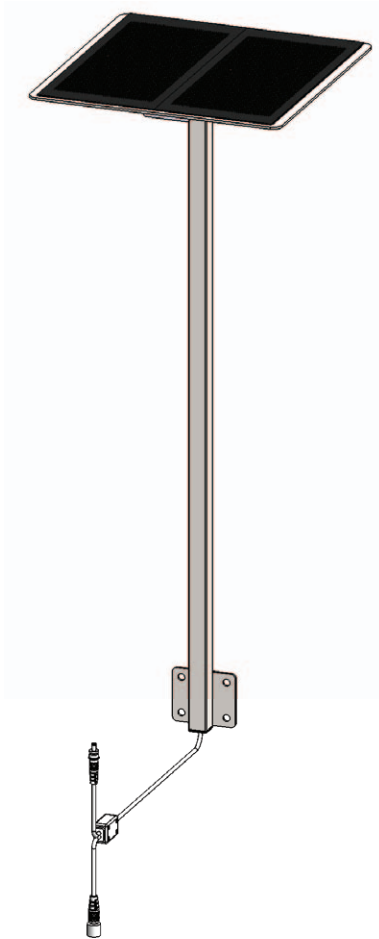


24V Solar Charger Instructions



PART #: F-045SCH
**(For use with Revolution, Scout, Titan,
Spa Lift Ultra and Spa Lift Elite)**

MANDATORY
LEAVE THIS MANUAL WITH LIFT OWNER

Read and follow all instructions.
Lift safety can only be ensured if the lift is installed and
operated according to these instructions.

- NEVER permit children to play on or around the lift
- Do not allow children to use the lift without adult supervision
- NEVER apply direct water pressure to the electronics
- NEVER use the lift with a dry pool

