

THE SHARPER IMAGE®

Intelligent Battery Manager

SI263 Instructions

SHARPER IMAGE DESIGN®

Read and save these instructions.



Dear Sharper Image Customer,

Thank you for your purchase! We appreciate your business very much.

This item was created by Sharper Image Design, our company's own product development group. Please accept my personal assurance of your complete satisfaction with this product's quality and performance.

We offer generous return privileges and excellent warranties on all our products.

For more than 25 years, The Sharper Image has shared the fun of discovering innovative products that make life better and more enjoyable. We've been in business a long time because we are an exciting place to shop and — just as importantly — we strive to deliver great customer service that exceeds your expectations.

Enjoy your purchase!

Respectfully,

Richard

Richard Thalheimer

Founder, Chairman and Chief Executive Officer

*Call 1-800-344-4444 for 24-7 ordering and customer service,
or go to **www.sharperimage.com**, our complete online store.*

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Important Safety Precautions

WARNING - RISK OF EXPLOSIVE GASES

WORKING IN THE VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. FOR THIS REASON, IT IS IMPORTANT TO ALWAYS READ THIS MANUAL BEFORE USING THE INTELLIGENT BATTERY MANAGER AND FOLLOW THE INSTRUCTIONS EXACTLY.

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

SAVE THESE INSTRUCTIONS — This manual contains important safety and operating instructions.

Warnings

- Read all instructions and cautions printed on the Battery Manager, battery and vehicle, or equipment using a battery.
- Use the Battery Manager only on lead-acid type rechargeable batteries, such as those typically used in cars, trucks, tractors, airplanes, vans, RV's, trolling motors, etc. The Battery Manager is not intended to supply power to a low-voltage electrical system other than in an automotive application.
- Never use the Battery Manager for charging dry cell batteries that are commonly used in home appliances such as radios, stereos, remote controls, etc. These batteries may explode and cause personal injury.
- Do not disassemble the Battery Manager. If service or repair is required, take the Battery Manager to a qualified service professional. Incorrect assembly may result in fire or electrical shock.
- To reduce risk of electrical shock, unplug the Battery Manager from the outlet before attempting any maintenance or cleaning.
- Always charge batteries in a well-ventilated area. The Battery Manager produces heat during operation and requires proper ventilation. Air-flow is required around the entire unit.

Warnings

- Do not set the Battery Manager on flammable materials such as carpeting, upholstery, paper, cardboard, etc. It may damage leather, plastic and rubber.
- Place the Battery Manager as far away from the battery being charged as cables permit.
- Do not expose the Battery Manager to rain or snow.
- Never charge a frozen battery. If battery fluid (electrolyte) becomes frozen, bring the battery into a warm area and allow it to thaw before charging begins.
- Never allow battery acid to drip on the Battery Manager when checking the battery.
- Never set a battery on top of the Battery Manager.
- Never place the Battery Manager directly above the battery being charged. The gases from the battery will corrode and damage the Battery Manager.
- Never touch the battery clamps together when the Battery Manager is on. This could cause a spark.



Warnings

- Never operate the Battery Manager if it has received a hard blow, been dropped or otherwise damaged. Take it to a qualified service professional for inspection and repair.
 - Be sure to position the Battery Manager power cord to prevent it from being stepped on, tripped over or damaged.
 - When unplugging the Battery Manager, never pull out the plug by the cord. Pulling on the cord may cause damage to the cord or the plug.
 - Do not operate the Battery Manager if it has a damaged power cord or plug. Replace the cord.
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Personal Safety Precautions

- Wear complete eye and clothing protection when working with lead-acid batteries.
- Ensure someone is within range of your voice in case aid is needed while working with or near a lead-acid battery.
- Always have plenty of fresh water and soap nearby in case battery acid gets in your eyes, or on your skin or clothing. If this occurs, wash with soap and water immediately and get medical attention.
- When working with a battery, avoid touching your eyes. Acid particles (corrosion) may get into your eyes. If this occurs, flush eyes immediately with running cold water for at least 10 minutes and get medical attention.
- Remove all personal metal items from your body, such as rings, bracelets, necklaces and watches, while working with a lead-acid battery. A battery can produce a short-circuit current high enough to weld a ring (or similar object) to metal, causing a severe burn.

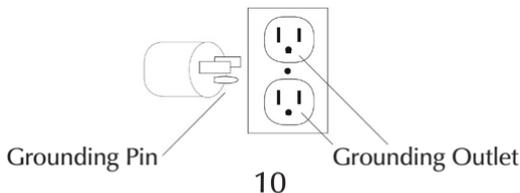
Personal Safety Precautions

- Do not drop any metal tool or metal object onto the battery. This may result in a spark or short circuit across the battery or another electrical device that may cause an explosion.
- Always operate the Battery Manager in an open, well-ventilated area.
- Never smoke or allow a spark or flame in the vicinity of the battery or engine. Batteries generate explosive gases.
- Before attempting to clean up a battery, neutralize any acid spills thoroughly with baking soda.

