



SOLARSHEAT MULTI-ROOM HEATING SYSTEM Installation Manual

By
Your Solar Home, Inc.

Version 2.2
May 20, 2008

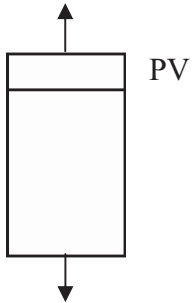
*All building, plumbing, electrical and safety codes supersede the instructions in this manual.
The manufacturer assumes no liability for improper installation. Use this manual at your own risk.*

1.0 Introduction

The SolarSheat Multi-room heating system uses multiple SolarSheat solar collectors to provide an economical and environmentally friendly way to heat multiple rooms in a home. This manual offers an overview of the configurations that are available and pertains to multiple SolarSheat installations. Refer to the specific Your Solar Home installation manual for detailed instructions on installing the SolarSheat solar collector model that is to be used.

1.1 Installation orientation

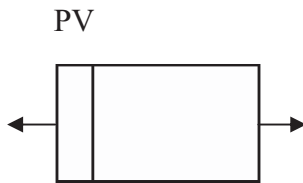
The SolarSheat Multi-room heating system can be wall mounted or roof mounted. The collector panels can be mounted to the building wall or roof in "Portrait" style or "Landscape" style orientations as shown below:



"Portrait" style
PV on top if using
DC powered
installation



"Portrait" style MRHS installation
Roof mount



"Landscape" style
PV on left or right
side if using
DC powered
installation



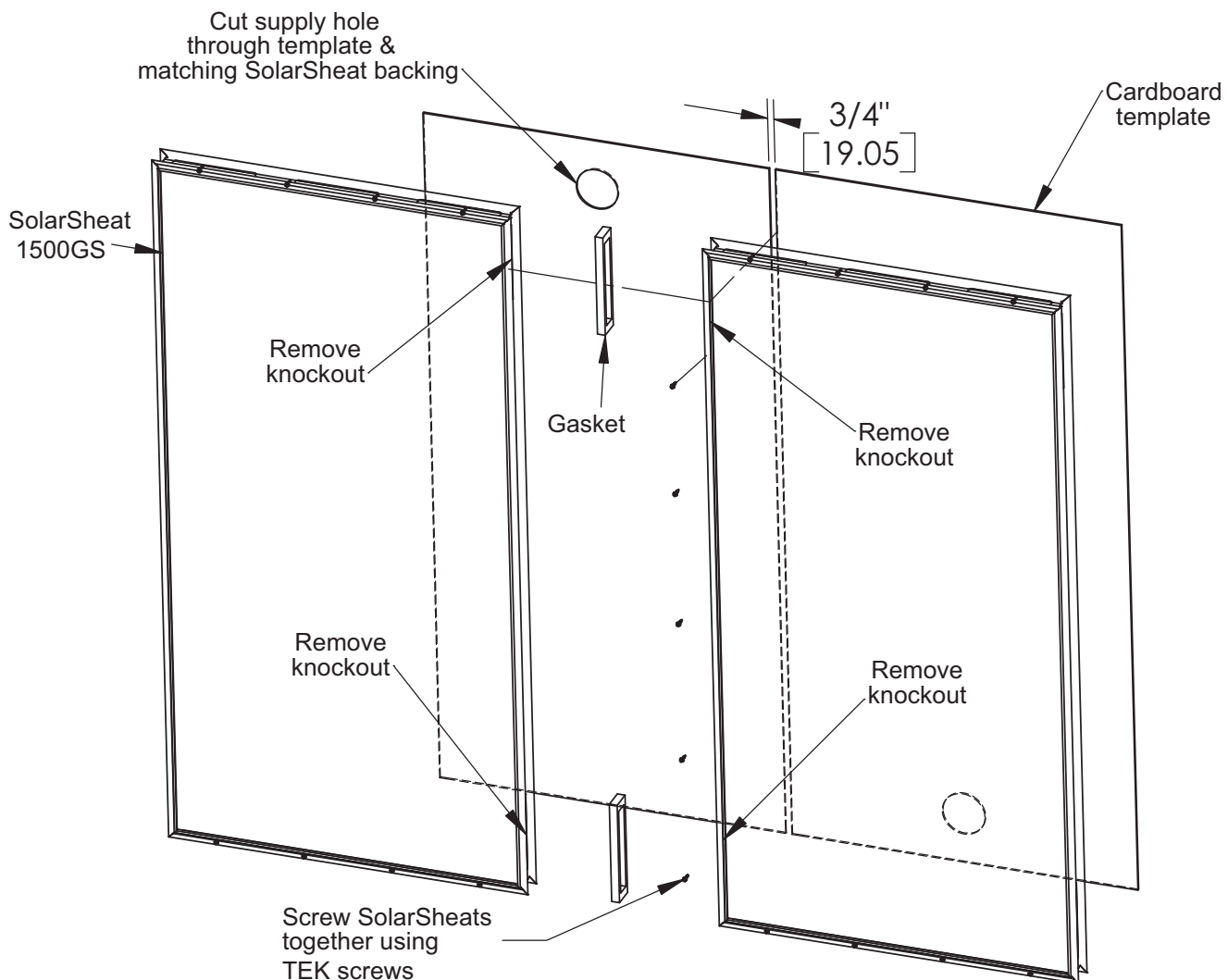
"Landscape" style MRHS installation
Wall mount

2.0 General installation

Prior to installation read the installation instructions completely to insure the required tools and supplies are on hand. Insure that there is enough space for the multi-room configuration that you have chosen. Refer to Section 2.3 for dimensions.