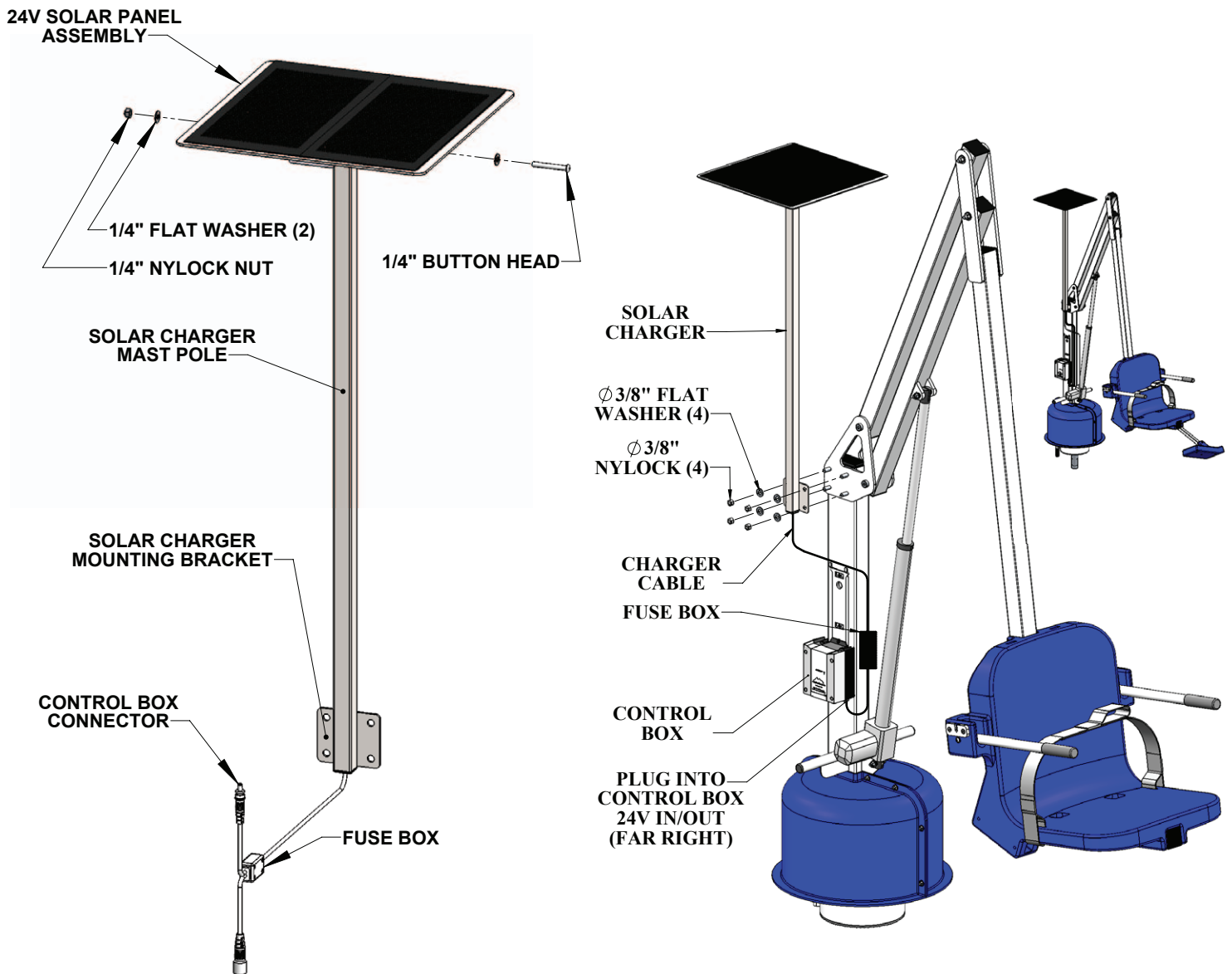
READ CAREFULLY

Check entire box and all packing materials for parts. Before beginning assembly, read the instructions and identify parts using the figures and parts listed in this document.

It is critical that all parts be carefully inspected prior to installation. If any damage occurred in transit, Aqua Creek Products, LLC must be notified within three days of receipt of unit.

Proper installation cannot be overstressed, as an improper installation voids Aqua Creek's warranty and may affect the safety of the user.

Unpacking and Installation



Before installing the 24V Solar Charger to the lift, flip-up the 24V Solar Panel Assembly and install the 1/4" button head bolt as shown in the diagram above. The 24V Solar Charger bolts directly to the mast of the lift and may be left on the unit 24 hours a day. In most cases this will mean the battery will not need to be charged during the day, or for heavy usage will not need to be put on the AC wall charger as often. To install the 24V Solar Charger, remove the four (4) 3/8" Nylock nuts and flat washers from the lift as shown, and install the charger. The control box connector plugs directly into the control box as shown above and on page 8.

Control Box Modification Instructions

Check to make sure the far right plug in does not have a plastic disk at the top of the hole. If it has a plastic disk, follow the instructions on how to remove it. If the hole is clear, skip to "Installing The Charge Connector".

NOTE: Removing the plastic disk voids the warranty of the control box! A new solar charger ready control box can be purchased, if you do not wish to void your control box warranty. Contact Aqua Creek for additional information.



