Toll Free 1-866-537-8232
info@usheatingsystem.com

U.S. Heating System Inc.

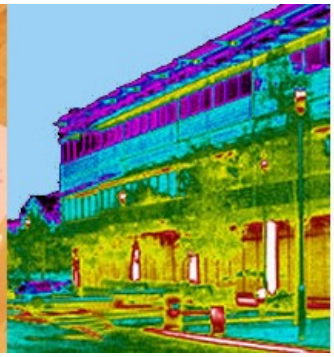
U.S. Solar Heating Division

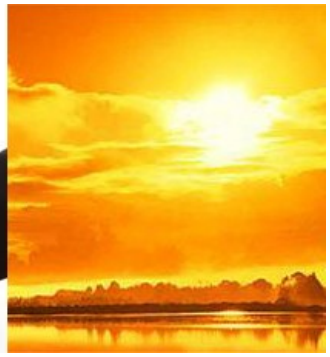
Solar Space Heating

Solar Air Heaters

Add on Adapters

Accessories



U.S. Floor Heating Division

Electric Floor Heating

Snow Melting System

Soil Heating

Accessories

U.S. Infrared Inspection Division

Infrared Thermal Imaging Inspection

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Introduction

Thank you for your interest in representing U.S. Heating System in its mission to bring alternative heating systems to the marketplace. Within this packet, you will find information concerning our products, their uses, options, and more.

About U.S. Heating System (USHS). USHS is a privately owned and operated, United States based manufacturer of alternative heating systems designed for both home and commercial applications, providing radiant floor heating, solar space heating, snow melting, and soil heating products. Additionally, USHS offers Infrared Thermal Imaging Inspection for both commercial and residential buildings.

Here you will find information about the U.S. Solar Heating Division of USHS.

Index

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U.S. Heating System Inc. - Most Popular Products Overview

U.S. Heating System Inc. proudly offers a line of energy efficient heating solutions for both commercial and residential applications. All of our Products fall into our 3 divisions; U.S. Solar Heating Division, U.S. Floor Heating Division, and U.S. Infrared Inspection Division.

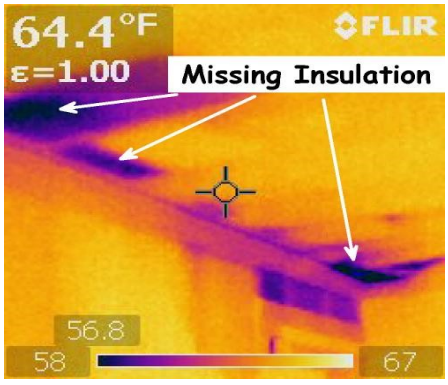
We recommend that you contact a U.S. Heating System Consultant when deciding what heating solutions are best for your needs.

QuickMat – Radiant Floor Heating
U.S. Floor Heating Division
Contact us for more information

DHSH – Solar Air Heater
Information on pg. 21

SH27 – Solar Air Heater
Information on pg. 10

Standalone Solar Power Kits
Information on pg. 8



Thermal Imaging Infrared Inspection
U.S. IR Inspection Division
Contact us for more information

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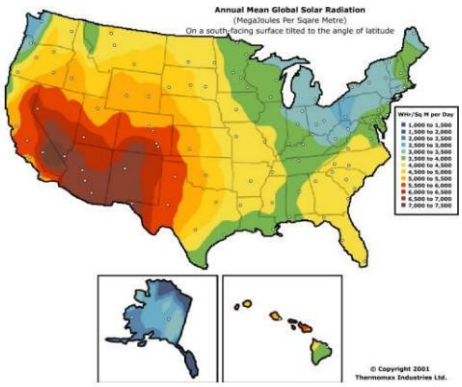
U.S. Solar Heating Division

General Information

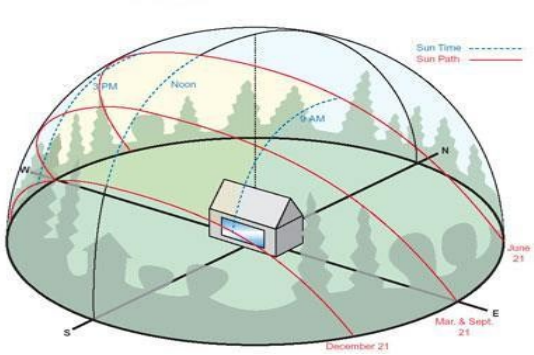


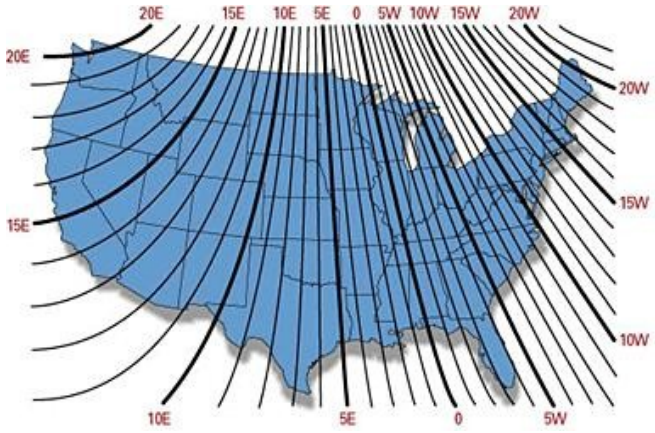
Where in the USA you can install this system?

