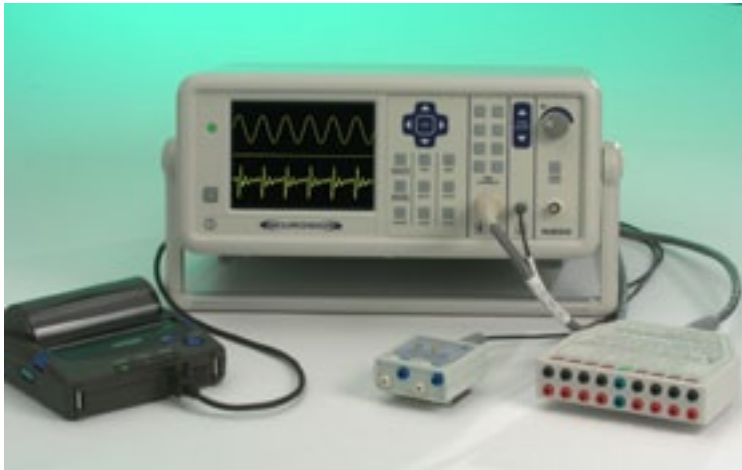


CASE STUDY | Clinical research data at the touch of a button with compact Citizen printers

CITIZEN
Micro HumanTech



Magstim, the pioneer in nerve stimulation and monitoring, has complemented its range of state of the art clinical research instruments with the portable PD-24 printer from Citizen Systems Europe, the leading manufacturer of high quality label, barcode and portable printers.

The compact printers are enabling end users of Magstim's magnetic stimulators and nerve monitors to produce critical information more quickly and simply than previously achievable.

Magstim manufactures and supplies magnetic stimulators and nerve monitors used in clinical research and surgery. Its magnetic stimulators

generate electrical activity in the brain by placing specially designed coils close to the head or other parts of the body to send strong, but brief and painless, magnetic pulses into a patient's neural circuitry to improve the function of the nervous system. The company's **Neurosign Intraoperative Nerve Monitoring (IOM)** equipment helps to reduce the risk of nerve damage during surgery by monitoring motor nerves before and after an operation.

With these systems, users need to be able to rely on printers to produce print outs **clearly, quickly and simply**, in order to give them access to critical information.

The portable **PD-24** from Citizen offered **Magstim** the perfect combination of simplicity and performance. Unlike the machines used previously, the **PD-24** printers are extremely **simple to set up and use**, featuring an **easy to load** clamshell mechanism and **intuitive** menu system. These features minimise the risk of problems such as media jamming, while the high speed thermal head of the printer allows printing at up to **50mm per second**, with a **120mm print out** taking just four seconds to provide users with vital information virtually immediately.

Furthermore, measuring just 147x140x63mm, the **PD-24** offers an ideal solution for areas where space is often limited. Its wipe clean exterior and rugged construction also eliminate the Health and Safety and hygiene issues associated with earlier devices. Additionally, the **PD-24's internal battery pack** allows the printer to be used wherever it is needed with no need for trailing power cables.

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*Andrew Thomas, Managing Manager of **Magstim**, explained the problems that existed with using standard printing technology,*

"The conventional ink jet printers that were previously used with our instruments were bulky, noisy and unreliable; in particular, they were totally unsuitable for use in operating theatres and other similar environments where the technology is normally used. As more and more conventional printers featured solely USB connections, operating theatres had to spend time and money to upgrade existing serial bus ports to accommodate the printers. In response to these issues we looked for a printer that would be tailored to the needs of our end users, and that would complement our cutting edge products, rather than hinder them."

Andrew Thomas commented, "Supplying the **PD-24** as standard with our magnetic stimulators and nerve monitors has considerably enhanced the performance of our cutting edge instruments. End users can rely on the new printers to give them the information that they need extremely efficiently, so that they can focus on critical procedures. In fact, the PD-24 is working so well that we are looking into incorporating the technology further into our products in the future to further develop what is a perfect partnership of technologies."

Featuring printer:

CITIZEN PD24



Provides you an ideal mobility:

- easy to handle and maintain,
- multiple connections choice,
- light weight,
- long-life battery.

About Citizen Systems Europe

Citizen Systems Europe operates from London, UK and Esslingen, Germany covering Europe, Middle East and Africa. Citizen offers a broad range of thermal label & barcode printers, portable and dot matrix printers, mini and POS printers. Via a network of specialized partners, these are sold into markets as diverse as industrial, retail, healthcare and mobile applications.

Citizen Systems Europe is a wholly owned subsidiary of Citizen Systems Japan and part of the Citizen Watch Company of Japan. The globally operating group produces its world-famous eco drive watches and mini printers, industrial print systems and machine tools, crystal oscillators, LEDs and other electronic components.



For further information contact

Citizen Systems Europe GmbH
Marketing Department
Tel.: +49 (0)711/3906-400
marketing@citizen-europe.com