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› [LLNSEAUTO](#) /

› [LLNSEAUTO Winch Solenoid Relay Contactor 12V 250A Instruction Manual](#)

LLNSEAUTO S044-63070

LLNSEAUTO Winch Solenoid Relay Contactor 12V 250A Instruction Manual

Model: S044-63070

INTRODUCTION

The LLNSEAUTO Winch Solenoid Relay Contactor is a crucial component designed to manage the power supply to your 12V electric winch system. This device ensures safe and efficient operation for winches used on ATVs, UTVs, boats, and 4x4 vehicles. This manual provides essential information for proper installation, operation, maintenance, and troubleshooting to ensure reliable performance.

PRODUCT CONTENTS

Upon unpacking, please verify that all components are present and undamaged.

- 1x Winch Solenoid Relay Contactor
- 6x Waterproof Terminal Caps

Product Includes:

- 1X Winch Solenoid
- 6X Waterproof Cap



Image: The Winch Solenoid Relay Contactor along with the six included waterproof terminal caps.

SPECIFICATIONS

Refer to the following technical specifications for the LLNSEAUTO Winch Solenoid Relay Contactor:

Feature	Specification
Operating Voltage	12V DC
Rated Current	250A
Contact Form	SPDT (Single Pole Double Throw)
Winch Capacity	2000lbs - 5000lbs
Terminal Size	8-32
Wire Connector	Bullet (Male & Female)
Material	ABS Case + Copper Terminal
Seal Level	IP67

Feature	Specification
Contact Material	Silver
Wattage	3000 watts
Coil Voltage	12 Volts (DC)
Part Number	S044-63070
OE Numbers (Compatible)	63070, 62135, 74900, 2875714, 70715

Product Specification

Operating Voltage: 12V DC
 Rated Current: 250A
 Contact Form: SPDT
 Capacity: 2000lbs - 5000lbs

Terminal Size: 8-32
 Wire Connector: Bullet (Male & Female)
 Material: ABS Case + Copper Terminal
 Seal Level: IP67

