



# UNIVERSOL

ADAPTABLE SOLAR POOL HEATING

REPLACEMENT KIT

## INSTALLATION MANUAL

Before attempting installation, read these instructions and acquaint yourself with the component names. Great care has been taken to make this an easy-to-follow procedure. A little time spent understanding the system and its parts will assure a successful, trouble-free installation.

### **CAUTION: SAFETY COMES FIRST**

When working on or around your roof or pool, please take care to avoid hazards such as electrical wires and loose shingles.



# Table of Contents

<b>2</b>	1. Introduction
<b>3</b>	2. Getting Started
<b>4</b>	3. Things to Remember
<b>5</b>	4. Installation Components
<b>5</b>	5. Parts Breakdown
<b>7</b>	6. Adding UniverSol Panel to Existing Solar System
<b>7</b>	7. Connecting UniverSol Panel with Hose Adaptor
<b>9</b>	8. Mounting Panel with Gator Clamps
<b>11</b>	9. Connecting UniverSol Panel to Feed & Return Lines
<b>12</b>	10. Operation & Check-Out Procedures
<b>13</b>	11. Troubleshooting
<b>16</b>	12. Repair Procedures

# 1. Introduction

UniverSol collectors are manufactured utilizing cutting edge technology and the most advanced production techniques. A UniverSol Replacement Kit will provide years of worry-free performance as it captures safe, reliable heat from the sun year after year.

This manual will give you a great deal of valuable information. Take time and read through this manual. It will guide you through the most efficient way to correctly install the UniverSol Replacement Kit. By following this step-by-step guide, your system will meet the installation standards recommended by the factory.

While the manual explains how to install the UniverSol Replacement Kit properly in typical situations, it cannot address all the unique or individual circumstances possible. If you have any installation questions, contact UMA Solar for assistance. As the installing contractor, you are responsible for exercising good judgment when installing UniverSol Replacement Kits to protect the long term integrity of the new collector and existing system as well as the mounting surfaces.

## 2. Getting Started

### BEFORE YOU START YOUR INSTALLATION, HERE ARE A FEW IMPORTANT TIPS:

#### 1. Caution - SAFETY COMES FIRST!

There is no substitute for safety. Always exercise extreme caution, care, and good judgment when working on or around a roof or pool area.

- Please take care to avoid hazards such as overhead electrical wires or loose shingles.
- Be sure to secure ladders so they will not slip or fall.
- Do not allow extension cords to lie in the pool or in standing water.
- Wear shoes with proper tread to prevent slipping on the ladder or sloped roof areas.
- Disconnect all power to the pool equipment when installing an automatic control system.

#### 2. Check with your local building department to determine permitting and code requirements in your area.

#### 3. While this manual explains how to install the UniverSol Replacement Kit properly in typical situations, it cannot possibly address all the unique or individual circumstances possible. If you have any installation questions, contact your UMA Solar representative for assistance.

#### 4. Before starting any work, determine the location of your system and prepare a schematic drawing of the installation area. Include the location of the feed and the return lines in this drawing. Roof areas often times look bigger than they really are, so be sure to measure the available area before making your schematic. Be sure that the layout of the collectors will allow the collectors to drain when the pool pump shuts off.

#### 5. Familiarize yourself with all of the UniverSol Replacement Kit components you will need to complete the installation.

#### 6. Don't take shortcuts. Whenever possible, panels should be installed so they are accessible without being walked on. Walking on the collectors should only take place when absolutely necessary.

#### 7. Depending upon your specific job, you will need various plumbing items and materials. Be sure to use quality products that will withstand direct sunlight year after year.

**PVC PIPE:** Use PVC SCHEDULE 40 pressure rated pipe. Do not use ABS or a lower standard substitute.

**PVC FITTINGS:** Use PVC SCHEDULE 40 pressure rated fitting to match your PVC pipe.

**DO NOT USE:** "plumber's" fittings or DWV fittings (drain, waste, vent).

**PVC CLEANER AND CEMENT:** It is important to both CLEAN and CEMENT each PVC joint. When cementing CPVC fittings to PVC pipe, such as the pipe connector, it is necessary to use a good quality CPVC or multi-purpose cement.

