

"MINI"

For Model #: SQ-1210 Or SQ-1212

INSTALLATION & OPERATION MANUAL

Read all the instructions before installing your solar heating system.

How does a solar heating system work?

- 1. Connect your existing pool pump to the solar panel. Your pool pump sends cold water to the solar panel.
- 2. The sun heats the water in the solar panel.
- 3. Warm water is then returned to your swimming pool.

How well does solar heating work?

A solar heating system if sized and installed properly will raise your pool water temperature up to 10^{0} F / 6^{0} C (see sizing chart below) and extend your swimming season. In order to maximize the heat, the solar panel must be exposed to sunlight as long as possible. On rainy days and at night the solar panel must be turned off so your pool water doesn't cool. You can purchase an optional diverter kit to accomplish this. On cloudy days, the solar panel won't work as well. It is recommended to use a solar blanket or a Liquid Solar Blanket. This will help maintain the heat generated by the solar panel in your pool.

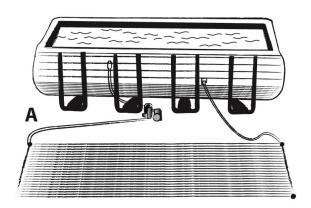


Is a special pump required?

If your panel is on the ground beside your pool, you can use your existing pool pump as long as it is in good working condition.

Where can the solar panel be placed?

The solar panel can be placed on the ground. Avoid placing in high traffic areas, as it is not recommended to walk on the solar panel.



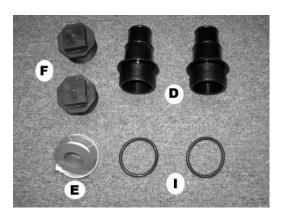
How many panels do I need?

Above-Ground Round Pool	SQ-1210		SQ-1212	
Pool Diameter Desired Temp	Up to 5º F	Up to 10º F	Up to 5º F	Up to 10º F
Up to 8'	1	1	1	1
10'	1	2	1	2
12'	2	3	1	2
15'	2	4	2	3

Box Contents:



Qty	Part #	Description
1	SK-1210 or SK-1212	SunQuest solar panel 2ft x 10ft or 2ft x 12ft



Qty	Part #	Description
2	SK-FTG-D	Threaded combination hose adapter
2	SK-FTG-I	"O" rings
2	SK-FTG-F	Threaded cap
1	SK-FTG-E	Roll of Teflon tape

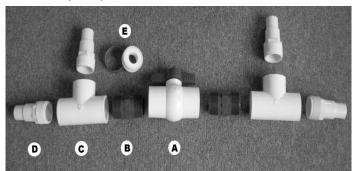
Optional parts

Add-on Kit (SQ-ADDON)
1 SQ-ADDON required per SQ-1210 or SQ-1212 system added



Qty	Part #	Description	
1	SK-FTG-J	Rubber hose 7.5"	
2	SK-FTG-L	Metal collar (Hose clamp)	

<u>Diverter Kit (SQ-DK)</u> Used to turn your system ON & OFF



I	Qty	Part #	Description
	1	SK-FTG-A	Threaded 2 way valve
	2	SK-FTG-B	Threaded nipple
	2	SK-FTG-C	Threaded tee
	4	SK-FTG-D	Threaded combination hose adapter
	1	SK-FTG-E	Roll of Teflon tape

INSTALLATION

Additional parts required

- Flexible pool hose. Length dependent on distance from pool pump to solar panels.
- Metal collars (Hose clamps) Quantity dependant on installation.

Tools required

Flat head screwdriver.

PANEL ASSEMBLY

- 1. Choose placement for your solar panel(s). Make sure that it will be in the sun for most of the day. The area should be clear of sharp objects.
- 2. Take the panel out of the box, remove the strap from panel and let the panel sit in the sun for approximately 30 minutes so it will become flexible.
- 3. a) Installation: one system on ground.