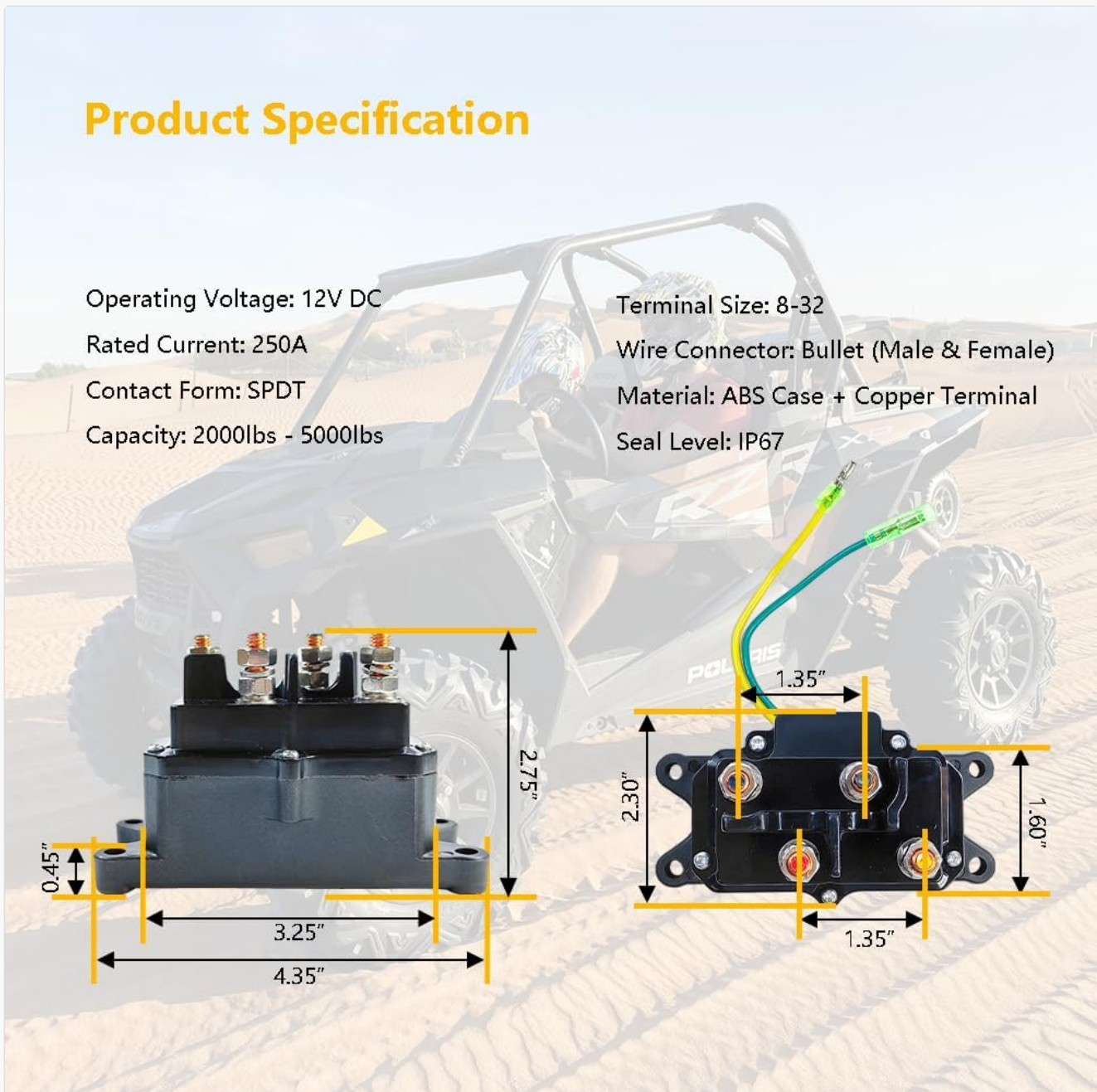


Image: Detailed product specifications including dimensions and electrical ratings.

COMPATIBILITY

This winch solenoid relay is compatible with most ATV & UTV 12V winch switch systems that utilize a solenoid-operated contactor or relay, suitable for 1500lb-5000lb applications. It is designed to be a replacement for various OE numbers and works with numerous popular winch brands.

Compatible Brands and Models:

- **KFI:** ST17, S2000, A2500, A3000, U4500, U4500w, SE25, SE35, SE45
- **WARN:** A2000, A2500, U2500, 1.5ci, 2.5ci, 2.5ce, 3.0ci, 3.0ce, 3.0s, RT15, RT25, RT30, XT15, XT25, XT30, RT40, XT40, Vantage 2000-3000lbs, ProVantage 2500-3500lbs, Vantage 4000lbs, ProVantage 4500lbs
- **RAMSEY:** ATV2500, ATV3000
- **SUPERWINCH:** Terra25, Terra35, Terra 45, LT2000, LT2500, LT3000
- **MILE MARKER:** PE2.5, PE 3.5, VMX2.5, PE2000, PE3000, PE2500, PE3500
- **MASTER LOCK:** 1500lbs #2955AT
- **KEEPER CORP. TRAKKER:** KT2500, KT3000, KT3000C, KT4000, KT4000C, KT2000
- **CYCLE COUNTRY:** Work Power 1500 and 2500, Powermax 2500 and 3500
- **BADLAND:** 2000lb #68146, 3000lb #68145, 5000lb #68144
- **CHAMPION:** C10013, C10014, C10018, 10020, 10024, 12053, 12503, 13501 (requires rollers), 14061, 14501, 14551, 14552, 40252 (4500lbs) (Requires correct Roller Fairlead Bracket KFI #100695), 10028, 10032, 12001, 12002, 13001, 20049, 20051, 20249, 30045, 30145, 14001, 14061
- **XGEAR:** X3000, X4000
- **VENOM:** 2000, 2500, 3000, 3500, 4000, 4500, 5000 (Hardcore Series)
- **HONDA:** RUBICON, RANCHER
- **POLARIS:** RZR, SPORTSMAN, 800
- **ARCTIC CAT:** 500

Also compatible with other 12-volt trailer, hydraulic pump, and lift jack systems.

Compatible with:

KFI:

ST17, S2000, A2500, A3000, U4500, U4500w, SE25, SE35, SE45

WARN:

A2000, A2500, U2500, 1.5ci, 2.5ci, 2.5ce, 3.0ci, 3.0ce, 3.0s |

RT15, RT25, RT30, XT15, XT25, XT30 | RT40, XT40 |

Vantage 2000-3000lbs, Provantage 2500-3500lbs |

Vantage 4000lbs, Provantage 4500lbs |

RAMSEY:

ATV2500, ATV3000

SUPERWINCH:

Terra25, Terra35, Terra 45, LT2000, LT2500, LT3000

MILE MARKER:

PE2.5, PE 3.5, VMX2.5, PE2000, PE3000, PE2500, PE3500

SMITTYBILT:

XRC 2.0, XRC 3.0

MASTER LOCK:

1500lbs #2955AT

KEEPER CORP. TRAKKER:

KT2500, KT3000, KT2500C, KT3000C, KT4000, KT4000C, KT2000

CYCLE COUNTRY:

