

Looking Back Over Our History-Rion Co., Ltd.

Innovative technology for building
tomorrow's foundations

Overview of Rion Co., Ltd.

Founded
June 21, 1944

Capital
1,991.52 million JPY
(as of March 31, 2015)

President & CEO
Kenichi Shimizu

Employees 757
(consolidated; as of March 31, 2015)



Head Office in Kokubunji, Tokyo

Contents of Our Business

■ Medical Instrument Division

Rionet Hearing Instruments and
related products
Medical equipment



BTE (behind the ear)
Hearing Instruments



Audiometers

■ Environmental Instrument Division

Sound and vibration measuring
instruments
Particle counters



Sound Level Meters



Liquid-borne Particle Counters

■ R&D Center

■ Quality & Environmental Management System Center

■ Business Support Division

History of Business Development at Rion Co., Ltd.

- 1944
 - Founded under the name Kobayasi-riken Co., Ltd.
First company in Japan to begin commercializing acoustic equipment and for applied products using crystal elements.
- 1948
 - Commercial introduction of the first mass-produced hearing aid in Japan under the Rionet brand.
- 1952
 - Audiometer commercially introduced.
- 1955
 - Sound Level Meter commercially introduced.
- 1960
 - Company changed name to Rion Co., Ltd., a combination of the first syllables of Japanese words, “ri” for Rigaku (science) and “on” for Onkyogaku (acoustics).
- 1965
 - Vibration Level Meter for vibration pollution monitoring commercially introduced.
- 1977
 - Particle counter commercially introduced.
- 1981
 - Seismometer and Anemometer for light winds commercially introduced.
- 2013
 - Viable Particle Counter commercially introduced.

Rion's Evolution

Rion's progress in technological innovation

- Introducing our world-leading technology and products

1. From our founding to 1960

Turning research results in acoustics into products contributing to a safer and more comfortable environment for people

2. Period of transformation and growth (1960 to 1990)

Transformation from Kobayasi-riken Co., Ltd. into Rion Co., Ltd.

3. Period of stability and innovation (1990 to the present)

Focusing on the environment and human welfare as the foundations of our business

1. From our founding to 1960

Turning research results in acoustics into products contributing to a safer and more comfortable environment for people

Our technology and products from our founding to 1960

- Commercializing products based on the results of basic research at Kobayashi Institute of Physical Research
- Started to manufacture instruments for acoustics and communication, including microphones, earphones, phonograph pickups and speakers. These products were a result of our research on the piezoelectric effects observed with Rochelle salt crystals (crystal element). We subsequently embarked on the development of hearing instruments as an extension of these products.
- Kobayashi Institute of Physical Research continued to pursue research on piezoelectric effects, ceramics, and quartz while developing commercial viscometers, viscoelastometers, and electrostatic field meters for measuring the physical properties of materials. All these products were the first of their kind to be manufactured and commercially introduced in Japan.
- Our philosophy “Acoustics is the study of creating safe and comfortable environments for people”—the philosophy that represents the basis of our R&D efforts—was established from 1944 to 1960, the 15-year period subsequent to our company’s founding. This outlook remains in place to this day.

Products from Our Founding Days



Rochelle Salt Crystal
(Crystal Element)



Phonograph Pickup



Crystal Microphone



Crystal Earphones



Hearing
Instruments

1948–

1956–1962

Products from Our Founding to 1960

- 1944 Founded under the name Kobayashi-riken Co., Ltd.
- 1946 Start of mass production of Rochelle salt crystals (crystal element) and commercial products, including Microphones, Pickups, Headphones, and Speakers.
- 1948 Japan's first mass-produced Hearing Aid is commercially introduced; the Rionet brand is established.
- 1952 Audiometer commercially introduced.
- 1955 Sound level meter commercially introduced.
- 1956 Vibration Rheometer and Vibration Viscometer (for measurements of viscoelasticity and viscosity) commercially introduced.
- 1957 Electrostatic Field Meter commercially introduced; Weissenberg Camera (for single crystal analysis) commercially introduced.
- 1958 Magnetic Anisotropy Meter commercially introduced.
- 1959 Electrooculograph (EOG) commercially introduced.

