1989**:

Radio specification

- | | |
|---|--------|
| ■ Reporter microphone GN M 18 with microphone capsule M 18 (omni) | M 18 a |
| Reporter microphone CMV 571 with microphone capsule M 18 (omni) | |
| ■ Tube microphone preamplifier M 582 | M 92 |
| with microphone capsule M 58 (omni) | M 93 |
| with microphone capsule M 62 (cardioid) | M 94 |
| ■ Condenser-two-channel microphone ZUM 64, tube microphone, | M 101 |
| switchable omni-cardioid-figure eight | |
| Condenser-two-channel microphone SM 690, cardioid | M 702 |



GN M 18a

CMV 571



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Radio specification

- Studio microphone system SMS 70 with impedance matchers MV 690, MV 691 and MV 692 in Transistor technology with the capsule modules M 792, M 792 a
- M 58/M93 omni M 93
- M 69 omni M 97
- M 94 cardioid M 94
- M 70 cardioid M 98
- M 71 cardioid
- M 73 shotgun M 99
- UM 70, switchable omni-cardioid-figure eight M 96



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- Microphone unit ME 830 with capsule modules M 58, omni and M 94/M 70, cardioid

Radio specification

ME 830



- Soloist condenser microphones PM 750 and PM 860

Radio specification

M 75





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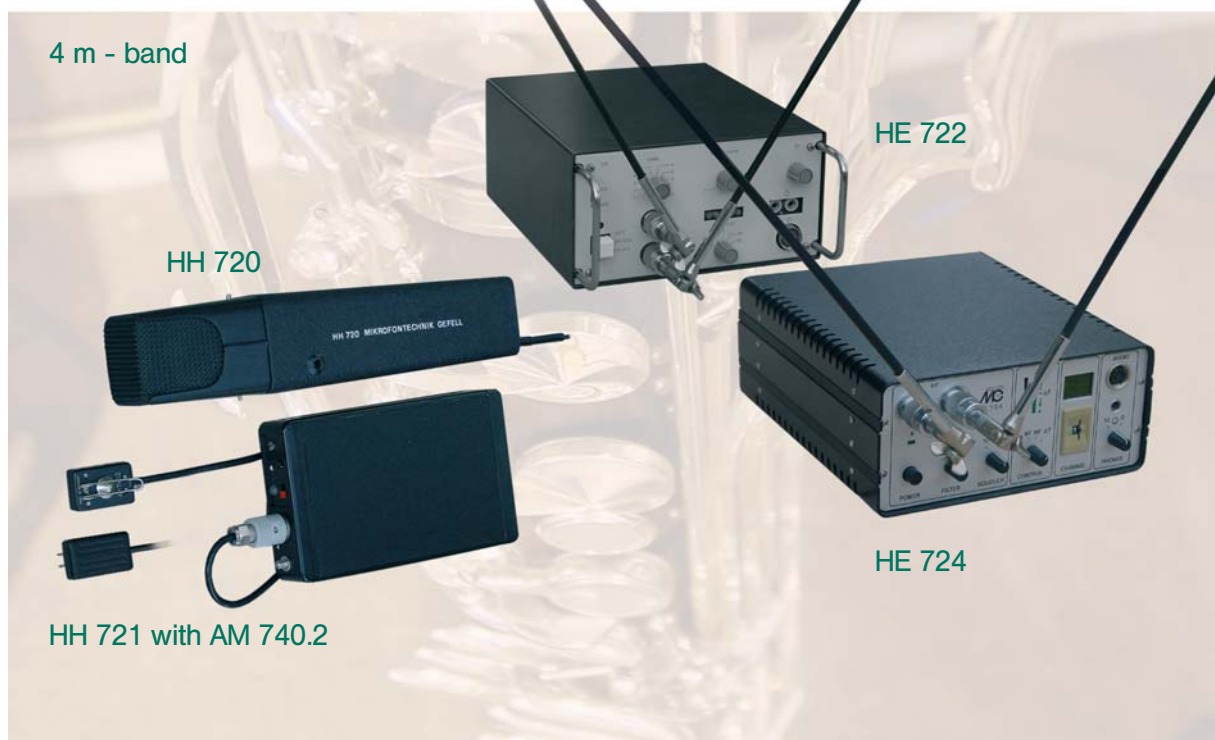
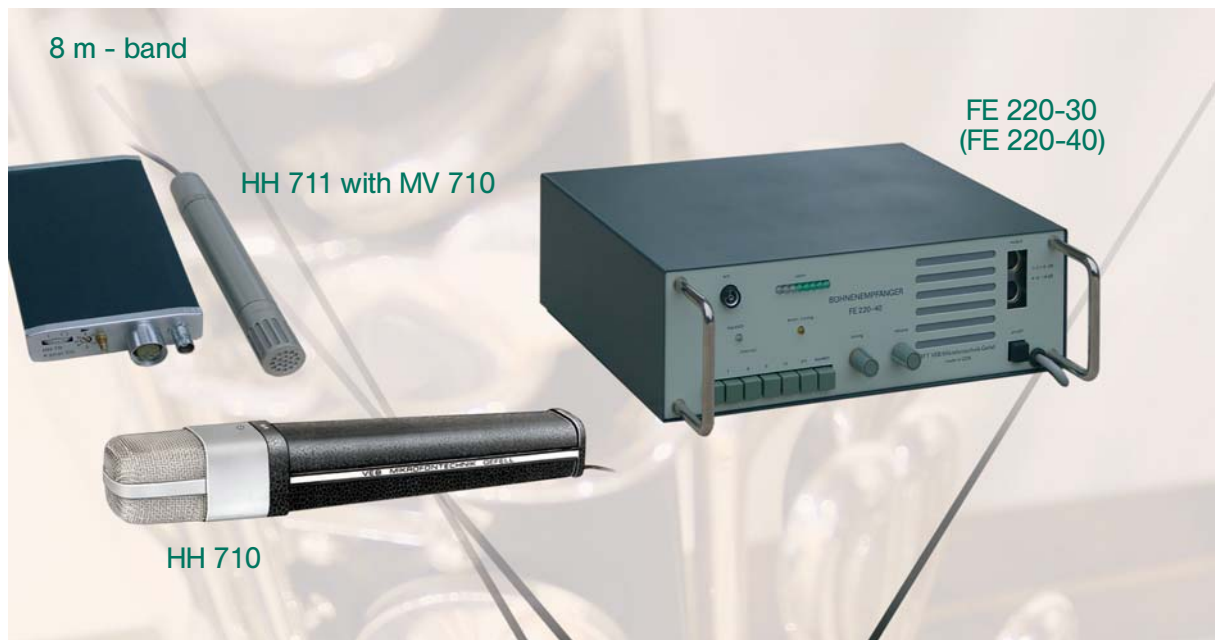
M 70



