TRAIL FORTRESS

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Rough Country RS6500SA Installation Instructions

6500 lb Winch with Synthetic Rope and Wireless Remote

Part number: RS6500SA

trailfortress.com/rough-country-6500-lb-winch-w-remote-rs6500sa

Scan for fitment, price and install help

ROUGH COUNTRY
RECOVERY SYSTEMS

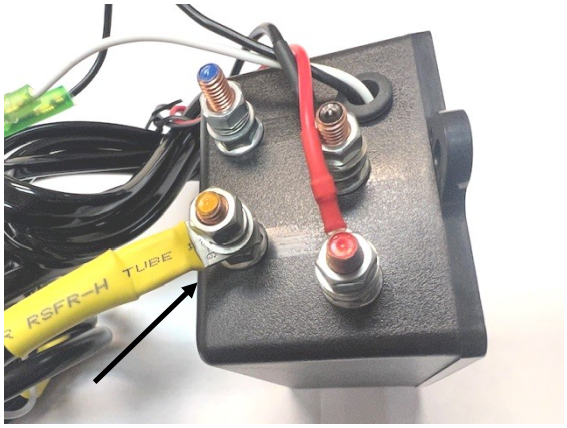
RS6500 WINCH W/ ROPE

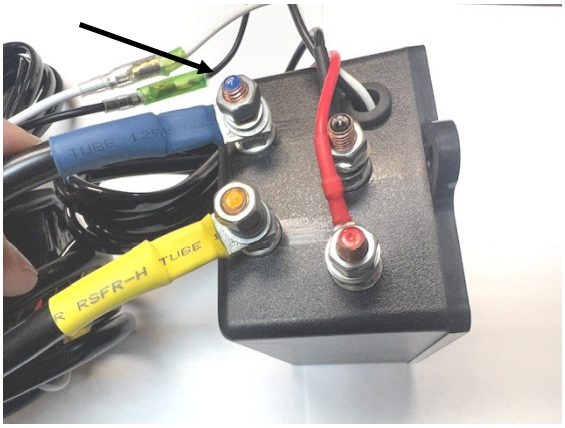


ELECTRICAL CONNECTIONS

For normal self-recovery work, your existing electrical system is adequate. A fully charged battery and proper connections are essential. Run the vehicle engine during winching operations to keep battery charged.

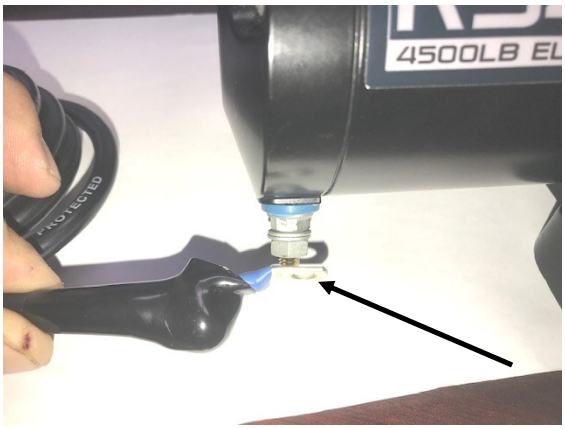
- Install the black cable end boots on the supplied cables and install the corresponding wire on the solenoid as shown. DO NOT over-tighten these fasteners. Simply snug the nuts with a wrench to avoid damage to the threaded terminals.





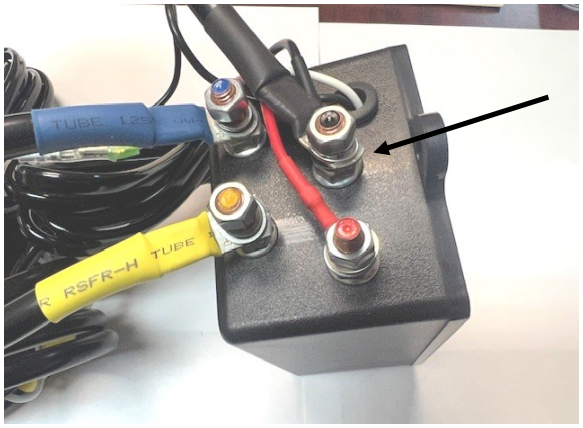
- Route the cables out of harms way to the winch and install cables with corresponding color code. See Pics.