* Currently discontinued instruments for physical measurements (e.g., Rheometer, Viscometer), required for the testing and inspections of crystal elements, were originally developed by Kobayasi Institute of Physical Research because they could not be procured elsewhere.

Medical Instrument Division

Original Production Models of Our Major Product

Environmental Instrument Division



First Hearing Aid
model
Model H501,
commercially
introduced in 1948

First Sound Level
Meter model
Model N110,
commercially
introduced in 1955



First Audiometer model
commercially introduced in
1952

First Particle Counter model
Model KC-01, commercially
introduced in 1977



2. Period of transformation and growth (1960 to 1990)

Transformation from Kobayasi-riken Co., Ltd. into
Rion Co., Ltd.

Technology and Products from 1960 to 1990

- Company changed name to Rion Co., Ltd. in 1960.
- Transformation from manufacturer of acoustic products into current manufacturer of medical and environment-related products, including Hearing Instruments, Audiometers, Sound Level Meters, Vibration Meters, and Particle Counters.
- Based on our philosophy—that acoustics is the study of creating safe and comfortable environments for people—we established ourselves as a manufacturer in environment- and welfare-related fields.
- We added an electronic components division by commercializing products including the piezoelectric igniter based on piezoelectric ceramics created by Kobayasi Institute of Physical Research.
- We commercially introduced a succession of Hearing Instruments and developed Japan's first Hearing Aid for patients with severe to profound hearing loss; Artificial Middle Ears; Digital Hearing Instruments; and In-the-ear (ITE) Hearing Instruments.
- We initiated development of various unique products, including a Voiceprint Analyzer (Sound Spectrograph), adder for Electrooculograph (EOG), In-cylinder Pressure Measuring Device for engines, Sound Level Display Device, Electric Taste Sensor, Anemometer for light winds, and Pollution Monitoring Vehicle.

The Business Model of Rion, a Technology Company

- The philosophy that forms the basis of our R&D efforts was established from 1944 to 1960, the 15-year period that followed the company's founding. This outlook remains in place to this day.
- In 1951, Koji Sato, one of the founders of our company (later president and then CEO), wrote the following, predicting the future and direction of our business, as a prefatory note in the Journal of the Acoustical Society of Japan:

“Acoustics is the study of creating safe and comfortable environments for people. Widespread public understanding of the importance of this field has emerged only recently. The reason, I believe, is that the mechanism of the human ear has been designed with such sophistication by our maker that the keys to identifying its mechanisms have remained out of reach.

However, the development of electronics during this century lets us successfully amplify weak oscillating electric currents and subsequently convert acoustic energy into electric energy and vice versa. Since then, revolutionary advances in measurement technologies have provided scientists with the impetus to undertake research on hearing disorders. From that point, acoustics became a field that covered all phenomena from the generation of sound to its perception. All around Japan, there are factories where workers are losing their hearing due to the workplace noises to which they are subject. Elsewhere, housing complexes are being constructed alongside railroad tracks and houses next to airports. These conditions, unheard of in other countries, are humanitarian issues that cannot be neglected from the perspective of national health.”
(Altered and shortened in some parts)

Turning Singular Ideas into Products



Sound Level Display
Device (for roadside use):
1969



In-cylinder Pressure
Measuring Device for engines
(the Indiscope): 1973



Electrooculograph
(EOG)



