

# SIMPLIFIED SIZING GUIDE FOR SOLAR POOL HEATERS

**A. Determine the pool surface area in Square Feet:**

Measure the overall length and width of the pool.  
Refer to Table 1 for Shape Multipliers.

Overall Length \_\_\_\_ Ft X Overall Width \_\_\_\_ Ft X Shape Multiplier \_\_\_\_ = (A) \_\_\_\_ SqFt

Alternate method: Pool Gallons ÷ 7.48 ÷ Average Depth = Pool SqFt

Table 1

Shape	Mult.
RECTANGLE	1.00
KIDNEY/FREE FORM	0.85
OVAL	0.90
ROUND	0.79

Table 2

Orientation	Mult.
South Facing	1.0
East or West Facing	1.25
Flat	1.10

**B. Where will the panels be installed?**

Check the orientation of the roof area with a compass, refer to Table 2 and select an Orientation Multiplier. Solar panels can face up to 30° East or West of True South for optimum efficiency. Panels can not face in a northerly direction, unless supported by a rack to elevate the system towards south. See installation manual for precautions on installing on a flat roof.

(B) \_\_\_\_

**C. Is the pool shaded?**

Determine the percentage of shade on the entire pool during the Solar Day (9 am - 5 pm), refer to Table 3 and select a Shade Multiplier. If only a portion of the pool is shaded for part of the solar day, then a Shade Multiplier should be extrapolated from the table (i.e. 50% of the pool shaded for 50% (4 hours) of the solar day equals 25% or a multiplier of 1.10). Indoor pools should use 100% shade multiplier.

(C) \_\_\_\_

Table 3

Shade	Mult.
No shade from 9 am to 5 pm	1.0
25% shade	1.10
50% shade	1.25
75% shade	1.50
100% shade	1.75

**D. Does the pool have a screen enclosure?**

If the pool has a screen enclosure, use a Screen Multiplier of 1.25

If the pool does not have a screen enclosure, use a Shade Multiplier of 1.0

(D) \_\_\_\_

**E. Determine the Sizing Factor for your Region and Pool Season desired, from the Table below.**

For areas other than Florida, refer to the Solar Insolation Map for the correct Sizing Factor.

Region	9-10 Month Season Mult.	11-12 Month Season Mult.
North Florida	0.64	0.80
Central Florida	0.56	0.68
South Florida	0.48	0.56

(E) \_\_\_\_

**F. Multiply (A) X (B) X (C) X (D) X (E) to get the required square footage of solar panels**

(F) \_\_\_\_

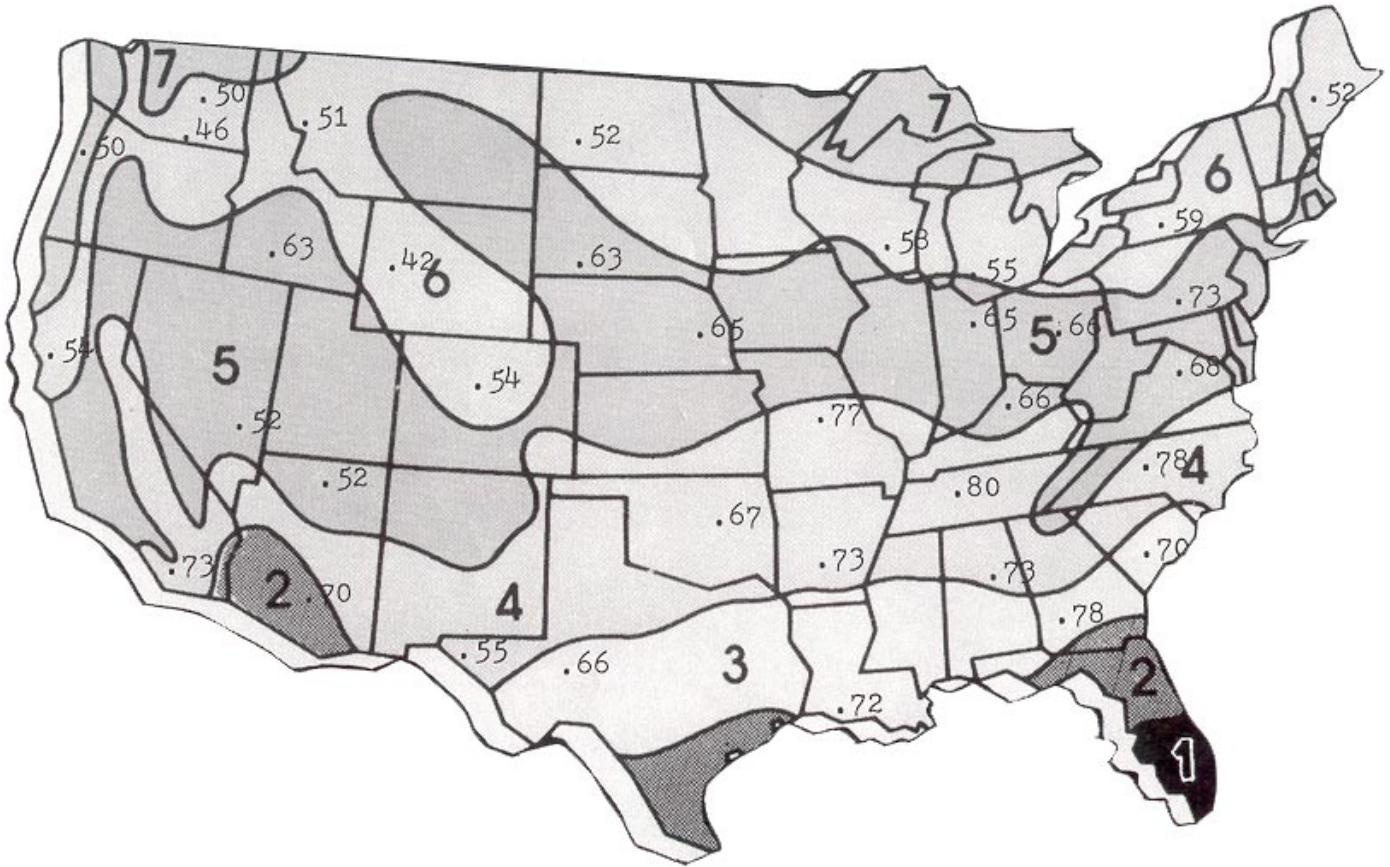
Measure the area where the panels will be installed to determine which size panel will fit.

Determine the number of panels required below (round to nearest whole number):

Square Footage (F) from above \_\_\_\_\_ ÷ 32 = \_\_\_\_\_ 4Ft x 8Ft Panels  
 or ÷ 40 = \_\_\_\_\_ 4Ft x 10Ft Panels  
 or ÷ 48 = \_\_\_\_\_ 4Ft x 12Ft Panels

Sizing guidelines assume use of a pool cover when night time temperatures are below 60 degrees. If a cover is not used during these conditions, the system must be over-sized by 75 to 100%. For assistance with proper sizing or design call 1-800-333-WARM.

# INSOLATION MAP



## Sizing Factor

Using the map above, find your location, then choose the two digit Sizing Factor. If you are located in between two or more numbers, use the average. When in doubt, use the larger number. Use this number in section E of the Simplified Sizing Guide.

## Your Swimming Season

Use the map above to determine your zone and the table at right to determine the length of the swimming season for your unheated pool.

Zone	Swimming Season
1	12 mos.
2	10-11 mos.
3	9 mos.
4	8 mos.
5	6 mos.
6	4 mos.
7	3 mos.