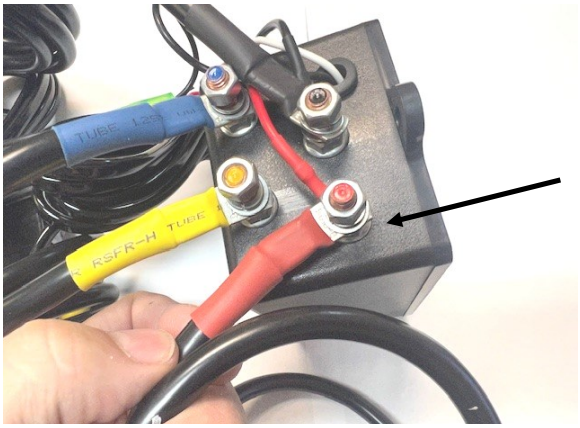




POWER AND GROUND CONNECTIONS

- Install cable end boots on the black coded cables and connect the black cable to the solenoid and the other end of this terminal connecting to negative (-) terminal of battery.
- Install cable end boots on the red color coded cables and connect the black cable to the solenoid and the other end of this terminal connecting to negative (+) terminal of battery.
- Snug these connections but do not overtighten.





SAFETY PRECAUTIONS

WARNING ***Observe safety precautions for personal safety and the safety of others. Improper equipment operation may result in injury and equipment damage.***

Read the following carefully before attempting to operate your winch and keep the instructions for future reference.

1. Dress Properly:

Don't wear loose clothing or jewelry. They can be caught in moving parts.
Wear leather gloves when handling winch cable. Do not handle cable with bare hands as broken wires can cause injuries.
Non-skid footwear-is recommended.
Wear protective hair covering to contain long hair.

2. Keep a Safe Distance:

Ensure that all persons stand well clear of winch cable and load during winch operation. 1.5 times the cable length is recommended. If a cable pulls loose or breaks under load it can lash back and cause serious personal injury or death.
Don't step over the cable.
All visitors and onlookers should be kept away from the work area.
Keep proper footing and balance at all times.

3.Clean winch and switch after use:

Be sure to clean debris from the winch and take care not to damage the winch switch to ensure proper working order.

4. Don't Overwork the winch:

If the motor becomes uncomfortably hot to touch, stop and let it cool for a few minutes.
Don't maintain power to the winch if the motor stalls.
Don't exceed maximum line pull ratings shown in tables. Shock loads must not exceed these ratings.

5. Avoid Unintentional Starting:

Winch clutch should be disengaged when not in use and fully engaged when in use.

6. Check Damaged Parts:

Before using, you should check your winch carefully. Any part that is damaged should be properly repaired or replaced by an authorized service center.

7. Repair Your Winch:

When repairing, use only identical replacement parts or it may cause considerable danger for the user.

8. Re-spool the Cable:

Gloves are recommended to be worn while re-spooling. To re-spool correctly, it is necessary to keep a slight load on the cable. If possible hold the cable with one hand and the remote control (if applicable) or dash switch with the other. Start as far back and in the center as you can. Walk up keeping load on the cable as the winch is powered in.
Do not allow the cable to slip through your hand and do not approach the winch too closely.
Turn off the winch and repeat the procedure until all the cable except 1m is in.
On hidden winches, spool in cable under power but keep hands clear.

WARNING *The use of any other accessory or attachment other than those recommended in the instruction manual may present a risk of personal injury.*

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WINCH OPERATION WARNINGS

Read the following carefully before attempting to operate your winch and keep the instructions for future reference.

The uneven spooling of cable, while pulling a load, is not a problem unless there is a cable pile up on one end of the drum. If this happens reverse the winch to relieve the load and move your anchor point further to the center of the vehicle After the job is done, you can un-spool and rewind for a neat lay of the cable.

Do not engage clutch with motor running.

Never connect the hook back to the cable. This causes cable damage. Always use a sling or chain of suitable strength.