■ Condenser microphone UM 705, switchable omni, cardioid, figure-eight



		Radio specification
■ Wireless stage microphone HH 710 with capsule modules SMS 70 Stage transmitter FE 220-30	8 m – band	HH 710
■ Stage pocket transmitter HH 711 with MV 710, capsule modules SMS 70	8 m – band	HH 711
■ Wireless stage microphone HH 720 with capsules M 720.1 (cardioid), M 720.2 (omni)	4 m – band	HH 720
■ Stage pocket transmitter HH 721 with AM 740.2	4 m – band	HH 721
■ Stage transmitter FE 220-40		
■ Diversity-stage transmitter HE 722		HE 722
■ Diversity-stage transmitter HE 724		HE 724





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Radio specification

- Microphone preamplifier MV 740 with clip-on microphone AM 740

M 74/4, M 74/2



Radio specification

- Microphone preamplifier 7-pin NS 104/105 and NS 106/107
- Microphone preamplifier 12-pin NS 124/125 and NS 126/127
HF-proof under the names NSH...

S 160 to S 163,
S 166 to S 169

7-pin, HF-proof



NSH 104



NSH 105



NSH 106



NSH 107

12-pin, HF-proof



NSH 124



NSH 125



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On **April 24th 1972**
the limited partnership Georg Neumann & Co. in
Gefell is **expropriated** and renamed
VEB Mikrofontechnik Gefell.

Further use of the Neumann trademark is prohibited
by the GDR.
Instead, products are now marked with the brand
RFT.



1976
Georg Neumann dies in Berlin.

1985
apart from the production of condenser micro-
phones for studio and measurement applications
development and test production begins of **lasers**,
designed for usage in micro material processing,
microelectronics, medicine technology and laser
inscription facilities.

As a tribute to these two production lines, the
company will eventually on June 30th 1990 be
renamed to today's **Microtech Gefell GmbH**,
employing the double denotations of the word
„micro”.

Laser
Nd-YAG





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1989

the Berlin Wall comes down. Immediately, the limited partnership Georg Neumann & Co. and Georg Neumann GmbH establish contact, discussing future possibilities of shared activities.

The Treuhandanstalt takes charge of the company in Gefell with the aim of re-privatising it. The expropriated limited partnership Georg Neumann & Co. files for restitution of its company.

1990

trade with the socialist states collapses after the introduction of the Deutschmark. Selling Gefell microphones proves to be difficult. In addition, there is a lack of marketing experience with western markets.

The Georg Neumann GmbH in Berlin provided help and distributes microphones from Gefell.

1991

shares of the Georg Neumann GmbH are taken over by Sennheiser electronic GmbH & Co. KG. Microtech Gefell begins to set up its own worldwide distribution network.

1993

the company Microtech Gefell GmbH is returned to the limited partnership Georg Neumann & Co. – now **Georg Neumann KG**. After more than twenty years of state imposed waiving of the brand



the company now produces under the new registered trademark.



1998

the company celebrates its **70th anniversary** and at the same time the **100th birthday** of **Georg Neumann**.



2003

The **studio condenser microphones** listed under „product info“ are continuously further enhanced and developed and are all available for purchase. The range of products includes high quality studio microphones with tube and transistor technology, specialised microphones and dynamic microphones as well as power supply units and accessories.

By now, the company looks back on **75 years of tradition** in the development, production and trade of high quality studio microphones and it stays in contact with leading users of this technology and technical institutions.

The **condenser measurement microphones** listed under „product info“ are used for acoustic measuring, e.g. of aircraft, environmental, traffic noise et al.

The range of products is continuously expanded. All measurement microphones are approved and certified by Physikalisch-Technische Bundesanstalt Braunschweig PTB. They are calibratable and can therefore be used for legally binding measurements. All measurement microphones meet the standards of class 1 according to DIN EN 60651.

All products are available worldwide.

Studio condenser microphones



Measurement microphone equipment





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UM 75 TUBE CONDENSER MICROPHONE

with switchable polar pattern

GEORG NEUMANN - GEFELL
• 1928 - 75th Anniversary - 2003 •
Type **UM 75** Nr. **00/75**

- Limited Edition -
- Manufactured using original technologies -



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KONDENSATORMIKROFONE
FÜR STUDIO - UND MESSTECHNIK

MICROTECH GEFELL





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1997

UM 900, first switchable pattern Tube condenser microphone with Phantom powering 48 V

Cover

1955

First measurement microphone for sound level meter after World War II, "Werk für Fernmeldewesen Berlin"

1948

Tube condenser microphone CMV 6

1932

M 7 - Condenser microphone capsule with cardioid pattern