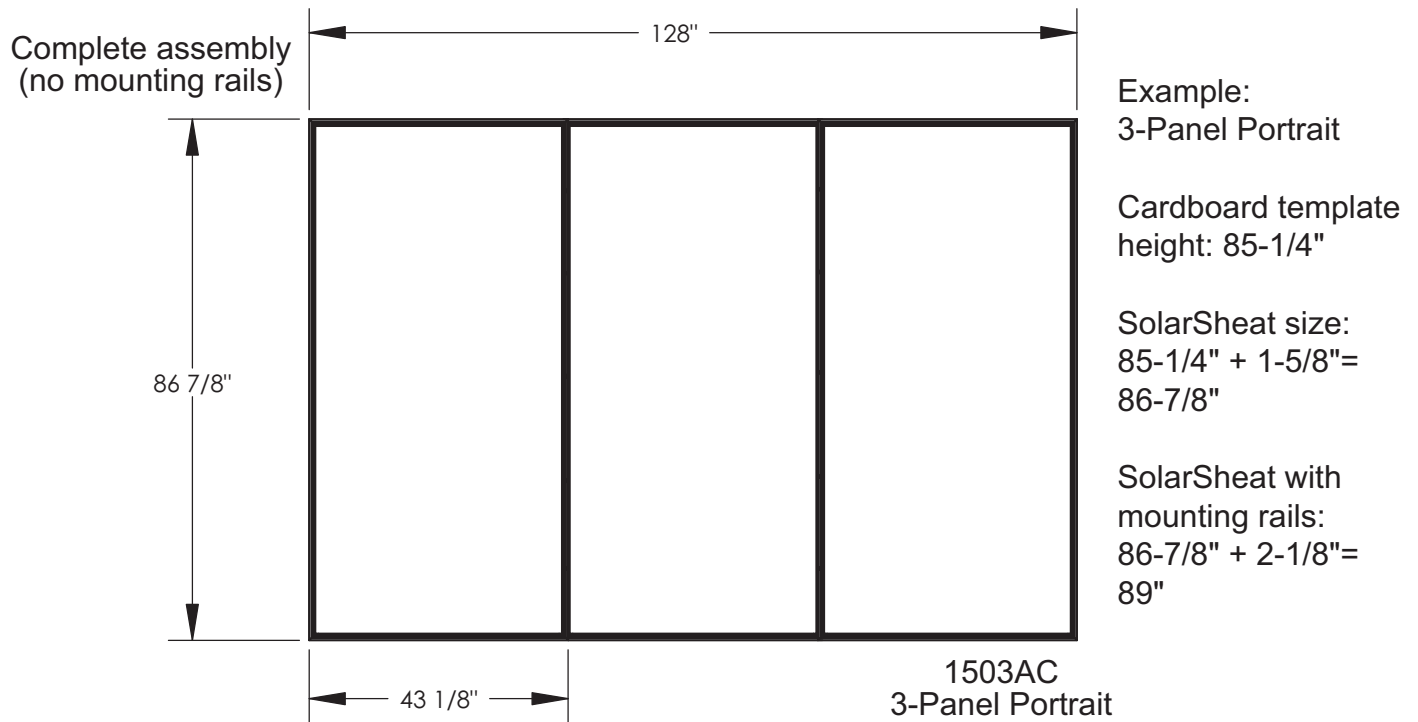
2.1 SolarSheat Multi-room layout (2 collector-vertical orientation shown)

The SolarSheat Multi-room heating system comes with multiple SolarSheat collectors depending on the number of rooms that require heat. Typically the collectors are connected internally in pairs to take advantage of the increased heat capacity of two collectors. This is accomplished by removing knockouts in the sides or ends of the SolarSheat panels (depending on orientation). For heating systems with 3 or more collectors the hot air and return air ducts of the collectors are connected together using a manifold on the interior of the building. This manifold provides an even heat source for the rooms that are to be heated.

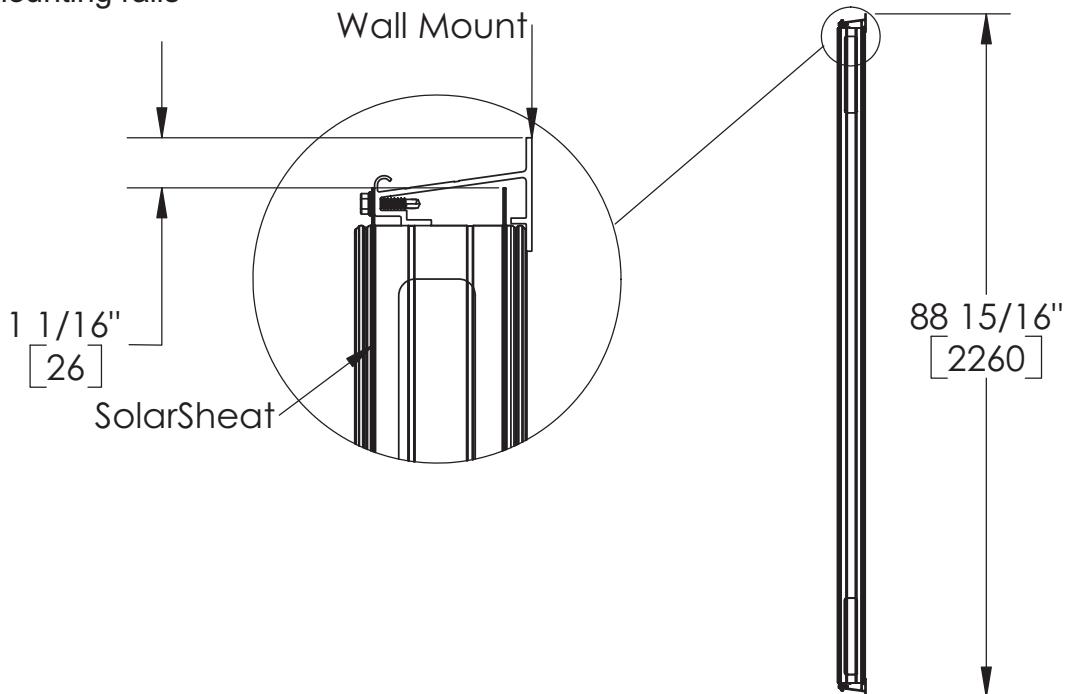


2.2 SolarSheat Multi-room dimensions

The dimensional layouts for Multi-room heating systems #1502 to 1508 are shown on in Section 2.3 on the following pages. Dimensions are based on the cardboard box template that is provided with your SolarSheat product. The cardboard templates should be spaced with a 3/4" gap between templates to guarantee accurate measurements. For overall dimensions add an additional 1-5/8" to the width and height of the system. Also note that the mounting brackets will add an additional 1-1/16" (2-1/8" overall) to the height of the system.