Observe your winch while winching, while standing at a safe distance. Stop the winching process every 3 to 4 feet to assure the cable is not pulling up in one corner. Jamming the cable can break your winch.

Do not attach tow hooks to winch mounting apparatus. They must be attached to vehicle frame.

The use of a snatch block will aid recovery operations by providing a doubling of the winch capacity and a halving of the winching speed, while maintaining a direct line pull to the center of the fairlead. When double loading during stationary winching, the winch hook should be attached to the chassis of the vehicle.

Ensure rated "D" or bow shackles are used in conjunction with an approved tree trunk protector to provide a safe anchor point.

When extending winch cable, ensure that at least five wraps of cable remain on drum at all times. Failure to do this could result in the cable parting from the drum under load. Serious personal injury or property damage may result.

All winches are provided with a Red Cable marking to identify that the minimum of 5 cable wraps remain on the Winch drum. When this mark appears at the fairlead. No recovery should be attempted beyond this marking.

Since the greatest pulling power is achieved on the innermost layer of your winch, it is desire-able to pull off as much line as you can for heavy pulls (you must leave at least 5 wraps minimum on the drum - red cable). If this is not practical use a snatch block and double line arrangement

Draping a heavy blanket or similar object over the extended winch cable if using a steel cable is recommended as it will dampen any back lash should failure occur.

Neat, tight spooling avoids cable binding which is caused when a load is applied and the cable is pinched between the others. If this happens, alternatively power the winch in and out. Do not attempt to free a bound cable under load by hand.

Apply blocks to wheels when vehicles are on an incline.

Take caution while using the wireless winch remote and ensure battery is optimum. Avoid placing the remote in an area that will depress the winch buttons and cause the winch to turn on causing damage the winch or to the operator of the winch. Always store the remote in a uncluttered area and away from excess heat and moisture. Failure to do so could cause damage to the winch remote.

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Cont:

Battery:

Be sure that the battery is in good condition. Avoid contact with battery acid or other contaminants.
Always wear eye protection when working around a battery.
Have the engine running when using the winch to avoid damaging the battery.

Winch Rope/Cable:

Be sure that the cable is in good condition and is attached properly
Do not use the winch if cable is frayed.
Do not move the vehicle to pull a load.
Do not replace the rope/cable with a cable of lesser strength.
The life of the rope/cable is directly related to the use and care it receives. Following its first and subsequent uses, a cable must be wound on to the drum under a load of at least 500lbs (230kg) or the outer wraps will draw into the inner wraps and severely damage the cable during winching. The first winch use should be a familiarization run while in a relaxed, non-recovery situation. Spool out the cable until the red cable mark appears (about five wraps on the drum). Rewind the cable on to the drum under a load of 250bs or more. This will slightly tension and stretch the new cable and create a tight cable wrap around the drum. Failure to do so may result in cable damage and reduced cable life.
When the cable is replaced, be sure to apply Loc-tite or an equivalent compound to the cable clamp thread. Tighten the clamp screw but do not over tighten. The Loc-tite will prevent loosening of the screw in hazardous conditions. Loc-tite 7471 Primer and 222 Thread-locker are recommended.

Do not attempt to exceed the pulling limits of this winch.

DO NOT drive your vehicle to assist the winch in any way. Vehicle movement in combination with winch operation may overload the cable and/or the winch and cause damaging shock loads.

Shock loads when winching are dangerous! A shock load occurs when an increased force is suddenly applied to the cable. A vehicle rolling back on a slack cable may induce a damaging shock load.

Do not use winch in hoisting applications due to required hoist safety factors and features.

Do not use the winch to lift, support or otherwise transport personnel.

WINCH OPERATION

SUGGESTION:
The best way to get acquainted with how your winch operates is to make a few test runs before you actually need to use it. Plan your test in advance. Remember you can hear your winch as well as you can see it operate. Get to recognize the sound of a light steady pull, a heavy pull, and sounds caused by load jerking or shifting. Soon you will gain confidence in operating your winch and its use will become second nature to you.

