

INSTRUCTIONS FOR USE 2.0" Omni-Block Laser Resultant Finder

WARNING! EXPERT USE ONLY

Made in the **USA** using foreign and domestic materials

Register your product at:
www.rockexotica.com/register

- These activities are inherently dangerous and carry a significant risk of injury or death that cannot be eliminated.
- These instructions DO NOT tell you everything you need to know.
- Do not use unless you can and will understand and assume all risks and responsibilities for all damage/injury/death that may result from use of this equipment or the activities undertaken with it.
- Everyone using this equipment must be given and thoroughly understand the instructions and refer to them before each use.
- You must always have a backup—never trust a life to a single tool.
- You must have a rescue plan and the means to implement it. Inert suspension in a harness can quickly result in death!
- Do not use around electrical hazards, moving machinery or near sharp edges or abrasive surfaces.
- We are not responsible for any direct, indirect or accidental consequences or damage resulting from the use of our products.
- Stay up to date! Regularly go to our website and read the latest user instructions.

WARNING: This product can expose you to chemicals including nickel acetate, which is known to the State of California to cause cancer. For information go to WWW.P65Warnings.ca.gov



rockexotica.com

Rock Exotica LLC • POB 160470 •
Freepoint Center, E-16 • Clearfield, UT
84016 • USA • 801 728-0630

P53L500 03/2025 A

CAUTION! CLASS 3 LASER PRODUCT

LASER HAZARDS

- Eye Injury from Beam:** Do not look into the direct or reflected beam; can cause eye injury up to 110 ft (34 m) away.
- Visual Interference with Pilots and Drivers:** Interferes with vision up to 2400 ft (730 m) away. Can be a distraction up to 4.5 miles (7.3 km) away. NEVER point any laser towards aircraft or vehicles—it is unsafe and illegal.

(EN) ENGLISH

PRODUCT INTRODUCTION

The 2.0" Omni-Block Laser Resultant Finder (LRF) embeds a green, class 3 laser onto the rear center of the pulley for the purpose of indicating the direction of the resultant, defined as the bisect of the line supporting the load from a single pulley redirect. See Fig. 8 for more details about the resultant when working with the Vortex or other high-directional tools. The LRF is an educational tool to help illustrate force vectors. In complicated or multiple pulley or winch/tie-off on a leg applications, it may not show the true resultant of the entire system. In any event, using the LRF is NEVER a substitute for properly guiding, securing and backing up an artificial high-directional. This PPE is intended to protect against falls from height.

To activate the laser, push and hold the button on the rear of the Omni-Block for 3 seconds. Repeat the steps to turn off. Use the included charger and usb cable to connect to the charging port to charge the battery. Avoid impacts that can damage sensitive electronics. Keep away from children!

This device utilizes a lithium-ion battery and requires specific care:

- Charge before use. Do not store discharged.
- Do not immerse or allow to become wet.
- Do not operate between 140 °F (60 °C) or below 20 °F (-7 °C).
- Do not charge unattended.
- Store inside at room temperature.

Fig. 2.3

- Button must be fully extended to give full strength & keep the sideplate closed. Top chamfer of button should be out as shown. End of button sticks out from sideplate about .08" (2mm).
- FRONT: a. Swivel top, b. Swivel axle bolt, c. Button, d. Sideplate, e. Manufacturer, f. Read instructions, g. Product name, h. Laser warning, i. Strength ratings, j. Frisk mind flange, k. Country of manufacture, l. Rope size, m. Product name, n. Main axle bolt, o. Sheave, REAR: p. Spring pin, q. On/off button, r. Laser housing, s. Product warnings, t. Charging port, u. Laser.

USE

Strength: In a single pulley, half the load is on one side of the rope and half is on the other. The total load on the pulley is thus 2x the mass that is being raised or lowered. In a double pulley the total load is 4x the load on the 4 individual ropes. This is illustrated on the pulley. Breaking Strength & Working Load are based on this equal loading. If the sideplate is not fully locked by the button, the strength will be severely reduced, to about 10kN, but also, the rope may fall out. Pulleys must be free to align with the load, any restraint is dangerous.

Working Load Limit: Is based on about a 4:1 safety factor. You must decide if that is sufficient in your situation or if you need to adjust the WLL.