TO OPEN THE CONTROL BOX
USE A TORX T20 DRIVER



"TORX" T20 DRIVER FOR
OPENING CONTROL-BOX



REMOVE THE FOUR (4) SCREWS FROM THE TOP OF THE CONTROL BOX: LEAVE SCREWS IN HOLES



Control Box Modification Instructions

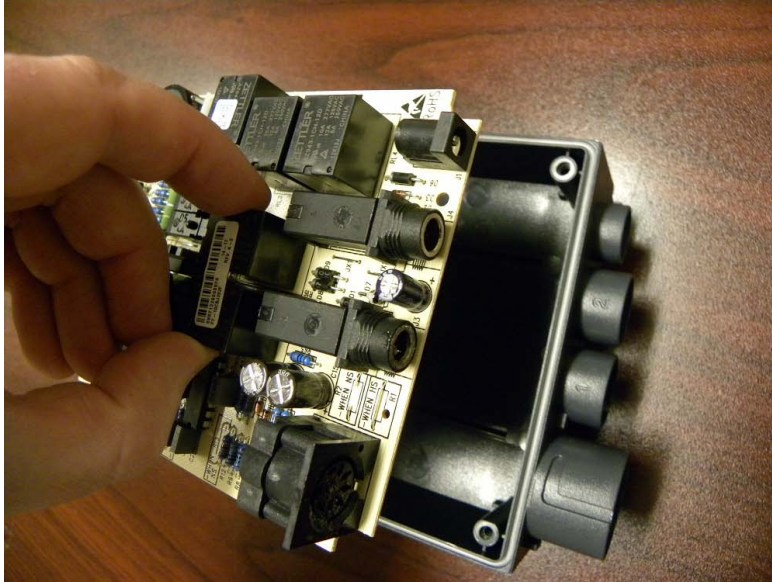


REMOVE THE COVER AND PLACE ON TABLE RIGHT-SIDE UP: NOTE POSITION OF EMERGENCY-SWITCH CAP



USE A "TORX" T10 DRIVER TO REMOVE THE THREE (3) SCREWS FROM THE CONTROL BOARD

Control Box Modification Instructions

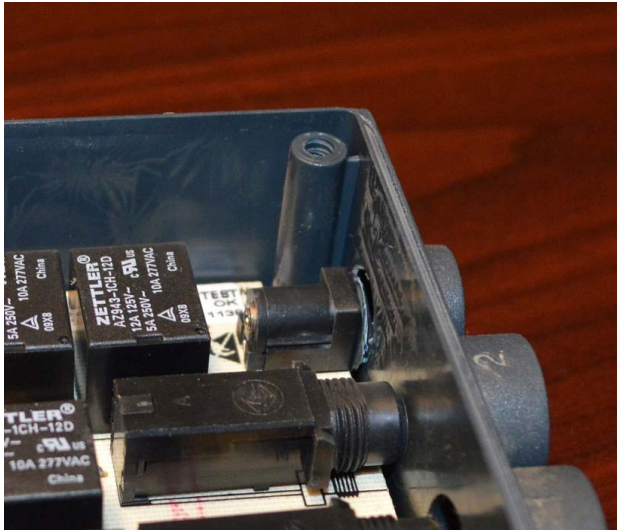


REMOVE THE CONTROL BOARD FROM THE CONTROL BOX



