Abstract

In the modern home, a common problem is outlet accessibility. Current solutions include standard extension cords as well as externally-mounted, retractable extension cords. However, these products are not space-efficient and can cause clutter within a room. The goal of this product is to optimize space and provide a convenient and safe way to power household devices.

Design Criteria

Based on customer surveys, benchmarking, and market analysis, the following design criteria have been established:

- Internally mounted
- 6 feet in length
- 12 gage wire
- Color Coated Safety
- UL Listings:
  - 125 Volts, 20 Amps, 2500 Watts

Testing and Safety

Testing and analysis has shown that The Outlet Buddy will need to withstand forces of 12-30 lbs from a person tripping on a fully extended cord. Also, “Buddy” must resist forces of 2-15 lbs during retraction.

Buddy will be constructed and secured within the wall to meet the constraints of the applied forces. The last foot of the cord will be color-coated (red) to warn the user that the cord is near full extension.

Results and Conclusion

Testing and analysis proves that our product is more space-efficient, provides more power, weighs less, and retracts faster than the existing benchmark.

The current market for our product includes new homes, offices, and apartments. With exposure, we expect this product to become a standard installment in all new homes across the nation.

“I would absolutely install it. Let me know when you get a patent!”

– John Link, JC Link General Contracting

Acknowledgments and References

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http://www.advancedgasket.com/pages/plastic/plastic_abs.htm