**NOTE:** As the installer, you are responsible for exercising good judgment when installing the UniverSol Replacement Kit to protect the long term integrity of the new collector and existing system as well as the mounting surfaces.

### 3. Things to Remember

**NO TWO INSTALLATIONS ARE EXACTLY ALIKE BUT THERE ARE SOME GENERAL BITS OF TECHNICAL INFORMATION THAT YOU WILL FIND HELPFUL IN THE FIELD.**

**ROOF ORIENTATION:** Ideally, collectors should be located on a south facing or flat roof or on an elevated ground mounted rack facing south. The next best orientation is west and finally east. Collectors should never be installed facing north in the Northern hemisphere.

**FLOW RATES:** The horsepower of your swimming pool filtration pump must be adequate to supply the solar system with enough water to provide the recommended flow rate necessary for the collectors being installed. The recommended rates are:

COLLECTOR	RECOMMENDED FLOW
UniverSol 32	3-4 gallons per minute
UniverSol 40	4-5 gallons per minute
UniverSol 48	6-7 gallons per minute

**AUTOMATIC DRAIN DOWN:** The collectors and the PVC pipe should be installed so the water will drain out of them when the pump shuts off. This is especially important in areas of the country where freezing conditions occur.

For unique roof designs or adverse pool equipment locations, if it is not possible to achieve complete automatic drain down, manual drain down valves should be installed in appropriate places in the plumbing or at the end of the bottom (feed) header.

[Instead of installing an end cap at the end of the header, you would place a pipe connector and reducer bushing along with a 1/2" hose bib].

These valves should be opened when shutting down the system for the winter months or when freezing conditions are possible. UMA Solar can assist you with the parts necessary for manual drain down installations.

## 4. Tools Required

**MISCELLANEOUS** - Depending upon your specific job, you will need other plumbing items and materials such as: PVC valves, stainless steel lag bolts, polyurethane caulk, silicone spray, pipe straps, black electrical wire ties, electrical wire nuts, 18ga-22ga sensor wire, 12ga-14ga electrical wire with ground, Teflon tape, concrete anchors and screws, electrical conduit, etc. Be sure to use quality products that will withstand direct sunlight year after year.

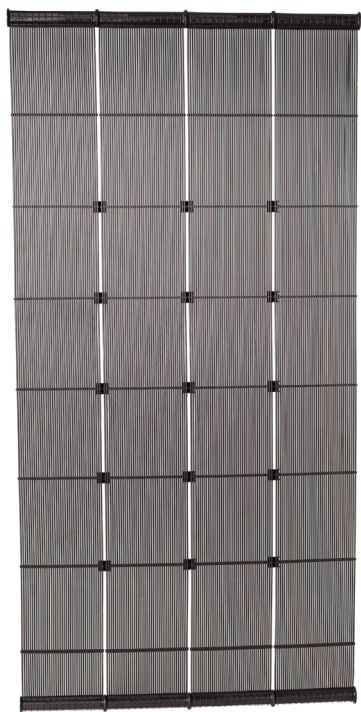
- Flat head and Phillips head screwdriver
- Power drill with bits, 5/16" and 7/16" sockets
- Pipe cutter or hacksaw
- Garden hose
- Channel lock pliers
- Caulking gun
- Ladder

**NOTE:** While this manual explains how to install the UniverSol Replacement Kit properly in typical situations, it cannot address all the unique or individual circumstances possible. If you have any installation questions, contact your UMA Solar Representative for assistance. As the installing contractor, you are responsible for exercising good judgment when installing the UniverSol Replacement Kit to protect the long term integrity of the new collector and existing system as well as the mounting surfaces.