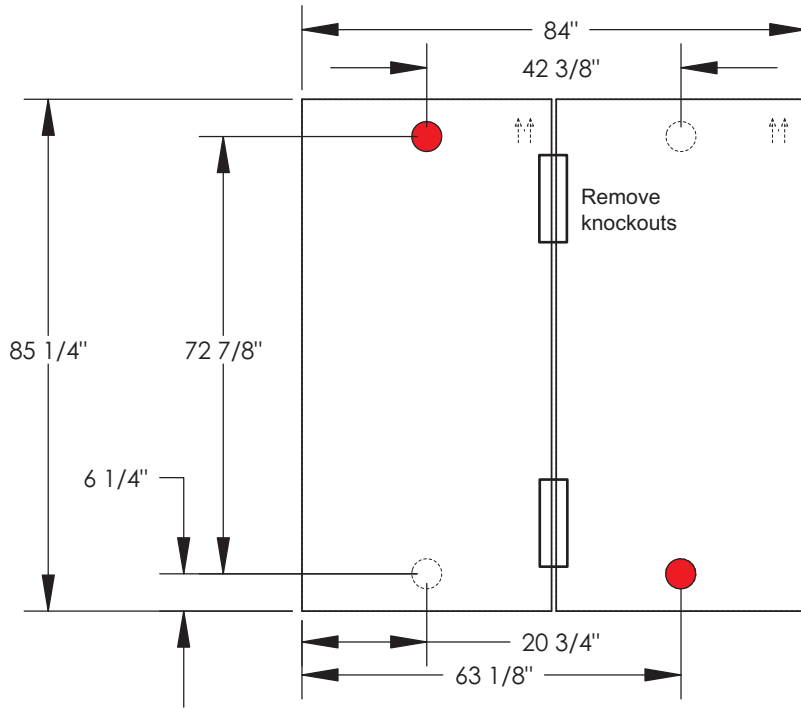


Complete assembly with mounting rails

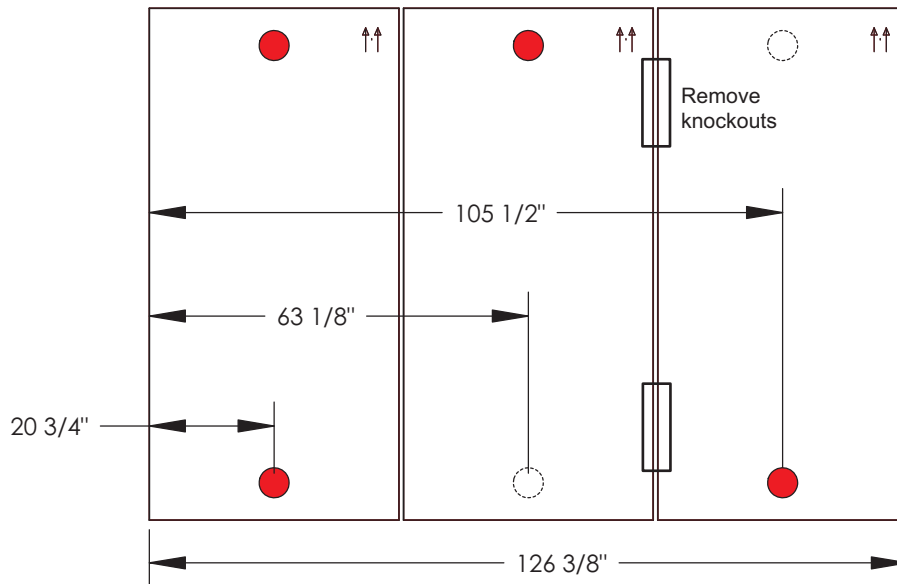


2.3 Template dimensions

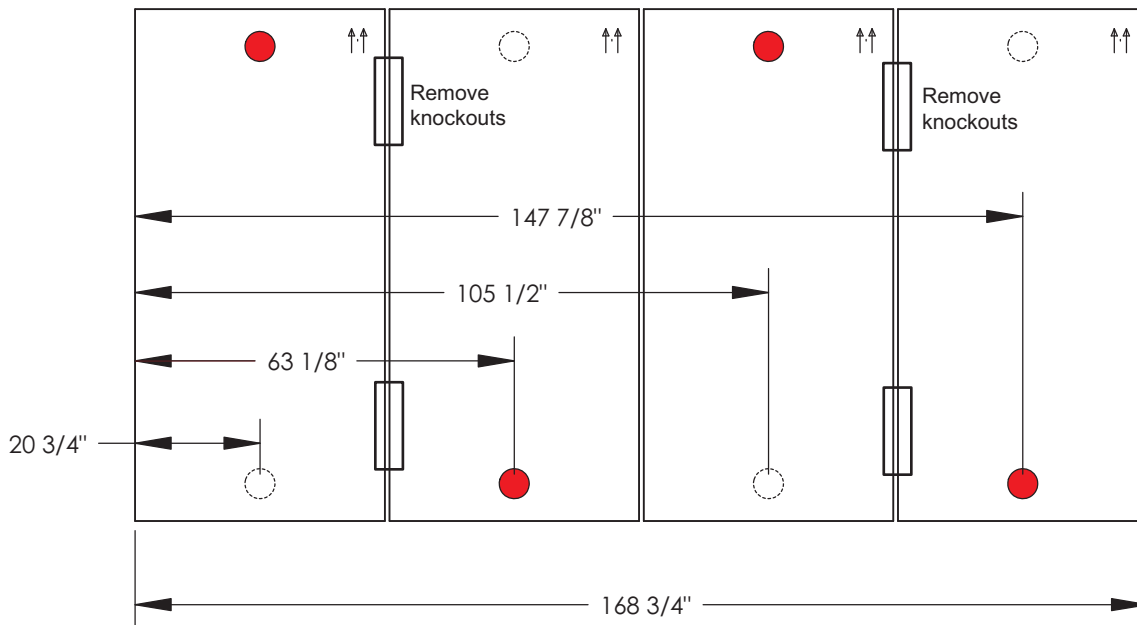
Use dimensions as a guide. It is recommended to install each SolarSheat collector in the heating system and then recheck measurements to insure a proper installation. Cut hole in SolarSheat backing and wall as indicated by duct locations indicated in red. Remove knockouts between SolarSheat pairs as indicated.



