

# SOLAR PANEL

## INSTRUCTIONS

### NOTE

BEFORE YOU INSTALL THE SOLAR PANEL IT **MUST BE** LOCATED IN AN OPEN AREA THAT GETS DIRECT FULL SUN FOR AT LEAST 8 HOURS PER DAY.

### TIPS FOR SOLAR INSTALLATIONS:

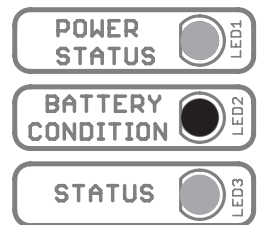
Solar panels should be mounted so that foliage growth such as tree leaves, tree branches, or weeds do not cover the solar panel in a shadow at any point during the day, regardless of the time of year.

Solar panels should be cleaned periodically to remove any snow, dirt, grime, mold, or mildew that may accumulate and deteriorate the performance.

If this solar panel will be used with a GHOST CONTROLS® Gate Opener System, the power LED indicator (shown) on the GHOST CONTROLS® System Control Panel will help you align the panel for optimal charging performance. The faster the power status light blinks or the light stays solid the better the charge. A blinking light means too much shade or panel needs to be rotated to gain better charging performance. A solid light is best.

Place the panel facing **DUE SOUTH** in the path of the sun. Many smartphones have a magnetic compass to aid you.

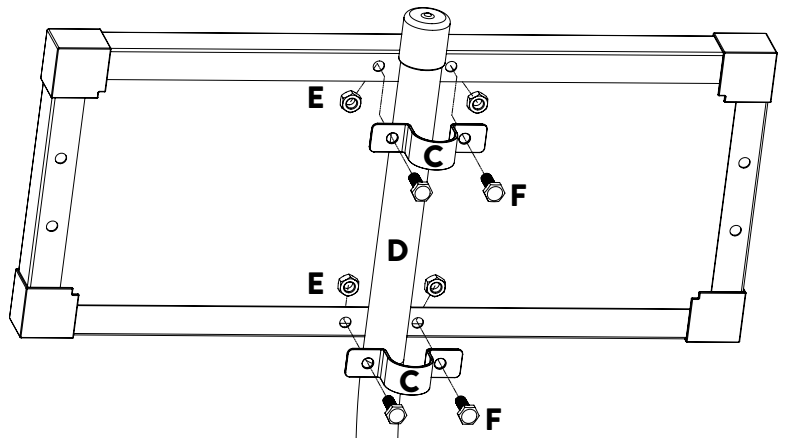
Mount the panel using the curved pipe provided to maintain the proper angle to the sun.



## INSTALLING YOUR SOLAR PANEL:

### STEP 1: ATTACHING PANEL TO PIPE

Position the curved pipe (D) and place two pipe clamps (C) over the curved pipe. Thread the 4 M8 bolts (F) through the top and bottom channels of the solar panel as pictured. Secure the M8 bolts (F) with the M8 nuts (E).



## STEP 2: SECURING PANEL TO POST

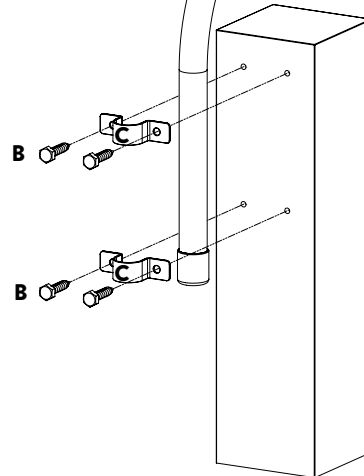
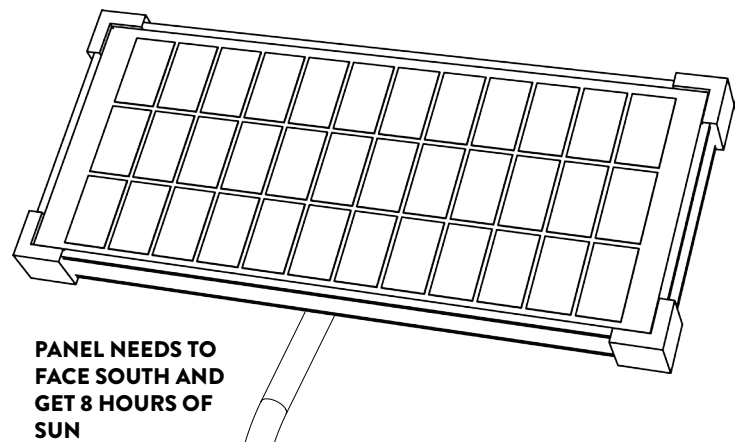
Determine the installation site for the solar panel.

