

3M Introduces Grounding Monitors for Critical Environments

A new family of monitors from 3M provides complete surveillance of grounding in electronics assembly, particularly for soldering irons and process tools. The 3M Down to Earth brand Monitor Series instantly alerts workers of a problem as it occurs, allowing corrective action to restore grounding and prevent further damage to sensitive electronics.

The series consists of four monitors:

- 1) Iron Man, which monitors circuit boards that can be damaged by improperly grounded soldering irons, tweezers and similar hand tools;
- 2) Iron Man Plus, which adds monitoring of the worker's wrist strap and mat;
- 3) Ground Man, which monitors process tools in the electronic manufacturing and semiconductor environments; and
- 4) Ground Man Plus, which adds monitoring of the operator's wrist strap.

The Iron Man monitor detects overvoltage incidents that can be caused by a poorly grounded soldering iron, power screwdriver, or other hand tool used in assembly. Audio and visual alarms signal the operator to isolate the exposed circuit board and trace the cause of the overvoltage. The problem with a soldering iron, for example, may be in the electrical outlet to which it is grounded, its internal operation or oxidation in the tip.

The Iron Man Plus provides complete workbench surveillance by also monitoring the worker's body voltage and wrist strap connectivity as well as the connectivity of the mat. Additionally, the monitor has a patented jack that can be replaced without soldering, lowering the cost of potential repairs and increasing the monitor's life.

The Ground Man monitors have three channels for monitoring metal grounding within process tools, such as pick-and-place machines. If a channel detects a grounding failure, a red alarm appears. Operators have the option of also setting an audio alarm.

If left undetected, grounding problems can damage electronics products and result in warranty returns and loss of user confidence. The Down to Earth monitors, which are smaller than a cell phone, can help protect electronics wherever sensitive components are handled, including repair and service, the medical environment, military and aerospace.

For more information, visit <http://www.3m.com/electronics>.

About 3M Electronics

3M Electronics is a leading supplier of innovative solutions to the electronics market. 3M's wide array of advanced technologies enable the company to design specialized products intended to help electronics manufacturers improve quality, reduce costs and lower emissions. The company's products help their customers connect, clean, polish, adhere, protect, transport and finish their products. 3M serves customers in numerous market segments, including semiconductor; OEM electronics; computers and peripherals; mobile and hand-held; as well as consumer, aerospace, military, automotive and medical markets.

About 3M - A Global, Diversified Technology Company

Every day, 3M people find new ways to make amazing things happen. Wherever they are, whatever they do, the company's customers know they can rely on 3M to help make their lives better. 3M's brands include Scotch, Post-it, Scotchgard, Thinsulate, Scotch-Brite, Filtrete, Command and Vikuiti. Serving customers around the world, the people of 3M use their expertise, technologies and global strength to lead in major markets including consumer and office; display and graphics; electronics and telecommunications; safety, security and protection services; health care; industrial and transportation. For more information, including the latest product and technology news, visit www.3M.com.

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