Work Power 1500 and 2500, Powermax 2500 and 3500

XGEAR:

X3000, X4000

BADLAND:

2000lb #68146, 3000lb #68145, 5000lb #68144

CHAMPION:

C10013, C10014, C10018, 10020, 10024, 12053, 12503, 13501(requires rollers), 14061 |

14501, 14551, 14552, 40252 (4500lbs) (Requires correct Roller Fairlead Bracket KFI #100695) |

10028, 10032, 12001, 12002, 13001, 20049, 20051, 20249, 30045, 30145, 14001, 14061

VENOM:

2000, 2500, 3000, 3500, 4000, 4500, 5000 (Hardcore Series)

HONDA:

RUBICON, RANCHER

POLARIS:

RZR, SPORTSMAN, 800

ARCTIC CAT:

500

Image: A comprehensive list detailing various compatible winch brands and their respective models.

SETUP AND INSTALLATION

Proper installation is critical for the safe and effective operation of your winch system. Always disconnect the battery before beginning any electrical work.

- Mounting:** Securely mount the solenoid in a dry, protected location, close to the battery and winch, using appropriate hardware (not included). Ensure it is away from moving parts and excessive heat.
- Battery Connections:**
 - Connect the **Red** terminal of the solenoid to the **Positive (+)** terminal of your 12V battery.
 - Connect the **Black** terminal of the solenoid to the **Negative (-)** terminal of your 12V battery.
- Winch Connections:**
 - Connect the **Blue** terminal of the solenoid to the **Positive (+)** terminal of your winch motor.
 - Connect the **Yellow** terminal of the solenoid to the **Negative (-)** terminal of your winch motor.

4. Control Switch Connections:

- Connect the yellow wire from the solenoid's control harness to the **Female Socket** of your winch control switch.
- Connect the green wire from the solenoid's control harness to the **Male Socket** of your winch control switch.

5. **Secure Connections:** Ensure all connections are tight and free from corrosion. Apply the provided waterproof caps to the main terminals to protect against moisture and debris.

6. **Test:** Reconnect the battery and perform a functional test of the winch in both directions (in and out) to confirm correct wiring and operation.

