

ThermAssure Frequently Asked Questions (FAQ)

Q: What types of applications are the ThermAssure being used for?

A: There are customers using the ThermAssure to heat and cool all kinds of interesting spaces including dog houses, tear drop trailers, boat cabins, toll booths, valet booths, parking attendant booths, garden sheds, backyard observatories, high altitude training tents, and many other creative applications. If you are using the product in a new and interesting manner, please tell us about it.

Q: How quiet is the ThermAssure?

A: The product operates at 54 decibels (dB). This sound level is classified as *quiet* by several loudness and noise level charts. By comparison, 50 dB is equivalent to a quiet suburb, a conversation at home, or a private office. 60 dB is equivalent to a normal conversation (3-5 feet), or a sewing machine, or a typewriter.

Q: How large of an area can be effectively temperature controlled by the ThermAssure?

A: We recommend the largest area to be about six cubic feet (6 ft. x 6 ft. x 6 ft.). The maximum area can be greatly affected by several variables including enclosed structure, insulation, voids, construction material, and weather (e.g. exposure to direct sunlight, wind, snow, ice, and drafts), among others.

Q: Is there an area considered too small to be temperature controlled by the ThermAssure?

A: We recommend the smallest area to be about two cubic feet (2 ft. x 2 ft. x 2 ft.). The minimum area is also affected by the same type of variables as the maximum area. The ThermAssure would prove to be too powerful for any space too small.

Q: Other than temperature control, does the ThermAssure also improve air quality?

A: The ThermAssure can secondarily serve as a dehumidifier removing excess moisture from the air. It is capable of lowering humidity levels below 70% thus helping to prevent mold and mildew growth in your enclosure.

The pollen filters in the unit's kit provide active control of airborne particles such as dust, spores, & pollen, and when used with dog houses...pet dander or hair. These filters are washable and are quick and simple to change out.

Q: If I set the temperature of my ThermAssure to a range near room temperature, will the unit's heater automatically kick on if the temperature drops too low and the air conditioner automatically kick on if the temperature rises too high?

A: No. Just as with most home central air systems, the ThermAssure unit needs to be set to either the "heating" mode or the "cooling" mode and does not run both simultaneously. Turning the top operator dial clockwise engages the "cooling" mode and counter-clockwise, the "heating" mode. The first position in either direction is for the Low blower fan speed, and the second position is for the High blower fan speed.

The temperature will be controlled automatically by the thermostat turning the ThermAssure's heater or AC on and off with changes in the ambient temperature. Even when the AC or heater are automatically turned off, the blower fan will continue to operate based on the "high" or "low" speed setting you have selected to maintain a comfortable air flow. This is helpful to keep air circulating in the temperature controlled space, whether or not the air is still being heated or cooled.

Q: I want to use a portable generator to power the ThermAssure. What do I need?

A: The ThermAssure requires extra power to start up and considerably less power once it gets going. The starting power is roughly three (3) times the amount of power needed to run the unit.

As the ThermAssure consumes about 380 Watts for the air conditioner, we recommend at least a 1000 Watt generator for initial power-up. The heater requires about 600 Watts.

Q: I want to power the ThermAssure from a car or boat battery. Do I need an inverter, and if so what kind?

A: The ThermAssure will require an inverter to run off of a car or boat battery, or for that matter, any DC power source. As with using a power generator, the most important thing to understand is what the AC unit will draw from the inverter while the compressor starts up. The starting power is roughly three (3) times the amount of power needed to run the unit.

We recommend at least a 1000 Watt inverter for initial power-up. Once powered up, about 380 Watts are required to maintain air conditioning. The heater requires about 600 Watts.

Q: Will the ThermAssure work with longer hoses?

A: The ThermAssure ships with two hoses with a diameter of 2 3/8" that have a maximum extension of about 22 inches in length (the hose is like one found on a clothes dryer that can compress and extend). We know of customers that have installed longer hoses up to about 4 feet in length with a similar 2 3/8" diameter and the unit still performs well. Be aware that the length and diameter of the hoses will affect airflow to the area to be heated or cooled. The longer the hose and the wider the diameter...the lower the air pressure will be on the receiving end of the hose.

Q: Why does the ThermAssure need “primed” by letting it run for 15 minutes, turning it off for 5 minutes, and then back on for 15 minutes again? Why shouldn’t I turn the unit back on again for 5 minutes after turning it off?

A: The ThermAssure units are fully tested at the factory when built. However, because of transit and possible storage times, the coolant in the system may settle and not fully charge the compressor. By priming the unit as we recommend, it helps distribute the coolant throughout all the seals in the compressor and keep the air conditioner operating at peak efficiency.

The same holds true for priming the ThermAssure when the air conditioner has not been used for an entire season. The ThermAssure should be re-primed to help it perform at maximum efficiency.

Q: Can I install the ThermAssure indoors?

A: Yes. If the ThermAssure is used indoors, you can effectively “spot cool” an area because the system utilizes a “pressure head” that dispels cold air through the air output port (or air hose). What you need to consider is the heat discharge by the air conditioner. The way an air conditioner works is that it transfers heat out of the area to be cooled and discharges it elsewhere, normally outdoors where the ThermAssure unit is most commonly installed.

The ThermAssure will generate more cold air than the warm air it dispels...but it will discharge warm air nonetheless. For indoor “spot cooling” applications, you just need to be okay with how much heat would be discharged inside where the unit is installed.

Q: What kind of temperature range can I expect from my ThermAssure?