USE SCREWDRIVER, AND MALLET IF NECESSARY, TO PUNCH-OUT AND REMOVE PLASTIC-DISC ON 24V INPUT/OUTPUT PORT

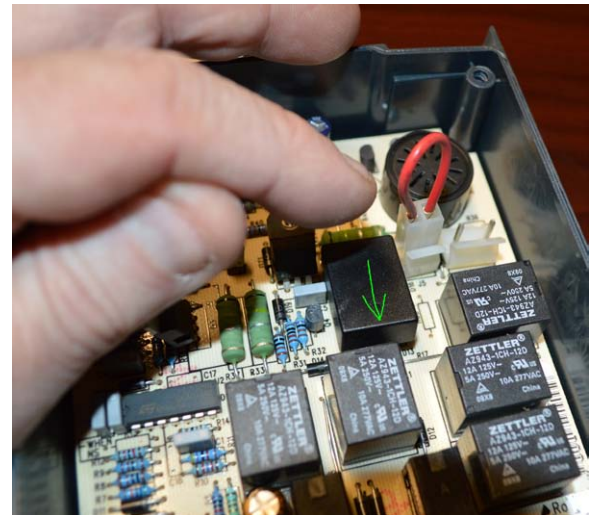
Control Box Modification Instructions



PLACE THE CONTROL BOARD BACK IN PLACE INSIDE THE CONTROL BOX



RETURN THE THREE (3) SCREWS TO SECURE THE CONTROL BOARD BACK IN PLACE



REPLACE THE EMERGENCY-SWITCH CAP WITH "ARROW" POINTING DOWN AS SHOWN

Control Box Modification Instructions



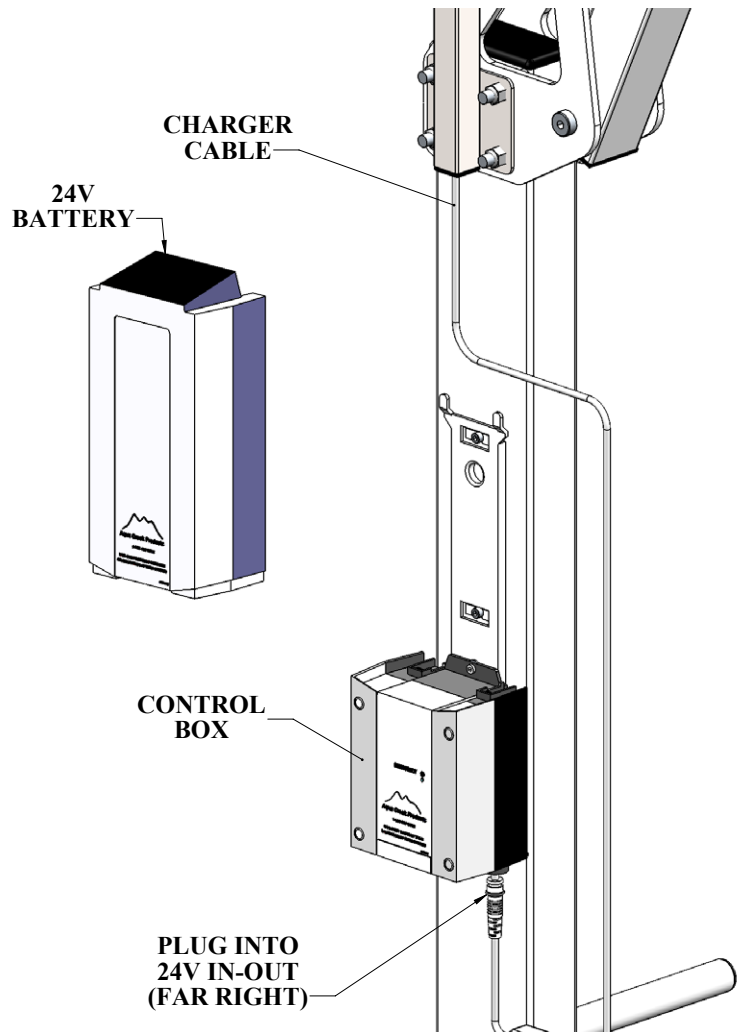
PUT COVER ON AND REINSTALL SCREWS



TEST EMERGENCY-SWITCH WITH DRIVER, LISTEN FOR "CLICK"

