**RICOH MEG** built for accelerating discovery





2.6

5

RICOH



## Dedicated to Improving Outcomes for Neurological Conditions

Neurological disorders are one of the greatest threats to public health. And while many advances have been made since the advent of new technologies that allow us to see and explore the living brain, there are many mysteries remaining, which have the potential to unlock how we treat and hopefully cure these devastating neurological diseases.

Ricoh, a company driven by innovation to make the world we share better, is committed to helping advance research and treatment for neurological disorders. We see magnetoencephalography (MEG) as an important and integral modality for both clinicians and researchers helping patients, so we've dedicated significant resources to develop a new system that enhances the capabilities of MEG imaging.

Unlike many, Ricoh is unique in its sole focus on MEG. This way we're continually developing specialized expertise to help you overcome the challenges you face, and can work with you in partnership to help advance neurological discovery.

This sense of collaborative partnership is at the core of our commitment to better outcomes for patients with neurological disorders. Ricoh MEG was developed with insights from leading neuro researchers and clinicians who use MEG, so we could deliver a more powerful diagnostic tool that meets your needs.

And we're committed to continued MEG innovation. Together, we'll help further understanding of neurological disorders and develop more precise treatment options for patients.

### Innovation Driven by Experts

When Ricoh acquired Yokogawa Electric Corporation MEG technology, a respected MEG manufacturer since 1997, our goal was to explore how we could make this innovative, highly valuable noninvasive diagnostic tool even better. As part of our plan we sought the expertise of several key opinion leaders at some of the most highly regarded research institutes in the world. They were experienced users and readers of MEG, as well as developers of their own algorithms that expanded system capabilities. We invited them to our research facilities in Kanazawa, Japan to talk with our engineers and researchers so we could hear first-hand what they wanted. More intuitive software and better workflows... these are just some of their expressed needs. Ricoh MEG

> is our engineered response. And, importantly, this is just the beginning of innovating for MEG.

# Expect More from RICOH MEG

Ricoh MEG advances imaging system and technology to drive better outcomes The foundation of Ricoh MEG begins with our acquisition of Yokogawa Electric Corporation in 2016, a MEG system with proven performance in prominent research hospitals around the world. Since then, we've focused on a redesign aimed at accelerating neurological discovery. The new Ricoh MEG advances the relevance of MEG in research and clinical settings with these differentiating features that allow you to:

See deeper into regions of the brain

Measure High Frequency Oscillations (HFOs)

Analyze data significantly faster and more easily

### **Improving Outcomes**

High Frequency Oscillations (HFOs) are emerging as a new biomarker for many neurological disorders. Ricoh MEG is capable of acquiring high frequency signals > 50Hz. Data indicates that using HFOs may help to more precisely define critical preoperative evaluation steps leading to better surgical outcomes.







RICOH PQ11DTA

Memory, emotion, learning...they can now be measured by sensors that go deeper

Ricoh MEG measures deeper—50mm to 60mm—so you can record brain activity to the level of the hippocampus and hypothalamus. And the number of sensors and their robust sensitivity contribute to your ability to see more.



> Our systems use coaxial gradiometer sensors that provide distance between the detection coil and the compensation coil to reduce magnetic interference so you can more easily identify signals of interest.

RICOH



We also learned that researchers and bioengineers wanted more sensors. So Ricoh MEG has 160 sensors in its helmet.

# **Accomplish More with RICOH MEG**



#### Our new Ricoh MEG significantly reduces analysis time



MEG is an important diagnostic tool, but fMRI, PET, and EEG also help clinicians treating patients, as well as researchers focused on many neurological disorders. Ricoh MEG is helping you integrate your necessary data and analyze it more efficiently in a single user interface.

Image: state state

We've developed software and integrated algorithms that reduce analysis time by almost 50% so you can increase your productivity. That means MEG data can be mapped on imaging from MRI for easier analysis.

We've also built our interface with clinicians in mind and consolidated all data points on a large 43", single screen. Information is displayed in a natural sequence that aligns with clinician analysis and decision-making coupled with scientifically-based interface design. So you can easily view the right data at the right time.



## Get More from Your Investment with RICOH MEG



We've looked at how to make MEG better so you can advance your research and improve clinical outcomes more efficiently:



LEAN Manufacturing methodology, supports process excellence, ensuring highly engineered, high performance systems, consistently.



Ricoh's team of MEG engineers and software developers are committed to you and exploring continued enhancements to meet your changing needs.

With Ricoh, you'll also get more passion as part of your investment. Ricoh's commitment to MEG imaging is rooted in our belief that this technology is unique in its ability to unlock the many mysteries of the brain. So we'll keep innovating and working with you so that, together, we can help discover treatments and cures for neurological disorders affecting millions of people around the world.



Our system requires less liquid helium compared to our previous MEG so you can reduce your largest MEG operating cost.

We offer flexible service options—from training to multi-level service and maintenance arrangements—because we see ourselves as your partners, helping you, your hospital and your patients.





Ricoh USA, Inc. 1100 Valencia Ave. Tustin, CA 92780

Phone : 1-714-316-4661 scott.abelson@ricoh-USA.com URL : https://www.ricoh-usa.com/en/industries/healthcare

> © 2018 Ricoh USA, Inc. All rights reserved. Ricoh<sup>®</sup>, the Ricoh logo and Ricoh MEG are registered trademarks of Ricoh Company, Ltd. All other trademarks are the property of their respective owners. The content of this document, and the appearance, features and specifications of Ricoh products and services are subject to change from time to time without notice. While care has been taken to ensure the accuracy of this information, Ricoh makes no representation or warranties about the accuracy, completeness or adequacy of the information contained herein, and shall not be liable for any errors or omissions in these materials. The only warranties for Ricoh products and services are as set forth in the express warranty statements accompanying them. Please check with your sales representative for details on specification and restrictions. The computer screens shown in this catalog were produced for the purpose of describing the system's functionality and are different from the actual screen. Product information as of November 2017.