



Off-Road Recovery Basics

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Agenda

- Introduction
- Nomenclature & Recovery Equipment
- Safety
- Use of Equipment
 - Strap Recovery
 - Kinetic Rope Recovery (Bubba Rope)
 - Winch Recovery
 - Rope Recovery (Block and Tackle)
- Do's and Don'ts of Recovery
- Extra Equipment and why

re·cov·er·y

noun

noun: **recovery**; plural noun: **recoveries**

1.1. a return to a normal state of health, mind, or strength and back on the trail where you belong. "signs of recovery in the housing market" "Crap, John's in the ditch again, get the recovery gear out"

1.2 To pull your shit out of a ditch when you have gone past your level of talent.

20' Static recovery STRAP-

Rated for at least 2.5 times the weight of your vehicle. This should be in every off-road kit



20' kinetic recovery ROPE-

Rated for at least 2.5 times the weight of your vehicle. This should be used when traction of the recovery vehicle is limited- ice , mud, sand. This uses kinetic energy to add force to the recovery. But with added force comes reduced safety.



Nomenclature

Hard Shackle- Made from steel and very durable, some have a pin and other has a bolt, use at least 3/4" size



Soft Shackle- Made from nylon rope they are very easy to use and dependable



Nomenclature

Traction Boards- Made from plastic



Snatch Block / Pulley- Rope Ring – made from steel or aluminum, use a hard or soft shackle on block but only a soft shackle on a rope ring



Nomenclature

Winch- Should be rated for at least twice the vehicle weight (Front and rear / hitch mounted)



Recovery Rope- Made from nylon rope they are very easy to use and dependable





Strap Recovery-

First choice when the rescue vehicle has acceptable traction- fastest and safer than dynamic recovery, use only the force necessary to extract the stuck vehicle, bumping or a good tug is acceptable. If possible, use gravity to your advantage and pull downhill. Especially in sand.



Dynamic Rope Recovery-

This method and equipment is quick and easy to use but uses the dynamic weight of the rescue vehicle to jerk the stuck vehicle. The rope will stretch and as the rock is applied and then contract as the load shifts. Damage to equipment, vehicle and onlookers can happen if not done properly. Ropes become hot after two or three bumps and should be checked and let cool down if necessary. Equipment or recovery point failure is common and violent when it does occur. Caution should be observed. Best used when traction is not achievable for the rescue vehicle, best used in mud, snow, ice, sand.



Traction Boards- great for winching, the rescue vehicle can increase traction by placing its front wheels on traction board. Used with very slow wheel speed, do not spin tires, do not use as a bridge.

