

2.5 WATT SOLAR BATTERY MAINTAINER

Item Number W2997

OWNER'S MANUAL



Performance Tool®

▲WARNING

It is the owner and/or operators' responsibility to study all WARNINGS, operating, and maintenance instructions contained on the product label and instruction manual prior to operation of this product. The owner/operator shall retain product instructions for future reference.

The owner and/or operator are responsible for maintenance, maintaining all decals or warning labels and while in use, maintaining the unit in good working order. If the owner and/or operator are not fluent in English, the product warnings and instructions shall be read and discussed with the operators' native language by the purchaser/owner or his designee. Make sure that the operator comprehends its contents. Safety information shall be emphasized and understood prior to usage. The product shall be inspected per the operating instructions.

Users of this product must fully understand these instructions. Each person operating this product must also be of sound mind and body and must not be under the influence of any substance that might impair their vision, dexterity or judgment.

Protect yourself and others by observing all safety information.

Failure to comply with instructions could result in personal injury and/or property damage!

Please read these instructions carefully and retain them for future use.

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SAFETY GUIDELINES / DEFINITIONS

PRIOR TO USING THIS PRODUCT, READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY PRECAUTIONS. This instruction manual is intended for your benefit. Please read and follow the safety, installation, maintenance and troubleshooting steps described within to ensure your safety and satisfaction. The contents of this instruction manual are based upon the latest product information available at the time of publication. The manufacturer reserves the right to make product changes at any time without notice.

⚠ WARNING: Read and understand this entire instruction manual before attempting to assemble, install, operate or maintain this product. Failure to comply with the instructions may result in serious personal injury and/or property damage!

The following signal words are used to emphasize safety warnings that must be followed when using this product:

⚠ DANGER Indicates an imminently hazardous situation that, if not avoided, **WILL** result in death or serious injury.

⚠ WARNING Indicates a potentially hazardous situation that, if not avoided, **COULD** result in death or serious injury.

⚠ CAUTION Indicates a potentially hazardous situation that, if not avoided, **MAY** result in minor or moderate injury.

⚠ NOTICE Indicates important information, which if not followed, **MAY** cause damage to equipment.

⚠ WARNING DO NOT operate this product if damaged during shipment, handling or misuse. Before each use, inspect the general condition of the tool. Check for cracks, breaks, or bends in the equipment, and any other condition that may affect its safe operation. If a problem occurs with the equipment, immediately discontinue its use and have the problem corrected before further use. Do not use damaged equipment. Please have the serial number, model number, and date of purchase available for reference when calling.

SPECIFICATIONS

Rated Output 12/24 VAC / 1.5 W

Panel Size 13-3/4 IN. L x 4-3/4 IN. W

INSTALLATION PRECAUTIONS

⚠ WARNING

READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS PRODUCT. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.

1. Install all sensitive electrical components (including wiring connections and battery) inside a weatherproof enclosure to prevent electric shock.
2. Do not wire multiple panels in series.
3. This solar panel kit is not designed for tie-in to an electrical grid.
4. Use with 12 VDC batteries only.

BATTERY/SERVICE PRECAUTIONS

1. Before service, maintenance, or cleaning dry solar panels and outdoor wiring thoroughly while wearing splash-resistant ANSI-approved safety goggles and electrically insulated gloves
2. Charge, store, and maintain batteries according to the supplier's instructions.
3. Do not stand on or otherwise apply pressure to panel.
4. Do not allow children to play with or near this item or electrical components.

inside the housing, electrical insulation is cracked or damaged, or connections are loose.

6. Maintain product labels and nameplates.

These carry important safety information. If unreadable or missing, contact Performance Tools for a replacement.

⚠ WARNING: The cord of this product contains lead and/or di (2-ethylhexyl) phthalate (DEHP), chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, et seq.)

LOCATION

1. Locate the Charger panel where it will receive full, unobstructed sunlight, especially during Mid-day. Nearby trees or tall plants will drop debris, requiring the panel to be cleaned more frequently.
2. The installation location for panels, charge, and batteries must be inaccessible to children

to prevent electric shock. Build a childproof enclosure if needed.

NOTE: Output will decrease as the panel gets hotter than room temperature (~70° F). Angle, solar intensity, cloud cover and other factors will effect output.

ASSEMBLY / MOUNTING

1. Select a mounting location for the charger frame. The solar panel should face the sun, and not be blocked by shadows. The location should allow The panel to be protected from accidental damage. Before mounting, be sure that the main cable to either the battery clamp wire or the lighter plug wire will reach from the charger frame to the battery to be charged.

2. Installation through 12 volt DC plug:

Plug 12 volt DC plug into any 12 volt DC socket in the vehicle. Plug in the wire adapter so the 12 volt plug and solar panel are connected. Make sure both ends are secure. Position / mount solar panel so there is no tension on either side of wiring harness.

