



Firefly Integrations CEO Leon Bontrager demonstrates the Emprise, the supplier's newest multiplex product.

Growing Inside and Out

Custom multiplex system company Firefly Integrations is riding a wave of growth. The company recently expanded its facilities and is rolling out new products to give the best experience to both its employees and clientele.

By Kristen Fiore | Photos by Stillson Studio

Stepping into Firefly Integrations' facility in Middlebury, Indiana, visitors see brightly colored rooms and dry-erase boards where ideas are born.

"You see an atmosphere of thought, excitement, innovation and integration that people want to be a part of," said Joel Badskey, vice president of sales and marketing at Firefly Integrations.

Firefly Integrations is an electronics company in business over 20 years that has specialized in multiplex systems for the past 18 years.

Leon Bontrager, CEO, added, "Firefly is a multiplex company at heart. Most of our competitors do different things, but this is our one and only product. We cater to our customers by providing state-of-the-art products."

According to Badskey, the company's niched focus grew sales by 40% in the past three years. With the recent growth, Firefly has expanded its facility and prepared new product releases to keep the momentum going.

Multiplex Expertise

Firefly's multiplex systems are technological devices that integrate with other RV systems to monitor and control the systems' functions.

Badskey described the multiplex system as the brain operating everything within an RV.

"Rather than having 20 different ugly black buttons littering your wall," he said, "you have one gorgeous screen that makes everything come together symbiotically so that you just press buttons and switch the screens."

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— Joel Badskey

Bontrager said the multiplex device makes the walls appear neater and gives consumers more monitoring abilities throughout their vehicles.

With a few screen taps, consumers can dim or turn the lights on/off in different RV areas, operate the generator, turn on the heat, ensure the freshwater tank is full for the next trip and more.

Badskey said Firefly's custom-made multiplex systems integrate with manufacturers' systems on their high-end and mid-priced vehicles.

Location Counts

Firefly Integrations is based in northern Indiana, near many major RV manufacturers and Firefly customers. The location is crucial and intentional, Badskey said, enabling the company to quickly respond to customers.

"Rather than just trying to email back and forth where you are battling with a time constraint, we can act and respond immediately," he said. "There is a level of humanity that goes into that. When we work with our customers face-to-face, it allows us to understand each other better, rather than seeing each other as a means to an end."

Because many Firefly products are customized, the ability to meet with customers face-to-face is key. Badskey said technicians can enter an RV, press the multiplex device's buttons, experience any issue firsthand and determine the solution at once.

"We can get to the bottom of things much quicker," he said, "because we can be hands-on."

Changes to products' installation or coding are not unusual with so many products tied into the system.

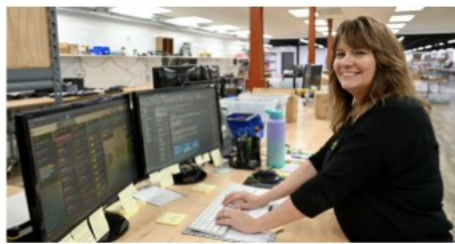
Badskey cited how a tank sensor location could be altered from planned settings, which might require a change leading to a multiplex recalibration to monitor the sensor as an example of common coding customization.



[L to R] Bontrager and Joel Badskey, vice president of sales and marketing, gather in the conference room before a weekly staff meeting.



Chief Operating Officer Josh Hazen joined Firefly Integrations in 2013.



Christine Fisher was promoted to vice president of assembly in September. She has been with the company for nearly five years.



Mikki Scheetz provides tech support to Firefly customers when they encounter an issue.



Geena Williams demonstrates Firefly's new 10-inch high-definition touchscreen.



Chanlyn Troyer is Firefly Integration's Multiplex Research and Development lead.

Even drilling installation holes inches away from the planned area can disrupt multiplex configurations.

"We have had the tank issue a couple of times," he said, "and when we can have a programmer on site, we can recognize how the issue is the holes are in a different place and then recalibrate the system."

