

Thirty Year Challenge: How Zero Surge Inc. Thrives As A NJ Small Manufacturer

By Jim Minadeo, President Zero Surge Inc.

It was 1989 and a retired Electrical Engineer from RCA was consulting for a large consumer electronics company. They were having problems with their computer networks failing at random times for unknown reasons. Rudy Harford deduced that the problems were caused by electrical surges and examined how surge protectors were failing. After finding that all surge protection was based on using a sacrificial component called a metal oxide varistor (MOV), he decided to create a better mouse-trap. By March 31, 1989, Zero Surge Inc. was officially born providing surge protection that was superior to all other methods and still holds true today.



Above: oem7 waiting for testing.

Left: Jim and Donna with NJMEP Plaque.

Zero Surge still makes its products in its Frenchtown, NJ facility. The technology has since been adopted by two other companies and spawned many lesser imitations. But the core technology has been proven effective with zero reports of fires or surge failures. We still hear from customers who have their original ZS model protecting the same electronics for 20+ years—a testament to the robust design Rudy created 30 years ago.

Being a small company, we face many challenges. Major costs include UL safety testing, ordering custom parts that require long lead times, and competing with larger companies in advertising spending. There are 30+ companies telling consumers that MOVs are safe and effective and we must educate about MOV's inability to protect today's electronics.

In 2014, Rudy retired and sold Zero Surge to Jim Minadeo. Being a first time owner, Jim had to learn the industry and Zero Surge's history first. Then, with his team, plan a new course that would move Zero Surge into the future. Besides updating the

website, producing videos, and attending trade shows to meet customers, we needed to figure some cost-effective ways to obtain new customers. One of the first steps was contacting the New Jersey Manufacturing Extension Program (NJMEP) to learn about their programs. That led us to joining a regional power quality group, NJ Business and Industry Association, Hunterdon Chamber of Commerce, and Hack Hunterdon.

Working with these organizations and initiatives put Zero Surge in front of more people than traditional advertising could. The people that run each group have a vested interest in helping manufactures. Don't be shy about volunteering to speak, demonstrate, or join a committee. For example, being part of panel discussions at NJMEP events and speaking at Legislative Manufacturing Caucus hearings, allowed their leaders to learn more about Zero Surge, and have helped us by making introductions to new customers. Also, by joining the Hack Hunterdon committee, we have cultivated relationships with potential customers and industry partners locally. Many of these organizations, like the NJMEP, have workforce development programs.

Advertising is a numbers game and small businesses can't afford to compete for attention like larger companies. We have two target challenges when it comes to advertising:

1. Scope - Everyone has sensitive electronics that need surge protection.
2. Type - We have business and residential customers.

By making a product that is universally needed but more expensive than the traditional alternative, we must go where there is "pain" or an exclusive need. For residential customers, those with the most to lose are audiophiles. The audiophile has invested time and money on the perfect system – replacing

it is a hardship. Another group, those with ungrounded homes, has also proven to be adopters of our technology. Most homes built before 1960 have ungrounded receptacles. Zero Surge's technology is the only one that works and is safe for this application. By using online advertising,



we can target these groups of customers in a cost-effective way.

For business customers, the challenge is to not chase after each industry that finds us useful. We started by looking at our top customers to see who else in their industry would benefit. Military, schools, hospitals, and manufacturing customers use our products too, but we chose to focus on the retail industry for expanding our customer reach. Since most point of sale (POS) equipment is now a touch screen computer, they are sensitive to electrical surges. Having the POS equipment go down can be very costly to a company. With success at large restaurant

chains and automotive service centers, we use that success as leverage for selling to other companies. This has led us to other adjacent industries like the digital sign market.

To summarize the lessons, we have learned:

- Network and cultivate connections. The next customer may come from your connection's contact list.
- Join local trade/business organizations. Be active and participate.
- Focus advertising dollars on a few key customer bases. You can't outspend the big companies!
- Use social media – it's free! LinkedIn, Twitter, Facebook, YouTube, et al. are free and give you a direct line to speak with customers and send out timely information.
- Offer personal customer service. Get to know their needs.
- Be proud to be a "Made in NJ" manufacturer through NJMEP!

Jim Minadeo is the President of Zero Surge Inc., manufacturing power quality filters that are used for surge protection of sensitive electronics.
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