## 5. Parts Breakdown

ITEM NUMBER	DESCRIPTION	QUANTITY
2-1400-032	4' x 8' UniverSol Collector	1*
2-1400-041	4' x 10' UniverSol Collector	1*
2-1400-048	4' x 12' UniverSol Collector	1*
2-1060-001	Long Gator Clamp	2
2-1060-002	Short Gator Clamp	2
2-1810-004	Plastic Panel Clamp	4
(2-1810-020)	• Top Panel Clamp	(4)
(2-1810-015)	• Bottom Panel Clamp	(4)
(2-1810-017)	• Gasket	(4)
(2-1810-018)	• Locking Latch	(4)
2-1410-004	4" Hose	4
2-1410-003	Hose Adaptor Fitting	4
2-3020-007	Radiator Hose Clamp	4
2-1810-005	Pipe Adaptor	2
2-1810-013	End Cap	2

\* only one collector per kit



UniverSol Collector



Long Gator Clamp



Short Gator Clamp



Top Panel Clamp



Bottom Panel Clamp



Gasket



Locking Latch



4" Hose



Hose Adaptor Fitting



Radiator Hose Clamp



Pipe Adaptor



End Cap

# 6. Adding UniverSol Collector to Existing Solar System

**CHOOSING THE RIGHT SIZE COLLECTOR** - The existing system will determine which model collector to use. UniverSol manufactures panels in three different sizes, to match a variety of different solar systems. The panels sizes are:

COLLECTOR	SIZE
UniverSol 32	4' x 8'
UniverSol 40	4' x 10'
UniverSol 48	4' x 12'

# 7. Connecting UniverSol Collector with Hose Adaptor

1. Remove the existing, faulty collector from the existing bank of collectors by disconnecting it from the hose connections.
2. Place hose adaptor & collector next to each other. The spacer bars that hold the individual riser tubes together should be facing down. Lay a plastic panel clamp top, bottom, gasket and clip where the hose adaptor & header meet.
3. Clean the groove of both the adaptor & header.
4. Spray the gasket with silicone and insert it into the groove of the collector header. Make sure that the gasket is fully seated into the header groove by pushing firmly with your thumb all the way around the gasket.
5. Place the bottom half (see Fig. 7.1-A) of the plastic panel clamp under the collector header with the hook portion of the panel clamp on the inside of the collectors.
6. Seat the hose adaptor & header together by inserting the gasket into the groove on the hose adaptor and placing the ends of both into the open space in the panel clamp bottom. (Fig. 7.1-B)
7. Interlock the top half of the panel clamp with the hook on the bottom half. Swing top half over top of both parts. Squeeze the top and bottom portions of the panel clamp together using channel lock pliers and lock both halves of the clamp together using the locking clip. (Fig. 7.1-C)

**NOTE:** Slide large end of locking clip over small end of plastic panel clamp assembly.

8. Use channel lock pliers to tighten the clip grip by squeezing it with reasonable force until it seats flush or even slightly farther so it cannot slide out of its position.



9. Repeat steps 1-7 on all four openings on the collector headers. If the UniverSol collector is replacing an existing collector in the middle of the bank (I.E. not one on the ends) all four openings should have a hose adaptor connected using a plastic panel clamp at this point.

**NOTE:** If the UniverSol collector is replacing an existing collector on the end then either both right, or both left, header connections should have a hose adaptor and the other ports should have a CPVC pipe adaptor or end cap. The orientation and placement of hose adaptors, pipe adaptor, and end caps on replacement collectors on bank ends should match the original installation. See Section 9 “Connecting UniverSol Collector to Feed & Return Lines”.

10. Locate and anchor the bottom portion of the upper and lower gator clamps before proceeding. See Section 8 “Mounting Collector with Gator Clamps”.

11. At this point slide (2) stainless steel hose clamps onto the 4” long rubber hose.

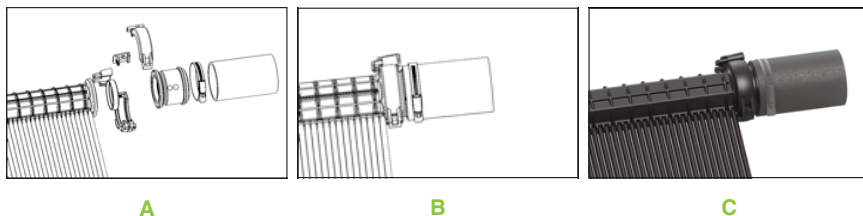
12. With hose adaptors now connected to either header with plastic panel clamps slide and seat the 4” long rubber hose over each hose adaptor and the adjacent, existing collectors’ headers. The hose should reach either plastic panel clamp.

