


RESIDENTIAL CASE STUDY

# CampPad

 Parkesburg, Pennsylvania



# Hand-built tiny homes with exceptional heat pump technology

Based in Parkesburg, Pennsylvania, Zook Cabins designs and builds custom park model homes for people who prioritize comfort while enjoying minimalist living. Park model homes include both rustic, prefabricated log cabins and sleek, modern tiny houses, each offering customized floor plans utilizing quality materials and skilled Amish workmanship. Zook stands out from its competitors by prioritizing quality and customization for homeowners.

Matt Meshey, lead designer at Zook Cabins, notes, "We work backward from the end goal and design for how our clients are going to use the homes."

Purchasing a custom cabin can be time-consuming, stressful, and expensive for would-be homeowners. Zook works with its manufacturing partner CampPad to give customers a cost-effective and efficient cabin-buying experience.

Using prefabricated construction techniques, Zook manufactures homes in CampPad's Gordonville, Pennsylvania warehouse and ships them to customers. Upon delivery, homeowners can move into their new homes and begin using amenities immediately, including heating and air conditioning systems.

**"Park models are plug and play. They work great if you have land somewhere and want to build a place for quick getaways."**

*- Melissa Meshey, Marketing Director, Zook Cabins*

The Amish custom home builder has delivered more than 500 modular cabins to almost every state since 2006.



## Ahead of the Expected with LG HVAC Solutions



## Project Highlights

Park model homes are usually around 400 square feet and are typically located in remote areas or secluded camp-like settings, such as wooded areas, dry western deserts and northern coastal hillsides. Cozy and efficient, the homes appeal to minimalists seeking to enjoy natural environments without distractions. Whether it's hiking, fishing, hunting, farming or simply breathing in the fresh air, satisfied Zook customers can enjoy their hobbies with the comfort of having a place to retire to at the end of the day.

While Zook's clients like to be close to nature, they still want modern heating and air conditioning in their cabins, according to Matt Meshey. "Early on, our clients expressed how climate control was very important to them," he said.

As their trusted HVAC distributor, Thos. Somerville Company helped Zook and CampPad evaluate heating and cooling products, comparing quality, affordability, availability, limited warranties and serviceability. Together, the partners selected ductless -split systems from LG Electronics for the park model homes.



## Challenges

Designed for efficiency and minimalism, park model homes have no space for traditional ductwork, requiring the heating and cooling equipment to fit into the physical space of each home without distracting from the Zook experience.

Zook also delivers cabins to customers across the country in varied geographies and climates. The heating and cooling equipment would need to provide reliable comfort in different outdoor environments, with support and service readily available nationwide if any issues arise.

“They [LG split systems] don’t take up much space, and they keep the homes comfortable, which is something that’s very important to us. They’re available across the country, and they’re easily serviceable, too. With other brands we explored, it’s difficult to service units across the country, which made it an easy decision to go with LG.”

- Matt Meshey, Lead Designer, Zook Cabins

LG systems solved each challenge. Each system is an all-in-one heating and air-conditioning solution with the option to use ductless or ducted indoor units connected to a compact outdoor heat pump. Matt Meshey said LG’s ductless indoor units fit the cabins perfectly. With quiet operation, the units work with LG’s modern inverter heat pump technology to keep Zook’s customers comfortable in all seasons wherever they live. Also, experience has given Zook confidence in LG’s support and service network, he explained.

“When we put LG equipment into one of these cabins, regardless of where it’s being shipped we know those units will perform.”

- Tim Holmes, Sales & Product Manager, Thos. Somerville Company





## Solution

The project team selected LG's Multi F Inverter Heat Pump Outdoor Units with ductless, wall-mounted indoor units for each cabin. Depending on the cabin footprint, model, location, and outdoor climate, cabins have a 1-1/2-ton or 2-ton multi-port outdoor heat pump. The indoor units are sized at 7,000, 9,000 or 12,000 BTUs, and cabins may have a single-head or dual-head system depending on the homeowner's conditioning needs.

Tim Holmes, Sales & Product Manager at the Thos. Somerville Company, said LG's 98-foot pre-charged line set enabled the team to install the outdoor unit and run pipes to the indoor unit without adding additional refrigerant. This saved time and money compared to options with 49-foot line sets.

Heat pumps operate like two-way air conditioners. In warm outdoor temperatures, heat pumps provide air conditioning by absorbing indoor heat and rejecting the heat outdoors. This is similar to how conventional one-way air conditioners work, but heat pumps also provide heating. In colder outdoor temperatures, the heat pump compression cycle generates heat, and it absorbs heat from the outdoors and transfers it indoors to keep occupants comfortable. "Moving heat is more efficient than burning fossil fuels to generate heat and helps to reduce air pollution," said Holmes.

The heat pumps use inverter motors to vary compressor speeds and heating or cooling capacity based on environmental conditions and occupant comfort needs. Inverter technology enables LG's heat pumps to extract ambient outdoor heat to warm homes at temperatures far lower than conventional heat pumps. Also, by varying heating or cooling capacity to match real-time needs, the LG system conserves energy and provides cost savings by using less electricity.

“One thing that's very important to a lot of our clients is the energy efficiency of these units. They're very inexpensive to operate, which is a benefit to our clients. They have very low electric bills, and the mini splits certainly contribute towards that. They're very efficient in different climates, so it makes it very easy and then also very affordable for our clients.”

- Matt Meshey, Lead Designer, Zook Cabins

The LG mini-split units give homeowners precise internal climate control and comfort in their cabins. Besides the thermostat, each unit has wi-fi capabilities, enabling the owner to set temperatures and operate the system from anywhere using a smartphone application.

# Result

Zook delivers a turnkey option to people who want to build a cabin home at an affordable price without sacrificing quality or comfort. People who may have been priced out in the past now have access to cabin living, enhanced with energy-efficient heat pump technology for quality comfort control.

“The LG brand is a product that we stand behind, and we know our customers will have a really good experience with,” said Melissa Meshey. “They’re going to have a comfortable home that is as warm or cool as they want.”

“LG is one of the best lines of equipment we have brought in within the last 20 years. Their service and support are outstanding, and their equipment is of the highest quality.”



- *Tim Holmes, Sales & Product Manager, Thomas Somerville Company*



## LG HVAC Products:

- LG Multi F Inverter Heat Pump Outdoor Units
- LG Multi F Wall Mounted High-Efficiency Indoor Units

## Project Team:

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The individual(s) or company featured in this case study is a customer sharing their personal experience with LG Air Conditioning Technology products. Their statements are based on their personal opinions and experiences. The case study is intended for informational purposes only.