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› Stinger SGP35 High-Current 500A Dual Battery Isolator & Relay User Manual

STINGER SGP35

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INTRODUCTION

The Stinger SGP35 High-Current 500A Dual Battery Isolator & Relay is designed to efficiently and reliably manage secondary batteries in your vehicle's electrical system. Constructed from water-resistant black phenolic plastic, it offers a 100,000 mechanical cycle life and a 500 amp contact rating. This device ensures your primary battery remains isolated from secondary systems when the ignition is off, preventing discharge, while allowing charging when the ignition is on. It is compatible with all types of alternators and charging systems.



Front view of the Stinger SGP35 isolator, showing the main terminals.

SAFETY INFORMATION

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always ensure proper safety precautions are taken when working with vehicle electrical systems. Disconnect the vehicle's battery before installation. Wear appropriate personal protective equipment, including safety glasses and gloves. Consult a professional if you are unsure about any installation steps.

PRODUCT OVERVIEW

The Stinger SGP35 offers robust performance and durability for managing dual battery setups:

- **Universal Compatibility:** Works with any type of vehicle alternator or charging system.
- **Water-Resistant Construction:** Designed with phenolic plastic to protect against moisture damage, suitable for marine, powersports, or off-road applications.
- **Maximum Current Transfer:** Capable of handling up to 500A continuous current and up to 900A surges.
- **Ideal for Secondary Battery Isolation:** Prevents primary battery discharge, providing a reliable and efficient way to power car stereo systems or other electrical accessories.
- **Extended Battery Life:** Features a 100,000 mechanical cycle life.



Top-down view of the Stinger SGP35 isolator, highlighting the terminals and mounting bracket.

PACKAGE CONTENTS

The package includes:

- Stinger SGP35 Dual Battery Isolator & Relay
- Instruction Manual

SETUP AND INSTALLATION

Proper installation is crucial for the safe and effective operation of your Stinger SGP35 isolator. If you are not experienced with automotive electrical systems, it is highly recommended to seek professional installation.

1. **Disconnect Power:** Before beginning any installation, disconnect the negative terminal from your vehicle's primary battery to prevent electrical shorts.
2. **Mounting Location:** Choose a secure, dry, and easily accessible location for mounting the isolator. Ensure it

