

## Modifying a Flat Pergola

## **APOLLO SYSTEM**

### Why modify a flat pergola?

Our Apollo cover works best with at least a 4% slope—that's just 1" of drop for every 24" of length. Adding a little slope:

- Prevents water from pooling and leaking
- Helps stop algae and mold from forming
- Extends the life of your pergola cover

Plus, adding slope keeps your Apollo panels covered by our 10 year material warranty. A small adjustment now means long-term protection!

### What Are My Modification Options?

Lateral shims! These work just like shade slats or purlins, running perpendicular to your rafters. They gradually decrease in height to create the slope your system needs—simple, effective, and easy to install! We suggest using a 2" thick board that runs the full width of your pergola.



## Installing Lateral Shims

These are attached on top of your existing shade slats or purlins, running perpendicular to your rafters. They gradually decrease in height to create the slope your system needs—simple, effective, and easy to install! We suggest using a 2" thick board that runs the full width of your pergola.

# How Many Lateral Shims Does My Pergola Need?

Just take the length of your pergola (that's the side with the slope) and check out our handy cheat sheet. If your pergola's length isn't on the list, no worries—just reach out! We're happy to help with shim placement and quantity.

Pergola Length	Number of shims	
8'	5	
9'	6	
10'	6	
11'	7	
12'	7	
13'	8	
14'	8	
15'	9	
16'	9	
17'	10	
18'	10	

## How Tall Do I need to make the lateral shims?

Here's another handy cheat sheet for you! Start with the length of your pergola to figure out the height of your tallest shim. From there, just step down by 1" each time.

For example, if your pergola is 8' long, your first shim will be 7" tall. The next one? 6". After that? 5", then 4", and so on until you get to your final shim, which will always be 2".

#### Shim Placement

Start with the tallest one as close to the back of the pergola as possible. And remember—always use screws! Nails can pull out in strong winds, and nobody wants that.

From there, work your way forward, spacing each shim 24" apart as you go from tallest to shortest. Try to get that last, shortest shim as close to the front as you can. Simple and secure!

Pergola Length	Height of Tallest Shim	Amount to decrease each shim	Height of Shortest Shim
8'	7.0"	1.0"	2"
9'	7.5"	1.0"	2"
10'	8.0"	1.0"	2"
11'	8.5"	1.0"	2"
12'	9.0"	1.0"	2"
13'	9.5"	1.0"	2"
14'	10.0"	1.0"	2"
15'	10.5"	1.0"	2"
16'	11.0"	1.0"	2"
17'	11.5"	1.0"	2"
18'	12.0"	1.0"	2"