Secure the solar panel assembly to a wooden post or fence using two pipe clamps (C) and four lag bolts (B) as shown in the illustration to the right. If your fence post is metal, you will need alternative hardware not provided, (e.g., U-clamps or sheet metal screws).

\*If the solar panel must be placed more than 10 ft. from the control box in order to receive direct sunlight, you can use up to 100 ft. of multi-stranded, GHOST CONTROLS® 16 gauge, direct burial, low-voltage wire (AXLV). NEVER use solid core wire.

### IMPORTANT:

- To provide secure and moisture resistant splices for solar panels use a direct burial splice kit for ALL splices. These splice kits can be found at hardware and electrical supply stores.
- For optimal efficiency, wipe the face of the panel frequently with a soft, damp cloth.
- The output of the Solar Panel is variable during the day depending on the intensity of the sun and the angle of the rays striking the panel. The output may vary from a few millivolts to as much as 22 volts. To check the output, simply disconnect the solar panel leads from the control board and connect them directly to a DC voltmeter. In bright sunlight the panel output should read at least 18 volts DC.



## STEP 3: ATTACHING WIRE TO CONTROL BOARD

Make sure control board switch is in the OFF position. Feed the free end of the solar panel wires into the control box and attach them to the appropriate terminals on the control board. The RED solar panel wire goes to the (+) POSITIVE solar terminal and the BLACK solar panel wire goes to the (-) NEGATIVE solar terminal. If there is a plastic plug inserted into the negative solar terminal please remove before inserting black solar panel wire. **Improper installation of these wires will damage the opener's control board.**

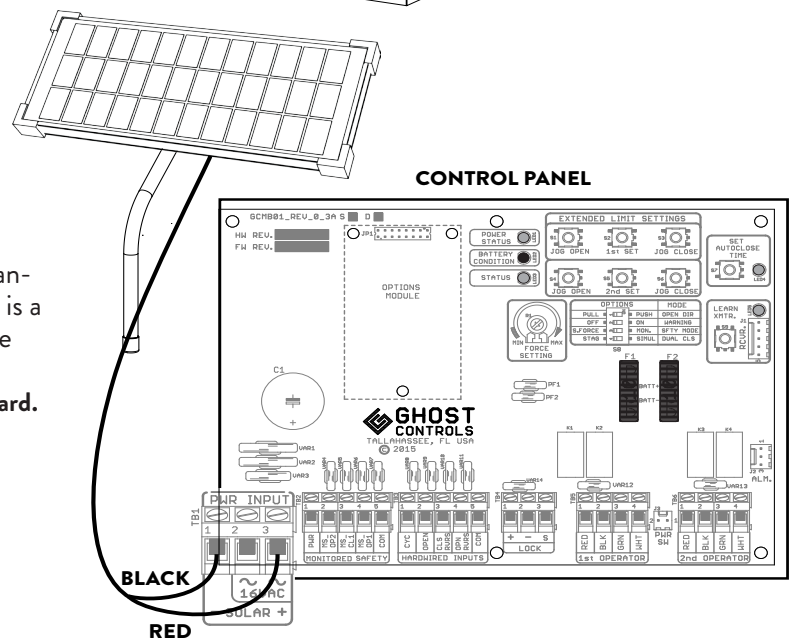
**NEVER USE THE SOLAR PANEL AND THE AC TRANSFORMER AT THE SAME TIME!**

It will damage the control board and void your warranty.

### WARRANTY:

GHOST CONTROLS® Solar Panels are warrantied for 18 months with proof of purchase. An additional 6 month warranty is available at NO COST if you register your solar panel within 30 days of purchase on [www.ghostcontrols.com/register](http://www.ghostcontrols.com/register). See warranty terms on [www.ghostcontrols.com/warranty](http://www.ghostcontrols.com/warranty).

For more information on GHOST CONTROLS® Automatic Gate Openers and Accessories please visit our website at [www.ghostcontrols.com](http://www.ghostcontrols.com).



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

