



# SH7 & SH27 Installation Manual

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\*Template located in the back of the panel. Please remove carefully without breaking it\*

## PREPARATION

The following tools will be required for the installation:

- \*Safety glasses
- \*Steel toe work boots or safety shoes
- \*Ear protection (recommended)
- \*Power drill (cordless or powered with extension cord)
- \*5/16" socket (for driving the screws)
- \*41/4" hole saw or reciprocating saw (for duct holes)
- \*Drill bit (for pilot holes for wall/roof and aluminum mount)
- \*Measuring tape (for locating solar panel and finding the length of the duct when applicable)
- \*Level (for leveling the lower mount)
- \*Insulated 4" duct (R12 rated) and 18" long zip ties (for running through attics when applicable)
- \*Caulking gun and sealant (UV/outdoor grade polyurethane or silicon)(for sealing the control wire, duct holes, collars, foam {if applicable roof penetrations)
- \*Screwdriver or driver bits for drill (for screwing the grill and wall mount screws)
- \*Tin snips or duct cutting shear (for cutting the duct when applicable)
- \*Marker or industrial pencil (for marking the duct when applicable)
- \*Step ladder (for accessing upper most portion of the collector and upper mount when applicable)
- \*Roof jacks, at least ~6" wide planks for the jacks, and approved fall protection equipment (for working on a sloped roof)
- \*Wire strippers (for stripping ends of control wire)
- \*Utility knife (for cutting control wire sheathing and shingles (when applicable)
- \*Drywall screws (for digital temperature control)
- \*Stud finder (for locating obstructions in the wall (usually not useful on a shingled roof)
- \*The sensor need only if you install the thermostat type SHT 2000



## OUTSIDE DIRECTIONS

- 1) On the outside of the building, mark the general area where you would like to install the panel.
- 2) Take special precautions. Make sure:
  - No electric wire or pipes are in the marked area from inside and outside
  - No water pipes are in the marked area from inside and outside
  - There is a power outlet available within in the area fan location
  - The locations of all joists (wall studs) are clearly marked
- 3) Use the upper and lower panel templates to mark the locations of the two 4 1/4" inch inlet and outlet holes, and the eight screws for the mounting brackets (four on each side). Pay special attention to all marking arrows on the template, making sure to mark the appropriate points.
- 4) Repeat step 3 for the inside of the building.
- 5) Drill the 4 1/4" inch holes for the inlet and outlet ports.
- 6) Drill the holes for the mounting brackets 1' inch away from the marked location.
- 7) Screw in place the eight mounting brackets to the wall.
- 8) Measure the wall thickness.
- 9) Cut the inlet and outlet pipes on the panel so that the length of each pipe will be 20% of the wall's thickness if necessary .
- 10) lower panel ( the panel with out the sensor) :
  - 10-1) Hold the panel 1.5" inches away from the wall and put caulk around the inlet and outlet pipe to seal it from water. Push the panel into the wall.
  - 10-2) Place the panel up to 0.5" inches away from the wall.
  - 10-3) Slide one washer on each stud coming from the panel.
  - 10-4) Connect the stud to the mounting bracket, placing one washer and one nut at the end.
  - 10-5) Tighten the nuts, securing the panel.
- 11) upper panel (the panel with he sensor) :
  - 11-1) Place the upper panel on the lower panel .
  - 11-2) Hold the panel 1.5" inches away from the wall and put caulk around the inlet and outlet pipe to seal it from water. Push the panel into the wall.
  - 11-3) Place the panel up to 0.5" inches away from the wall.
  - 11-4) Slide one washer on each stud coming from the panel.
  - 11-5) Connect the stud to the mounting bracket, placing one washer and one nut at the end.
  - 11-6) Tighten the nuts, securing the panel.
- 12) place one turn buckle on each side (see drawing 1) of the panel
- 13) Connect the stud to the turn buckle, placing one washer and one nut at the end
- 14) tighten the turn buckle carefully, make sure not to over tighten it .

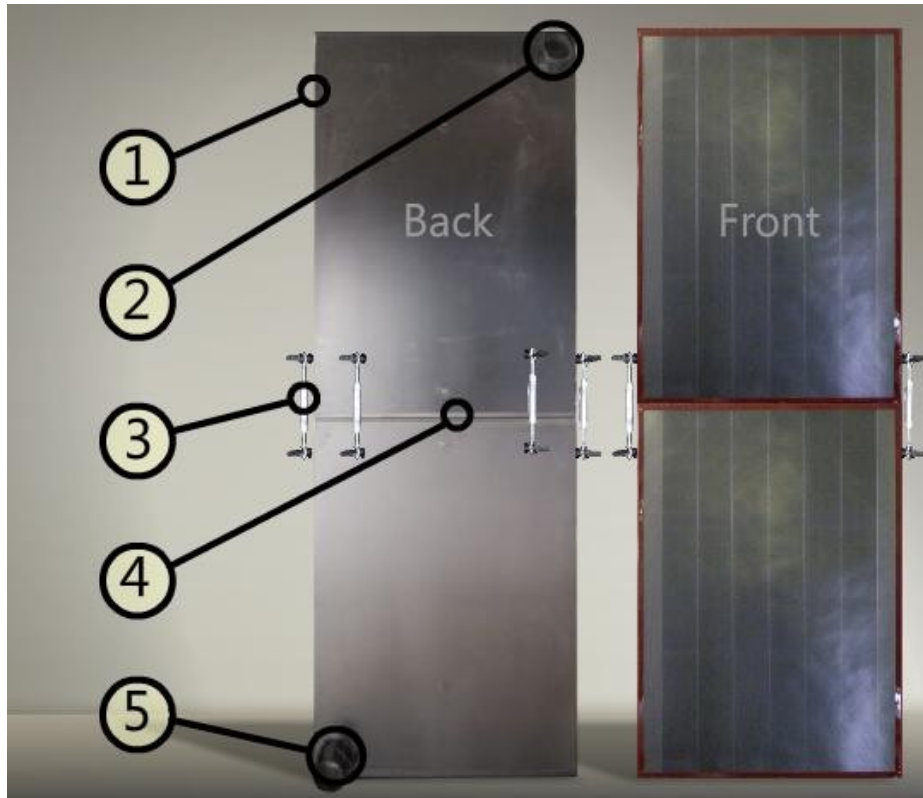


## INSIDE DIRECTIONS

- 1) Seal the inlet and outlet from inside by using foam
- 2) follow fan and thermostat instruction
- 3) Place the pipe adapter in the inlet pipe (upper hole).
- 4) Place the inlet panel on the adapter. Screw it in place according to the instructions.
- 6) operate the fan and thermostat according to the instructions provided.

## PAINT FROM OUTSIDE

- 1) In the small bottle there is paint for the four mounting brackets, paint the brackets using the brush in the bottle



- 1) Stud for the mounting bracket.
- 2) Inlet.
- 3) Turn Buckle.
- 4) Seal between upper and lower panel.
- 5) Outlet.

If you have any questions, please call U.S. Solar Heating  
1-866-537-8232  
(Monday-Friday 9-5 CST).