

DEWINNER DE-C017

DEWINNER 12V 140Amp Dual Battery Isolator Kit User Manual

Model: DE-C017

1. PRODUCT OVERVIEW

The DEWINNER 12V 140Amp Dual Battery Isolator Kit is designed to manage two battery systems in vehicles such as ATVs, UTVs, boats, RVs, campers, and off-road vehicles. It features a Voltage Sensitive Relay (VSR) that automatically connects and disconnects the auxiliary battery from the main battery, ensuring your primary battery remains charged for vehicle starting.

This kit allows accessories to run from a separate battery without draining the main starting battery, providing reliable power for various applications.



Figure 1: Complete DEWINNER 12V 140Amp Dual Battery Isolator Kit components.

2. SAFETY INFORMATION

Always prioritize safety when working with electrical systems and batteries. Failure to follow these guidelines may result in injury or damage to equipment.

- Disconnect both main and auxiliary batteries before installation.
- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not install the isolator in areas exposed to extreme heat or direct moisture unless properly protected. The unit is water-resistant, but proper placement is crucial.
- Consult a qualified professional if you are unsure about any part of the installation process.

3. PACKAGE CONTENTS

Verify that all components listed below are present in your kit before beginning installation.

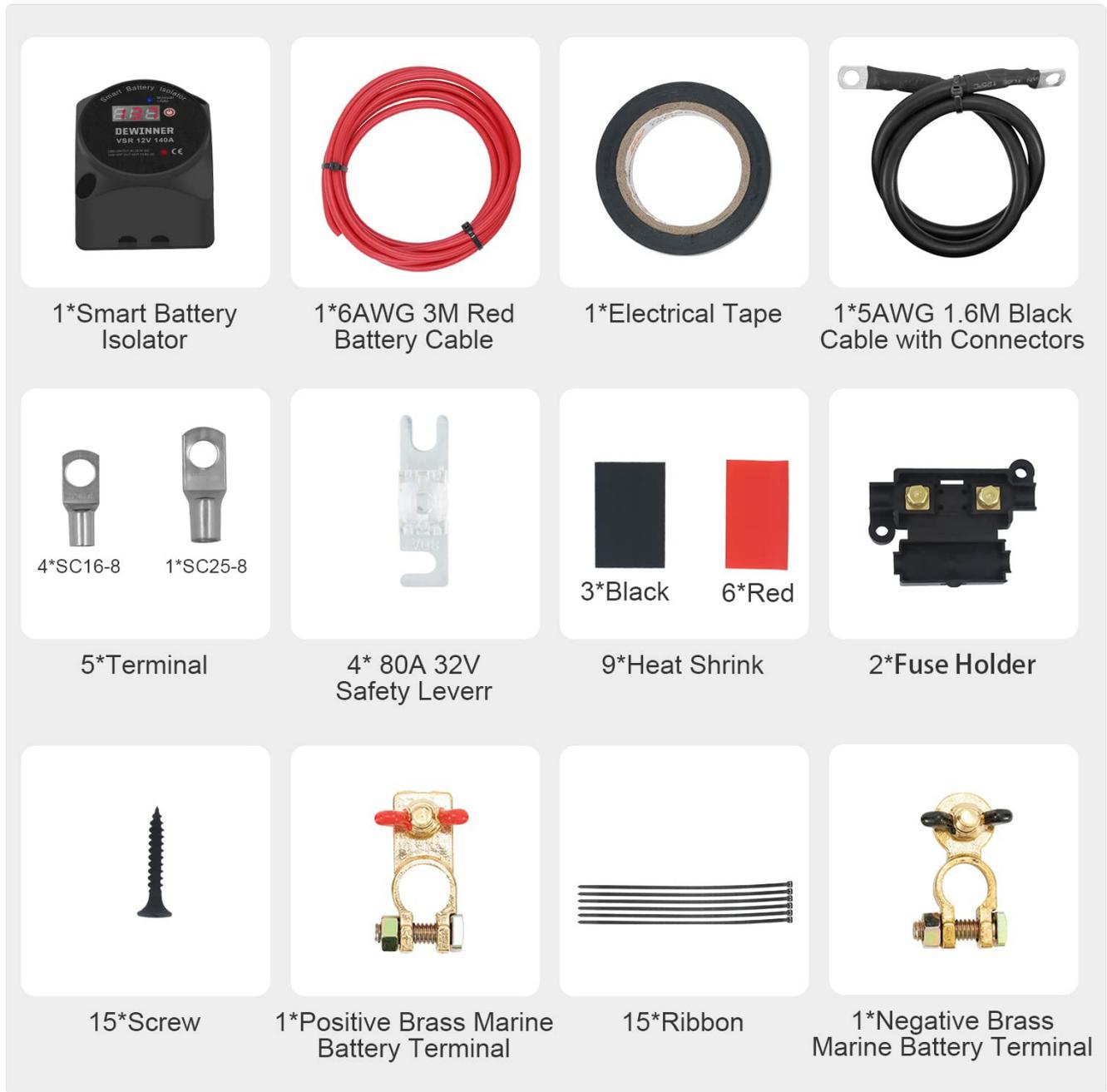


Figure 2: All components included in the DEWINNER Dual Battery Isolator Kit.