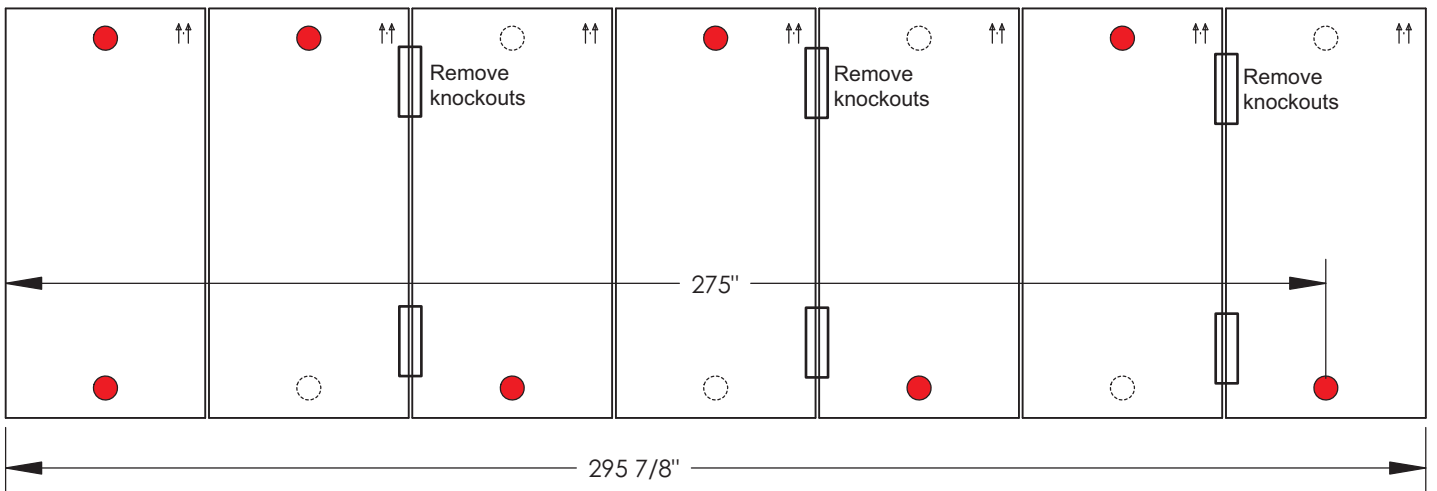
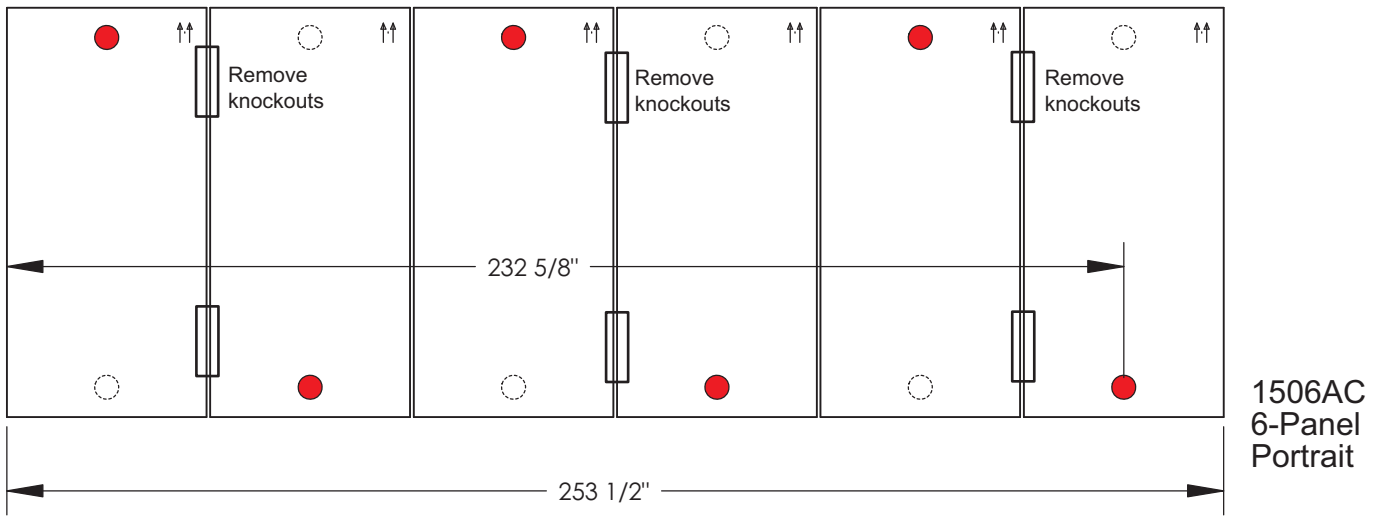
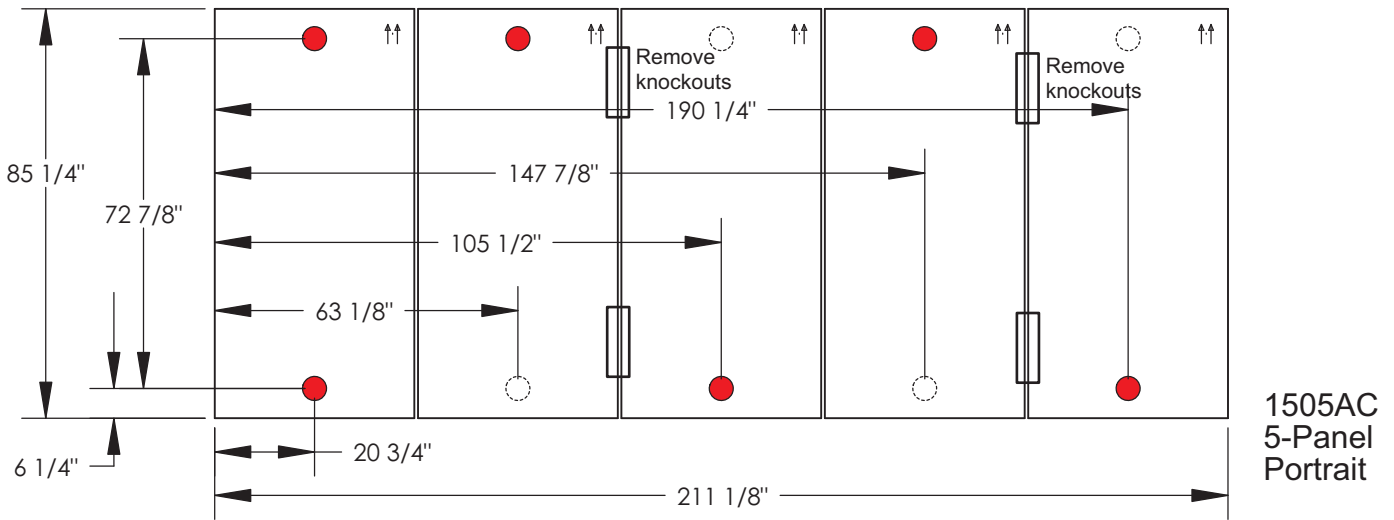
1502AC & 1502DC
2-Panel Portrait