13. With the 4” long rubber hose properly seated tighten the stainless steel hose clamps with a hex driver or flathead screwdriver. The hose clamps should be seated just inside the barbed edge of each hose adaptor and adjacent, existing collectors’ headers. Do not over-tighten (torque to 50 in-lbf).

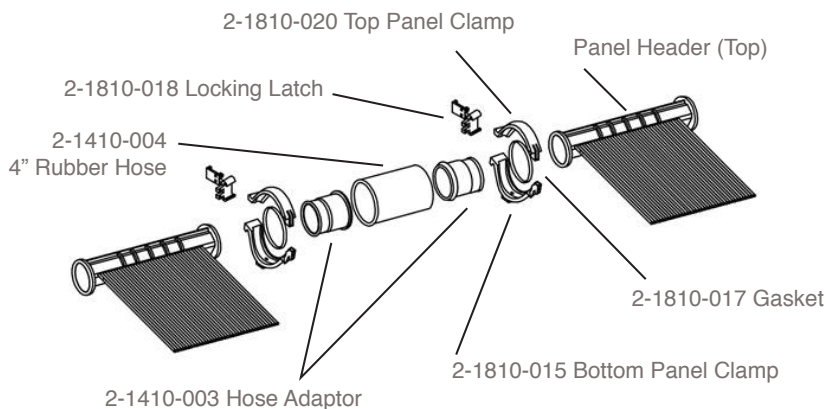
14. Use this same procedure to connect both top and bottom headers of the collectors to the adjacent, existing collectors.

**NOTE:** On soft roof surfaces or lesser quality asphalt shingles, an EPDM or aluminum pad underneath the panel clamp may be necessary to eliminate possible wear.

### SEE FIGURES BELOW



**Fig. 7.1**



**Fig. 7.2**

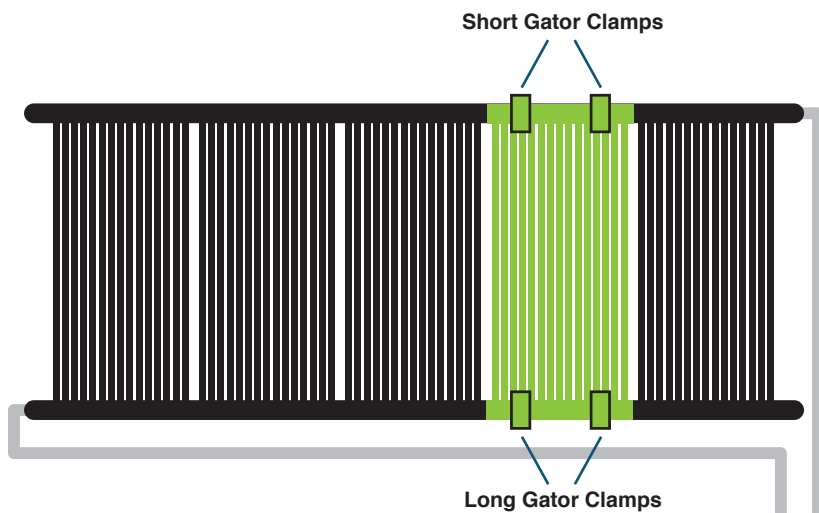
## 8. Mounting Collector with Gator Clamps

The beauty of the “gator clamp” installation method is its simplicity it can be used on just about any type of roof or rack installation.