Table 1: Kit Contents

Item	Quantity	Description
Smart Battery Isolator	1	VSR 12V 140A with LED screen and voltage display.
Red Battery Cable	1	20 ft (approx. 6AWG)
Black Ground Battery Cable	1	2 ft (approx. 5AWG) with connectors.
Electrical Tape	1 roll	For insulating connections.

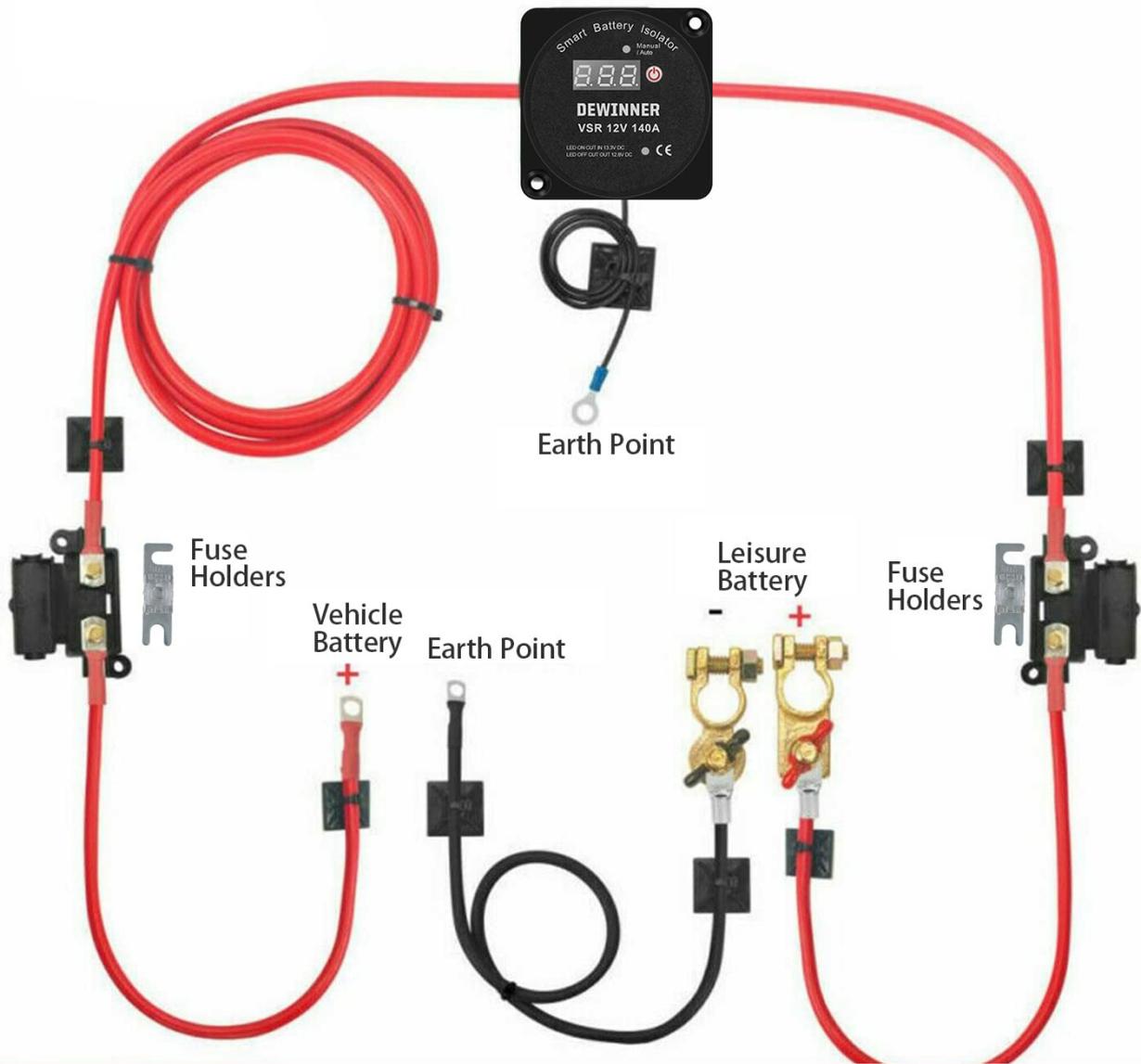
Item	Quantity	Description
Terminals (SC16-8, SC25-8)	5	Various sizes for cable connections.
Safety Levers (80A 32V)	4	Fuses for circuit protection.
Heat Shrink Tubing	9 (3 black, 6 red)	For sealing and insulating connections.
Fuse Holders	2	For housing the safety levers.
Screws	15	For mounting components.
Cable Ties	6	For cable management.
Positive Brass Marine Battery Terminal	1	For positive battery connection.
Negative Brass Marine Battery Terminal	1	For negative battery connection.
Blue Ring Terminal	1	Additional terminal.

