



eSpring™

The Birth of eCoupled™ technology

Altacor's eSpring is an internationally recognized water purification system built on the idea that other systems treat water while eSpring purifies it. Using a patented ultraviolet light technology invented by eSpring research and development scientists and an advanced carbon-block filter technology, eSpring destroys more than 99.99% of the potentially harmful bacteria and viruses in tap water.

Roughly ten years ago, the eSpring team was facing a number of challenges, including unwanted hot water caused by the ultraviolet lamp, the overall size of the unit and corrosion of electrical connectors. In response to these problems, research began on alternative power transfer methods resulting in the invention of eCoupled technology.

The eCoupled solution proved to be ideal. It allowed for instantaneous, high-powered energy transfer to the ultraviolet lamp, reducing energy consumption and ambient heat; nesting of a connector-less ultraviolet lamp inside a submersed carbon filter, reducing the size of the system; and the elimination of exposed electrical connections, protecting the ultraviolet lamp from the water surrounding it. Sealing the lamp prevented corrosion, reduced electrical shock hazard and simplified component replacement. It also created a significant reduction in production and operating costs. In effect, eCoupled technology allowed for a better, safer and less expensive product.

To make the eSpring system even more robust, wireless data transfer capabilities were incorporated into the inductive power circuit to monitor operation and performance and to notify the user when to change the filter and ultraviolet lamp. With this new blend of power and data transfer capabilities, it was easy to see that the advantages of implementing eCoupled technology would apply to wherever power is needed, and a new world of opportunity was created. Today, Altacor has sold over 1.5 million eSpring units in over 36 countries around the world.

To learn more about eSpring products, visit eSpring.com.



WHAT IS ECOUPLED™ TECHNOLOGY?

eCoupled technology is intelligent wireless power. It changes the way that people and devices interact with power and data.

eCoupled technology enables low-cost, efficient wireless power. It dynamically seeks resonance and optimizes power transfer under multiple, varying load conditions and spatial configurations. It can be utilized essentially anywhere traditional power needs exist. It is a revolutionary advancement in the utility of inductive coupling for consumer and commercial applications, unleashing a new world of creative options – power and data can be efficiently transmitted to virtually any electrical device without traditional constraints.

HOW DOES ECOUPLED TECHNOLOGY WORK?

eCoupled technology includes an inductively coupled power circuit that dynamically seeks resonance, allowing the primary supply circuit to adapt its operation to match the needs of the devices it supplies. It does so by communicating with each device individually in real time, which allows the technology to determine not only power needs, but also factors such as the age of a battery or device and its charging lifecycles, in order to supply the optimal amount of power to keep a device at peak efficiency.

eCoupled technology overcomes the limitations of spatial rigidity, static loads and unacceptable power losses. It intelligently adapts to multiple loads – from milliwatts to kilowatts – and spatial configurations while maximizing energy transfer efficiencies by as much as 98%, making eCoupled technology comparable to hardwired connections in terms of energy costs.

eCoupled technology's smart approach provides one of the safest operating systems in the marketplace. Through its identification protocol, eCoupled technology has the ability to authenticate any eCoupled-enabled devices within range. If a device or object is not recognized immediately, the primary coil will NOT turn on and supply power to it, maintaining a safe operating environment.



LICENSING OPPORTUNITIES

The wireless revolution has created a new sense of freedom for manufacturers and consumers. However, one question remains: When will we be able to get rid of our power cords and be truly free?

Fulton Innovation is currently seeking licensing partners – any product that uses power is a candidate – to work with us to further develop eCoupled technology and move toward a truly wireless world.

Be innovative.

Contact us to learn more about joining the eCoupled technology wireless network.

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ABOUT FULTON INNOVATION

Fulton Innovation is dedicated to commercializing and promoting new and innovative technologies that provide economic and social value.

Fulton Innovation is committed to being the world leader in discovering, unleashing and commercializing valuable innovative technologies that improve the way people work, live and play.

Fulton is a member of the Alticor, Inc. family of companies, which is headquartered in Ada, Michigan and employs more than 13,000 people worldwide.