The system can be installed in most of USA. The customers in the brown area will need to add a summer release valve.

Due to the sun angle in the winter, the panel will heat the air if it is mounted on the wall.

As you can see from the picture, the angle to the sun during the winter is better if you install it on the wall, but it will work fine on the roof.





Where should you mount the panel?

We have all the information needed to help you set the panel in the best place on your house, in order to get the best air heating performance.

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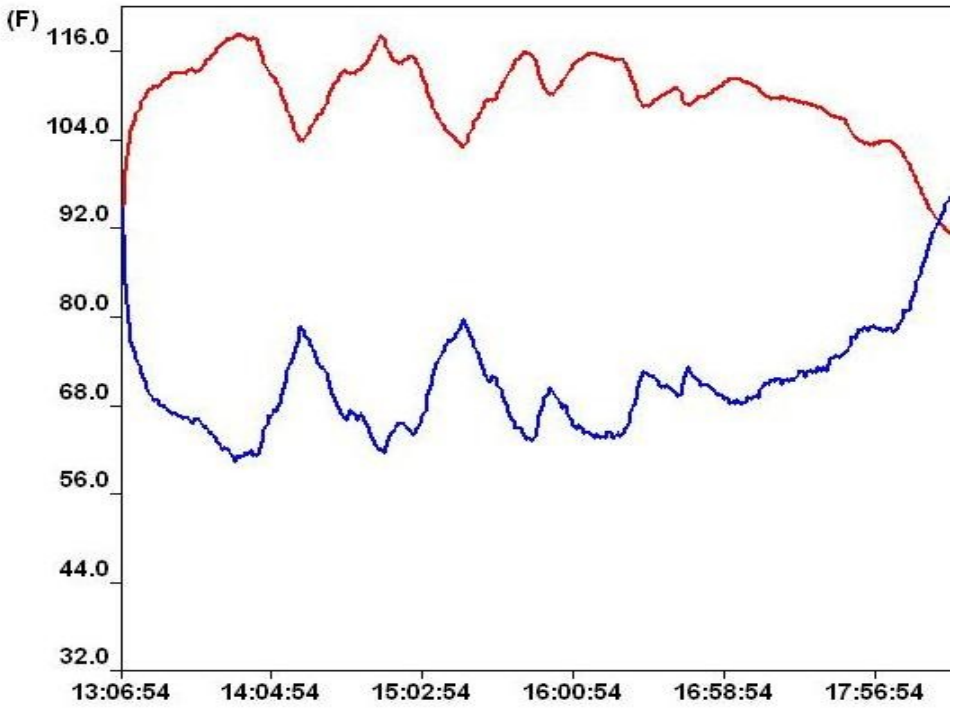
Temperature in Outlet of a Tube (8 ft long) From the Panel

Red line = Temperature in Outlet | Blue line = Humidity



As the temperature rises the humidity decreases. During the day the panel supplied temperatures of 104 – 116 degrees Fahrenheit of free hot air. Based on observations over a 6 hour period as clouds passed through on a otherwise sunny day.

Additional Ways to Transfer the Free Hot Air within a Structure

Transfer to Other Rooms

If you don't want to connect the USSH solar heat panel to your HVAC system, you can transfer the heated air to other rooms in your home by using our AireShare system (an air sharing system installed in the common wall between rooms.

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Steps to Identify and Decide which Solar Air Heating Package is best for your needs:

1)Check the BTU per square feet that is needed in your area

How to do this: Visit our website www.usheatingsystem.com to find your zone and get the BTU.

2)Calculate the size of your house or the area you looking to heat with the solar air heating system.

How to do this: You can look at a blue print of the house or contact your county assessor. Otherwise, use a tape measure to identify the size of the area you want to target. Width multiplied by Length = Square Feet.

3)Calculate the total BTU you need for house or the area

How to do this: Multiply the square feet with BTU that you identified that was needed per square foot for your zone.

4) If your attempting to heat the whole house check the furnace for BTU output.

How to do this: Locate the furnace, on which you will find a sticker that will tell you the BTU output for that particular furnace. If sticker is not found, contact the company who installed the furnace or the manufacturer of the furnace and they will have it on record.

5) Compare BTU needed and furnace BTU output. The results should be within a 10%-20% range of one another.

How to do this: Take BTU need and multiply by Furnace BTU output then divide by 2. Result should be in 10%-20% range at the highest.

If the results are over 20% - Contact Us for a BTU assessment of your home/area.

6)Calculate the amount of BTU you need to maintain the temperature in the house with current furnace.

How to do this: You can check in 30 min increments how long your furnace will need to run to maintain temperature. For example if the furnace runs for 7 min during the 30 min you take 30/7 = 23%.

If your unable to perform this check, an average of 30 % is a standard assumption.

7)Now you can calculate total BTU needed to maintain the house temperature.

How to do this: Take the Average BTU **(**found in Step 5) and multiply by % of furnace running time (found in Step 6.)

8) USSH offer 3 packages of saving for heating the house and 3 packages when you heating only a specific Area.

What are the Packages Savings:

For the heating a House they are a 25% saving, 35% saving, and 50% saving.

For heating a Specific Area they are a 50% saving, 75% saving, and 90% saving.