▲ CAUTION: Disconnect the solar battery charger from automotive 12 V receptacle or battery terminal before starting engine. Surges of electricity from the engine may damage the solar panel.

3. Installation using battery alligator clamps:

Connect the alligator battery clamps by matching the red clamp to the positive (+) battery terminal on the battery. Connect the black clamp to the negative (-) battery terminal on the battery. Plug in the wire adapter so the alligator clamps and solar panel are connected. Make sure both ends are secure. Position / mount solar panel so there is no tension on either side of wiring harness.

▲ WARNING: If using mounting screws, do not drill through the charger's frame. You may damage the frame or break the glass.

NOTE: output will decrease as the panel gets hotter than room temperature (~70° f). Angle, solar intensity, cloud cover and other factors will effect output.

▲ DANGER: Follow these instructions carefully. Connecting the Battery Alligator Clams incorrectly can cause sparking, damage to battery, explosions, bodily harm and even death. Consult vehicle owner's manual for further instructions.

▲ WARNING: -RISK OF EXPLOSIVE GASES.

1. WORKING IN VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS OF UTMOST IMPORTANCE THAT EACH TIME BEFORE USING YOUR CHARGER, YOU READ THIS MANUAL AND FOLLOW THE INSTRUCTIONS EXACTLY.

2. To reduce risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of battery. Review the cautionary marking on these products and on engine.

3. When working with/hear a lead acid battery. Someone should be in range of your voice or close enough to come to your aid when you work near a lead acid battery.

4. Have plenty of fresh water and soap nearby in case battery acid contact skin, clothing, or eyes.

5. Wear complete eye protection and clothing protection. Avoid touching eyes while working near battery.

6. If battery acid does contact skin or clothing, wash immediately with soap and water. If acid entered the eye, immediately flood the eye with running water for at least 10 minutes and get medical attention immediately.

7. Never smoke or allow a spark of flame near battery or engine.

8. Be extra cautious to reduce risk of dropping a metal tool or auto part onto battery. It might spark or short circuit battery or other electrical part that may cause an explosion.

9. Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead acid battery. A lead acid battery can produce a short circuit current high enough to weld a ring or the like to metal, causing personal injury.

OPERATION

Solar Panel may also be used to maintain charge on batteries which are powering other items, such as a car radio while the car is parked.

1. Attach one of the two provided extensions as needed. This kit includes battery clamps and car lighter plug wire in addition to the charger's main cable.
2. The blue led will blink when the solar panel is absorbing light.
3. Using a multi-meter a measurement between 16 and 25 volts should be present when in direct sunlight.

4. Do not use charger while vehicle is in use. It could damage internal circuitry and render charger inoperable.

5. Can be used for all types of 12 volt batteries like ones used for cars, boats, RVs, motorcycles, PWC and lawn tractors.
6. Solar panel is weather proof and will not be damaged in rain but should not be exposed to standing water or submerged.
7. This solar panel has built in blocking circuitry to prevent reverse discharge.

SERVICING

1. Disconnect all panels and batteries.
2. Clean panels one at a time with mild, non-abrasive cleanser and soft cloth and paper towels. Do not clean with brushes or abrasive cleaners.
3. Inspect the general condition of the Solar Battery Charger system (panels, batteries, and mounting). Check for loose

- hardware, wiring insulation damage or weathering, cracked glass, open housing, cracked or broken parts, lose or corroded contacts, and any other condition that may affect its safe operation.
4. Inspect and maintain batteries according to supplier's instructions

1 YEAR LIMITED WARRANTY

PERFORMANCE TOOL® extends only the following warranties, and only to original retail purchasers. These warranties give specific legal rights. Except where prohibited by local law, the law of the State of Washington governs all warranties and all exclusions and limitations of warranties and remedies. There may be other rights which vary from state to state.

PERFORMANCE TOOL® warrants the product to be free from defects in materials and workmanship under normal use and service. A defective product may be returned for a free replacement within 90 days from the date of purchase, provided that product is returned to place of purchase immediately after discovery of defect. After 90 days and up to one year from date of purchase, PERFORMANCE TOOL® will replace at no charge any parts which our examination shall disclose to be defective and under warranty. These warranties shall be valid only when a sales receipt showing the date of purchase accompanies the defective product or defective part(s) being returned.

These warranties exclude blades, bits, punches, dies, bulbs, fuses, hoses, and other consumables which must be replaced under normal use and service. These warranties shall not apply to any product or part which is used for a purpose for which it is not designed, or which has been repaired or altered in any way so as to affect adversely its performance or reliability, nor shall these warranties apply to any product or part which has been subject to misuse, neglect, accident or wear and tear incident to normal use and service.

PERFORMANCE TOOL® does not authorize any other person to make any warranty or to assume any liability in connection with its products.

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