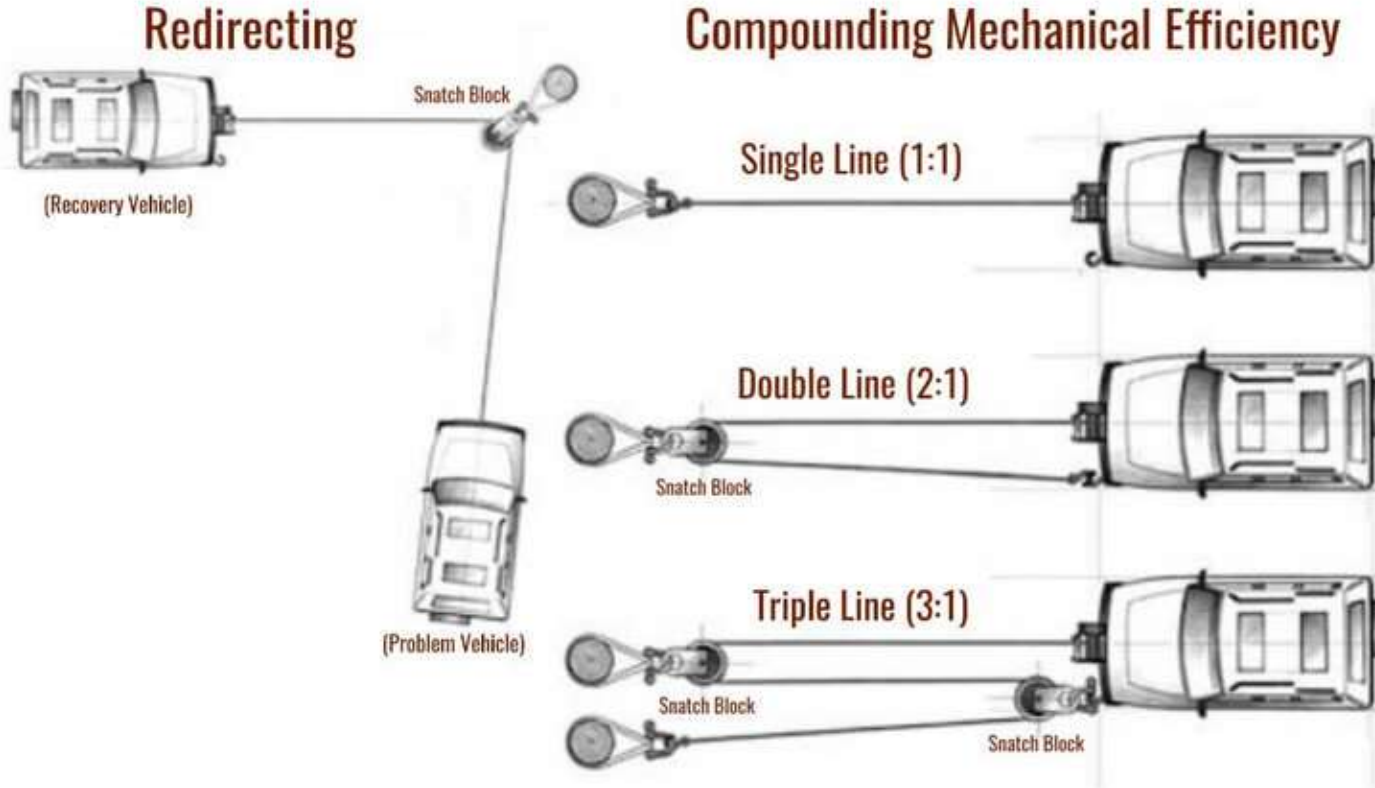


Winch Recovery- winches can be used for self recovery or for recovering other vehicles, the winch uses an electric motor to turn a spool which winds in a rope and moves the vehicle using reduction gears and force multipliers such as pulley and redirects. Extremely high forces are on the rope or cable under load and blankets or coats should be used as energy release dampers if the cable or rope breaks under load.

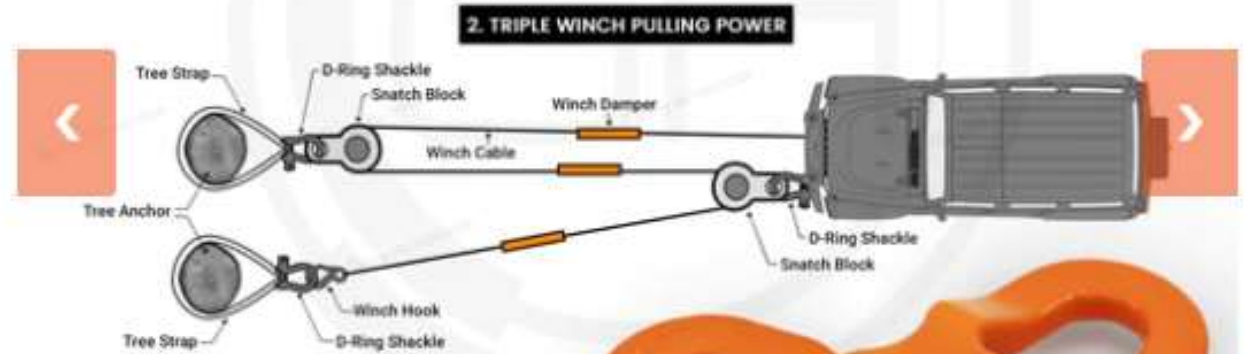
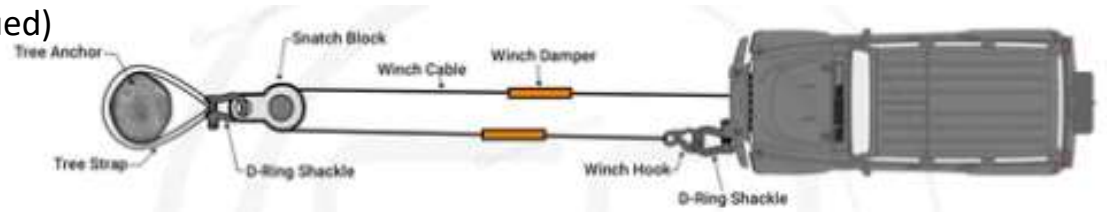
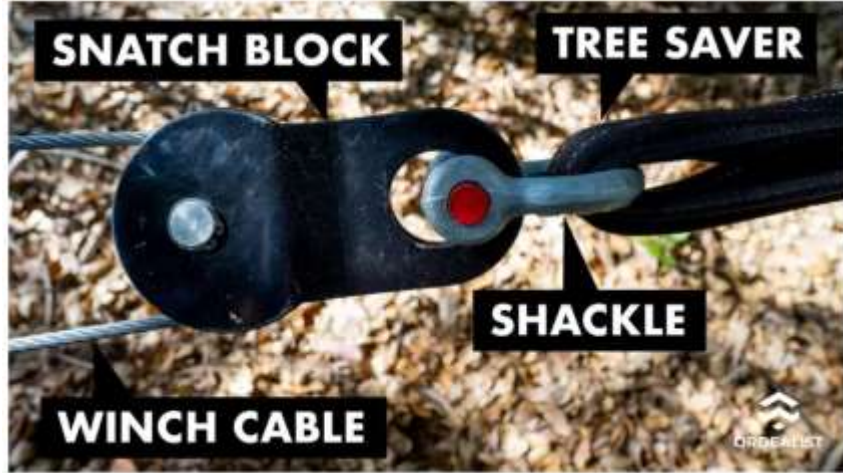