9) Please contact our consultant experts to select the right package for you and identify the installation location (roof or wall).

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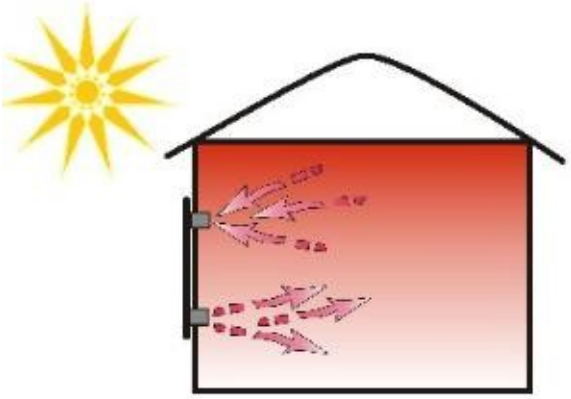
Installation Options

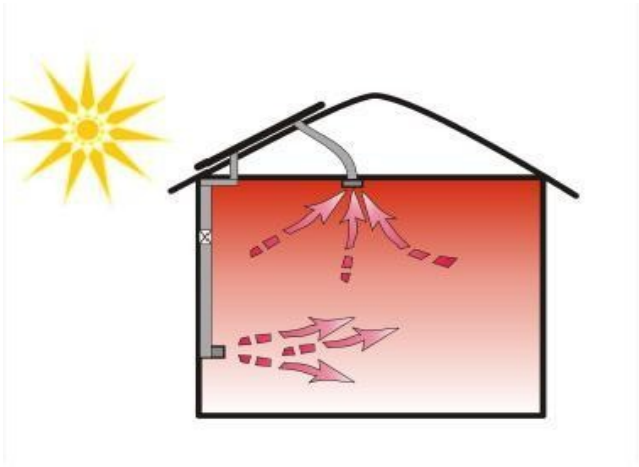
Option A - Wall Mounted

A USSH system has a straightforward installation. To mount the solar heating unit on a wall, you need two 4-inch openings - one for air intake and one for output. The panel then transmits solar energy through the solar heating system, providing warm, comfortable heated air to the room.



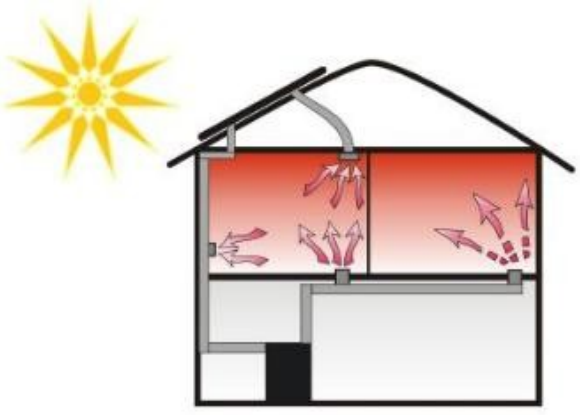
Option B - Roof Mounted

Mounting the solar heat unit on your roof gives you additional flexibility and savings. Roof installation of a USSH system with more than one solar heat panel lets you deliver solar heating to a larger area in your home. The additional solar heat panels also allow you to heat multiple rooms simultaneously, simply by adding the necessary duct work.



Option C - With HVAC

USSH Solar Heat Panels that are installed on the roof/wall can also be connected to your home's duct system in conjunction with your home's main heating system. This reduces the amount of usage time and cost of operation of your existing household furnace, by sending hot air in the return duct system of the HVAC.



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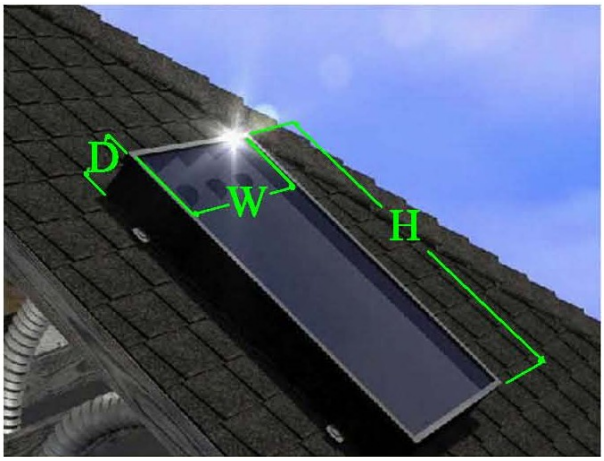
Permanent Custom Made Solar Heating Panels

Permanent Custom Made Solar Heating Panels (PCMSH) can be ordered to your specific sizes, giving you more flexibility in your heating needs.

When you provide the desired measurements of your wall or roof panel (height + width + depth), U.S. Solar Heating engineers will design and construct the panel made specifically for you.

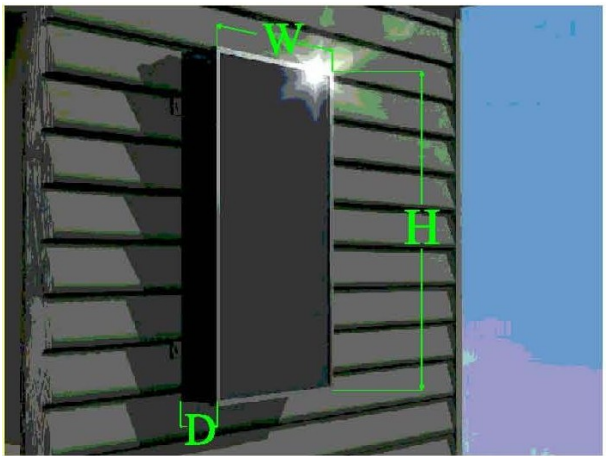
PCMSH for Roof

The unit is designed to be attached to a roof with southern sun exposure. They can be made to fit almost any roof shape.