Solar Charger Installation

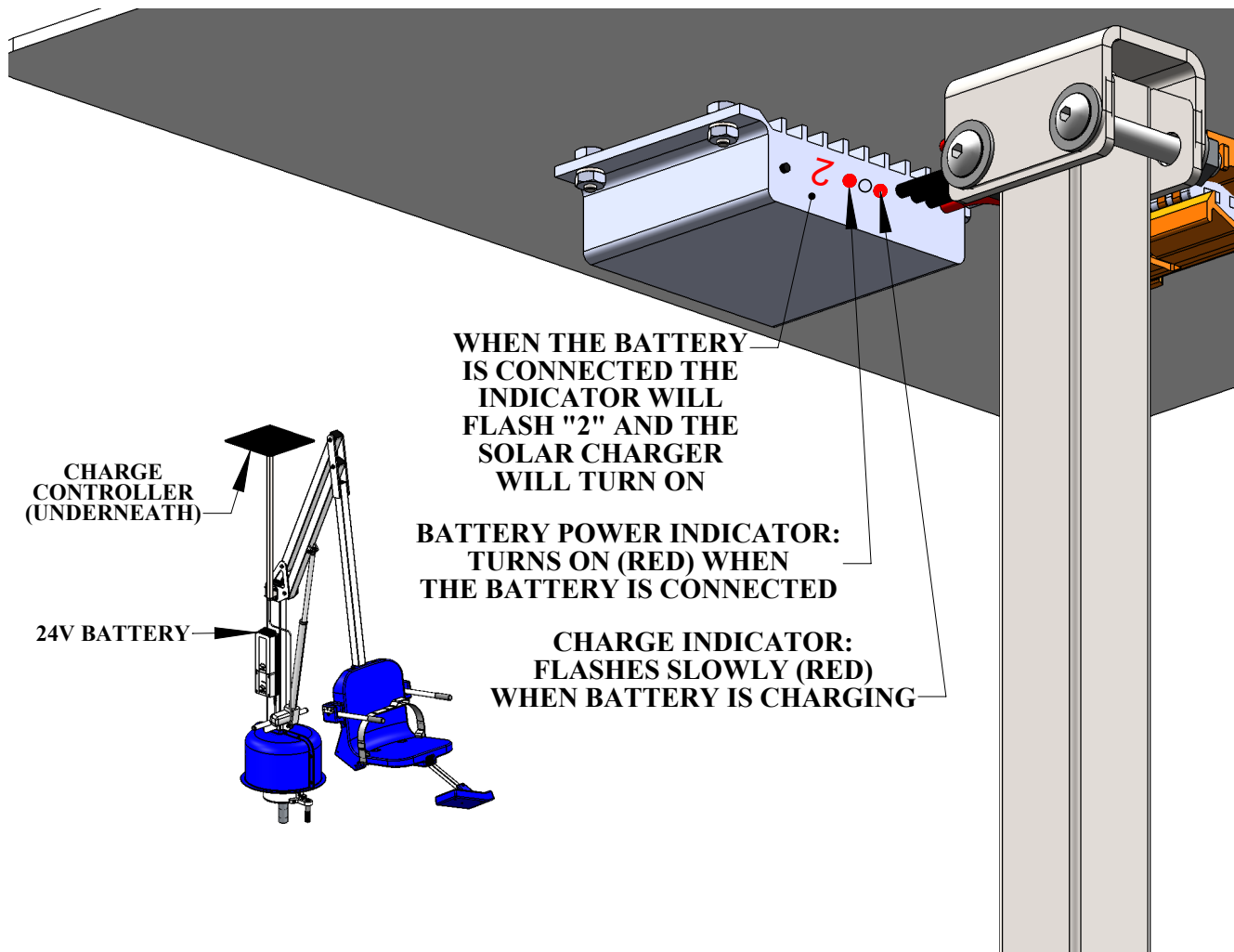
The CHARGER CABLE gets plugged into the 24V in-out slot of the control box which is located on the far right. Run the battery cable along the side of the CONTROL BOX bracket so it is out of the way.



NOTE: Make sure the plug is fully engaged into the control box. Make sure the lights come on (see next page) and the lift functions normally when the 24V Solar Charger is installed. If the lift does not function, check all connections going into the control box and make sure they are pressed all the way in. When installed properly the battery will charge as the lift operates simultaneously.



Solar Charger Operation



Once the solar charger has been installed, and a battery is installed onto the lift the 24V Solar Charger will turn on and start trickle-charging the battery. Without the battery installed the 24V Solar Charger will be off, and will remain off until a battery is installed.

When a 24V battery is installed onto the lift the LED INDICATOR will flash "2" to show a 24V battery has been detected and the charger is operational.

The Solar-Panel power indicator will light up (red) when the Solar Charger has been properly connected to the battery. The charger will work even on cloudy days, but not as efficiently.

When the battery is installed and there is sufficient sunlight, the CHARGE INDICATOR will flash (red) slowly, indicating the battery is being charged. When the controller detects the battery is fully charged the flashing will stop. Under most conditions the CHARGE INDICATOR light will be flashing whenever a battery has been installed.

The 24V Solar Charger will continue to charge the battery, even as the lift is being used. So once the 24V Solar Charger has been installed it will function without any need for adjustment. The user should check the indicators periodically to make sure it is working.