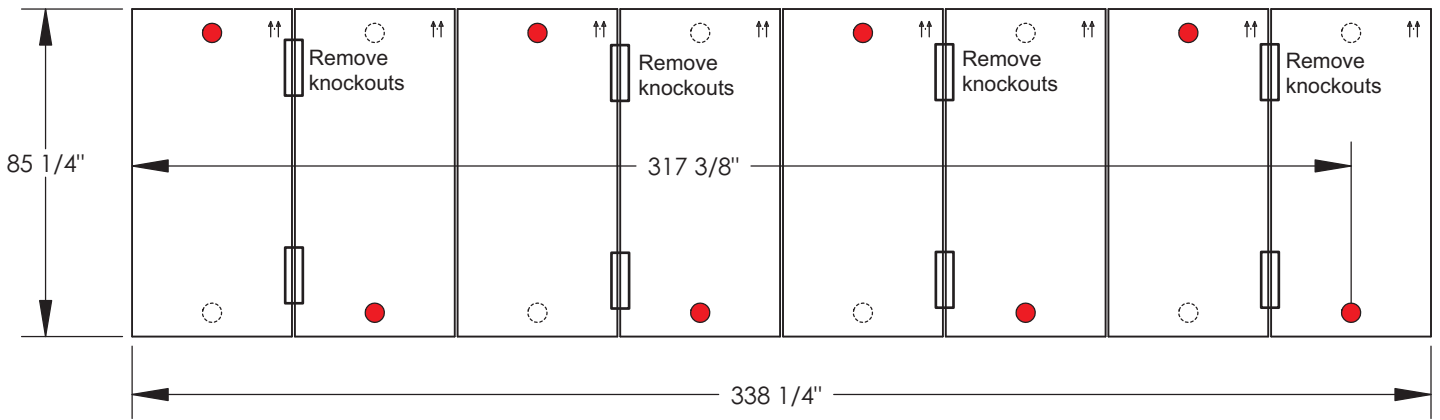


1503AC
3-Panel Portrait



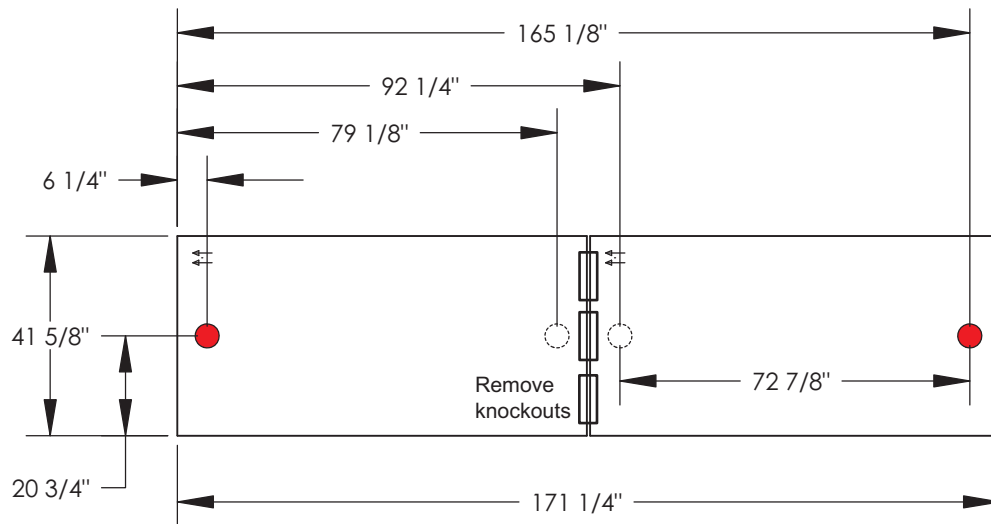
1504AC
4-Panel Portrait



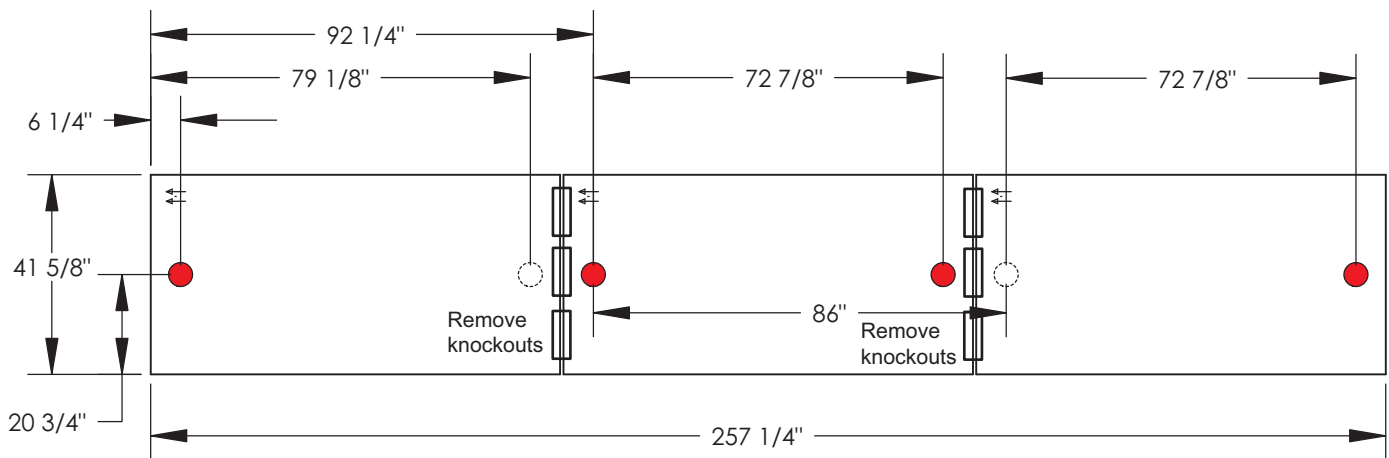


1508AC
8-Panel
Portrait

Dimensional layouts for Landscape layouts



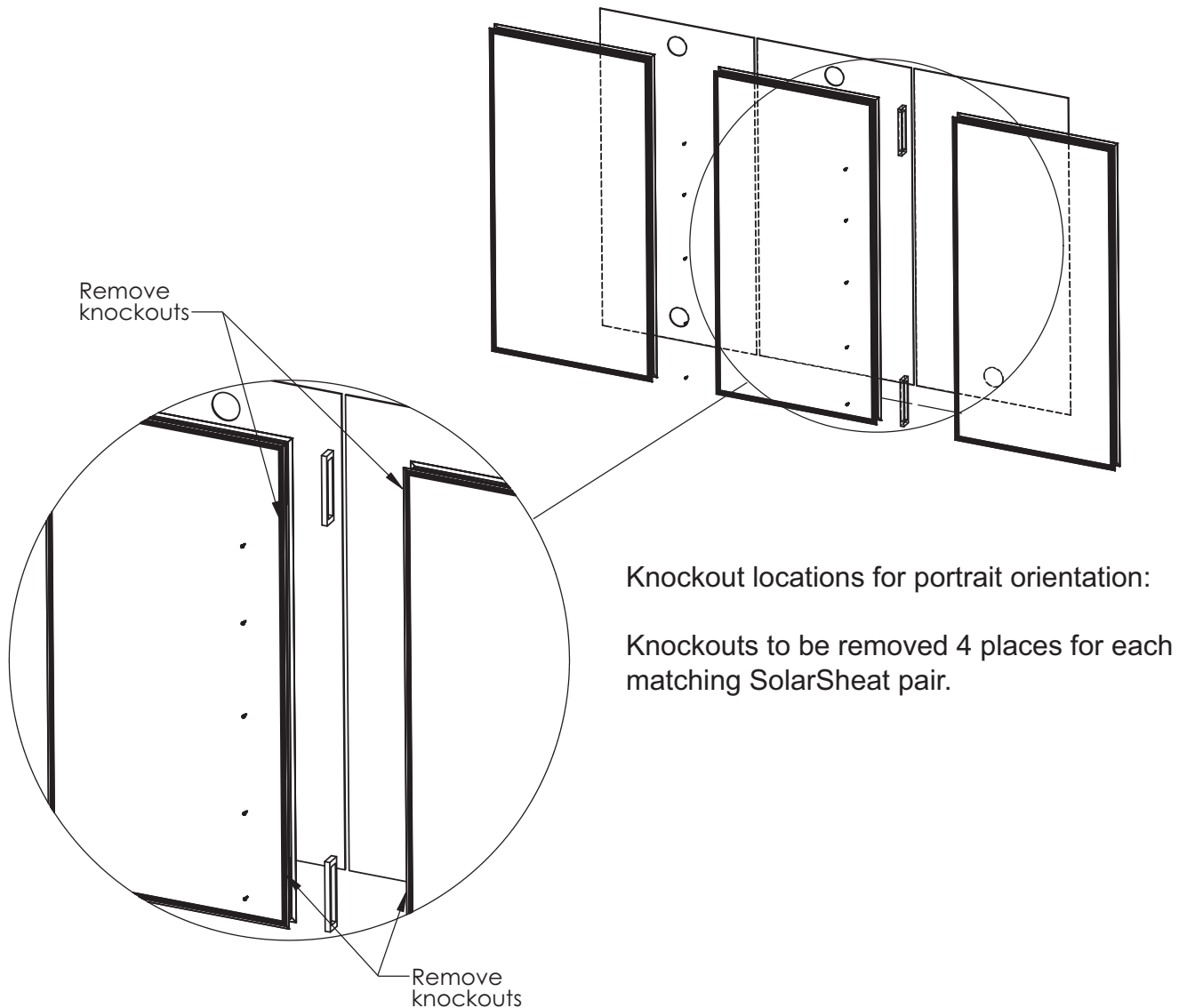
1502AC & 1502DC
2-Panel Landscape

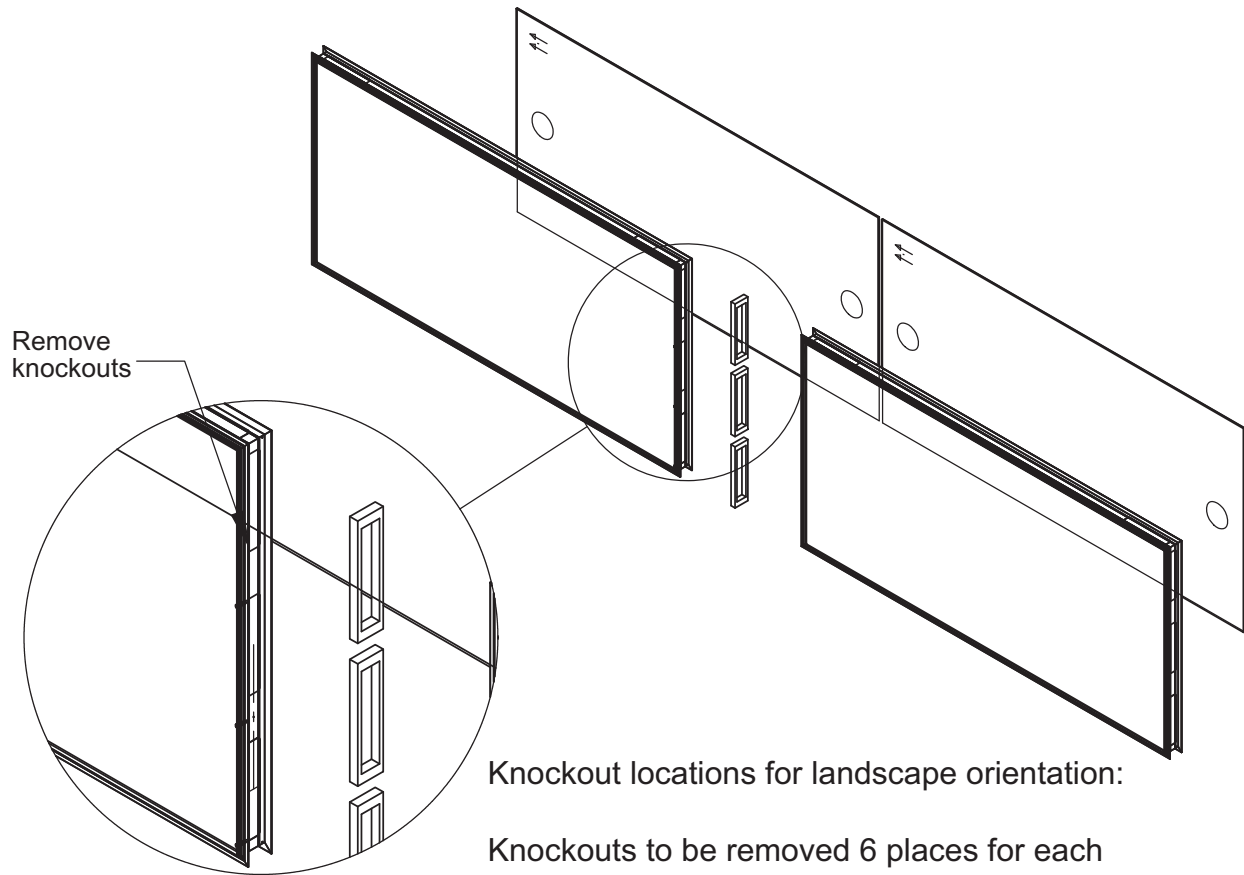


1503AC
3-Panel Landscape