PCMSH for Wall

The unit is designed to attach to an exterior wall with southern sun exposure. They can be made to fit almost any wall shape.



Toll Free 1-866-537-8232
info@ussolarheating.com

Standalone Power Kit for Permanent Solutions

With our latest update you can use solar power to run the solar air heating panel for our permanent solar solutions.

Using up the latest technology we made the permanent **standalone** units. This means that no power supply is needed to run the fan and the temperature limiter of the solar hot air panel.

The electric solar panel generates electric power to run the solar air heating panel that will transfer the Free Hot Air to your building. All the electric parts are **not integrated** into the solar air heater panel which make USSH's system have a **longer life** while ensuring you will have **no complications** with any of the component parts.

The combination of the easy to install high efficient solar air heating panels with the electric solar power kit make USSH the leader in solar air heating technology .

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Solar Air Heating Panel SH7 - Wall/Roof Mount

US Solar Heating SH7 module is a solar air heating panel system designed to heat the air for free by using the sun's energy.

The SH7 panel is made of high quality aluminum and fiberglass glazing that can hold up to 277° F.

The SH7 has a straightforward installation. To mount the solar heating unit on a wall/roof, you need two 4.5-inch openings - one for air intake and one for output.

Power – a fan is installed inside the building and operates off of our thermostat, which connects to any standard 120V wall outlet.

Tech Data :

Size	**48 x 36 x 5 inch**
Size by sq"ft	**12**
BTU per hour of Sun	**up to 2000**
Help to Heat Package	**25S, 30S, 50S, 75S, 90S**
Flow Rate	**80 cfm**
Weight	**40 lbs +/-**
Color	**Custom Matched**
Power	**120V outlet or Standalone Kit**
Temp	**up to 130º F**
Control	**Thermostat or Standalone Kit**

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Solar Air Heating Panel SH27 - Wall/Roof Mount

US Solar Heating SH27 module is a solar air heating panel system designed to heat the air for free by using the sun's energy

The SH27 panel is made of high quality aluminum and fiberglass glazing that can hold up to 277° F.

The SH27 system has a straightforward installation. To mount the solar heating unit on a wall/roof, you need two 4.5-inch openings - one for air intake and one for output.

Power Options – Option(1) A fan is installed inside the building and operates off of our thermostat, which connects to any standard 120 volt wall outlet. **Option(2)** A fan is installed inside the building and operates off of our Standalone Power Kit, so no power supply is needed to run the panel. Power is instead generated from an electric solar panel, we provide, to run the SH27 Solar Air Heating Panel.

Tech Data :

Maximum Size	**96 x 36 x 5 inch**
Size by sq"ft	**up to 24**
BTU per hour of Sun	**up to 4500**
Help to Heat Package	**25S, 30S, 50S, 75S, 90S**
Flow Rate	**90 cfm**
Weight	**70 lbs +/-**
Color	**Custom Matched**
Power	**120V outlet or Standalone Kit**
Temp	**up to 130º F**
Control	**Thermostat or Standalone Kit**

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Solar Air Heating Panel MSH - Wall/Roof Mount

U.S. Solar Heating MSH module is designed to heat large residential buildings. Delivering free heat through the sun's energy, the MSH panel system will connect several SH27's together to harness the power of solar air heating.

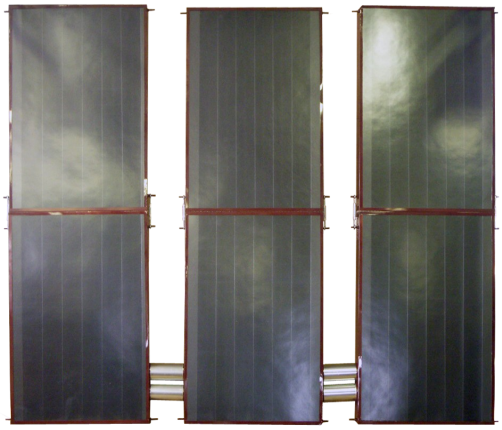
The MSH panel is made of high quality aluminum and fiberglass glazing that can hold up to 277° F.

The MSH system has a straightforward installation. To mount the solar heating unit on a wall/roof, you need two 6-inch openings - one for air intake and one for output

Power Options – Option(1) A fan is installed inside the building and operates off of our thermostat, which connects to any standard 120 volt wall outlet. **Option(2)** A fan is installed inside the building and operates off of our Standalone Power Kit, so no power supply is needed to run the panel. Power is instead generated from an electric solar panel, we provide, to run the MSH Solar Air Heating Panel.