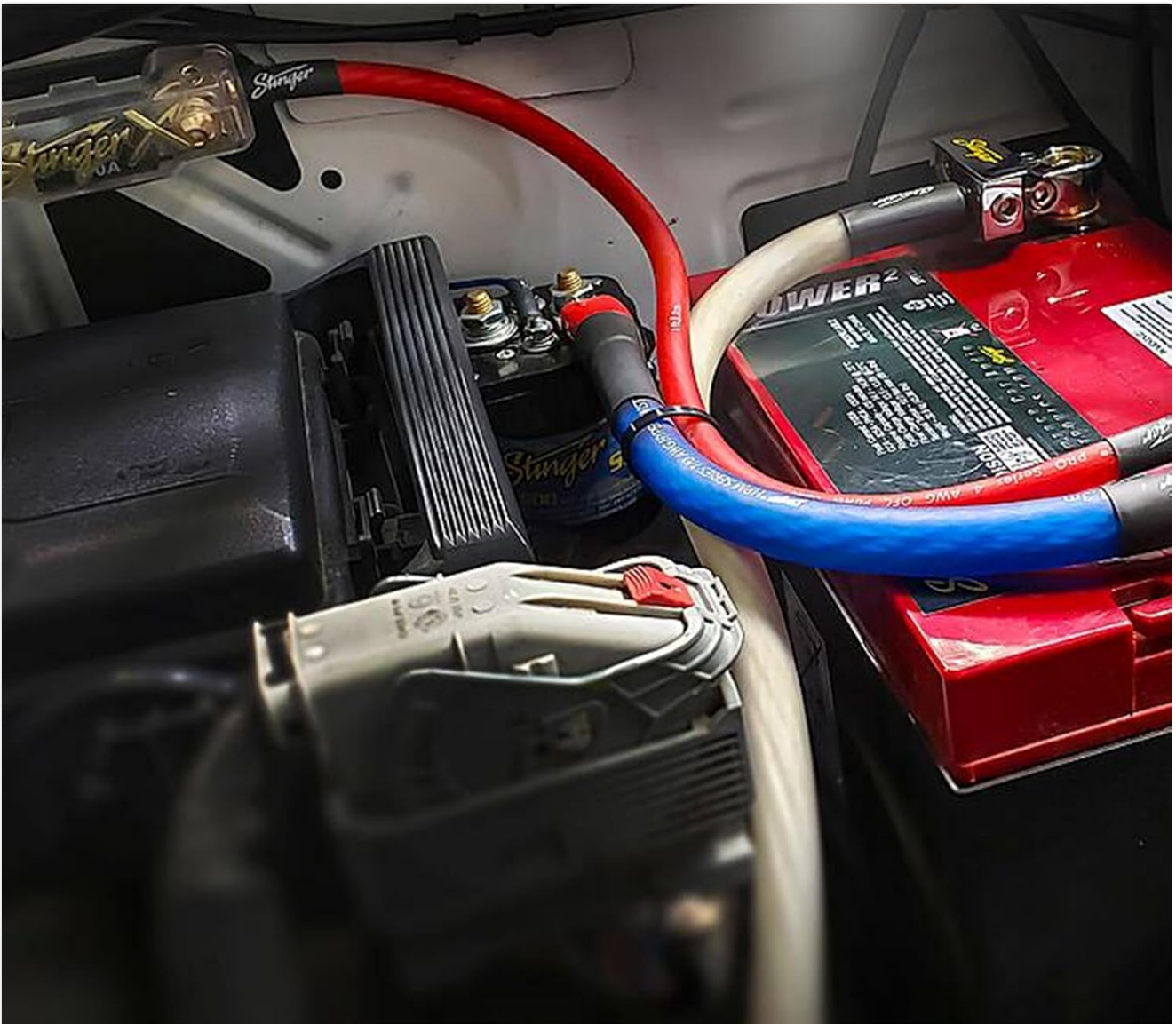
is away from excessive heat and moving parts. The isolator is water-resistant, but protecting it from direct exposure to harsh elements is always recommended.

3. **Wiring Connections:** Refer to the wiring diagram below for correct connections.