Charging Preparation

Power

The Battery Manager requires a three-prong grounded 120V AC outlet that meets all local codes and ordinances.



Features

- Charges 6- and 12-volt lead-acid and AGM batteries of all sizes.
- Automatically adjusts charging rate to match battery requirements.
- “Intelligent” microprocessor-controlled circuitry monitors and self-adjusts to protect batteries from any damage.
- Safely maintains batteries in motorcycles, snowmobiles and lawn tractors while in long-term storage or between uses.
- Easy-to-read LED indicators display battery charge status.
- Automatic overload and short-circuit protection.
- Electronic push-button controls for selecting charge rate and battery type.
- Wall-mountable, high-impact, corrosion-resistant molded case.
- 2 amp Maintenance Charge.
- 4 amp Slow Charge.
- 6 amp Rapid Charge.

Extension Cord Use

The use of an extension cord is not recommended. If you must use an extension cord, please follow these guidelines:

- Ensure the pins on the extension cord plug match the Battery Manager's plug exactly (e.g. same number, size, shape, etc.).
- Ensure the extension cord is properly wired and is in good electrical condition.
- Ensure the wire length and gauge correspond to the AC ampere rating, as specified in the chart below:

Extension Cord (Minimum Recommended)				
Length of Cord (Feet)	25	50	100	150
AWG* Size of Cord	18	16	12	10

*AWG=American Wire Gauge

Battery Preparation

While preparing to charge a battery, read and follow these guidelines:

1. Ensure you're working with a 12- or 6-volt lead-acid battery. To determine the voltage of the battery, refer to the vehicle owner's manual or the battery markings. Set the Battery Manager to the 6V or 12V mode accordingly.
2. Clean the battery terminals. Be careful to keep corrosion from getting in or around your eyes.
3. Wear safety glasses. (See "Personal Safety Precautions" section this manual.)
4. Read all of the battery manufacturer's specific precautions, for example, removing or not removing vent caps while charging and recommended rates of charge.
5. To add water to batteries with removable vent caps, carefully pour distilled water into each cell until battery acid reaches the level recommended by the manufacturer. This helps purge excessive gases from the cells. Do not overfill. If the battery is sealed, with non-removable vent caps, no action is necessary.



Battery Preparation

6. Ensure the area around the battery is well ventilated. Gas can be blown away using a piece of cardboard, or other nonmetallic material, as a fan.
7. If it is necessary to remove the battery from the vehicle before charging, always remove the grounded terminal from the battery first. Switch off all vehicle accessories to avoid sparks from occurring.

Note: A marine battery installed in a boat must be removed and charged on shore.



Operation

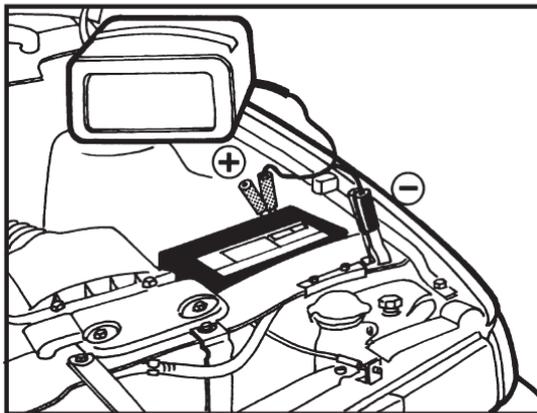


Charging Battery in the Vehicle

1. To avoid personal injury, stand clear of all fan blades, belts, pulleys and other engine parts.
2. To avoid damaging the Battery Manager, keep the power cord and output cords away from the hood, door and moving engine parts.

Charging Battery in the Vehicle

3. To determine the polarity of the battery posts, check the identification marks on the battery: POSITIVE (POS, P or +) and NEGATIVE (NEG, N or -). The positive post is usually marked red and is larger than the negative post.
4. Identify which battery post is grounded or connected to the chassis. THIS IS NORMALLY THE NEGATIVE POST.