A: The answer to this question is highly dependent on the size of the area to be temperature controlled, how well it is insulated, what type of weather it is exposed to, and other such factors. On average though, in normal operating environments, the unit typically performs in the 63 – 90 degrees Fahrenheit range.

Q: I need a system with more heating/cooling capacity than 2500 BTU, and the typical 10,000+ BTU products on the market are way too powerful for my needs. Do you have any suggestions?

A: When applications require more power, you can use multiple ThermAssure units to provide sufficient heating and cooling. A multiple unit configuration also provides greater protection due to redundancy in the event of a single unit failure.

Q: How much does the ThermAssure cost to operate?

A: The unit is very efficient and consumes about the same amount of energy as four standard light bulbs. This is estimated to cost only about \$7 a month to operate.

Q: How long should my ThermAssure last?

A: The unit was designed for outdoor use and is built with a tough NEMA rated R-12 insulated enclosure. With proper care, it should operate for about 10 years under normal usage.

Q: How much does the ThermAssure weigh and how big is it?

A: The unit weighs 42 pounds. It measures 16.3" x 14.5" x 18.5". The small size and weight make it very portable.

Q: Can I recharge the air conditioner in my ThermAssure? What coolant does it use?

A: The unit uses R134a refrigerant. It is a sealed compressor so there is no valve to recharge the unit's air conditioner. Having a sealed unit minimizes losses of refrigerant and helps keep your unit performing longer.

ThermAssure Troubleshooting

Q: My ThermAssure doesn't seem to turn on. Is it broken?

A: Please confirm that you have the ThermAssure plugged in. A standard US household electrical outlet or a power generator capable of producing 110V-115V 60Hz are perfectly suitable sources of power. If you have confirmed that you have power and your ThermAssure still does not work and, then please contact WDO Customer Service.

Q: Why doesn't my ThermAssure generate cold air?

A: The ThermAssure provides 2500 BTU of cooling capacity air conditioner. This will not feel "ice cold" like some more common air conditioners on the market that are typically 10,000 BTUs or greater. The ThermAssure uses a closed-loop system that largely recycles the air, cooling it a little bit more on every cycle. It could take several minutes of operation for the air temperature to change a few degrees.

We recommend that you re-prime your unit per the Instruction Installations to make sure the coolant is fully distributed through the compressor. Run the unit for 30 minutes on the air condition mode (turn upper dial clockwise from the "Off" position). If after continued operation the ThermAssure does not seem to be cooling properly, please contact WDO Customer Service.

Q: My ThermAssure develops some ice build-up when running the air conditioner. Is my unit defective?

A: Maybe not. The unit is designed to recycle air in and out of an enclosed space that is to be temperature controlled. Each time the air is recycled, it is incrementally either cooled or heated based on the operating mode selected by the user.

If the ThermAssure is operating in the open without being hooked up to an enclosed space, or in an area larger than 6 ft. x 6 ft. x 6 ft., the unit's thermostat will never detect a change in air temperature to turn the unit off. Having the unit run non-stop for a long period of time could cause ice build up on the condenser.

To correct, simply turn the unit off until the ice melts. Make sure you have your unit installed properly following the Installation Instructions included with your ThermAssure.

Other possible issues that could cause ice build up include:

- 1) Dirty blower fan blades or a non-functioning blower fan. If the unit is not moving as much air as it should, it will be blowing too little air across the evaporator coil.
- 2) Debris-blocked evaporator coils. When an evaporator coil becomes blocked with debris, the slow down in air flow may cause the coil to become so cold that the normal condensate forming on its surface freezes.

3) Loss of coolant/refrigerant. The ThermAssure is a sealed unit and cannot be recharged. In the event it has lost a significant amount of coolant, frost could build up on the evaporator coil.

If you believe the unit is not working properly, please contact Customer Service.

Q: My ThermAssure is under warranty and isn't working properly. Who do I contact?

A: Please contact your place of purchase to begin the process of filing a product warranty claim. When you purchased your unit, it came with a Product Registration card. If you returned the card, it will assist us in more quickly processing your warranty claim. After the warranty period, please contact WDO Customer Service for service inquiries.

Q: My ThermAssure is out of warranty and isn't working properly. Can I have it serviced?

A: Yes. After the warranty period, please contact WDO Customer Service for service inquiries.

Q: I need replacement parts for my ThermAssure. Are they available and where can I get them?

A: Yes. We can assist you with replacement parts. Some parts are easy to replace and do not require technical expertise. Simply contact your place of purchase or WDO Customer Service.

If you need a primary component like a compressor or condenser, please contact us and we can work with you to determine the best manner to address your needs.

Q: I purchased my product from Hi-Tech Building Systems, LLC and have not been able to reach them for warranty or support. Who do I contact about my warranty or support for my product?

A: Hi-Tech Building Systems went out of business in January 2009. WDO, Inc is not affiliated with Hi-Tech Building Systems, LLC in any manner or assumes any of their liabilities. WDO, Inc. will do its best to support all of Hi-Tech Building Systems' past customers that may need support or services.

Q: How do I reach WDO Customer Service?

A: As appropriate, please first contact your place of purchase.

WDO, Inc.
P.O. Box 522
Williston, VT 05495-0522

WDO, Inc. • P.O. Box 522 • Williston, VT 05495-0522 • service@wdo-inc.com

Phone: (802) 881-9527
Email: service@wdo-inc.com
Website: www.therm-assure.com