3.0 SolarSheat Multi-room installation

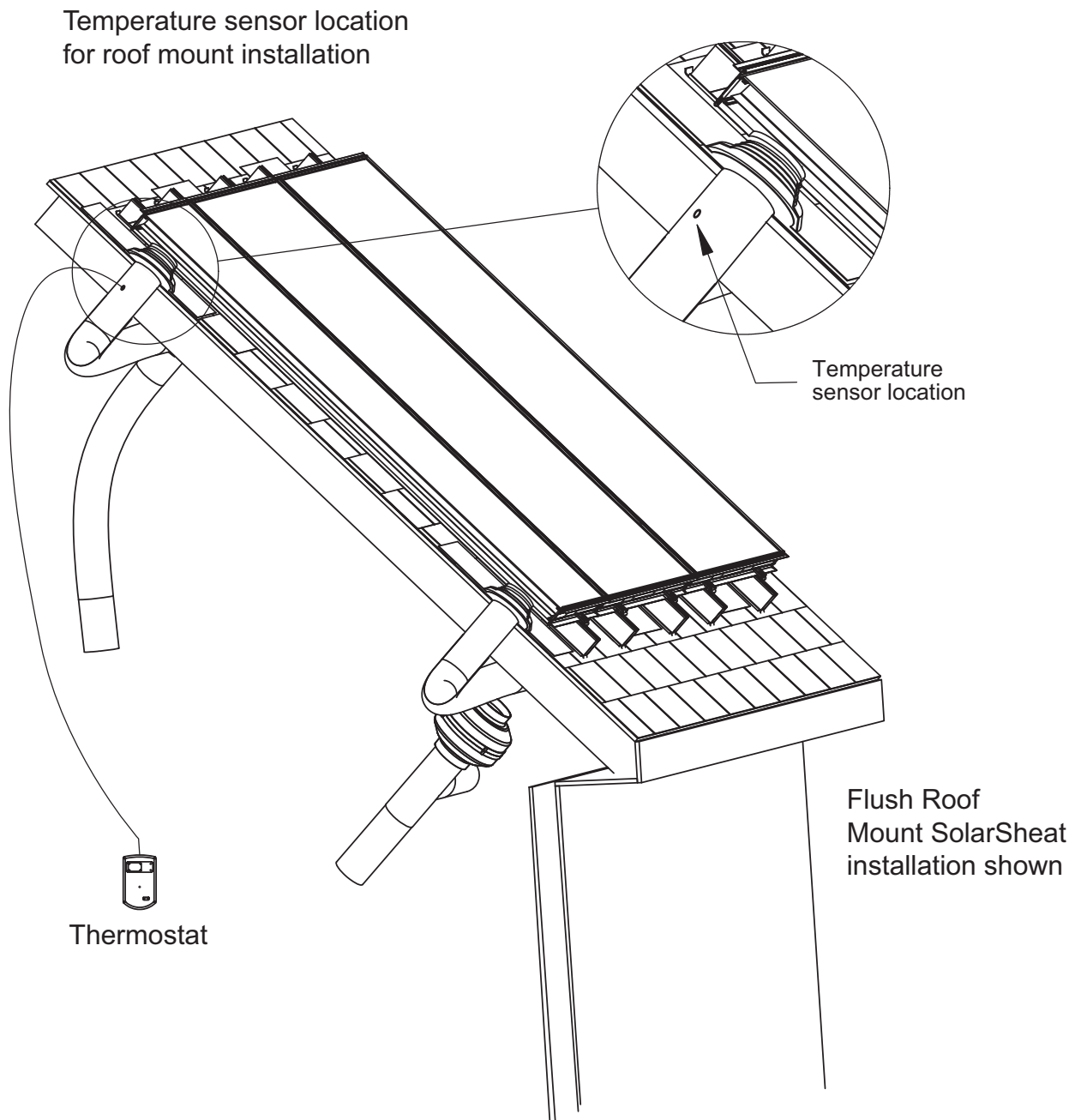
1. Locate position of round duct holes to be cut in roof surface (for flush roof mount) or wall surface, using the dimensions indicated in Section 2.3.
2. Supply and return duct holes can be located on opposite sides from indicated (but should remain diagonal from each other).
3. Cut the correct number of round duct holes (at least one for supply, one for return) as indicated in back of SolarSheats using a knife or fine-tooth saw.
4. Remove matching side hole knockouts with a flat head screwdriver and cut matching hole in insulation behind knockout with a knife. For portrait orientation 2 side hole knockouts for each set of SolarSheats are required. For landscape orientation 3 end hole knockouts are required.