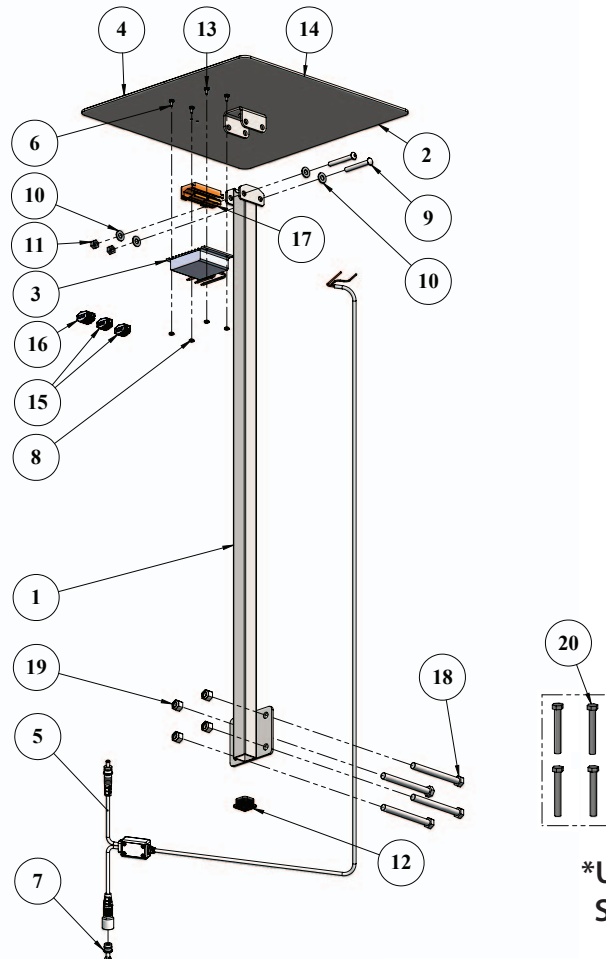
Battery Maintenance

1. Do NOT expose the battery to freezing temperatures.
2. Do NOT expose the battery to prolonged periods of extreme heat or severe cold temperatures.
3. Do NOT expose the battery to temperatures below 0 degrees Celsius (32 degrees F.)
4. Do NOT expose the battery to long periods of direct sunlight. Heat will shorten your battery life. Optimum operating temperature is below 20 degrees Celsius (68 degrees F.)
Aqua Creek recommends a battery cover be used with solar chargers since the battery is left on the lift at all times.
5. Never drop or bump the battery pack. This may result in loose or damaged internal connections, and may damage the battery terminals.
6. Keep battery terminals clean and free from dirt and corrosion to ensure good contact. The terminals may be cleaned using alcohol and a cotton swab. Clean off any corrosion or discoloration of the battery contacts with a Scotch-Brite™ pad and then apply dielectric grease (supplied with lift) as shown in the figure below.



Clean with alcohol and a cotton swab and apply dielectric grease to terminals

Solar Charger Parts List



*Used in place of #18 only with Spa Lift Elite or Spa Lift Ultra.

ITEM #	QTY	PART #	DESCRIPTION
1	1	RSC-100-10	REV SOLAR CHARGER LOWER WELDMENT
2	1	PSC-300-10	REV SOLAR CHARGER TOP WELDMENT
3	1	P-LCSC-A1	CONTROLLER, 12/24V SOLAR
4	2	P-WSME-0040	SOLAR PANEL, 4 WATT MOBILE
5	1	VSCC2	SOLAR CHARGER CABLE, VITO
6	6	BC 4 X 1/2	BOLT, 316 SS, #4-40 X 1/2" FH PHILLIPS
7	1	00918174	LINAK DUMMY PLUG FOR DC PORT
8	6	NN 4	NUT, 316 SS, NYLOCK, #4-40
9	2	BB 1/4 X 2	BOLT, 316 SS, 1/4-20 X 2 BHSCS
10	4	WF 1/4	WASHER, FLAT, 1/4, 316 SS
11	2	NN 1/4	NUT, 316 SS, NYLOCK, 1/4"-20
12	1	SQR-1-14-20	CAP, PLASTIC, 1"X1" SQUARE
13	4	NF 4	NUT, 316 SS, #4-40, FINISH NUT
14	5-FT	TAPE, MOUNTING DOUBLE SIDED	DOUBLE SIDED MOUNTING TAPE, 1" WIDE
15	2	222-412	CONNECTOR, WAGO, 2 LEVER
16	1	222-413	CONNECTOR, WAGO, 3 LEVER
17	1	222-500	CARRIER, HOUSING, FOR WAGO CONNECTORS
18	4	BH 3/8 X 3-3/4	BOLT, 316 SS, 3/8-16 X 3 3/4 HCS
19	4	NN 3/8	NUT, 316 SS, NYLOCK, 3/8-16 SS
*20	4	BH 3/8 X 2-3/4	BOLT, 316 SS, 3/8-16 X 2 3/4 HCS
21	1	ANTI SIEZE, PACKET, .75	ANTI SIEZE, PACKET, 5 GRAMS
22	1	450 DEGR	SILICON, BLISTER PACKET, 450 DEGREE