Tech Data :

Size	**Multiply SH27**
Size by sq"ft	**Up to 96 sq"ft per set**
BTU/H	**up to 18000**
Help to Heat Package	**25S, 30S, 50S, 75S, 90S**
Flow Rate	**150-250 cfm**
Weight	**Contact us**
Color	**custom matched**
Mount	**Wall or Roof**
Power	**120 volt outlet or Standalone Kit**
Temp	**up to 130º F**
Control	**Air Thermostat or Standalone Kit**



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Solar Air Heating Panel JSH - Wall/Roof Mount

U.S. Solar Heating JSH module is designed for large commercial buildings. The JSH panel system connects 3 to 8 panels together, allowing a large commercial building to capitalize on solar heating delivered free through the sun's energy.

The JSH panel is made of high quality aluminum and fiberglass glazing that can hold up to 277° F.

The JSH system has a straightforward installation. The system comes in smaller panels that will be connected together on site.

Power Options – Option(1) A fan is installed inside the building and operates off of our thermostat, which connects to any standard 120 or 240 volt wall outlet. **Option(2)** A fan is installed inside the building and operates off of our Standalone Power Kit, so no power supply is needed to run the panel. Power is instead generated from an electric solar panel, we provide, to run the JSH Solar Air Heating Panel.

Tech Data For 1 Panel :

Size of	**Custom**
Size by sq"ft	**Custom**
BTU/h	**Up to 150 per sq"ft**
Help to Heat Package	**25S, 30S, 50S, 75S, 90S**
Flow Rate	**70-250 cfm**
Weight	**custom**
Color	**custom matched**
Front Protraction	**option**
Power	**120, 240 volt outlet or Standalone Kit**
Temp	**up to 130º F**
Control	**Thermostat or Standalone Kit**

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Solar Air Heating Panel HDSH - Wall/Roof Mount

U.S. Solar Heating HDSH module is constructed with a Heavy Duty protection for the solar air heating system. This system protects the clear-front surface from any rough activity the panel may inadvertently encounter in a public area.

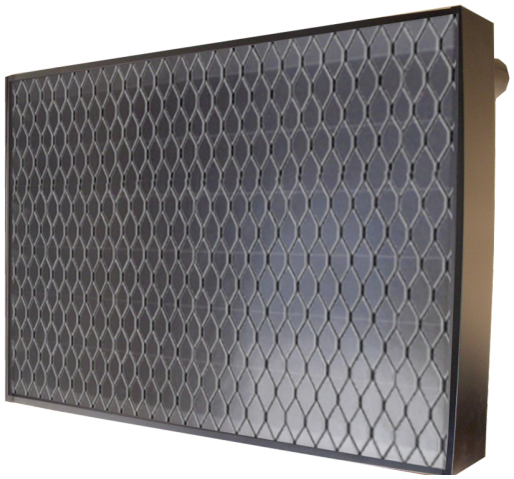
The HDSH panel is made of high quality aluminum and fiberglass glazing that can hold up to 277° F.

The HDSH system has straightforward installation. To mount the solar heating unit on a wall/roof, you need two 4.5-inch openings - one for air intake and one for output.

Power Options – Option(1) A fan is installed inside the building and operates off of our thermostat, which connects to any standard 120 or 240 volt wall outlet. **Option(2)** A fan is installed inside the building and operates off of our Standalone Power Kit, so no power supply is needed to run the panel. Power is instead generated from an electric solar panel, we provide, to run the HDSH Solar Air Heating Panel.

Tech Data :

Size	**48 x 36 x 5 inch**
Size by sq"ft	**12**
BTU	**up to 2000**
Help to Heat Package	**25S, 30S, 50S, 75S, 90S**
Flow Rate	**80- 90 cfm**
Weight	**55 pound**
Color	**custom matched**
Front Protection	**Expanded Metal**
Power	**120 or 240 volt outlet or Standalone Kit**
Temp	**up to 130º F**
Control	**Thermostat or Standalone Kit**



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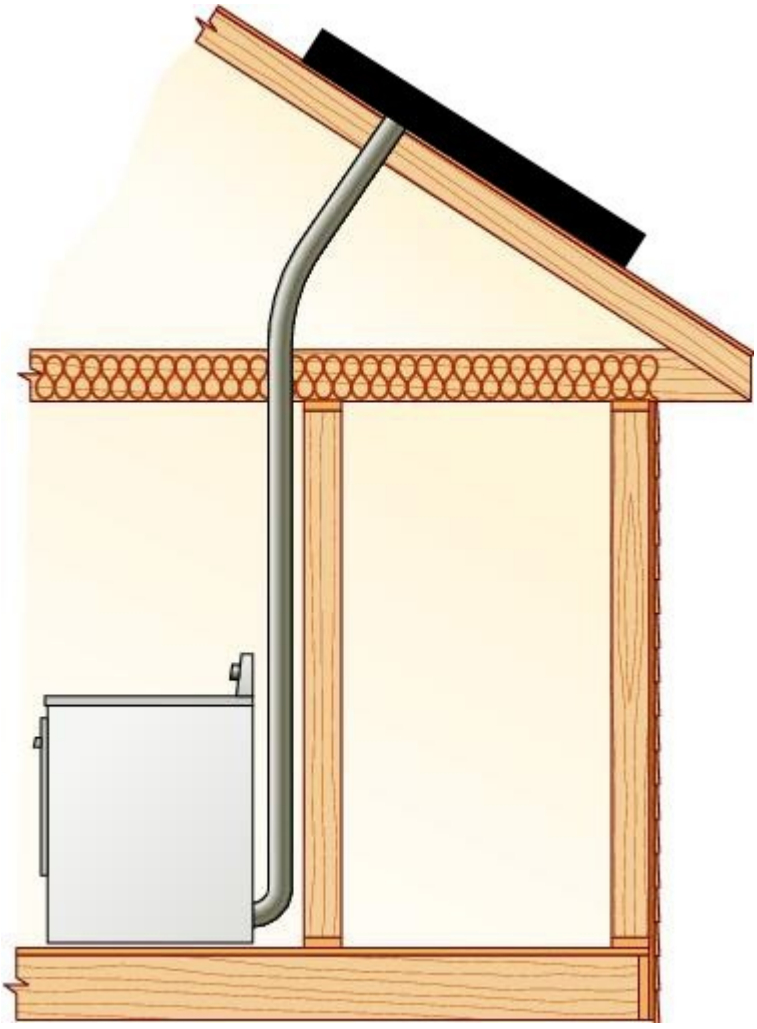
Solar Air Heating - Dryer Adapter

