

Atlanta, Georgia

## THE #TINYLAB



### CHALLENGE

Selecting a super-efficient cooling and heating system for a tiny, high-performance home on wheels

### SOLUTION

Zoned Comfort Solutions® from Mitsubishi Electric

### RESULT

Proven high-efficiency operation and comfortable day-to-day living

Corbett Lunsford's home stands out from other homes because it's high-performance. But his high-performance home also stands out from other high-performance homes. The reason: It's on wheels, and is currently on a one-year tour across the country. The purpose of the tour is to educate homeowners, realtors and building professionals about performance – what it means, what products help achieve it and how you can assess professionals who claim to offer it. The selected cooling and heating system had to align with that story, offering incredible performance. After the tour is completed, though, the home and its systems must live on; the Lunsfords will continue living in it. As a result, the selected cooling and heating system would also need to provide the high level of comfort and reliable operation that any family expects. Only one system could offer both: Zoned Comfort Solutions® from Mitsubishi Electric.

Just as Lunsford's home is no ordinary home, Lunsford is no ordinary

homeowner. He's also a building forensics expert with Building Performance Workshop, Atlanta, and the author of "Home Performance Diagnostics: The Guide to Advanced Testing." Years ago, Lunsford became interested in the concept of shared language – the way every doctor takes the same metrics like a patient's heart rate, blood pressure and temperature. He wondered how to get the building industry talking in recognizable language about metrics so "normal Americans can ask for and expect a quantifiable, measurable result. Most of the time people hire the low bidder or buy the cheapest equipment. But that's the worst way to work! We, as homeowners, need to fix this language that tells contractors we want cheap crap. We have to say, 'I want quality, and I know that takes money and time.' Then, contractors can compete based on quality."

To prove that quality is possible, Lunsford built himself an amazing home – a high-performance tiny house on wheels, which is now traveling to



every corner of the country on his Proof Is Possible tour. “In each city where we land, we teach people to upgrade not because they get utility rebates or anything, but because it’s just better.”

When it came to finding a better cooling and heating solution, Lunsford reached out to Brad Lemley, owner, Uplifting Air, Seffner, Florida. “Corbett already had all of his load calcs completed, and he just came to me and said, ‘I’m trying to find an air conditioner for this low of a number – 3,000 to 4,000 BTUs – what can you do?’ We looked around and found Mitsubishi Electric. When Corbett talked with Mitsubishi Electric, they explained that with the variable speed, his system would get down to the number we wanted.” The two were impressed.

Lunsford said zoned technology appealed to him “because the biggest failure in every single HVAC system in the world is the duct system. So I wanted to show people the possibility of a non-experimental technology that could solve so many of their problems.” Lemley added: “By not having the ducts, you make an HVAC system about as perfect as it

can be. If you’re looking for super high-efficiency and humidity control, I can’t see it getting better than ductless.”

Among the brands that offer zoned technology, Lunsford said, “Mitsubishi Electric is the best, and anyone you talk to who knows what they’re talking about will tell you that. To me, it’s the i-See sensor® – a real-time performance tool that takes measurements of the room and changes performance in real time. That’s golden, and it makes the system so much smarter and more elegant.”

Lemley was interested in working with Mitsubishi Electric because he likes zoned technology and “wanted to try a new brand after working with LG. I was told Mitsubishi Electric is a lot better about training – that they really break it down for you – and tech support.”

With the system selected, installation began. Lemley said, “We had to work fast. Corbett had already planned out his tour, and we had to have him on the road by a certain date. I didn’t have any trouble with Mitsubishi Electric, so that helped.”

He continued, “After putting this system in and talking with my friends, I will probably be switching to Mitsubishi Electric. As for Corbett, it’s worked out well for him. He tells me all the time that things are working great, and he’s had no issues.”

As Corbett explained, “People are loving it. They’re saying, ‘This is amazing. I had no idea I could think about my house this way – how everything is interacting with each other all the time.’ We also teach people to get hooked on metrics. They’ll see my mini-split which has one of the top SEER ratings out there – 33.1 SEER, which is amazingly high.”

**“As with anything in life, with HVAC, if you’re going to do it, do it right the first time. This is what the Mitsubishi Electric product is all about. They did all the research and designed the product to truly perform.”**

— Corbett Lunsford,  
homeowner, builder,  
HVAC designer

**Project Completed:** April 2016 |

Beyond just learning the number, though, he teaches visitors what a SEER rating is and “how to ask for proof that the SEER rating on the label is what is actually delivered. People are really excited when they realize they can ask for proof.”

Visitors have been equally amazed by the system’s discreet operation. Corbett said, “The Mitsubishi Electric system is perfectly quiet. We always point it out to visitors. We say, ‘Stop writing for a minute. What do you hear?’ They hear nothing. Then we take them outside and show them how the compressor sounds, which is also like nothing. After that, the conversation changes.

That’s when people say, ‘Maybe I should do this to my house.’ Yeah, you should do this to your house. So while I’m not trying to sell Mitsubishi Electric – I’m not a sales rep – the Mitsubishi Electric product represents so much research and is so efficient and elegant.”

The success with the house goes beyond demonstrating performance for visitors to the enjoyment of living there day in, day out. Lunsford said, “My house is a pleasure to live in. The Mitsubishi Electric system has been awesome at conditioning our three rooms. I love that you can have the left/right and up/down vanes set to whatever you want.” He has been especially impressed by how the system – and entire house, really – has stood up to travel. “We designed the system for one location in the country because that’s how you design systems, but we’re in the process of exposing the house to every single climate in the country. So it’s had to deal with a lot more stress than normal houses. Heat waves, cold waves, humidity – and it’s dealt with it really well.”

And while Lunsford said his home would meet most any green certification program, he feels certifications are “just beside the point. I don’t seek performance because of a certification. I seek it because it gives me the life I want.

That’s why people should choose mini-splits, too. Because they will make your life more awesome. Because they’re the best thing to do. Drive a Ferrari because it makes you feel like a rock star, not because your mom told you to.”



## PROJECT TEAM

**Builder, HVAC Designer:**

Building Performance Workshop, Atlanta, Georgia

**HVAC Contractor:**

Uplifting Air, Seffner, Florida

## EQUIPMENT

- ▶ (1) MUZ M-Series Outdoor Unit
- ▶ (1) MSZ Wall-mounted Indoor Unit