Snatch Block Off Road Recovery Uses

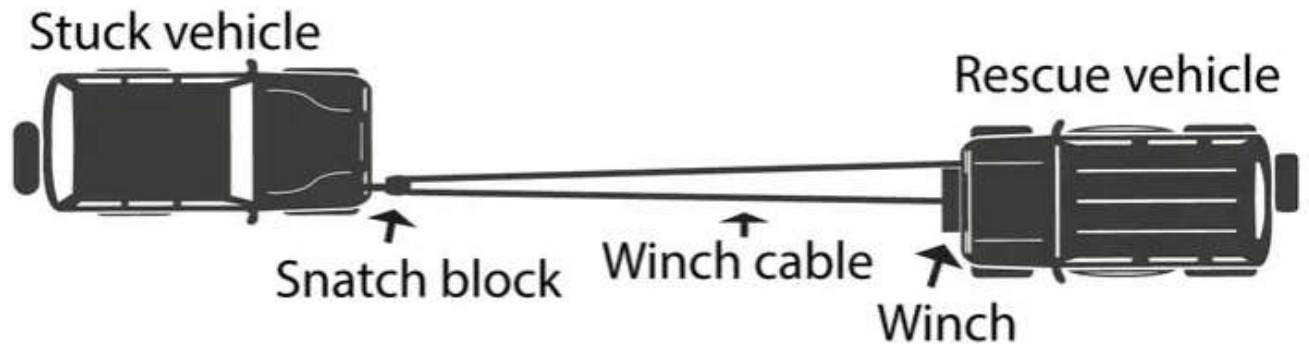
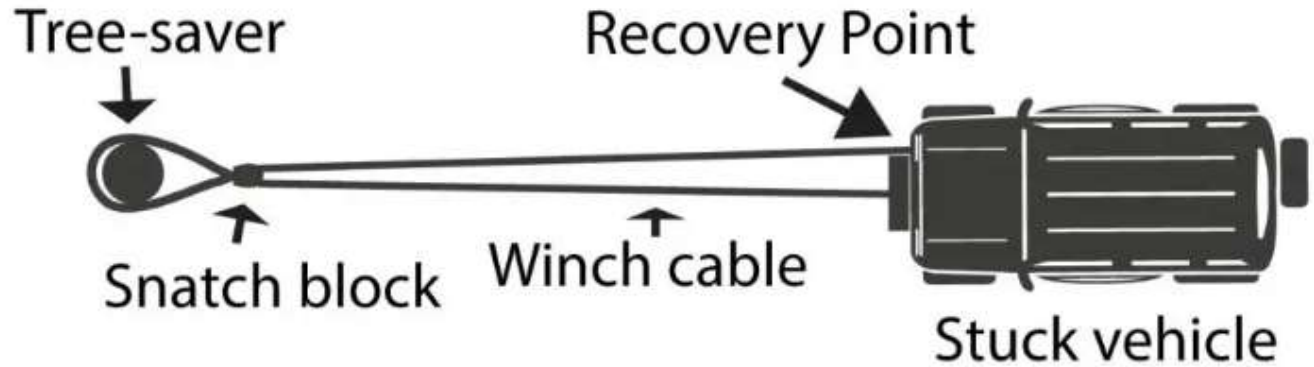
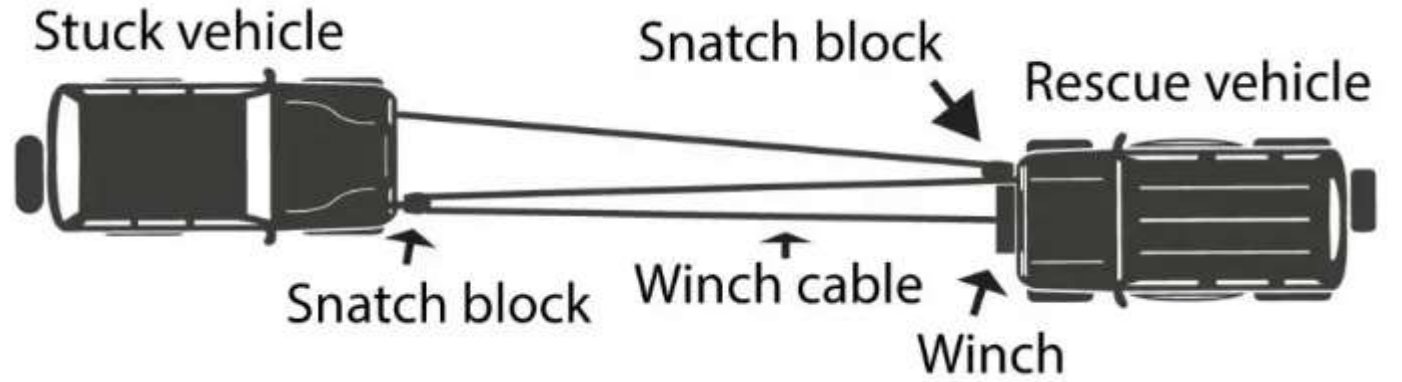