OPERATING:
Ensure the vehicle is secure by applying the parking brake or chocking the wheels

Pull out the winch cable the desired length and connect to an anchor point. Be sure to leave 5 full wraps of cable on the winch drum.
The winch clutch allows rapid uncoiling of the cable for hooking onto the load or anchor point. The shifter tab located on the gear housing of the winch operates the clutch as follows:
To disengage the clutch, move the clutch shifter tab to the "OUT" position. Cable may now be free spooled off the drum.
To engage the clutch, move the clutch shifter tab into the "IN" position. The winch is now ready for pulling.

Recheck all cable rigging before proceeding.

It is recommended that the winching operation takes place from the driver's position to ensure safe operation.

To commence winching operation; start vehicle engine, select neutral in transmission and maintain engine speed at idle.

Operate the remote control switch to IN or OUT until the vehicle has been retrieved. Regularly check the winch to ensure cable is winding onto the drum evenly.

NOTES:
Never winch with your vehicle in gear or in park, which would damage your vehicle's transmission.
Never wrap the cable around the object and hook onto the cable itself. This can cause damage to the object being pulled, and kink or fray the cable and result in cable failure.
Keep hands, clothing, hair and jewelry clear of the drum area and cable when winching.
NEVER use the winch if the cable is frayed, kinked or damaged. Replace cable immediately.
Never allow anyone to stand near the cable or in line with the cable behind the winch while it is under power. If the cable should slip or break, it can suddenly whip back towards the winch, causing a hazard for anyone in the area. Always stand well to the side while winding.

CHECK THE WINCH CAREFULLY AND THOROUGHLY BEFORE OPERATING!

MAINTENANCE

It is highly recommended that the winch be used regularly (once a month). Simply power the cable out 15m, free spool 5m and then power back in. This will keep all components in good working condition so that the winch can be relied on when needed. Contact your authorized Rough Country Recovery Systems outlet for technical assistance.

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RS6500S FEATURES AND SPECIFICATIONS LINE SPEED AND AMP DRAW (FIRST LAYER)	
Single line rated pull	6500LB
Motor	3.2 HP Series Wound
Control	Dash Mounted 3-Way Rocker Switch
Gear train	Differential Planetary
Gear reduction ratio	192:1
Braking Action	Mechanical
Drum size	2”
Cable	50ft of 1/4” Rope
Fairlead	Hawse Fair Lead / For use with winch rope

Finish	Black/Dark Grey
Weight	30
Overall dimensions	16.2 (L) x 4.6” (W) x 4.8” (H)
Mounting Bolt Pattern	6.6” x 3”

Line Pull @ 6500lbs	Lbs	6500
	kgs	2954
Line Speed @ 6500 lbs	ft/mm	5”
	m/min	1.5
Motor Current	amps	240

Layer of cable		1	2	3	4
Rated line pull per layer	Lbs	6500	5721	5036	4433
	Kgs	2954	2600	2289	2015

Wireless Remote Operation



See below for wireless controller reprogramming instructions.

WIRELESS REMOTE REPROGRAMMING INSTRUCTIONS

- Power-off function:
  - When the remote control is used for the first time, press the power switch, and the remote control function can be used normally after the receiver is powered on. If the winch receiver is interrupted during use, the remote control needs to be turned off and turned on again to normal use.

- Reprogramming Process:
  - If the remote control loses its function due to interference and other reasons during use, the following operations need to be done: In the case of power on the receiver and the remote control.
  - Press and hold the IN and OUT buttons of the remote control at the same time. At this time, the remote control LED is always on (not flashing).
  - Keep holding the remote control for more than 10 seconds, and the remote control LED will turn to flashing state, which means the remote control is successfully repaired and can be used normally.

TWO (2) YEAR WARRANTY FOR MECHANICAL COMPONENTS
LIMITED ONE (1) YEAR WARRANTY FOR ELECTRICAL COMPONENTS

ROUGH COUNTRY warrants to the original purchaser that (a) the mechanical components of the Rough Country winch will be free of defects in material and workmanship for a period of two (2) years, and (b) the electrical components will be free of defects in material and workmanship for a period of one (1) year from the original purchase date. The warranty applies to the original purchaser of the winch. To obtain any warranty service, you must provide Rough Country with proof of purchase and date of purchase to Rough Country; such as a copy of the original purchase receipt. This warranty does not cover the removal or reinstallation of the winch. Rough Country will; at its option, repair , replace or refund the purchase price of a defective winch or component, provided you return the defective winch or component during the warranty period, transportation charges prepaid, to Rough Country's service department or factory authorized service center. Upon approval to return the winch from Rough Country and after receiving a RGA from Rough Country, attach your name, address, telephone number, a description of the problem and a copy of your receipt and original bill of sale bearing the Rough Country serial number of the defective winch and date of purchase.

