



# Tucson-Pima Metropolitan Energy Commission



<http://www.tucsonmec.org>

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## Solar Water Heating in Civano – Frequently Asked Questions

**Q. I just moved into a Civano home, I see that there is a solar panel on the roof. Where do I look for basic information on maintenance and operation of my solar hot water system?**

A. If your home is new, the builder will probably have put solar water heating system warrantee, operation and maintenance information the owner’s notebook or packet you got when you first moved in that had all of the owners manuals for appliances and energy systems. If it isn’t there, contact your builder and ask them to correct this oversight.

If you are not the first owner or are a renter, you might try one or more of the following to locate the information.

- If you can discern the manufacturer and model, check on the manufacturer’s website for operation and maintenance information.
- Check with your neighbors if they have the same builder and their homes were built around the same time, they might have just the information you seek.
- Call the local solar system installer who installed the system to see if they can help you track down the information.

You should take the time to find the operation and maintenance instructions. You will find that there is little, if anything, for you to do once the installer has started your system and checked its operation for the first time. Properly designed solar water heaters are completely automatic and are left in operation year-round. Active systems (like they are installing in the new Pulte homes) have a small electronic control with one or more indicator lights to let you know if there is a malfunction.

**Q. I think something is wrong with my solar water heater, where do I go for help?**

A. If your home is still under the builders warrantee, you should call their customer service. If the builder is no longer responsible, and you know who installed the system, your best bet is to contact the installer. They will be able to help you determine what is wrong and figure out if the system or any part of it is still under warrantee and. If you don’t know, you can contact any of the certified local installers for help. If the problem is leaking pipes and not the solar unit itself an ordinary plumber should be able to resolve the problem

**Q. The house I bought doesn't seem to have a solar water heating system. I thought all home in Civano had solar water heating. What gives?**

A. If your home was a "Contravest" model, the original builders didn't provide solar water heaters. You can add one now and take advantage of federal and/or Arizona state incentives for solar. Contact a local certified solar installer for details or check out [www.dsireusa.org](http://www.dsireusa.org) for the latest federal and state incentives for solar and other renewables.

**Q. What is a solar water heater?**

A. A solar water heater is a pretty simple system. It usually includes one or two solar collector panels on the roof of a home. The panels resemble skylights, and will be about 4 feet wide and 8 to feet long. The cold water supply is connected to the solar storage tank. Water to be heated circulates between the storage tank and the solar collectors. The output from the solar storage tank becomes the cold water connection to the conventional gas, electric or oil water heater. When a hot tap is opened, pre-heated water is drawn from storage into the conventional ("auxiliary") water heater. The burner or electric element turns on only if the temperature cannot be maintained by the solar heater. Most properly-designed solar water heaters will supply 70 per cent or more of all the energy needed for water heating.

Links to Solar Water Heater Specs commonly installed in Civano:

<http://www.sunearthinc.com/CopperHeart-SRCC.pdf> (includes 10 year warrantee)

<http://www.tctsolar.com/>

Local Certified Solar Installers:

Progressive Solar  
620 E 19th St # 120  
Tucson, AZ 85719  
(520) 792-2188

The Solar Store  
2833 N Country Club Rd  
Tucson, AZ 85716  
Phone: 520-322-5180  
FAX: 520-322-9531  
Toll Free: 877-264-6374  
<http://www.solarstore.com>

Other Civano solar water heating system information:

"Corrosion in Copper ICS Collectors at Civano Subdivision, Tucson Arizona" by D. Menicucci, R. Mahoney, G. Kolb, Sandia National Laboratories, 2003 [http://www.nrel.gov/ncpv\\_prm/pdfs/33586P87.pdf](http://www.nrel.gov/ncpv_prm/pdfs/33586P87.pdf)  
*This is primarily relevant to the earliest Civano homes with Thermal Conversion Technology (TCT) manufactured systems.*

"Designing and Installing Solar Water Heating Systems - Tucson's Civano Community is a sustainable success—but its solar hot water systems could be better" by Jennifer Kent and Bill Rittelmann, IBACOS, 2004 [http://www.eere.energy.gov/buildings/building\\_america/pdfs/db/38097.pdf](http://www.eere.energy.gov/buildings/building_america/pdfs/db/38097.pdf)  
*This is of most interest to people in KE&G models who chose the recirculating pump option..*

**Tucson-Pima Metropolitan Energy Commission**  
**"Serving as a catalyst for the City of Tucson and Pima County to build**  
**a more Sustainable energy future in the region."**