	P53-L
	2.0" 51 mm
Max Rope Ø <... " (... mm)	.5" (13mm)
Strength/MBS	36 kN
WLL	8 kN
Height	5.8" (148 mm)
Width	3.0" (76 mm)
Weight	12.3oz (348gm)
Certification	N/A

	Sheave (En) - La roldana (Es) - Le réa (Fr) - Seilrolle (De) - De tractieschijf (Du) - Łożyisko (Pl) - Trinsen (No) - Csigakerék (Hu)
	Strength (En) - Resistencia (Es) - Résistance (Fr) - Belastbarkeit (De) - Kracht (Du) - Wyrzmyślność (Pl) - Styrke (No) - Szélesség (Hu)
	Working Load Limit (En) - Limite de carga de trabajo (Es) - Charge maximale d'utilisation (Fr) - Max. zulässige Belastung (De) - Limiet werklast (Du) - Dopuszczalne obciążenie robocze (Pl) - Arbejdslastgrense (No) - Munkaterhelés határértéke (Hu)
	Weight (En) - Peso (Es) - Poids (Fr) - Gewicht (De) - Gewicht (Du) - Waga (Pl) - Vekt (No) - Súly (Hu)
	Width (En) - Ancho (Es) - Largeur (Fr) - Breite (De) - Breedte (Du) - Szerokość (Pl) - Bredder (No) - Szélesség (Hu)
	Length (En) - Longitud (Es) - Longueur (Fr) - Länge (De) - Lengte (Du) - Długość (Pl) - Lengde (No) - Hossz (Hu)
	Height (En) - Altura (Es) - Hauteur (Fr) - Höhe (De) - Hoogte (Du) - Wysokość (Pl) - Høyde (No) - Magasság (Hu)
	Max Rope (En) - Cuerda máx.(Es) - Corde max. (Fr) - Max. Seil (De) - Maximaal touw (Du) - Maksymalna średnica liny (Pl) - Maks. Reip (No) - Max. kötél (Hu)

! MANDATORY LOCKING PROCEDURE!

The sideplate must be closed and locked with the button fully extended, or strength will be greatly reduced and the rope may fall out with catastrophic results. You must understand how the sideplate & locking button work & must faithfully do the following every time you use it.

- Visually** confirm the sideplate is fully closed and the locking button is fully extended.
 - Test** the sideplate by attempting to rotate it to confirm by touch that it is locked.
- Do not allow anything to contact the button in use. Regularly check that the sideplate is locked and the pulley is positioned properly. If the pulley cannot be kept in sight, use a conventional pulley.

Prusik Use - Caution! Prusiks must always have an experienced person tending them. Never allow a jammed Prusik to be pulled in between the sideplates. This can bend or break the pulley and allow the rope to fall out!

Breakage Hazard Do not let an object in between the sideplates and never rig your system so that the pulley is forced against something that could break or open the sideplate, allowing the rope to fall out.

Limitations On Use: This equipment must be used only for the specific purpose it was designed for; it must not be used for any other.

Leverage Hazard: This device or other equipment can lever against a connector (such as a carabiner) and break it, opening the connector and allowing the pulley to fall out. The pulley must always be under tension in your system to avoid shifting into an incorrect position.

Pinching Hazard: Rope travelling through this device can suck in hair, fingers, clothing, etc., causing injury & jamming the device. Guard against this.

Intended Use This Personal Protective Equipment (PPE) should only be used with energy absorbing systems such as dynamic ropes, energy absorbers, etc. & slack must be kept out of the system to prevent high impact falls. This product is intended for use by medically fit, specifically trained and experienced users. Anyone with a medical condition who uses this PPE under normal or emergency conditions, runs the risk of using it improperly, leading to significant injury or death.

To Open Sideplate Depress the button & rotate sideplate counterclockwise (clockwise for the back side of the double). It should stop at the 2nd button detent. In this position the strength is severely reduced, but the rope will not fall out as easily as it can in the fully open position. To fully open, just depress the button again & rotate.

To Close Sideplate Rotate sideplate past the 2nd detent to the fully closed position. Verify the button extends fully through the hole & test that the sideplate is really locked & secure. You should be able to close it one-handed, but the components will last longer if you depress the button a little to help it when closing.

In Use Monitor your system, confirming proper connections, position, fully locked sideplates and extended and locked buttons. Do not allow anything to press button & accidentally unlock sideplate. Do not allow anything to pry the sideplates apart, or opening or breakage may occur.

Inspect Before & After Use Generally, be familiar with how it looks and feels and stop use if it has changed. Check all bolts, screws and pins to be sure they haven't loosened. Check action of sideplate, swivel, and sheave. Retire if they have