AQUA CREEK PRODUCTS, LLC LIMITED ONE (1) YEAR WARRANTY:
SOLAR CHARGING SYSTEMS

(ITEM #'s F-043SCH, F-044SCH, F-045SCH, F-046SCH, F-047SCH)

Aqua Creek Products, LLC (a.k.a. Aqua Creek) warrants to the original end user purchaser that products manufactured by Aqua Creek, when properly installed in accordance with assembly and installation instructions and properly used and maintained, shall be free from defects in material and workmanship for a period of **one (1) year from the date of original purchase**, provided that Aqua Creek receives prompt notice in writing of any defect or failure and satisfactory proof thereof, with the following exceptions:

Exceptions:

- All electrical components shall be warranted for a period of ninety (90) days from the date of original purchase.
- This warranty specifically excludes reimbursement for labor to remove, repair, or install the product and any freight charges.
- This warranty does not cover any damages due to accident, force majeure, act of nature, misuse, abuse, negligence or failure to properly maintain any products, or normal wear and tear from day to day operations.
- In the event that any products are altered, repaired, or improperly installed by anyone without the prior written approval by Aqua Creek, all warranties are void.

To initiate a warranty claim, the owner of an Aqua Creek product must provide the place of purchase, in writing, with a full description of the product, its serial number, the dates of purchase and installation, and the exact nature of the defect. Within thirty (30) days after receipt of a written warranty claim by Aqua Creek, and barring any unforeseen delays, the place of purchase will be notified of Aqua Creek's decision regarding the claim. All warranty calculations are from date of original purchase at manufacturer's suggested retail price. Non-payment for product to Aqua Creek may void warranty.

If requested by Aqua Creek, any defective product must be returned, freight prepaid by customer, to Aqua Creek's designated factory location or duly appointed distributor for inspection and/or repair. Aqua Creek will, at its option, repair or replace the failed or defective item, and deliver the repaired product or replacement to the customer. All freight charges are the responsibility of the customer. Products returned to Aqua Creek for which Aqua Creek provides replacement under this limited warranty shall become the property of Aqua Creek. A new warranty period shall **NOT** be established for the repaired or replaced products. Such products shall remain under warranty only for the remainder of the original warranty period on the original products purchased.

This written limited warranty constitutes the final, complete and exclusive statement of warranty terms. No person or organization is authorized to make any other specific or implied warranties or representations on behalf of Aqua Creek.

THE WARRANTIES SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WHICH ARE HEREBY DISCLAIMED AND EXCLUDED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

THE SOLE AND EXCLUSIVE REMEDIES FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO THE PRODUCTS SHALL BE LIMITED TO REPAIR OR REPLACEMENT AT AQUA CREEK'S DESIGNATED FACTORY LOCATION, OR DULY APPOINTED DISTRIBUTOR, OR IN PLACE AT AQUA CREEK'S OPTION. IN NO EVENT SHALL AQUA CREEK'S LIABILITY EXCEED THE ENTIRE AMOUNT PAID TO AQUA CREEK BY THE ORIGINAL PURCHASER FOR THE FAILED OR DEFECTIVE PRODUCT.

IN NO EVENT SHALL AQUA CREEK PRODUCTS, LLC BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, PUNITIVE OR EXEMPLARY DAMAGES OR LOST PROFITS FROM ANY BREACH OF THIS LIMITED WARRANTY OR OTHERWISE.

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