4. SETUP AND INSTALLATION

The DEWINNER Dual Battery Isolator Kit is designed for straightforward installation. Follow these steps carefully for optimal performance and safety.

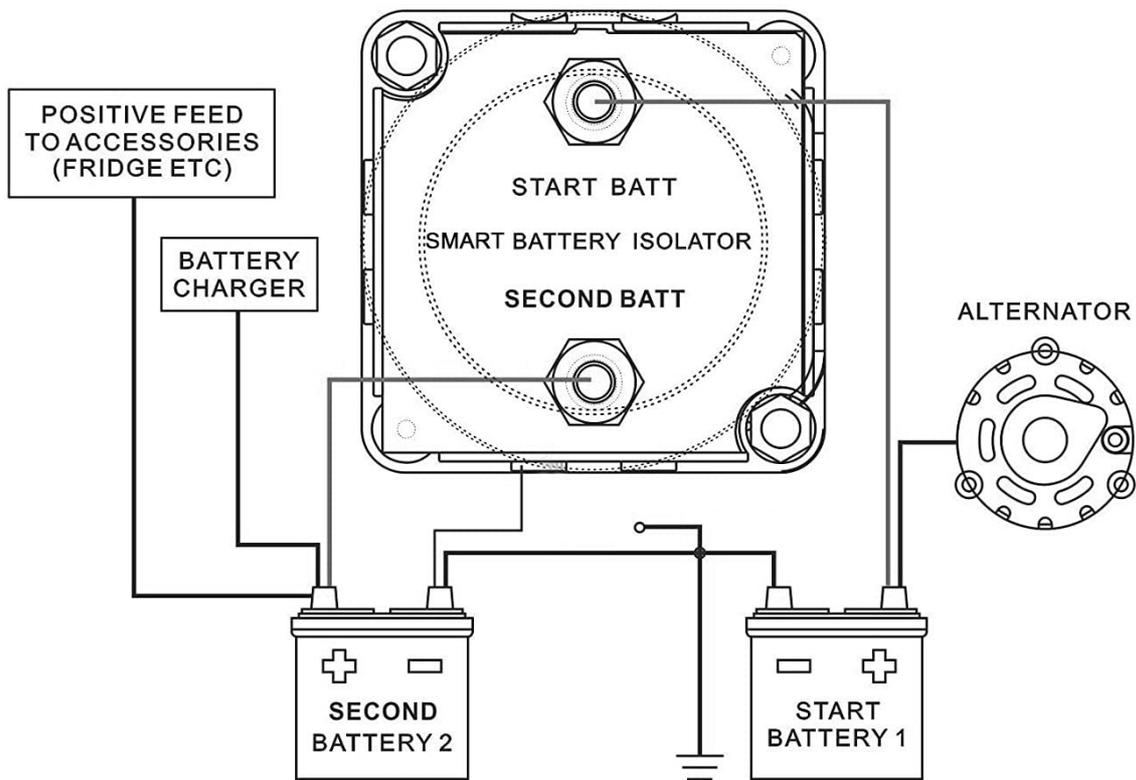
4.1. Wiring Diagram Overview

The isolator connects between your main starting battery and your auxiliary (leisure) battery. This setup ensures that the main battery is always prioritized for starting the vehicle, while the auxiliary battery powers accessories.



SCHEMATIC DIAGRAM

Figure 3: Schematic Diagram for Dual Battery Isolator Installation.



WIRING INSTRUCTIONS

Figure 4: Detailed Wiring Instructions Diagram.