Fig. 1

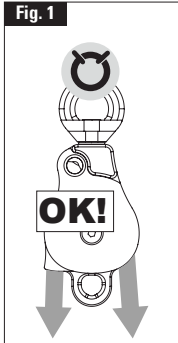


Fig. 2

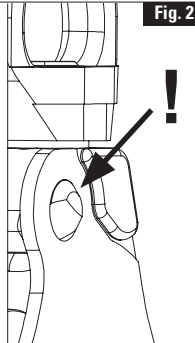
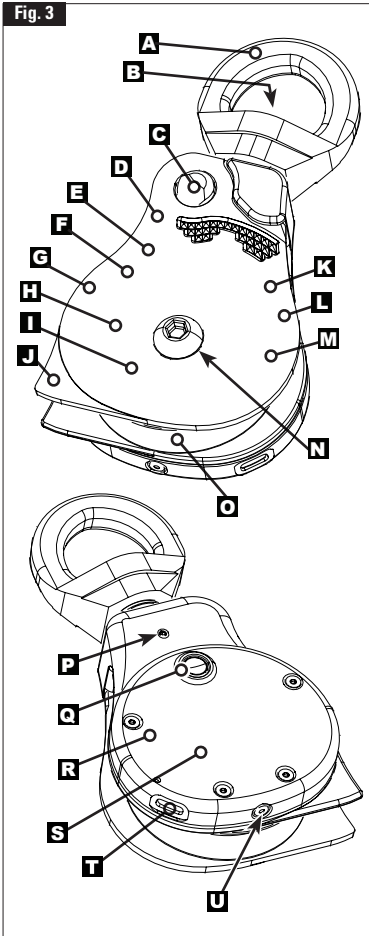


Fig. 3



No!

Fig. 4

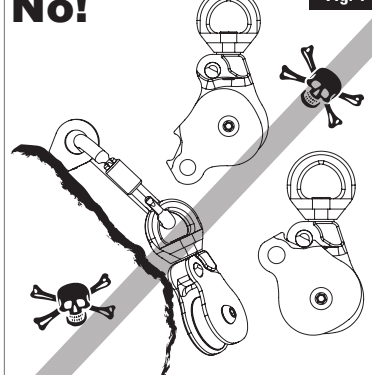


Fig. 5

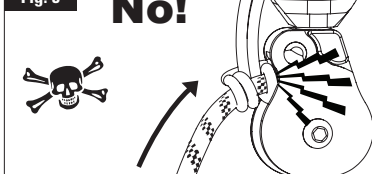
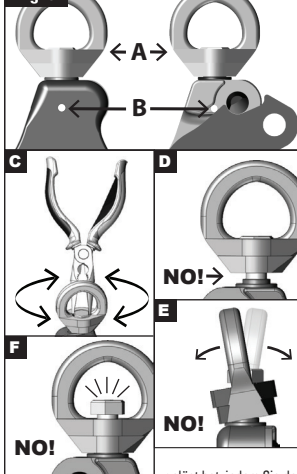


Fig. 6



EN: (A) For orientation only. Not for high speed or multi-rotation. Do not use with wire rope or steel cable. Verify swivels rotate freely. (B) Verify spring pins or set screws are in place and have not been removed. (C,D,E,F) Before, during and after use, ensure bolt has not loosened by checking bolt with your fingers and making sure swivel top does not move up or down. Periodically, ensure bolt has not loosened by checking bolt with pliers.

ES: (A) Como orientación solamente. No apto para altas velocidades o rotación múltiple. No utilizar con un cable metálico o de acero. Compruebe que los eslabones giratorios giren libremente. (B) Compruebe que los pernos de resorte o los tornillos de fijación estén en su lugar y que no se hayan retirado. (C,D,E,F) Antes, durante y después del uso asegúrese de que el perno no se haya aflojado verificando el perno con los dedos y asegurándose de que la parte superior giratoria no se mueva hacia arriba o hacia abajo. Periódicamente, asegúrese de que el perno no se haya aflojado verificando el perno con los alicates.

FR: (A) Pour orientation uniquement. Pas pour haute vitesse ou rotation multiple. N'utilisez pas ce système avec un câble métallique ou en acier. Vérifiez que les émerillons tournent librement. (B) Vérifiez que les boulons d'arrêt ou les vis de fixation sont en place et qu'ils n'ont pas été retirés. (C,D,E,F) Avant, pendant et après l'utilisation s'assurer que le boulon n'a pas desserré en vérifiant le boulon avec les doigts et en veillant à ce que le dessus pivotant ne bouge pas vers le haut ou vers le bas. Périodiquement, s'assurer que le boulon n'a pas desserré en vérifiant le boulon avec des pinces.

DE: (A) Nur zur Orientierung. Nicht für Hochgeschwindigkeits- und Multirotationsanwendungen. Nicht mit Drahtseil oder Stahlkabel verwenden. Prüfen, dass Drehringe frei rotieren. (B) Prüfen, dass Federstifte oder Stellschrauben an ihrem Platz angebracht sind und nicht entfernt wurden. (C,D,E,F) Stellen Sie vor, während und nach dem Gebrauch sicher, dass sich die Schraube nicht gelöst hat, indem Sie die Schraube mit den Fingern prüfen und sicherstellen, dass sich die Drehplatte nicht nach oben oder unten bewegt. Überprüfen Sie regelmäßig, ob sich der Bolzen nicht gelöst hat, indem Sie den Bolzen mit einer Zange prüfen.