Heated air that is collected from solar heating panels can be used to run the dryer as well. The collected air is run into your dryer, causing your dryer's thermostat to shut off its heating element. This will save you money, since the heating element will now operate only when the sun is not heating the panel.

It's yet another way that USSH solar heat panels can save you money!



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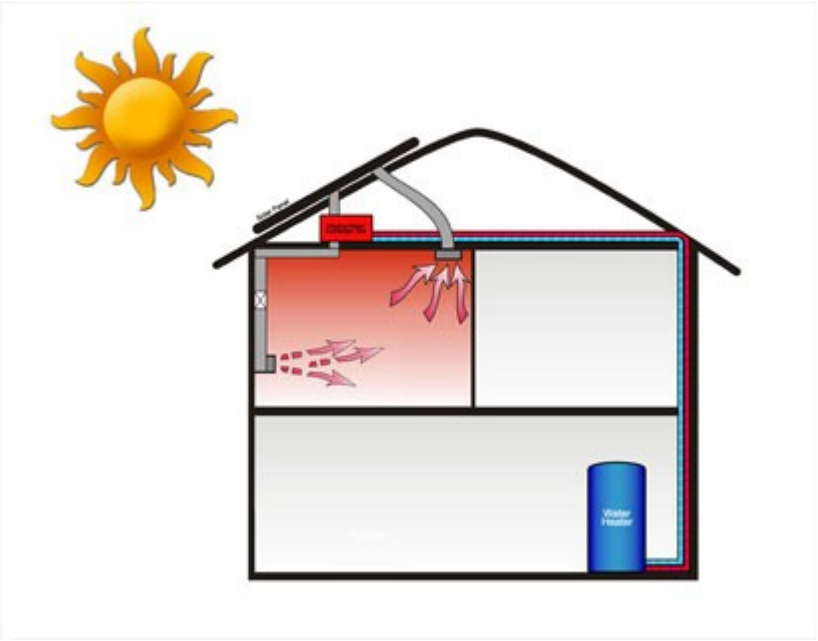
Solar Air Heating - Water Adapter

In order to utilize your system year round, we have developed the USSH Hot Water Adapter, allowing you to reduce costs using the free hot air from the panel to heat the water.

The adapter and solar heat panels are installed in line with your home's hot water tank, where the panels pass the heated air through an air-to-water heat transfer coil.

This supplements your water tank's heating system, providing a reduction in your utility costs, especially in the winter and summer months.