For rack systems, asphalt shingle roofs, or tile roofs follow these simple steps:

1. At this point in the installation the replacement UniverSol collector should be located next to, but not connected to, the adjacent, existing collector(s).
2. Position the first gator clamp so that the anchor hole is centered directly above a roof truss and beneath the upper header of the UniverSol panel. Metal, tile, and other roof types require different placement of the gator clamps. The UniverSol panel should be located where it will be when connected to the adjacent, existing collectors.
3. Subsequent gator clamps should also be placed directly over a roof truss. Each UniverSol collector requires two gator clamps on the top header and two on the bottom header. For barrel tile roofs, each gator clamp needs to be positioned so that it is centered on the top ridge of a tile.
4. Apply ample sealant to both the bottom and top of the lower hole on the bottom portion of the gator clamp. With the gator clamp positioned over the roof truss bolt the gator to the roof through the lower hole using a 1/4" x 4" S.S lag bolt.
5. The bottom of the gator is designed to grip the roof's surface to avoid rotation back and forth. However, if the roof surface is particularly hard or slick, use an additional lag bolt in either the top or center hole.
6. The UniverSol panel should now have its upper header resting on the bottom portion of the upper gator clamps.

7. Locate and mount the (2) long gator clamps (2-1060-001) along the bottom header of each panel. The bottom gator should be installed allowing for expansion & contraction of the collectors based on temperature at installation.
8. Once all gators are properly lagged to rack or roof surfaces, and all the collectors are hung in place, connect UniverSol panel to adjacent, existing collectors according the steps outlined in Section 7 “Connecting UniverSol Collector with Hose Adaptor” and Fig. 7.2. Snap the top portion of each gator clamp over the panel header onto the bottom portion of each gator clamp by pushing down firmly.
9. Install (2) SS Screws (2-1020-006) to secure gator top to gator bottom assembly.



**Fig. 8.1**

## 9. Connecting UniverSol Collector to Feed & Return Lines

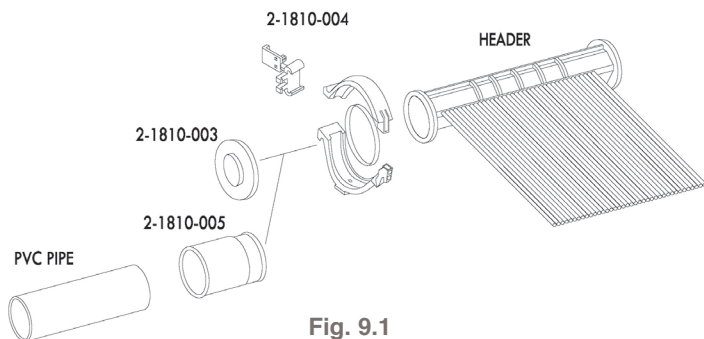


Fig. 9.1

The following steps should be followed only if the UniverSol collector is replacing an existing collector on the ends of a bank:

1. The feed line will be connected to the low end of the bottom header as previously connected to the existing collector bank. The return line will be connected to the top header as previously connected to the existing collector bank.
2. If attaching a feed or return line to a UniverSol panel, attach the (2-1810-005) pipe connector to the panel header using the (2-1810-004) plastic panel clamp as described in the section – Connecting UniverSol Collector with Hose Adaptor.
3. Cement the PVC pipe to the (2-1810-005) pipe connector as shown in Fig. 9.1.
4. The (2-1810-005) Pipe Connector allows (1)  $\frac{1}{2}$ " PVC Pipe or a (1)  $\frac{1}{2}$ " St. 90 to be cemented directly into the socket, or a 2" PVC 90 to be cemented on the outside. CPVC or multi-purpose cement should be used when attaching PVC fittings or pipe to the pipe connectors to provide for a durable connection.
5. Attach the (2-1810-013) end caps on the corners opposite the feed and/or return lines using the (2-1810-004) panel clamps.



Fig. 9.2

## 10. Operation & Check-Out Procedures

### BEFORE YOU RUN WATER THROUGH THE SYSTEM:

1. Allow the cemented fittings adequate time to dry per manufacturer's directions.
2. Verify that the check valves, control valves, and vacuum breakers are installed properly.
3. Verify that all plastic panel clamps and stainless steel hose clamps are tight.
4. Verify that all anchors are secure and that adequate silicone was used to prevent any roof leaks.
5. Be sure all collector riser tubes are snapped into the spacer bars (except where they go around obstructions).
6. Be sure that the collector riser tubes are NOT rubbing on the roof surface between the spacer bars. If they are, adjust the spacer bars as needed to prevent this or a hole may develop in the riser tube.
7. Be certain that the system will automatically drain down when the pump is shut off or that enough manual drain valves have been installed.
8. Verify that all pipe runs are properly supported with pipe clamps.