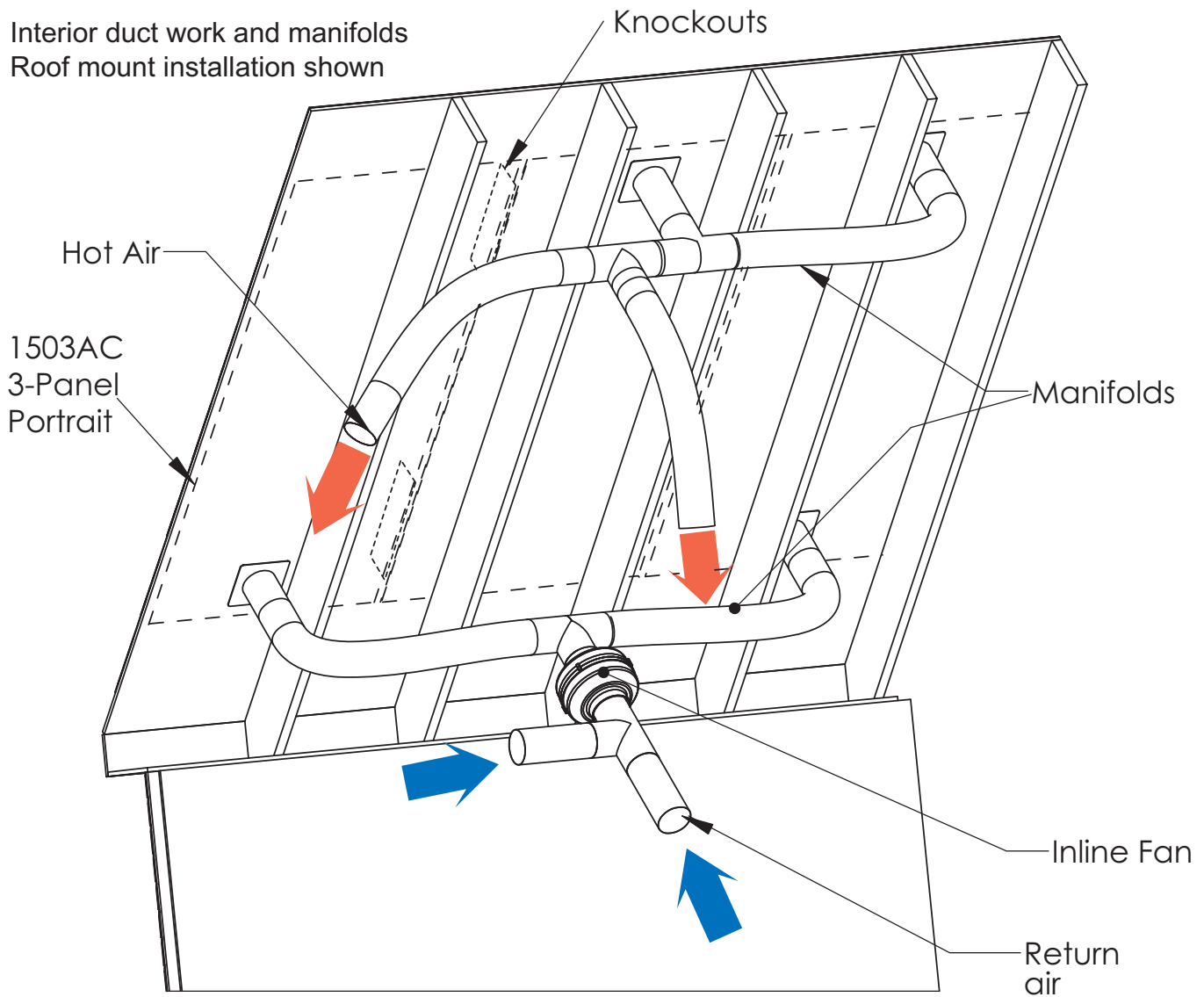




5. Assemble Multi-room SolarSheat installation as per wall or roof mounting instructions. Insert gaskets between mating SolarSheat pairs during assembly. 2 gaskets/pair are required for portrait orientation. 3 gaskets/pair are required for landscape orientation. Screw SolarSheat collectors together using supplied TEK screws. For portrait orientation, evenly space 5 screws along the length of the SolarSheat frame. For landscape orientation, evenly space 4 screws along the width of the SolarSheat frame.
6. Manifold ductwork together so that the return ducts are connected together and the hot air ducts are connected together. Insulate all hot air ductwork to increase efficiency.
7. The AC or DC supplied fan should be mounted on the return ductwork to insure the operating temperature is reduced.

8. Drill a 1/4" hole into the upper collar/manifold of the SolarSheat array. Insert the temperature sensor for thermostat and seal using silicone sealant. The temperature sensor should be placed inside the upper most duct collar just inside the roof or wall as shown.
9. Wire temperature sensor to thermostat using instructions as per roof or wall mounted SolarSheat instructions.





10. Connect return and hot air ducts to from Multi-room heating system manifold to rooms being heated.

11. Enjoy your new SolarSheat Multi-room heating system.



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