Winch Recovery- (Continued)



DOUBLE OR TRIPLE
THE PULLING POWER OF YOUR WINCH
Ease the strain on your winch and increase its life by using a GearAmerica Snatch Block.

Winch Recovery- (Continued)



Do's and Don't of Recovery-

Don't run your winch line over a rock or sharp object



Never use a ball / hitch as a recovery point



Never use a threaded tow hook or tie down point as a recovery point

When winching use neutral and hold the brake so all 4 wheels are getting traction, open the hood to protect the driver in case of a cable or rope failure



Never use a shackle like this

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Always use a tree strap



When winching always try and prevent rope whip failure by placing something on the winch line



Do's and Don't of Recovery-

Always use gloves and keep your hand away from the roller fairlead when recovering winch rope.



Always pull as perpendicular to the winch drum as possible



Never stand near or straddle a winch rope under load



Extra Equipment

Chainsaw or Axe- sometimes its easier to make a path out instead of extracting



Shovel- when using a traction board, a shovel helps dig to get the board under the tire. Essential when operating in the snow



IMO- my \$ 450.00 tire is not equal to using this shovel

Shovel, Pick, Axe and Sledgehammer Kits –

4- in one kit is handy to have on board board under the tire.





Where to Buy-

<https://www.lvjmotorsports.com/>

The screenshot shows the top portion of the LVJ Motorsports website. At the top left is the 'PROUDLY VETERAN OWNED' logo. The main header features the 'LVJ Motorsports' logo and the phone number 'Call Us 1-312-317-9444'. A navigation menu includes links for 'All Products', 'Recovery Equipment', 'Radios', 'Custom Wire Harness', 'Relay Panel', 'Switch Plates', 'Links / Antennas / IAG', 'Events', and 'About Us'. Below the navigation is a large hero image of a white pickup truck with 'LVJ Motorsports' branding and a blue and white star pattern on the side. A red button with white text says 'View Our Products!'. Below the button, the text reads: 'After Market Electronics, Communications, Recovery Gear, and Accessories for the Off-Road Enthusiast'.

This screenshot shows a product grid on the LVJ Motorsports website. The navigation menu is identical to the previous screenshot. Below the navigation is a blue banner with the text 'Products' and 'RECOVERY GEAR'. A 'Sort by' dropdown menu is visible on the right. The product grid consists of two rows of four items each. Each item has a 'New Arrival' tag in the top left corner, a product image, a title, and a price. The products are: 1. Soft Shackles (36,000 lbs) for \$29.99; 2. Tree Saver Strap (3' x 8') for \$29.99; 3. Rescue Strap (3' x 20') for \$44.99; 4. Kinetic Ropes (7/8" x 30') for \$159.99. The second row shows a metal hook, a blue plastic hook, and a blue rope.

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For Questions or Comments Contact

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9am – 9pm Central

7 days a week