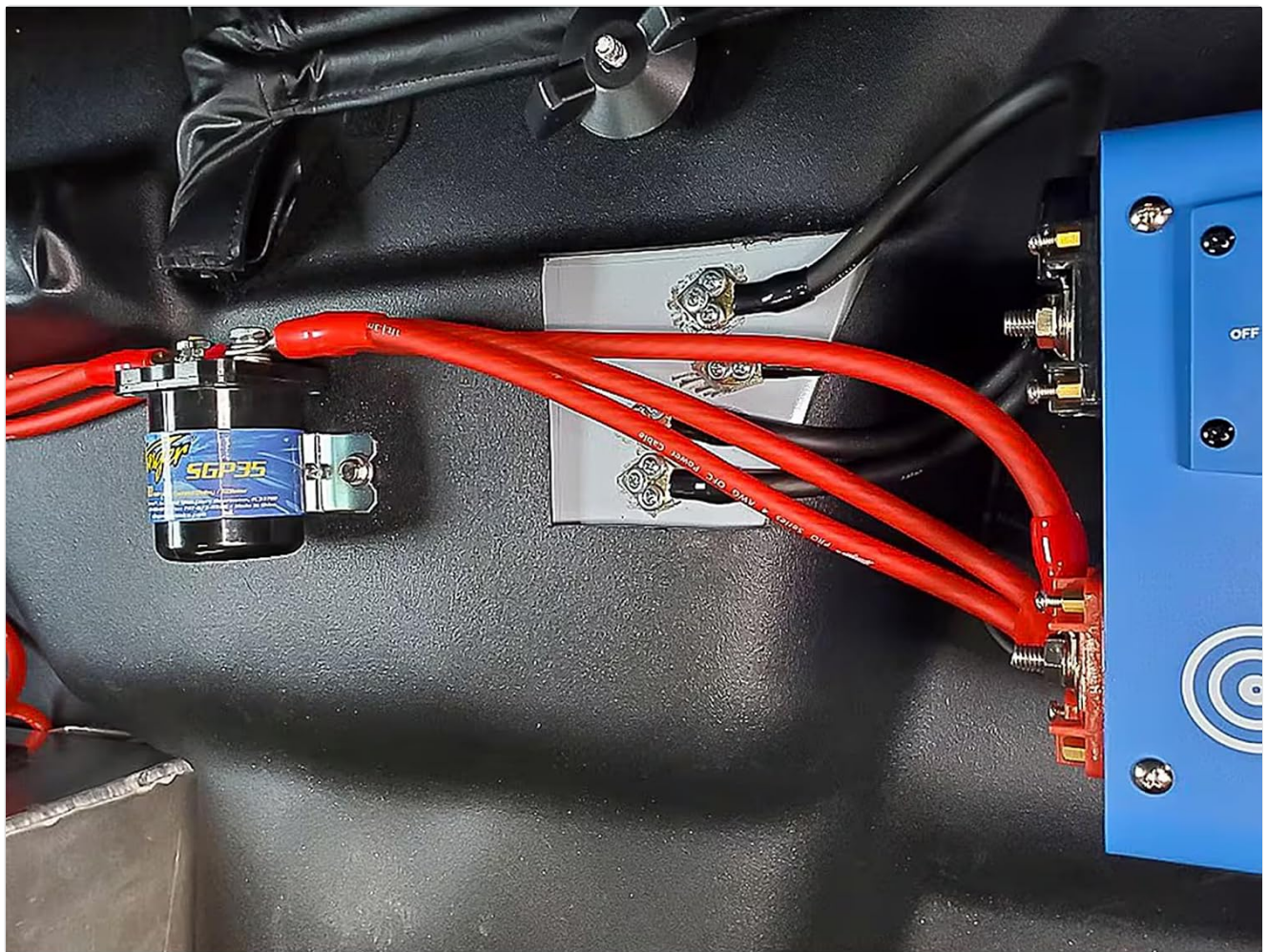
- Connect the primary battery's positive terminal to one of the large terminals on the isolator.
- Connect the secondary battery's positive terminal to the other large terminal on the isolator.
- Connect a small gauge wire from a switched 12V ignition source (a source that is only active when the ignition is on) to the small trigger terminal on the isolator. This signal activates the relay.
- Ensure all connections are tight and secure to prevent arcing and ensure optimal current flow. Use appropriate gauge wiring for high-current applications.

4. **Grounding:** Ensure both primary and secondary batteries are properly grounded to the vehicle chassis.