As other examples of hands-on customer service the company does, Firefly also will dispatch programmers to troubleshoot issues with inverters or air conditioner connections when needed. Badskey said these devices may receive new coding that Firefly employees were unaware of, leaving the multiplex unable to control the products.

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- Leon Bontrager

"It is so much better to be hands-on with that," he said, "rather than trying to get on a Zoom call and guessing. We can see what the coding pops up."

Generators can cause similar concerns when multiplex systems are calibrated to automatically start a generator to heat or cool the RV at preset temperatures. Firefly programmers can work on site with generator suppliers and RV manufacturers to ensure communications are functioning properly.

"We can speed up the process because the manufacturers have to be experts on everything," Badskey said. "We are experts in multiplex systems."

He said meetings such as these with customers happen almost daily.

Expansion Upgrades

Because Firefly programmers and technicians meet so often with customers, the company recently

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completed a new 30,000-square-foot expansion to better serve clients and employees.

Additional conference room space is a highlight of the new construction.

"We were fighting for conference space to meet with customers and the companies we want to integrate with or talk to about future development," Badskey said. "Now we have added two more conference rooms and some smaller areas we can use if we need to."

Bontrager said the facility expansion also doubled programmers' coding workspace, a decision made to increase productivity.

Numerous expansion features focused on employee well-being, such as a new gym, a new kitchen and showers in the bathrooms.

Badskey said these amenities enable employees to unplug and reset their brains, create community, increase productivity and avoid burnout.

"If you work eight or nine hours with your face glued to a screen," he said,

"at some point, research shows us that quality of work diminishes."

Before the expansion, the facility had pool tables, ping pong tables, foosball, a basketball and volleyball court and a relaxation area.

““ *It allows us to take our already high-level product and bring it into areas of the market that we were overpriced for.*”

- Joel Badskey

"It is not unusual to come in on a Tuesday night and see 20 to 30 of our younger employees here," Badskey said, "playing volleyball, ordering a pizza and just hanging out together."

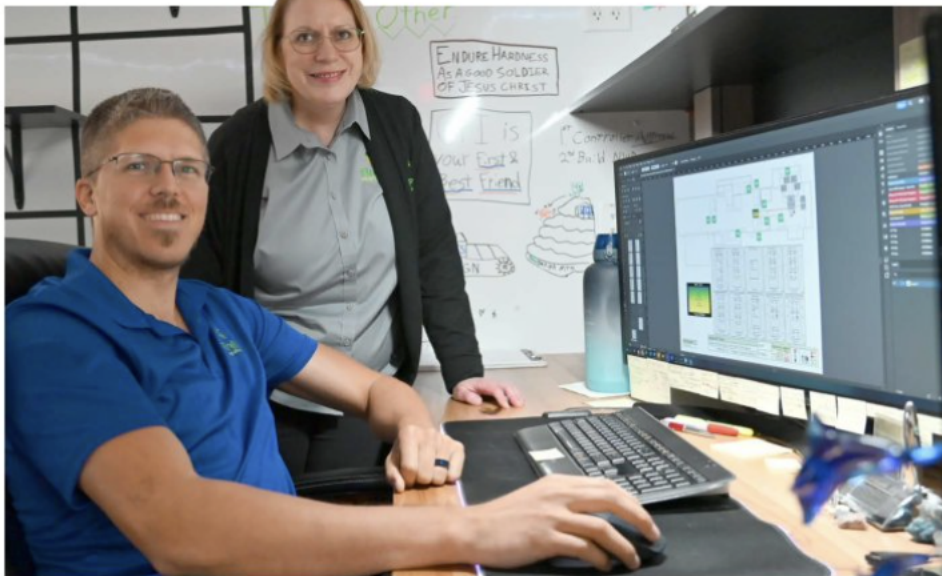
He recalled a time when an employee's son arrived to play ping pong with his dad during a break in his dad's workday.