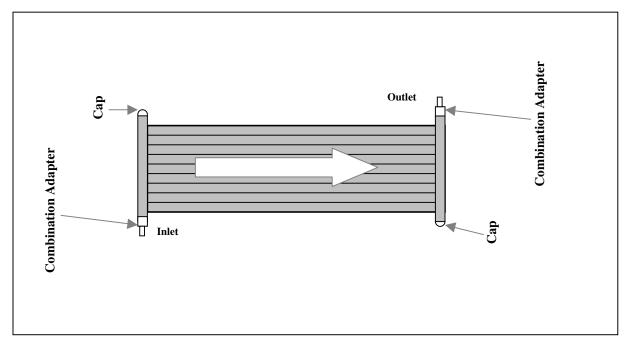


Diagram Step 3a

- Apply Teflon tape to threads of 2 caps (SK-FTG-F) See Fig 3a-1
- Thread 2 caps into the panels as per Diagram Step 3a.
 Do not over tighten. See Fig 3a-2
- Put "O" rings (SK-FTG-I) on both combination adapters (SK-FTG-D) See Fig 3a-3
- Thread both combination adapters into the panels as per Diagram Step 3a. Do not over tighten. See Fig 3a-4









3. b) Installation: multiple systems on ground.

1 Add-on kit (part # SQ-ADDON) is required per extra system.

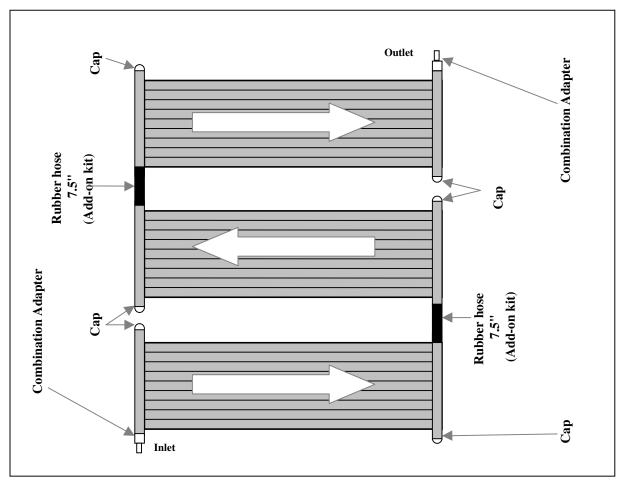
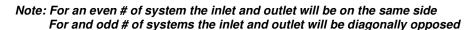


Diagram Step 3b

- Apply Teflon tape to threads of all the caps (SK-FTG-F) See Fig 3a-1
- Thread all the caps into the panels as per Diagram Step 3c. Do not over tighten.
 See Fig 3a-2
- Put "O" rings (**SK-FTG-I**) on two combination adapters (**SK-FTG-D**) See Fig 3a-3. You will only need 2 combination adapters for this type of installation.
- Thread both combination adapters into the panels as per diagram Step 3c. Do not over tighten. See Fig 3a-4



- Push the rubber hose (SK-FTG-J) from the Add-on kit (SQ-ADDON) over the panel header as per diagram Step 3c. Slide a metal collar (SK-FTG-L) onto the rubber hose. Place a metal collar ¹/₄" from edge and tighten collar with screwdriver. See Fig 3b-1. Repeat for each system.
- Slide another metal collar onto the rubber hose. Connect the 2 panels together by pushing the rubber hose over the second panel header. Tighten metal collar to secure assembly. See Fig 3b-2. Repeat for each system.