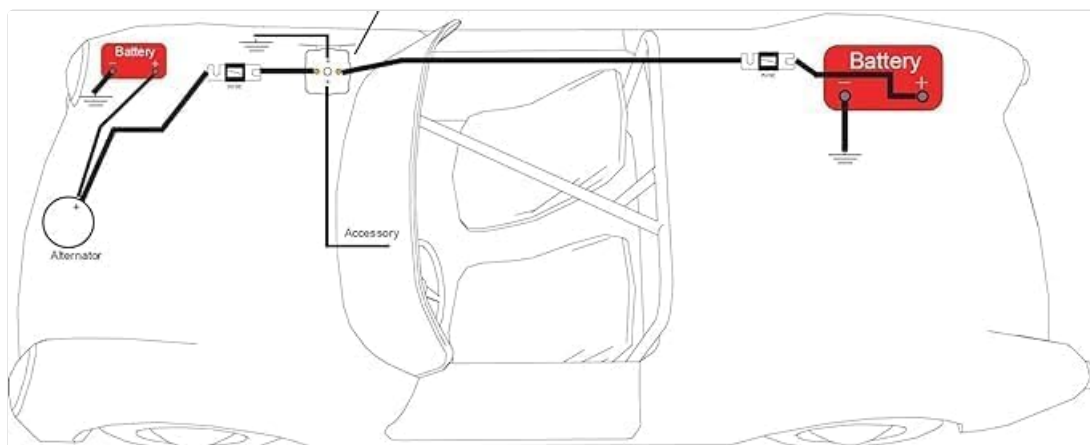
5. **Reconnect Power:** Once all connections are verified, reconnect the negative terminal of the primary battery.



Stinger SGP35 isolator installed in a vehicle's engine bay, connected to a battery with red and white power cables.



Stinger SGP35 isolator installed in a vehicle's rear compartment, showing wiring connections to an audio system component.



Wiring diagram for the Stinger SGP35 dual battery isolator.

OPERATION

The Stinger SGP35 operates automatically based on your vehicle's ignition status:

- **Ignition ON:** When the vehicle's ignition is turned on, the isolator engages, connecting the primary and secondary batteries. This allows the alternator to charge both batteries simultaneously.
- **Ignition OFF:** When the vehicle's ignition is turned off, the isolator disengages, separating the primary and secondary batteries. This prevents accessories connected to the secondary battery from draining the primary starting battery, ensuring your vehicle will start.

MAINTENANCE

The Stinger SGP35 is designed for durability and requires minimal maintenance:

- **Regular Inspection:** Periodically inspect all wiring connections to ensure they remain tight and free from corrosion.
- **Cleaning:** If necessary, gently clean the exterior of the isolator and terminals with a dry cloth. Avoid using harsh chemicals or abrasive materials.
- **Durability:** The phenolic plastic construction and 100,000 mechanical cycle life ensure long-term reliability under normal operating conditions.

TROUBLESHOOTING

If you encounter issues with your Stinger SGP35, consider the following:

- **Secondary Battery Not Charging:**
 - Check all high-current connections to ensure they are secure and free of corrosion.
 - Verify the small trigger wire is receiving 12V when the ignition is ON.
 - Ensure your primary battery and alternator are functioning correctly.
- **Primary Battery Drains When Ignition is OFF:**
 - Confirm the isolator disengages when the ignition is OFF. You should hear a click, or you can test for continuity across the main terminals.
 - Check the trigger wire connection; it should only be active with the ignition.
 - Inspect for any unintended bypass wiring that might be connecting the batteries directly.
- **No Click Sound from Isolator:**
 - Ensure the small trigger wire is properly connected and receiving 12V when the ignition is ON.
 - Check the ground connection for the isolator (if applicable, though typically grounded through mounting).

If issues persist, consult a qualified automotive electrician.

SPECIFICATIONS

Feature	Specification
Brand Name	STINGER
Model	SGP35
Manufacturer	Stinger
Current Rating	500 A
Contact Current Rating	500 A
Wattage	6000 watts
Coil Voltage	12 volts
Minimum Switching Voltage	12 volts DC

Feature	Specification
Operation Mode	Automatic
Connector Type	Screw
Contact Material	Copper
Contact Type	Electromechanical
Mounting Type	Socket Mount
Number of Terminals	2
Item Weight	1.7 pounds
Mechanical Cycle Life	100,000 cycles

WARRANTY

The Stinger SGP35 Dual Battery Isolator & Relay comes with a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

SUPPORT

For further assistance, technical support, or warranty inquiries, please visit the official STINGER website or contact your authorized STINGER dealer. You can also refer to the STINGER store on Amazon for additional product information and resources.

[Visit the STINGER Store on Amazon](#)

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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