Voiceprint Analyzer
(Sound Spectrograph): 1960



Rionocoder, Analog Disk
Recorder and Player



Transistorized
Anemometer:
1981



Particle Counter: 1977

Products from 1960 to 1990

- 1960 Company renamed Rion Co., Ltd., a combination of the first syllables of Japanese words, “ri” for Rigaku (science) and “on” for Onkyogaku (acoustics).
Viscometer commercially introduced.
Sound Spectrograph (voiceprint analyzer) commercially introduced.
- 1964 Rionosparker, Piezoelectric Igniter, commercially introduced.
- 1965 Vibration Level Meter for vibration pollution measurements and High-speed Audio Levels Recorder commercially introduced.
- 1967 Precision Sound Level Meter and Japan’s first IC Hearing Instrument (behind-the-ear; BTE) commercially introduced.
- 1969 In-the-ear (ITE) Hearing Instrument commercially introduced; development of Sound Level Display Device for roadside and pollution (noise/vibration) monitoring vehicle.
- 1973 Development of Engine Pressure and Crankshaft Rotation Angle Measuring Device (the Indiscope).
- 1977 Particle Counter independently developed by Rion commercially introduced.
- 1978 Electropalatograph (EPG, for speech training) commercially introduced.
- Development begins on Artificial Middle Ear (completed in 1983).
- 1979 Environmental Sound Monitor with aircraft sound identification function commercially introduced.
- 1980 Real-time FFT Frequency Analyzer commercially introduced.
- 1981 Seismometer, Anemometer, and Impedance Audiometer commercially introduced.
- 1982 Sound Exposure Meter commercially introduced.
- 1984 Custom-designed Hearing Instrument commercially introduced.
- 1988 Paranasal Sinus Ultrasound commercially introduced.

3. Period of stability and innovation (1990 to the present)

Focusing on the environment and human welfare as the foundations of our business

From 1990 up to the current and even more distinctive lineup of products

Relaxing in a hot spring while keeping your Hearing Instrument on! (2003)



A product that astonished the world!
A Digital Hearing Instrument that processes sound (1991)

Even Archimedes would be surprised!
Using sound to measure surface area and volume (1993)



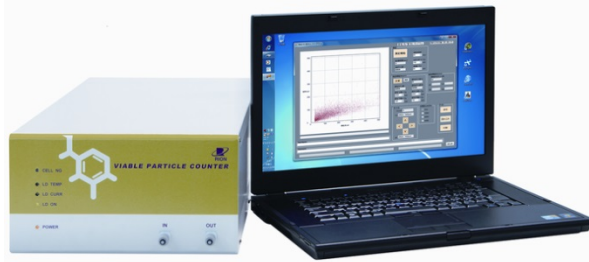
Protecting people from vibration hazards in the workplace
Diagnosis of occupational disorders based on vibration sensation threshold measurements (2008)



R&D Center

- Founded April 2010
- Undertakes investigations of and research in technology that form the common foundations for all Rion divisions
- R&D based on Rion's accumulated technologies to create novel fields of application

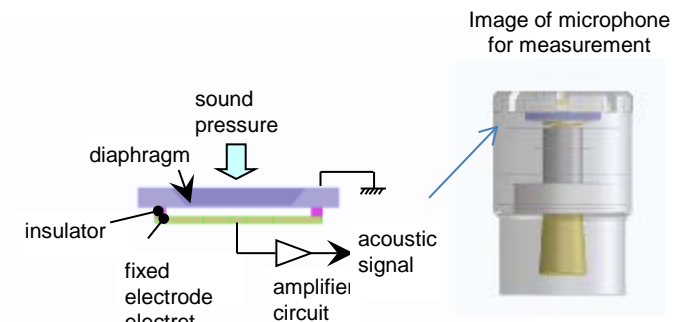
Development of Viable Particle Counter: 2011



Cartilage Conduction Hearing Instrument: 2012



Development of a MEMS Electret Condenser Microphone (ECM): 201X



Rion's Philosophy

■ Corporate philosophy

Contributing to people, society and the world through all our activities

■ Management philosophy

- Improving the quality of life
- Realizing a barrier-free society
- Supporting eco-management