Note: A maximum of 6 2ft panels (6 systems) may be plumbed in series

CONNECTING TO POOL

System with no diverter

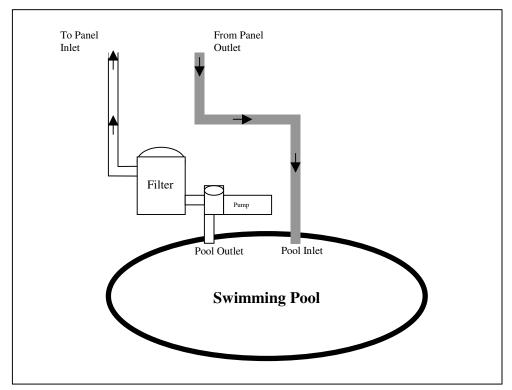


Diagram C-1

- 1. Turn off your pool pump. Block the inlet and outlet of your pool so that the water won't empty when you are connecting your panel(s).
- 2. Remove the hose from the pool inlet (hose between the filter and the pool) and connect the hose to the panel inlet. If hose is too short, you need to purchase a new one. Make sure you purchase the appropriate size that is compatible with your existing pool equipment. For 1¹/₄" hose, it will only slide over the small end of the combination adapter. See Fig C1-1. For 1¹/₂" hose, it will slide all the way to flange of combination adapter. See Fig C1-2. Place metal collar ¹/₄" from edge and tighten collar with screwdriver. See Diagram C-1.



- 3. Connect another hose (not supplied) from the panel outlet to the pool inlet. See Diagram C-1.
- 4. Make sure that your hoses are all connected the correct way and that all the collars have been tightened. Unblock the inlet and outlet of your pool.
- 5. Turn on your pool pump. Check for any leaks. If any of the threaded fittings leak, remove the fitting and apply more Teflon. If any of the hoses leak at the connection, loosen the collar and push the hose over the fitting and re-tighten the metal collar. You will see air bubbles coming from the pool inlet. This is normal and will stop once the air inside the panels has been purged.



Note: Without a diverter, your solar heating system is always ON. At night, your solar panels will cool your swimming pool.

We recommend you close your pump at night to avoid this or purchase a diverter kit (SQ-DK)

System with diverter (part # SQ-DK)

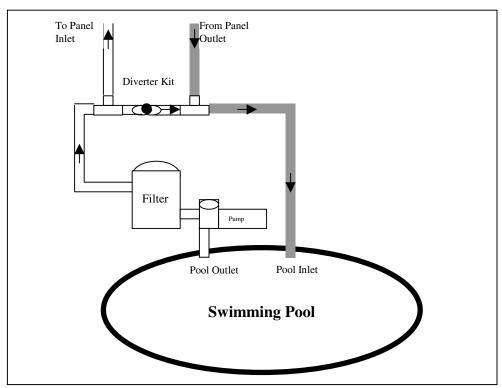


Diagram C-2

- 1. Turn off your pool pump. Block the inlet and outlet of your pool so that the water won't empty when you are connecting your panel(s).
- 2. Remove the hose from the pool inlet (hose between the filter and the pool) Connect the hose to one side of the diverter kit previously assembled as per instructions included with diverter kit. For 1¹/₄" hose, it will only slide over the small end of the combination adapter. See Fig C1-1. For 1¹/₂" hose, it will slide all the way to flange of combination adapter. See Fig C1-2. Place metal collar ¹/₄" from edge and tighten collar with screwdriver. See Diagram C-2.
- 3. Take a hose (not supplied) long enough to reach the panel and connect one end to the diverter kit (same side of the two-way valve as in step 2) Place metal collar and tighten. Connect other end of the hose to the panel inlet. Place metal collar and tighten. See Diagram C-2.
- 4. Take another hose (not supplied) and connect it to the panel outlet. Place metal collar and tighten. Connect other end of the hose to the diverter kit. Place metal collar and tighten. See Diagram C-2.
- 5. Take the last hose (not supplied) and connect it to the last open end of the diverter kit. Place metal collar and tighten. Connect the other end of the hose to your pool inlet. Place metal collar and tighten. See diagram C-2.
- 6. Make sure the valve on the diverter is on the open position.



Valve in the <u>open</u> position Solar heating is OFF (not heating)



Valve in the <u>closed</u> position Solar heating is ON (heating)

- 7. Make sure that your hoses are all connected the correct way and that all the collars have been tightened. Unblock the inlet and outlet of your pool.
- 8. Turn on your pool pump. Check for any leaks. If any of the threaded fittings leak, remove the fitting and apply more Teflon. If any of the hoses leak at the connection, loosen the collar and push the hose over the fitting and re-tighten the metal collar. You will see air bubbles coming from the pool inlet. This is normal, the air in the hoses is being purged.
- 9. Turn your solar heating system on by turning the two-way valve in the diverter to the closed position. See Fig C2-2. Once again you will see air bubbles coming from your pool. The system is now purging the air that is in the solar panel(s).