Bontrager said, "Firefly is big on family."

According to Badskey, the amenities work well for hiring and retaining employees. Candidates are given a facility tour when they arrive for an interview.

"In a city like Middlebury, if I pass less than a dozen bicycles and horse and buggies on my way here, I would be baffled," he said. "So, if you have driven here past all of these buggies and bicycles, you might think there is no way there is a state-of-the-art company in the middle of these cornfields. Then, you come inside and are immediately transported somewhere different."

Badskey said Firefly Integrations is seeking new hires who want to be long-term employees and feel they can be a part of something big.



(L to R) Product designers Andrew Porter and Becky Goodman review a network wiring diagram.



Associate Gabriel Yoder pulls wire needed for a multiplex assembly.



Mark Roebuck is a software quality assurance specialist in the testing department.



Adams is a development engineer. Firefly's recent building expansion doubled programmers' coding workspace, providing more room for engineers such as Adams to work.

Firefly has 115 employees, he said, with over 100 working at the main Middlebury facility.

"We can put a lot of things in place to make sure we are putting out the best products," Badskey said, "but if we are not serving the people we have, a lot of that goes to the wayside. We want to make sure we are investing in our people."

New to Market

Firefly Integrations will roll out new products this fall with the facility upgrade complete. The most significant new product will connect Firefly to new potential markets.

The company traditionally focused on multiplex systems for high-end RVs, including Type A motorhomes and luxury fifth wheels.

This fall, Firefly released the Emprise. Badskey said the new multiplex system is designed to serve more mid-priced fifth wheels, Type B and Type C motorhomes and even some travel trailers.

He said, although Emprise has fewer features and outputs than Firefly's high-end multiplex systems, the product is more affordable and easier to install and service.

Emprise is RV-C compatible and opens 180 degrees to access the distribution panel. Stripped wire leads are installed using lever nuts, eliminating the need for torquing to ease installation.

"It is the right size," Badskey said. "This is not overbuilt...it is the same great quality of Firefly but with the right number of features."

Bontrager said Emprise has many similar features as other Firefly multiplex systems but is more compact.

The product has a 7-inch capacitive color screen. The touch-screen display conceals a fully integrated 12-volt power distribution panel. Emprise can monitor and control up to three air conditioning zones, six tanks and one LPG tank.

Because Emprise is more affordable and accessible, Bontrager and Badskey anticipate greatly expanding Firefly's customer base. Badskey said Emprise could double Firefly's customer penetration.

"It is pretty huge," he said. "It allows us to take our already high-level product and bring it into areas of the market that we were overpriced for. Now, we bring the right-priced product into the middle of the RV market."

Badskey said, "It allows a company that uses a myriad of different products to have more fluidity and commonality within those products."

More New Offerings

This fall, Firefly also introduced another new product: an upgraded high-definition 10-inch screen. The screen provides better viewing of Firefly's various multiplex devices.

"We have a plethora of screens," Badskey said, "from 3.5-inch to 10-inch, from standard resolution to higher resolutions."

Bontrager said because RV

hallways are often narrow, consumers cannot always stand directly in front of the screen.

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The new screen features improved viewing capability, meaning consumers can see the screen from various angles and distances as if right next to it.

Another Firefly product update will be ready in future model years.

Badskey said new screen graphics

are planned for 2025 and 2026 model-year multiplex systems. The new graphics will be available only in new products and not as an update to legacy multiplex systems.

"Because we are the leaders of the industry," he said, "it was time for us to refresh our graphics."

Firefly multiplex systems' current graphics have looked relatively similar for the past five years. Badskey described the new graphics as having a more modern feel, similar to what consumers see on their smartphones or tablets.

He said, "People will feel the newness and more modernness of it."

He said the new graphics make functions more intuitive and even easier to figure out after a few touches.

"It makes the user experience better and more friendly," Badskey said. "Hopefully, you spend less time in front of a screen and more time enjoying the camping experience." **RVN**