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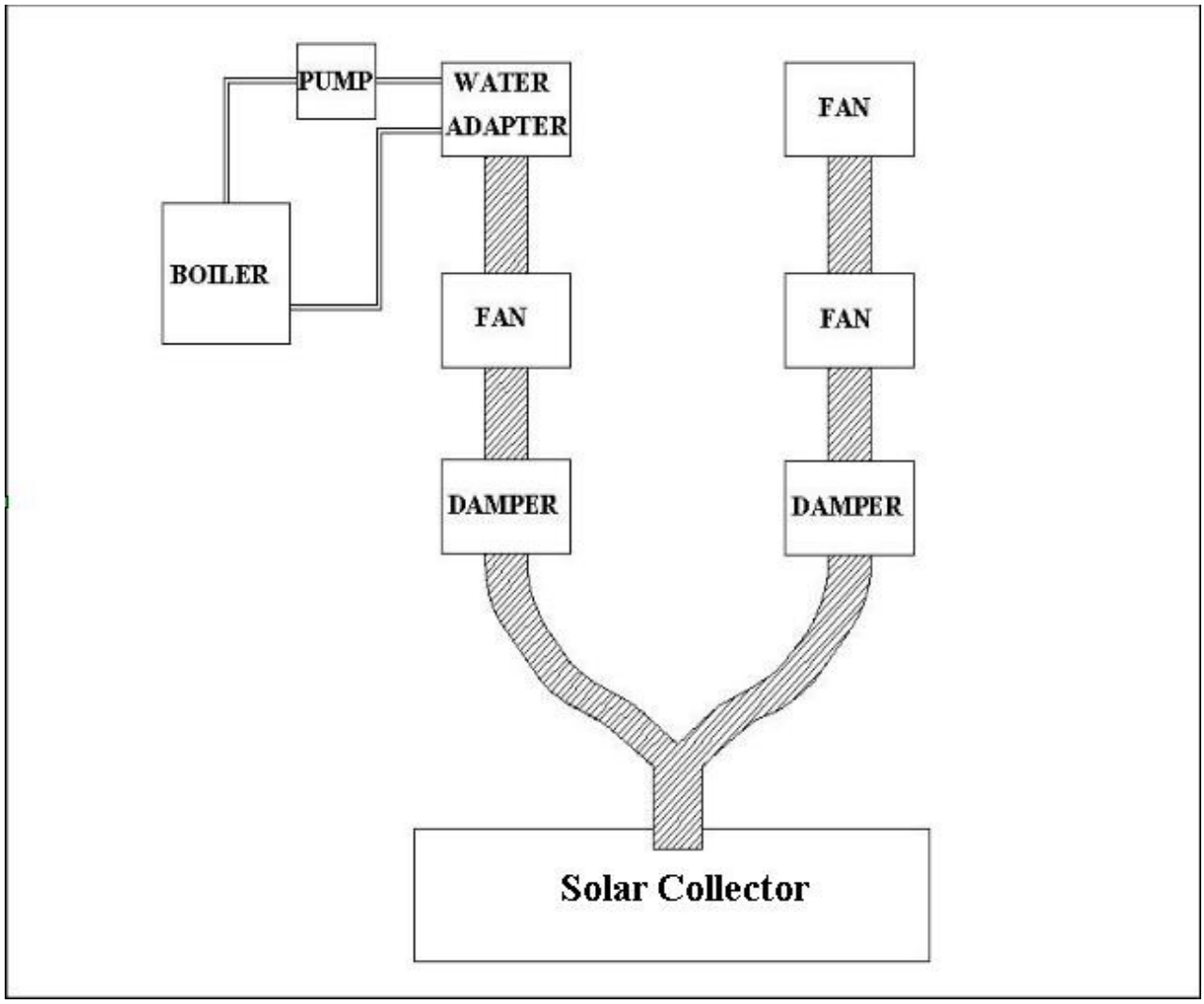
Solar Air And Water Heating Connection Diagram



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Solar Air Heating Accessories

Plug in Thermostat:

Programmable Controller:

Wall /Roof Install Accessories:

The Solar Air Heat Panel Inlet:

Duct System Fan:

Wall Outlet Fan:

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Programmable Thermostat Controller

The programmable thermostat controls every function of the solar air heating system. The thermostat can be set to heat the room to different temperatures for every day of the week.

· Operation volt 12 v / 120 v
· Combination of 3 models (Air / Air & panel /panel)
· User friendly buttons with function tips
· 7 day programmable (all days can be different)
· 4 comfort levels throughout the day
· Manual / Auto mode selection
· Celsius / Fahrenheit temperature mode selection
· 12/24 Hour clock system selection
· Economy/Comfort/ Vacation temperature selection
· panel temperature sensor
· Suitable for solar air heating
· Memory backup
· Override facility
· Remote control optional
· PC communication optional
· Built-in air sensor
· Operating RH: 0~95% (non condensing)
· Size: 117 x 117 x 21mm
· Display Size: 91 x 31mm
· Temperature Sensor(s): 10K NTC
· Accuracy: +/- 1 deg C @ 25 C. (77F)
· Display resolution: 0.5 deg C (1F).
· Battery type: CR 1220 (Backs up clock only)
· Battery life: > 5years (10 years Maximum)

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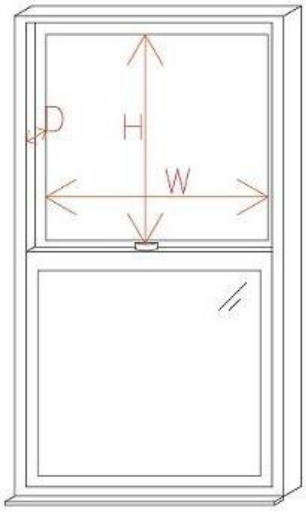
Custom Made Panels for Portable Solutions

Custom Made Panels (CMSH) can be ordered to your specific sizes, giving you more flexibility in your heating needs.

When you provide the measurements of your window space (height + width + depth), U.S. Solar Heating engineers will design and construct the panel made specifically for you.

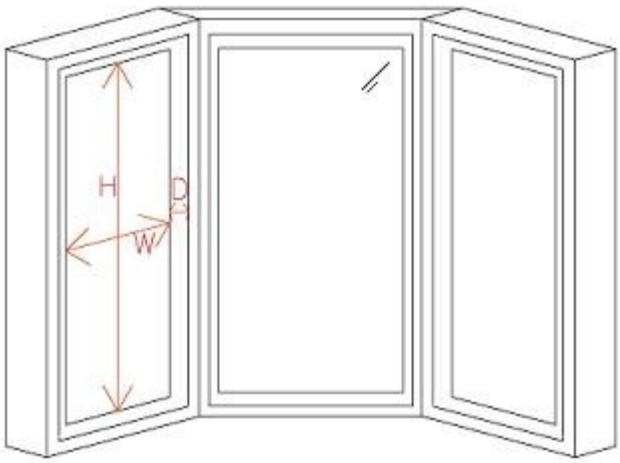
CMSH for Windows (Awning, Casement, Double Hung, Picture)

The unit is designed to fit within the window frame, above the sliding glass. They can be made to fit almost any window application.