Negative-Grounded System (Standard)

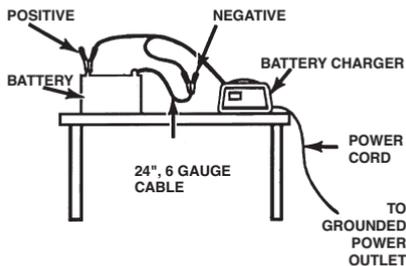
1. To connect to a negative-grounded system, attach the red **POSITIVE** output clamp to the **POSITIVE** post of the battery. Twist the clamp back and forth to ensure a solid electrical connection is made.
2. Connect the black **NEGATIVE** output clamp to a heavy, unpainted metal part of the chassis or engine block, away from the battery. (See illustration.) **DO NOT** connect the clamp to the negative battery post, carburetor, fuel line or sheet metal part.
3. Plug the power cord into an AC outlet.
4. To select the desired charge rate and battery voltage, press the appropriate **CONTROL BUTTONS**: The **CHARGING** (yellow) LED illuminates when the charging process begins. If the **CHECK** (red) LED illuminates, ensure correct cable connections.
5. To disconnect the Battery Manager, unplug its power cord before disconnecting the output clamps. While standing away from the battery, remove the output clamp from the chassis or engine block. Finally, remove the output clamp from the battery post.

Negative-Grounded System (Standard)

6. Clean and store the Battery Manager in a dry location.

Positive-Grounded System

1. To connect to a positive-grounded system, attach the black **NEGATIVE** output clamp to the **NEGATIVE** post of the battery. Twist the clamp back and forth to ensure a solid electrical connection is made.
2. Connect the red **POSITIVE** output clamp to a heavy, unpainted metal part of the chassis or engine block, away from the battery. **DO NOT** connect to the positive battery post, carburetor, and fuel line or sheet metal part.



Charging a Removed Battery

1. To charge a battery that has been removed from the vehicle, check the polarity identification marks on the battery post: **POSITIVE** (POS, P or +) and **NEGATIVE** (NEG, N or -). The positive post is usually marked red and is larger than the negative post.
2. Attach a 24-inch-long (at least), 6-gauge (AWG), insulated battery cable to the **NEGATIVE** (NEG, N or -) battery post. Twist the clamp back and forth to ensure a solid electrical connection is made.
3. Connect the **POSITIVE** (red) output clamp to the **POSITIVE** battery post. Twist the clamp back and forth to be sure a solid electrical connection is made.
4. Position yourself as far away from the battery as possible and connect the **NEGATIVE** (black) output clamp to the free end of the cable.
5. Plug the power cord into an AC outlet.

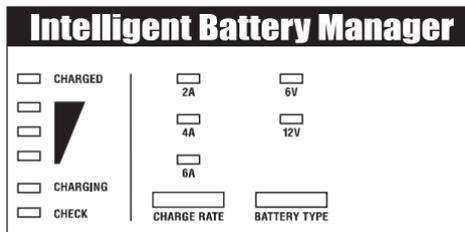


Charging a Removed Battery

6. To select the desired charge rate and battery voltage, press the appropriate **CONTROL BUTTONS**. The CHARGING (yellow) LED illuminates when the charging process begins. If the CHECK (red) LED illuminates, check for correct cable connections.
 7. To disconnect the Battery Manager, unplug its power cord before attempting to disconnect the Battery Manager clamps. While standing away from the battery, remove the output clamp from the **NEGATIVE** battery post. Finally, remove the output clamp from the **POSITIVE** battery post.
 8. Clean and store the Battery Manager in a dry location.
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Operating Features

Charge Rate



Control Panel

To set the charge rate to one of the following three selections, press the **CHARGE RATE** button.

- **2A or 4A CHARGE RATE:** Intended for charging small batteries such as those commonly used in garden tractors, snowmobiles and motorcycles.

Note: The 2A rate is not intended for use as a trickle charge for larger batteries.

- **6A CHARGE RATE:** For charging automotive and marine batteries. Not intended for industrial applications.

Battery Type Button

To set battery type to one of the following two selections, press the **BATTERY TYPE** button.

- **12 Volt:** Battery typically used in cars, trucks and motorcycles. These batteries usually have vent caps and are often marked “low maintenance” or “maintenance-free.”
- **6 Volt:** Battery typically used in antique and some specialized vehicles.

Automatic Shut Off: When the 2A, 4A or 6A charge rate is selected, the Battery Manager is set to perform an automatic charge. The charging process stops automatically after the battery is charged.

Aborted Charge: If the charging process cannot be completed normally, charging is aborted. The Battery Manager’s output is shut off and the CHECK (red) LED blinks. In this state, the Battery Manager’s buttons are inoperative. To reset after an aborted charge, unplug the Battery Manager and plug it in again.

Charging Complete: The CHARGED (green) LED illuminates when charging is complete. The Battery Manager stops charging and switches automatically to Maintain Mode.

Battery Type Button

Maintain Mode: When the CHARGED (green) LED is illuminated, the Battery Manager switches automatically to Maintain Mode. The Battery Manager monitors battery voltage. When the voltage drops to a predetermined level, the Battery Manager will re-initiate a charge cycle at the 2A rate.