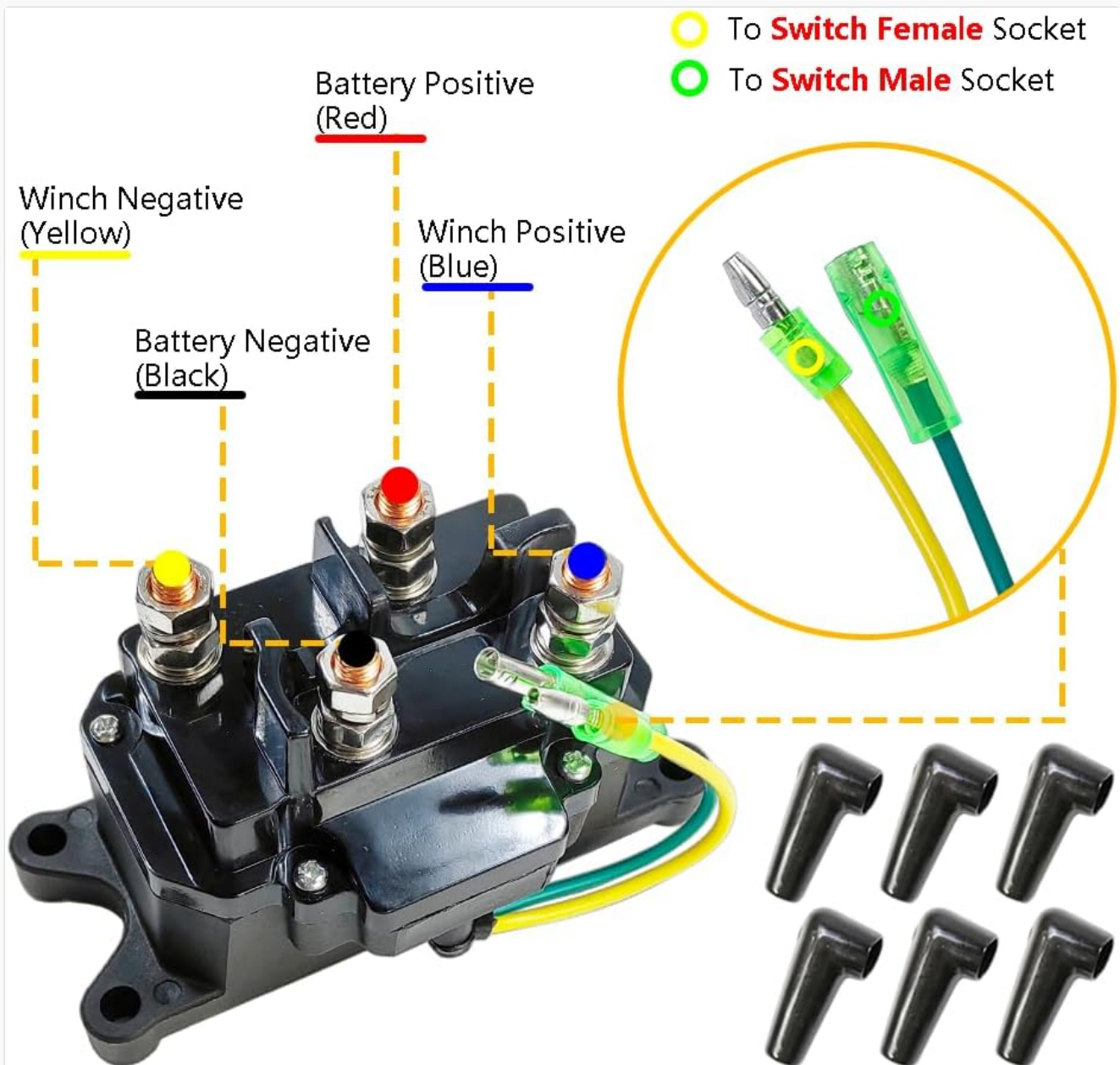


Image: Detailed wiring diagram illustrating how to connect the solenoid to the battery, winch, and control switch.

Safety Warning: Incorrect wiring can cause damage to the solenoid, winch, or vehicle, and may pose a fire hazard. If you are unsure about any step, consult a qualified technician.

OPERATING INSTRUCTIONS

Once the solenoid is correctly installed and connected, operate your winch according to the manufacturer's

instructions for your specific winch model and control switch.

1. Ensure the vehicle's engine is running to provide adequate power during winching operations.
2. Engage the winch clutch (if applicable) and connect the winch hook to a secure anchor point.
3. Use your winch control switch (e.g., rocker switch, thumb switch) to control the winch cable movement. Press the appropriate button to spool the cable in or out.
4. Monitor the winch and cable during operation to prevent tangles, snags, or overloading.
5. Do not exceed the rated capacity of your winch or the solenoid.
6. Disengage the winch clutch and secure the hook after use.

MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of your winch solenoid.

- **Inspect Connections:** Periodically check all electrical connections (battery, winch, and control wires) for tightness, corrosion, and damage. Clean any corrosion with a wire brush and apply dielectric grease if necessary.
- **Check Waterproof Caps:** Ensure the waterproof terminal caps are securely in place to protect against moisture, dirt, and debris.
- **Clean Solenoid:** Keep the exterior of the solenoid clean and free from excessive dirt, mud, or other contaminants.
- **Physical Damage:** Inspect the solenoid housing for any cracks, breaks, or other physical damage that could compromise its integrity.

TROUBLESHOOTING

If you encounter issues with your winch system, consider the following troubleshooting steps:

- **Winch Not Operating:**
 - Check the vehicle's battery voltage. A low battery may not provide enough power.
 - Verify all battery and winch connections to the solenoid are secure and free of corrosion.
 - Ensure the control switch is functioning correctly and its wires are properly connected to the solenoid.
 - Check for any blown fuses or tripped circuit breakers in the winch's power circuit.
- **Solenoid Clicks, But Winch Does Not Move:**
 - This often indicates insufficient power reaching the winch motor. Recheck battery voltage and all heavy-gauge power connections.
 - The winch motor itself may be faulty or seized.
 - The winch may be overloaded.
- **Winch Operates in Only One Direction:**
 - Check the control switch and its wiring to the solenoid. One of the control wires may be disconnected or faulty.
 - Inspect the corresponding power output terminal from the solenoid to the winch for a loose connection or internal solenoid fault.
- **Solenoid Overheating:**

- Ensure the winch is not being continuously operated under heavy load for extended periods. Allow for cooling.
- Verify that the winch's current draw does not exceed the solenoid's 250A rating.

If problems persist after performing these checks, it may indicate a faulty solenoid, winch motor, or control switch. Professional diagnosis may be required.

WARRANTY AND SUPPORT

The LLNSEAUTO Winch Solenoid Relay Contactor comes with a **1-year warranty**, ensuring your satisfaction with the product. If you encounter any issues or are not satisfied with your purchase for any reason, please contact the seller directly for assistance.

For technical support or warranty claims, please refer to your purchase documentation or contact the retailer where the product was acquired. Provide your model number (S044-63070) and a detailed description of the issue to facilitate a quicker resolution.