**That's all there is to it. You have installed the UniverSol Replacement Kit.**

**If you run into any problems with your installation  
or have any future problems, call UMA Solar at:**

**800.79.SOLAR**

**BE SURE TO COMPLETE THE PRODUCT REGISTRATION INFORMATION  
ON THE BACK OF THE WARRANTY AND REMIND YOUR CUSTOMER TO  
COMPLETE THE PRODUCT REGISTRATION AT [UMASOLAR.COM](http://UMASOLAR.COM).**

**CONGRATULATIONS!**

# 11. Troubleshooting

PROBLEM	CAUSE	SOLUTION
<b>THERE ARE AIR BUBBLES IN THE POOL WHEN THE SOLAR HEATER IS OPERATING</b>	1. If the pump is making more noise, there may be air coming into the pump through an air leak on the suction side of the pump due to the pump working harder to move the water through the solar system.	A. Be sure pump trap lid is on tight. B. Check the “O” ring on the pump trap lid - clean, lubricate, or replace as needed. C. If you have a suction type pool cleaner, remove it. If this improves the air bubbles, only use it when not operating the solar. D. If you have a clear lid on the pump and can see air bubbles in the trap, run water over the lid and each joint individually to see if the air bubbles will clear up using a garden hose. If there is not a clear lid, listen to pump noise for a smoother operation, repair any air leaks.
	2. If the vacuum breaker is installed on the roof, there is not enough water pressure in the solar system to keep the vacuum relief valve closed and it is allowing air to be drawn into the water as it flows by the valve.	A. Be sure filter is clean. Backwash to reduce pressure. B. If it's an older system, check for debris or scale in the mouth of the vacuum relief valve and clean if necessary. C. Use the (2-2015-019) on the return line to throttle the flow back to produce more back pressure on the system.

PROBLEM	CAUSE	SOLUTION
<b>SOME OF THE SOLAR PANELS ARE WARM TO THE TOUCH WHILE OTHERS ARE COOL TO THE TOUCH</b>	1. There is not equal flow through all of the panels. Warm panels indicate low water flow. Pump issue.	<p>A. Be sure filter is clean. Backwash to reduce pressure.</p> <p>B. The pump may not be providing enough water to the solar system. Check water flow using a flow meter. Increase pump horsepower if needed to maintain recommended flow.</p> <p>C. If there is a suction type cleaner in the pool, remove it. If this eliminates the problem, use it only when the solar system is off.</p>
	2. There is not equal flow through all of the panels. Warm panels indicate low water flow. Install issue.	<p>A. If the system is a single row array and there is adequate flow, use the (HBV) on the return line to throttle the flow back to produce more back pressure on the system. This will even out the flow through the panels. If the array contains more panels than the maximum recommended on page 7 of this manual, change the array to a double row or single row split feed as show in (Fig. 6.2 and 6.3).</p> <p>B. If the system is a double row or a single row split feed array and there is adequate flow, install a ball valve on the return side of the set of panels that are the coolest to the throttle. Back the flow through these panels and force more water through the warmer panels. If any section of the array contains more panels than the maximum recommended on page 9 of the manual, make changes as needed to correct this.</p>