General Notes

- If the Battery Manager does not detect a proper connection to the battery, the CHECK (red) LED illuminates continuously until the battery is detected. Charging will not begin while the CHECK LED is on. When charging begins, the CHARGING (yellow) LED illuminates.
- If the charge mode is changed after charging has started (by pressing the CHARGE RATE or BATTERY TYPE button), the charging process restarts at that point.
- The Battery Manager is equipped with a relay. This device switches on and off the charge current to the battery. It is normal to hear an occasional clicking sound when the relay switches on or off.

Charging Tips

Read the entire manual before using the Battery Manager. The tips below serve only as a guide for specific situations.

Reviving a Battery: To charge your battery enough to start your vehicle, it is not necessary to wait for the entire charging process to be completed. When the battery status displays 3 yellow LEDs, the battery is usually charged enough for the vehicle to start normally.

Completing an Interrupted Charge: If the charging process has been interrupted and restarted after the Battery Manager displays a battery status of 4 yellow LEDs, the Battery Manager may enter Maintain Mode. However, if the original charge was started using the 6A rate, the charge can often be completed using the 2A rate.

Maintenance and Care

- To keep the Battery Manager working properly, clean the clamps each time you are finished charging. Wipe off any battery fluid that may have come in contact with the clamps to prevent corrosion.
- When storing the Battery Manager, coil the input and output cords neatly. This helps prevent accidental damage to the cords and the Battery Manager.
- Clean the case of the Battery Manager with a soft cloth to maintain its shiny finish and help prevent corrosion.
- Store the Battery Manager in a clean, dry location.

Troubleshooting

Performance problems can often be corrected by the user. Please review the following chart completely for possible solutions to common problems:

PROBLEM	POSSIBLE CAUSE	SOLUTION
The CHECK (red) LED is illuminated.	The battery is not connected correctly. The CHARGE RATE and CHARGE TYPE buttons are not selected. The battery voltage is less than one volt.	Connect or adjust clips. Check for correct polarity. Press the button to select the correct rate and type. Replace the battery or try using a manual charger to bring above 1V.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
LED indicators illuminate in an erratic manner not explained in the “Operating Features” section.	A button may have been pressed while the Battery Manager was plugged in. The Battery Manager may be defective.	Make sure nothing is touching the control panel, then unplug the unit and plug it in again. Return to place of purchase for replacement.
The CHECK (red) LED is flashing.	Battery Manager is in abort mode. Battery may be defective. Battery type may have been set for 6 volts on a 12-volt battery.	See “Operating Features.” Unplug the Battery Manager and select the correct battery voltage.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The CHECK (red) LED always flashes before the battery is completely charged.	This happens if the battery does not reach full charge within 24 hours. May be due to a very large battery or a bank of batteries requiring more power than the Battery Manager can deliver in 24 hours. The battery may also be defective.	Reset the Battery Manager by unplugging it. Select the desired charge rate and battery type again, if necessary.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The green CHARGED LED switches on a few minutes after connecting to the battery.	The battery may be fully charged or recently charged, leaving the battery voltage high enough to appear to be fully charged.	If the battery is in a vehicle, turn the headlights on for a few minutes to reduce the battery voltage and try charging again. Also try a lower CHARGE RATE selection.
The Battery Manager is making an audible clicking sound.	The Battery Manager has a relay that switches the current to the battery on and off.	No problem. This is a normal condition.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The measured current is much lower than was selected.	The Battery Manager reached the maximum voltage and is reducing the current.	No problem. This is a normal condition.

Statement of FCC Compliance

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:



Statement of FCC Compliance

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

FCC Label Compliance Statement



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.





WARRANTY

What Is Covered

This warranty covers any defects in materials or workmanship, with the exceptions stated below.

How Long Coverage Lasts

This warranty runs for 90 days from the date of original purchase.

What Is Not Covered

This warranty does not cover damage caused by misuse or use other than as intended and described in the product instruction manual, or loss or damage to batteries or removable parts.

What The Sharper Image Will Do

The Sharper Image will repair any defects in materials or workmanship. In the event repair is not possible, The Sharper Image will either replace this product with one of similar features and price, or refund the full purchase price of the product, whichever you prefer.

How to Obtain Service

Return the product and receipt, along with a brief explanation of the problem, to:

T.S.I. - Returns Department
2901-A West 60th Street
Little Rock, AR 72209

If you have questions please feel free to contact our customer service representatives at 1-800-344-5555 or by email at care@sharperimage.com.

This warranty gives you specific legal rights, and you may have other legal rights that vary from state to state.

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Shop online: **www.sharperimage.com**

Due to continuing improvements, actual product may differ slightly from the product described herein.

V1 02/05