This warranty does not apply (1) to finish and wire rope, or (2) if the winch has been damaged by accident, abuse, misuse, collision, overloading, modification, misapplication, improper installation, or improper service. This warranty is void if a Rough Country serial number has been removed or defaced. Commercial or industrial use or application, or any hoisting application of the winch voids the warranty.

THE WARRANTY SET FORTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITMESS FOR A PARTICULAR PURPOSE.
TO ONE (1) YEAR FROM THE DATE OF ORIGINAL RETAIL PURCHASE OF THE PRODUCT.
No Rough Country dealer, agent or employee is authorized to make any modifications, extension or addition to this warranty.

ROUGH COUNTRY SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO, LOST PROFITS, DOWN TIME OR LOSS OF USE). UNDER ANY LEGAL THEORY, EVEN IF ROUGH COUNTRY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

Some dates do not allow the exclusion of implied warranties or the exclusion or limitation of liability for incidental or consequential damages or limitations on how long an implied warranty lasts. So the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, you may also have other rights that vary from state to state.

Rough Country reserves the right to change product design without notice. In situations in which Rough Country has changed a product design, Rough Country shall have no obligation to upgrade or otherwise modify previously manufactured products.

Warranty inquiries and products returned for warranty service should be sent to:
ROUGH COUNTRY RECOVERY SYSTEMS

Products Covered By This Warranty	Products Not Covered By This Warranty
Recreational vehicle winches	Finish and wire rope for recreational vehicle winches

750 HWY 77 EAST
NEWBERN, TENNESSEE 38059
LOCAL:731-285-9000 TOLL FREE:800-222-7023

TROUBLESHOOTING		
SYMPTOM	**POSSIBLE CAUSE**	**SUGGESTED REMEDY**
Motor does not turn on	-Switch Assembly not connected properly	*Insert Switch Assembly firmly to the connector
	-Loose Battery Cable	*Tighten nuts on cable connectors
	-Solenoid Malfunctioning	*Tap solenoid to free contact, applying 12 volts to coil terminal directly.
	-Defective Switch assembly	*Replace Switch Assembly
	-Water has entered the motor	*Drain and dry. Run in shirt bursts without load until completely dry
Motor runs too hot	-Long period of operation	*Let winch cool down periodically
Motor runs too slowly or without normal power	-Battery depleted	*Recharge battery by running vehicle engine
	-Insufficient current or voltage	*Clean, tighten or replace the connector
Motor runs but cable drum does not turn	-Clutch (Cam Ring) not engaged	*Move Cam Ring into IN position. If that does not work, a qualified technician will need to check and repair
Wireless remote does not work	Battery is low or depleted	Replace Battery (23Amp/12Volt Battery) Reconnect Remote using steps shown
Motor runs in one direction only	-Defective or stuck solenoid	*Tap solenoid to free contacts. Repair or replace solenoid
	-Defective Switch Assembly	*Replace Switch Assembly

Rough Country also offers other recovery accessories.
Please contact your Rough Country dealer for details
or
call 800-222-7023 to speak to a recovery specialist.

ROUGH COUNTRY, INC
2450 Huish Road
DYERSBURG, TENNESSEE 38024
PH# 1-800-222-7023

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

ROUGH COUNTRY
RECOVERY SYSTEMS

ACCESSORIES

Part # RS125-Snatch Block



1/4-50’ Synthetic Winch rope



Part # RS1054-JEEP JK Winch Bumper W/ Stinger and RC LED



Part # RS120-30M Winch Strap



Rough Country Handle Bar Switch



Rough Country Winch Wired Winch Controller