Operation and Maintenance

Turn on your solar heating system whenever the panel(s) are in sunlight. You will know the panel is working by touching it, it should feel cool to the touch. That means the heat from the sun is being transferred to the water inside the panel. Turn off your solar heating system at night and whenever it is raining. Failing to do so will cool your pool. It is recommended to close your solar heating system whenever you do a backwash or whenever you manually vacuum your swimming pool. It is also recommended to use a solar blanket or a Liquid Solar Blanket. This will help keep more of the heat generated by the solar panel in your pool.

Winterizing

At the end of the season, your solar panels must be drained of all water.

- After your pool has been closed, disconnect the hoses from the panel.
- Manipulate the panel until the water is completely out.
- Roll the panel up.
- Store the panel in a heated place until next season.

Internal Freeze damage is not covered by the warranty.

Troubleshooting

If you have any issues with your SunQuest, you can visit our website: www.sunquestsolarpanel.com and review our frequently asked questions section.

You can also contact our customer support department at 1-888-357-6527

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FIVE YEAR LIMITED WARRANTY

Five year limited warranty from date of purchase with one full year. After the first year, the claimant shall pay the list price at the date of the claim less one-sixtieth (1/60) of the price for each full month remaining in the warranty period. Sunsolar Energy Technologies Inc. warrants to the original purchaser of the Solar Panel that the company will, at its option, repair or replace any solar panel that proves to be defective in either workmanship or material upon prepaid return of the solar panel by the owner to Sunsolar Energy Technologies Inc subject to the provisions of the limited warranty stated above, and the exclusion and limitations set forth below.

What is covered: The solar collector is warranted to be free of defects in material and workmanship when leaving the factory.

What is not covered: Hardware; including hoses, clamps and plastic fittings; any damage due to freezing caused by or related to improper drainage, winterization, or storage. Damage, defects, malfunctions, or other failures arising from use of the product which does not comply with the instructions provided by the manufacturer. Damage, defects, malfunctions, or other failures caused by or related to repairs performed by any servicer other than an authorized service representative of Sunsolar Energy Technologies Inc. Claims will not be accepted for a solar panel's damage in transit unless damage to shipping container is noted at time of delivery on the transport company's delivery bill.

Sunsolar Energy Technologies Inc shall in no way be liable or responsible under any circumstances or in any amount for any consequential or incidental damages or for any injury or damages to person or property using or used in connection with this product, or for loss of profits or other costs or expenses of any kind or character. There are no other warranties or representations, either express or implied, whether of merchantability, fitness for a particular purpose, or other, made by Sunsolar Energy Technologies Inc., other than those specifically set forth in this warranty. No person, firm, or corporation is authorized to make any representations, or incur any obligations in the name of or on behalf of Sunsolar Energy Technologies Inc. except as stated herein. This warranty is expressly understood to be the exclusive remedy available to the purchaser, and this warranty contains the full and complete agreement between Sunsolar Energy Technologies Inc and the purchaser. This warranty sets forth the only obligations of Sunsolar Energy Technologies Inc. with regard to this product, and there are no warranties which extend beyond the description on the face hereof.

To file a claim: Call 1-888-357-6527 to initiate a claim. Please allow 2-4 weeks for warranty claims to be settled.

The representation set forth herein are the only representations made by Sunsolar Energy Technologies Inc with respect to the product, and this warranty does not constitute either a performance or satisfaction guarantee. It is the responsibility of the product owner to regularly test and check the product for proper function and safety.

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WARRANTY REGISTRATION

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Please enter your Warranty Registration on line at: www.sunquestsolarpanel.com

Please complete and mail to the address below:

Name :		Phone #:	()
Address :			
City :		Prov/State :	Postal/Zip Code :
Dealer name :			Date of purchase :
Retail Price :	Pool size :		Signature :

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