

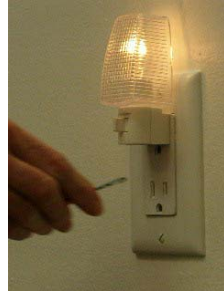
THE NUMBER OF TODDLERS INJURED BY ELECTRIC OUTLETS IS SHOCKING!

EMD presents the GUARDIAN ANGEL® ELECTRIC OUTLET

AN INVISIBLE SOLUTION THAT PROTECTS CHILDREN, ANIMALS AND ADULTS WHILE
PROVIDING UNRESTRICTED ACCESS TO ELECTRICAL POWER WHEN NEEDED



The outlets are live – note the lamp is lighted



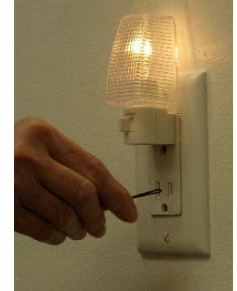
A hand with a Hairpin approaches the live outlet



Before the Hairpin can be inserted in the outlet the power automatically turns off



The paperclip is in the hand and in the outlet –
NO SHOCKS!



The hand moves to safety and the power automatically turns on

THE PROBLEM

The danger to children from electric outlets is a well recognized problem. Objects children insert are everyday, easily accessible household items:²



Hairpin - 32%

Finger - 12%

Plug - 11%

Paper clip or staple- 5%

Keys - 17%

Pin, wire, screw or nail - 11%

Unidentified - 8%

Tool (i.e., tweezers, file or knife) - 3%

THE REAL SOLUTION -- THE "GUARDIAN ANGEL® OUTLET"

The non-mechanical, patent-pending Guardian Angel® outlet prevents ALL electrical shocks from electric outlets ... and requires no unusual action by the user nor restricts outlet access. It uses a unique sensing and programmed intuition to temporarily deactivate power to the outlet when a live body, e.g., child, pet or adult, gets too close to or creates a shocking or dangerous hazard from the outlet. It also automatically adjusts for the presence of other electrical devices plugged into the outlet and then continues to protect against shock/electrocution.

"2400 children need emergency care each year from electrical shocks and over 70% of these injuries occur at home with adult supervision typically present.

This CPSC data also indicates about 94 % of injuries involve burns which are particularly serious for children"¹.

¹ Consumer Product Safety Commission "CPSC document number 524 Electrical Receptacle Outlets"

² Electrical Safety Foundation International <http://esfi.org/cms/node/191>



EMD TECHNOLOGIES, INNOVATION AND DEVELOPMENT

--TECHNOLOGY SCOUTING--MARKET RESEARCH--USER FEEDBACK--
--INNOVATIVE ENGINEERING--INTELLECTUAL PROPERTY DEVELOPMENT--PROOF-OF-PRINCIPLE--
--EXPERIMENTAL DESIGN--PROTOTYPING--

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It can be invisibly installed where ever electrical outlets are installed

The Guardian Angel® outlet is an economical solution

Working prototypes containing the patent pending IP are available for demonstration

Are our loved ones safe with the plastic outlet plugs? NO !!!

PRODUCT APPLICATIONS:

- In-wall outlets -- will fit in standard electric boxes
- Surge protectors
- Extension cords
- Electric box extender receptacles
- Ground Fault Circuit Interrupters (GFI)

GUARDIAN ANGEL® OUTLET ECONOMICS

The projected cost for the in-wall Guardian Angel® outlet will be comparable to a duplex outlet with a ground fault circuit interrupter (GFI). The cost per outlet will be reduced when used in a multiple outlet application.

TECHNOLOGY STATUS

- Working prototypes have been constructed for multiple applications.
- Domestic and international patent applications have been filed covering all applications in all geographic areas.
- Trademarks have been granted for the Guardian Angel® and Safe Sense® electric outlets.
- Multiple related URLs have been obtained.
- EMD has worked with many large, privately held and Fortune 500 companies to take other EMD innovative technologies through to commercialization.

THE PROBLEMS WITH THE CURRENT SOLUTIONS

Current approaches to protecting against shocks from electric outlets include:

- Plastic plugs
- Outlets with “contortionist” covers
- Tamper-Resistant “mechanical shutter” outlets

“Most of us are familiar with plastic outlet protectors. The prongs fit directly into the outlet holes, preventing the insertion of foreign objects. But many parents say they feel a little uneasy about the effectiveness of these devices. In 1997, the Biokinetics Research Laboratory of Temple University performed a study of 37 children to determine if the plastic plugs were effective.”³

Problems:

1. Don't work if they are not reinstalled after the outlet has been used.
2. They are “not attractive”.
3. “The Temple University study found that³:
 - 47 percent of 4-year-olds and 31 percent of 2-year-olds could remove protectors with a round, flat face and two prongs
 - 47 percent of 4-year-olds and 18 percent of 2-year-olds could remove protectors with a 3/16-inch thick oval face and a tapered side
 - 100 percent of 2- and 4-year-olds could remove protectors with a 1/16-inch thick oval face and a flat side.”

³ http://www.statefarm.com/learning/child_safety/learning_childsafety_elec.asp



Do the shutter-type tamper-proof outlets protect against all shock dangers? NO !!!

The best protection is now available only because of a revolutionary development at EMD.

EMD is looking for licensing and strategic partners

The Shutter outlets do not protect against all of the identified hazards.

"Are tamper-resistant receptacles 100 percent tamper-proof?" "...The devices don't protect against two single-pronged items inserted simultaneously—the shutters would interpret that situation as a two-pronged plug, allowing insertion.

Determined adults and adolescents could potentially bypass the mechanism with significant effort..."⁴

"Would tamper-resistant receptacles protect against partial plug insertion?"

Tamper-resistant receptacles function just like standard receptacles in this situation. Plugs that aren't fully inserted expose portions of the blades that are in contact with the receptacle's live terminals. Under some conditions, the gap between the plug face and receptacle face may be large enough for small fingers to contact these live blades."⁴

WHAT'S NEXT?

- EMD has identified and is contacting a targeted group of companies whose product lines are compatible with the Guardian Angel[®] outlet.
- EMD is looking to develop a business relationship with a company(ies) to commercialize the Guardian Angel[®] outlet in its various applications.
- If you are interested in this product, EMD would like to discuss this unique and profitable product and visit your company to demonstrate it.

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⁴ National Electrical Manufacturers Association, <http://esfi.org/cms/files/u1/NEMA-TamperResistant.pdf>