4.2. Installation Steps

1. **Prepare the Vehicle:** Ensure the vehicle is turned off and disconnect both the main starting battery and the auxiliary battery.
2. **Mount the Isolator:** Choose a suitable, secure location for the Smart Battery Isolator. It should be protected from direct water spray and excessive heat. The reinforced nylon housing provides anti-high and low temperature resistance.
3. **Connect Main Battery:** Connect the positive terminal of your main starting battery to one of the main terminals on the isolator using the provided red battery cable and appropriate terminals/lugs. Ensure a fuse holder is installed in line for protection.
4. **Connect Auxiliary Battery:** Connect the positive terminal of your auxiliary battery to the other main terminal on the isolator using the remaining red battery cable and appropriate terminals/lugs. Again, ensure a fuse holder is installed in line.
5. **Ground Connection:** Connect the black ground battery cable from the isolator to a suitable chassis ground point.

- Secure Wiring:** Use the provided cable ties to neatly secure all wiring, preventing chafing or interference with moving parts. Apply heat shrink tubing to all exposed connections for insulation and protection. The thick pure copper core cables ensure efficient power transfer.
- Reconnect Batteries:** Once all connections are secure and verified, reconnect the main battery first, then the auxiliary battery.



 Water Resistant	 12V 140Amp	 Rugged Durability	 Silicone Sealed Internal Layer	 Extreme Vibration Protection
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Figure 5: Example of the isolator installed in a vehicle, demonstrating its rugged durability and silicone sealed internal layer for vibration protection.

5. OPERATING MODES

The DEWINNER Dual Battery Isolator operates in both automatic and manual modes, providing flexibility for different usage scenarios.

5.1. Automatic Mode (Default)

In automatic mode, the Voltage Sensitive Relay (VSR) intelligently manages the charging of both batteries:

- **Connects at 13.3 Volts:** When the main battery's voltage reaches 13.3 volts (indicating the alternator is charging), the VSR connects the auxiliary battery, allowing it to charge.
- **Disconnects at 12.8 Volts:** When the main battery's voltage drops below 12.8 volts (indicating the engine is off or not charging sufficiently), the VSR disconnects the auxiliary battery to prevent it from draining the main battery.

This ensures your primary battery is always charged and ready to start your vehicle, even if the auxiliary battery is heavily discharged by accessories.

5.2. Manual Mode

The isolator features a manual override function. You can switch between automatic and manual modes as needed.

- **Switching Modes:** A long press on the control button allows you to adjust the operating gear, switching between Auto and Manual modes.
- **Manual On/Off:** A single click on the button can turn the unit on or off, providing direct control over the relay connection.



Figure 6: Auto and Manual Mode Selection.

6. MAINTENANCE

Regular maintenance ensures the longevity and reliable operation of your DEWINNER Dual Battery Isolator Kit.

- **Inspect Connections:** Periodically check all cable connections for tightness and corrosion. Clean any corrosion with a wire brush and apply dielectric grease if necessary.
- **Check Wiring:** Ensure all wiring remains secure and free from damage or chafing. Replace any damaged cables immediately.
- **Monitor Voltage Display:** Observe the LED voltage display on the isolator to ensure it is functioning correctly and showing appropriate battery voltages.
- **Clean Unit:** Keep the isolator unit clean and free from dirt, dust, and debris. Use a soft, dry cloth for cleaning.

7. TROUBLESHOOTING

If you encounter issues with your dual battery isolator, refer to the following common problems and solutions.

Table 2: Troubleshooting Guide

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Isolator not engaging/charging auxiliary battery.	Main battery voltage too low. Loose or corroded connections. Blown fuse. Faulty isolator.	Ensure main battery is fully charged (above 13.3V when engine is running). Check and tighten all connections. Clean any corrosion. Inspect and replace fuses in fuse holders. Contact customer support if other solutions fail.
Auxiliary battery draining main battery.	Isolator not disconnecting. Incorrect wiring.	Verify isolator disconnects below 12.8V. Check manual mode setting. Review wiring diagram (Figure 3 & 4) and ensure correct connections.
LED display not working.	No power to isolator. Faulty display.	Check all power connections and fuses. Contact customer support.

8. SPECIFICATIONS

Table 3: Product Specifications

Feature	Detail
Model Number	DE-C017
Brand	DEWINNER
Current Rating	140 Amps
Coil Voltage	12 Volts
Operation Mode	Auto, Manual
Cut-in Voltage	13.3 Volts DC
Cut-out Voltage	12.8 Volts DC
Contact Type	Normally Open
Housing Material	Reinforced Nylon
Dimensions (L x W x H)	12.28 x 8.62 x 3.03 inches
Weight	3.09 Pounds

9. WARRANTY AND SUPPORT

The DEWINNER 140 Amp Dual Battery Isolator is backed by an industry-leading 12-month warranty. If you are not 100% satisfied with your purchase, you may take advantage of the No Questions Asked, 30-Day Money Back Guarantee.

For technical support, warranty claims, or any inquiries, please contact DEWINNER customer service through the retailer's platform or visit the official DEWINNER store.

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