CMSH for Bay Windows

The unit is designed to fit within the window frame itself, and is hung using hooks above the frame. The recommended minimum length is 24', but the homeowner can decide to use the entire length of the frame, if they desire.



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Standalone Power Kit for Portable Solutions

With our latest update you can use solar power to run the solar air heating panel for our portable solar solutions.

Using up the latest technology we made the portable **standalone** units. This means that no power supply is needed to run the fan and the temperature limiter of the solar hot air panel.

The electric solar panel generates electric power to run the solar air heating panel that will transfer the Free Hot Air to your building. All the electric parts are **not integrated** into the solar air heater panel which make USSH's system have a **longer life** while ensuring you will have **no complications** with any of the component parts.

The combination of the easy to install high efficient solar air heating panels with the electric solar power kit make USSH the leader in solar air heating technology.

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info@ussolarheating.com

Double Hung Window Solar Air Heater

US Solar Heating DHSS model is a solar air heating panel unit designed to heat the air for free by using the sun's energy.

The DHSH panel is made of high quality aluminum and polycarbonate / clear fiberglass that can hold up to 277° F

The DHSH is placed against a window with a southern exposure. The panel has a built in digital thermometer which allows you to see the temperature of the air that the heater is blowing out.

Power – the fan in the panel operates on an exterior 120V to 12V in-line adapter, plugged into the nearest standard electric outlet.

Tech Data :

Flow Rate	**70 cfm**
Weight	**10 pound**
Color	**varies**
Power	**12 V**
Temp	**up to 130º F**
Temp Display	**digital thermometer**
Control	**on/off switch**
Temp Controller	**optional**

Sizes :

27 x 18	32 x 18
27 x 20	32 x 20
27 x 22	32 x 22
27 x 24	32 x 24
27 x 26	32 x 26

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Indoor Solar Window Heater

US Solar Heating IDSH model is a solar air heating panel unit designed to heat the air for free by using the sun's energy**.**

The IDSH panel is made of high quality aluminum and polycarbonate / clear fiberglass that can hold up to 277° F

The IDSH is placed against a window with a southern exposure. The panel has a built in digital thermometer which allows you to see the temperature of the air that the heater is blowing out.

Power – the fan in the panel operates on an exterior 120V to 12V in-line adapter, plugged into the nearest standard electric outlet.

Tech Data :

Size	**42 x 24 x 4 inch**
Size by sqft	**7**
BTU	**up to 1000**
Help to Heat	**up to 150 sq/ft**
Flow Rate	**70 cfm**
Weight	**20 pound**
Color	**varies**
Power	**12 V**
Temp	**up to 130º F**
Control	**on/off switch**
Temp Display	**digital thermometer**
Temp Controller	**optional**

U.S.Solar Heating
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Solar Air Heater - Mini-Panel

US Solar Heating Mini-Panel is a miniature version of the **IDSH,** designed to introduce the power of solar heating to the customer.

The Mini-Panel is made of high quality aluminum and polycarbonate / clear fiberglass that can hold up to 277° F.

The Mini-Panel is placed against a window with a southern exposure. The panel has a built in digital thermometer which allows you to see the temperature of the air that the heater is blowing out.

Power – the fan in the panel operates on an exterior 120V to 12V in-line adapter, plugged into the nearest standard electric outlet.

Tech Data :

Size	**24 x 18 x 5 inch**
Size by Sq'ft	**3.2**
BTU	**---------**
Help to Heat	**---------**
Flow Rate	**70 cfm**
Weight	**10 pound**
Color	**varies**
Power	**12 V**
Temp	**up to 130º F**
Temp Display	**digital thermometer**

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Solar Air Heating - Portable Solar Heater

The Portable Solar Heater (PSH) is a unit designed for green energy on the go. The system is easily transportable from one location to another.

The PSH is perfect for RV's, campers, boats, tents – anywhere you want to go.

The PSH has two versions: the PSH, which uses standard electricity (120v to 12v), and the PSH-PV, which has a photo-voltaic panel option, giving you a completely solar option for your transportable heating needs.

Tech Data:

Size	**20 x 39 x 5 inch**
BTU	**1000**
Flow Rate	**70 CFM**
Color	**varies**
Weight	**20 lbs**
Power	**12v or solar powered**
Temp	**up to 130 F**
Control	**on/off switch**
Temp Controller	**optional**

PSH

PSH-PV

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Outdoor Solar Window Heater

US Solar Heating ODSH module is a solar air heating panel unit designed to heat the air for free by using the sun's energy**.**

The ODSH panel is made of high quality aluminum and polycarbonate / clear fiberglass that can hold up to 277° F.

The ODSH simply hangs on the outdoor wall of a window with a southern exposure. The panel has a built in digital thermometer which allows you to see the temperature of the air that the heater is blowing out.

Power – the fan in the panel operates on an exterior 120V to 12V in-line adapter, plugged into the nearest standard electric outlet.

Tech Data :

Size	**42 x 24 x 18 inch**
Wall thickness	**Min - 8" Max -15"**
BTU	**up to 1000**
Help to Heat	**up to 150 sq/ft**
Flow Rate	**70 cfm**
Weight	**30 pound**
Color	**varies**
Power	**12 V**
Temp	**up to 130º F**
Control	**on/off switch**
Temp Display	**digital thermometer**
Temp Controller	**optional**

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