PROBLEM	CAUSE	SOLUTION
<b>THE AREA LEAKS BETWEEN THE HEADERS AT THE PLASTIC PANEL CLAMPS</b>	1. PPC latch is not tight enough to seal the joint.	Slide the latch farther across the connection between top and bottom half of the clamp.
	2. PPC is not seated squarely in grooves.	Disassemble PPC and verify that the gasket is seated properly.
<b>THERE IS A PIN HOLE LEAK IN ONE OF THE RISER TUBES</b>	1. If it's a new installation, it may be a manufacturing defect.	Contact your distributor for warranty repair information.
	2. Riser tubes are rubbing on roof surface.	Contact distributor for a repair kit and adjust the spacer bars to prevent future damage.
	3. Birds or squirrels have damaged the tubes.	Contact distributor for a repair kit and adjust the spacer bars to prevent future damage.
<b>THE 3-WAY OR BALL VALVE WILL NOT TURN</b>	Internal parts need to be lubricated or replaced.	If the valve has a grease fitting, turn it clockwise to inject grease into valve then turn the diverter past the grease fitting to spread the grease. If the grease fitting is dry, fill it with silicone grease. If there is not a fitting, disassemble valve and lubricate with silicone grease. Replace worn or broken parts.
<b>THE AUTOMATIC CONTROL SYSTEM IS NOT WORKING</b>	Various	Consult the manual for the automatic system you have.
<b>THE WATER COMING FROM THE SOLAR SYSTEM IS NOT AS WARM AS IT SHOULD BE</b>	1. The water is flowing too fast through the panels.	Test the water flow rate. Water flow through a single panel should be less than 10 gallons per minute. Adjust the 3-way valve to bypass some of the water.
	2. Seasonal normal operation.	In the cooler months of the year, or on cool, partly cloudy days, temperature rise through the panels may only be 2° or 3°. Use the back of your hand to feel the water temperature difference at the pool return inlet.



## 12. Repair Procedures

**NOTE: The UniverSol Replacement Kit is a very durable product, but there are a few steps you should take to protect its longevity.**

- (1) Try to avoid walking on the collectors. If you cannot avoid it, always wear soft-soled shoes.
- (2) Do not install the collectors during temperatures lower than 35 degrees.

If any of the riser tube in the UniverSol collector should become damaged for any reason, it can be repaired using the (2-3020-029) repair tool kit and (2-1120-001) repair plugs. The repair tool kit consists of a 1/4" repair chisel, an insert tool, and a (PVC) carrying case. Follow instructions for repair:

1. Utilizing the repair chisel, cut the damaged riser as close as possible to the header carefully avoiding damaging adjacent riser. (The sloped side of the chisel should face away from the header).



2. Spray the shaft of the insert tool and the rubber insert with silicone spray. Insert the insert tool into the rubber insert. By holding the rubber insert with one hand and the insert tool with the other, gently stretch the rubber insert. As you do, push the rubber insert all of the way into the header's opening. Stretching the rubber insert first allows for easier insertion into the header.



3. Pull out the rubber insert tool. Using your fingers or channel-lock pliers, push a poly-insert into the rubber insert as far as you can.



4. Cut the riser tube to the desired length and slide it over the stub of the poly-insert for a straight, eye pleasing fit.



5. REPEAT steps 1-4 for the other end of the riser tube. (At the opposite header).



## One (1) YEAR LIMITED WARRANTY

**WARRANTY:** This is a One (1) Year Limited Warranty issued by UMA Distributors, LLC, 950 Sunshine Lane, Altamonte Springs, Florida 32714 ("UMA Solar") covering UniverSol collectors ("Collector") manufactured by Magen eco-Energy ("MeE"), when purchased for use on residential or commercial solar heating swimming pools. This warranty is non-transferable and applies only to the original Purchaser and only to its original installation. When used for its intended purpose and properly maintained, UMA Solar warrants that the collector will be free from defect in materials and workmanship in the manufacturing process under normal use for a period of one (1) year from the Date of Purchase ("Warranty Period"). Collector must be properly installed according to installation manual provided. During that time, should a Collector exhibit a manufacturing defect, the defective collector will be repaired or replaced at UMA Solar's option, without charge for the equipment by UMA Solar, or its authorized dealer. The Warranty Period shall begin the date of installation when purchased from and properly installed by an authorized dealer.

