

The SENTRY Solar Charged System

The Sentry gate opener is the first truly solar charged gate opener for the Do It Yourself market. The system design and the accessories recommended are all Solar Friendly meaning that they require the least amount of energy possible to perform the job they were designed to do. The solar option allows you to install the gate opener in remote areas or in applications where you prefer to be solar charged. Solar charging does provide isolation from lightning that might damage the unit via the AC power needed for the transformer.

The Sentry gate opener is designed to provide enough cycles a day for most installations without needing more than one solar panel. Care must be taken to ensure the solar panel has full sun throughout the day; partial sun will give partial results. If no sun is present then a solar system is not practical no matter how many panels might be installed. Solar Panel must be kept clean and in full sunlight.

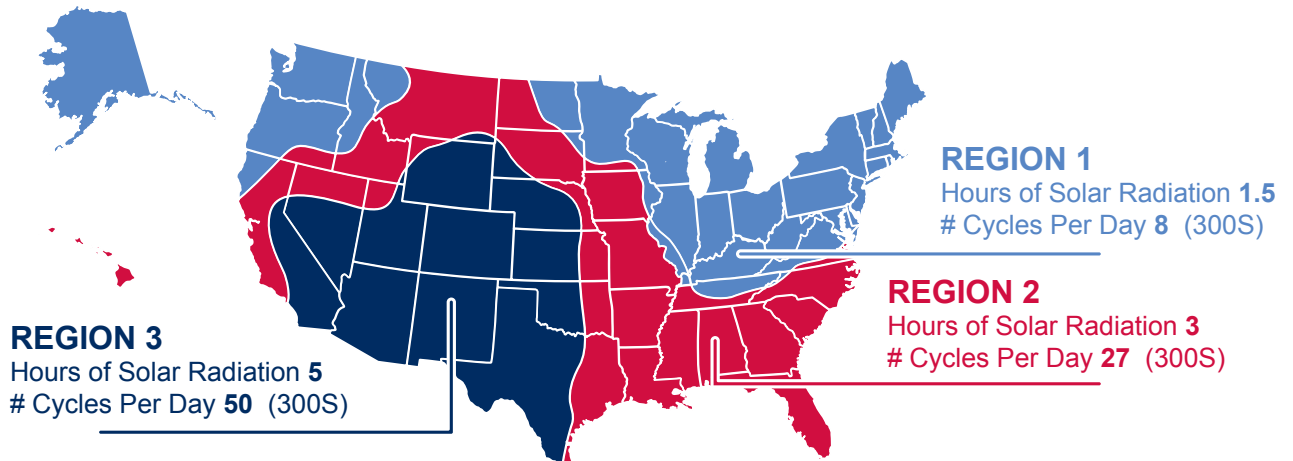
The design of the system must pay particular attention to any accessories that might be added, use only Solar Friendly accessories to help avoid premature battery failure. For a complete list of accessories please visit www.sentrygateopener.com.

GATE CYCLES PER DAY SOLAR CHARGED SYSTEM (Optional Solar Kit PN #520015)

Solar charged systems should not exceed the cycles listed in the chart below. These numbers are based on a single 5 watt solar panel installation. If additional panels are installed additional cycles will be available.

Model Type	REGION 1	REGION 2	REGION 3
Sentry 300 S single gate	8 cycles per day	27 cycles per day	50 cycles per day
Sentry 300 D dual gate	5 cycles per day	13 cycles per day	23 cycles per day

Region 1 covers the area of the country receiving the least amount of solar radiation. On average the amount of charge time is 1.5 hours in region 1, 3 hours in region 2 and 5 hours in region 3.



These are conservative numbers and the Sentry opener should have no problem performing as stated in the chart above. See Region Map above to determine cycles that can be expected. These numbers are based on a basic system and adding solar friendly accessories will not have any great affect on the numbers stated. Using other accessories can cause premature battery failure. Look for the solar friendly logo when considering accessories for your gate opener.



Extending Charge Device Location (AC or Solar)

If charge device cable needs to be extended to reach the charge controller use "Sentry Charge Cable Extension Kit" Part Number 630050 (see figure). The kit contains junction box, DC plug pigtails and wire nuts. Use charts below to determine wire size needed for the distance to be extended. The cable must be a 2 conductor cable, stranded wire recommended.

Do not modify the transformer or solar panel cable, this will void the product warranty.

1. Splice mate for the charge controller to cable end located in control box.
2. Splice mate for the charge device to cable end that connects to charge device.
The junction box provided should be used to keep external connections dry.
3. Install DC plug connection and splice into junction box.



Sentry Charge Cable Extension Kit
Part Number 630050

Charge Cable Extension Cable Selection Chart				
Transformer Extension Wire Size Chart				
0 to 100 ft	101 to 250 ft	251 to 500 ft	501 to 750 ft	750 to 1000 ft
18 gauge wire	16 gauge wire	14 gauge wire	12 gauge wire	10 gauge wire
Solar Extension Wire Size Chart				
	15 to 100 feet	100 to 250 feet	250 to 500 feet	
	16 gauge wire	14 gauge wire	12 gauge wire	

The wire used must be rated for Direct Burial use, unless in conduit. Wire ran in conduit must be rated for outdoor use. The above Table lists the recommended wire gauge per application length. Using a smaller gauge may impede performance or cause system to malfunction