Your Dealer is: \_\_\_\_\_

Authorized Dealer

Phone

**EXCLUSIONS & LIABILITY LIMITATIONS:** Warranty is valid for leaking only if installation and mechanical stability conditions, as detailed in the installation manual and its appendices, are met. If a valid claim under this warranty is received by UMA Solar within the Warranty Period, UMA Solar will, at its discretion, either (i) repair the defect without charge for the equipment; (ii) replace the Collector with a product that is at least functionally equivalent to the original Collector; or (iii) refund the original purchase price of the Collector. A replacement Collector, which has been installed in accordance with the installation manual by UMA Solar, shall assume the remaining Warranty Period of the original Collector. When a Collector is replaced, any replacement item becomes the original Purchaser's property and the defective Collector becomes the property of UMA Solar. When a refund is offered by UMA Solar, such refund shall be contingent upon the return of the defective Collector to UMA Solar. Additional charges by the authorized dealer, such as travel costs and parts or services not included in the warranty items, are the responsibility of the Purchaser.

UMA Solar shall be released from all obligations under its warranty in the event (a) that the Collector has been subject to misuse, neglect, accident, other external causes, or improper installation, or if repairs or modifications were made by service personnel not authorized by UMA Solar; (b) that the Collector was not installed and/or operated in accordance with all local fire codes and plumbing codes, ordinances and regulations, or the UniverSol Replacement Kit Installation Manual. This warranty is not valid for and does not apply to components not manufactured by MeE or to Collectors that have been dismantled and reinstalled. This warranty is valid only if dismantling and re-installation is done by an authorized dealer/installer.

EXCEPT AS EXPRESSLY PROVIDED HEREIN, UMA SOLAR DOES NOT MAKE AND HEREBY DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES RELATING TO THE COLLECTOR, INCLUDING, BUT NOT LIMITED TO: MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTIES THAT MIGHT ARISE FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE FULL EXTENT PERMITTED BY LAW, UMA SOLAR SHALL NOT BE RESPONSIBLE AND/OR LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSS RESULTING FROM ANY BREACH OF THE ABOVE WARRANTY OR UNDER ANY OTHER LEGAL THEORY.

**PROOF OF PURCHASE:** It is the responsibility of the original Purchaser to establish the original purchase date for warranty purpose. We recommend that a bill of sale or some other appropriate payment record be kept for that purpose. The following steps should be taken when a warranty claim is being activated:

1. Contact the dealer in which the system was purchased from. They are required to complete the "warranty claim form" on your behalf, including full details of purchase. Filling and sending a warranty claim form is essential, but not a sufficient condition for acceptance of a warranty claim. Warranty claim forms are available to dealers only at [www.umasolar.com](http://www.umasolar.com).
2. Comprehensive information about the system in question should be provided by an authorized dealer, which should include a sketch of the system, pictures of the system, and close up images of the problem areas.

**NOTE:** This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

**PRODUCT REGISTRATION:** UMA Solar encourages you to register your product online at: [www.umasolar.com/resources/warranties](http://www.umasolar.com/resources/warranties). Your Dealer may complete the product registration for you, if an email is provided a confirmation email will be sent.

# Product Registration

Thank you for your recent UniverSol Replacement Kit purchase. We encourage you to register your product online at: [www.umasolar.com/resources/warranties](http://www.umasolar.com/resources/warranties)

Once completed by you or your dealer, an email confirmation will be sent to the email provided. If you choose to mail-in your product registration, please complete the form below. UMA Solar advises you save a copy for your personal records.

**MAIL TO:** UMA Distributors, LLC  
Attn: UniverSol Warranty  
950 Sunshine Lane  
Altamonte Springs, FL 32714

## Homeowner/Business Info

Installation Type: Residential Commercial

Homeowner/Business Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Country: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

## Dealer Info

Purchasing Company: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Country: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

Sales Rep: \_\_\_\_\_ Installer: \_\_\_\_\_

## Product Info

Panel Type: \_\_\_\_\_ Quantity: \_\_\_\_\_

*Example: UniverSol 48 = 4ft x 12ft*

*Number of Panels 1-1000*

Warranty Type: **1 Year Limited Warranty** Purchase Date: \_\_\_\_\_

Date Code: \_\_\_\_\_ Installation Date: \_\_\_\_\_

*Located on Each Corner of the Panel (mm-yy)  
Arrow Points to the Month / Center Number is the Year*





Distributed By:



800.79.SOLAR • [www.umasolar.com](http://www.umasolar.com)