DU: (A) Alleen voor oriëntatie. Niet geschikt voor hoge snelheden of multi-rotatie. Niet te gebruiken voor staaldraad of staalkabel. Zorg ervoor dat de wachters vrij draaien. (B) Controleer dat spring-pinnen of stelschroeven op hun plaats zitten en niet verwijderd zijn. (C,D,E,F) Controleer voor, tijdens en na gebruik of de bout niet is losgedraaid door de bout met uw vingers te controleren en ervoor te zorgen dat de zwenkop niet omhoog of omlaag beweegt. Controleer regelmatig of de bout niet is losgedraaid door de bout met een tang te controleren.

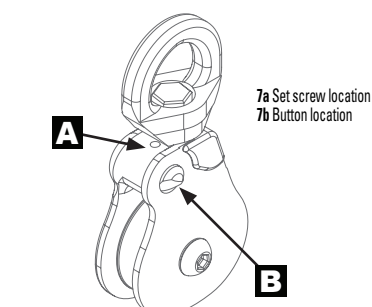
PL: (A) Tylko dla celów orientacyjnych. Nie przeznaczona do dużych prędkości, ani wielokrotnych obrotów. Nie stosować z linki druciana, ani kablem stalowym. Sprawdź, czy kłkiki obracają się bez utrudnień. (B) Sprawdź czy kołki sprężynujące lub nieruchome śruby są na miejscu i czy nie zostały wyjęte. (C,D,E,F) Przed, w trakcie i po użyciu upewnij się, że śruba się nie poluzowała, sprawdzając śrubę palcami i upewnijając się, że górna część obrotowa nie przesuwają się w górę lub w dół. Okresowo upewnij się, że sworzeń nie poluzował się, sprawdzając śrubę za pomocą szczypiec.

NO: (A) Kun til orientering. Ikke til bruk for høy hastighet eller multi-rotasjon. Ikke til bruk med ståltau eller stål kabel. Kontroller at svingledd roterer fritt. (B) Kontroller at fjærbolter eller skruer er på plass og ikke har blitt fjernet. (C,D,E,F) For, under og etter bruk sikre bolt har ikke løsnet ved å sjekke bolt med fingrene og gjør at dreibar toppen ikke beveger seg opp eller ned. Kontroller med jevne mellomrom at bolt ikke har løsnet ved å sjekke boltene med tang.

HU: (A) Csak tájékoztatás céljából. Nem alkalmas nagy sebességre, vagy többszörös forgásra. Ne használja az acélból készült sodronnyal vagy kötéllel. Ellenőrizze, hogy szabadon elfordulnak-e a forgók. (B) Ellenőrizze, hogy a kötélszegecsek vagy a szabályzó csavarok a helyén

Fig. 7

Inspection Guide: Button & Retaining Set Screw



Before and after each use, do the following inspections below.

Button Inspection:

Button must be fully extended to give full strength and keep the sideplate closed. Top chamfer of button should be out as shown. End of button sticks out from sideplate about .08" (2mm).

Set Screw Inspection:

Each set screw is located above the button(s). The top of the set screw must be even with or below the surface of the of the body of the pulley. If the set screw is covered by epoxy or sealant, the sealant must be even with or below the surface of the body of the pulley.

Follow all other instructions contained in this technical notice.

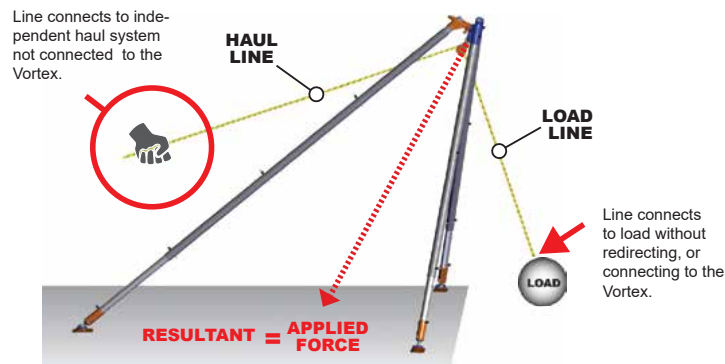
Fig. 8

A. In-use with the Vortex as DIRECTIONAL FRAME

The resultant indicated by the Omni Resultant Finder is equal to the direction of the applied force only when the line passing through the pulley does not connect to or redirect from the Vortex at any other point. In this configuration, the Vortex is used as a **DIRECTIONAL FRAME**.

RESULTANT = APPLIED FORCE

(Bisect of Haul Line & Load Line)



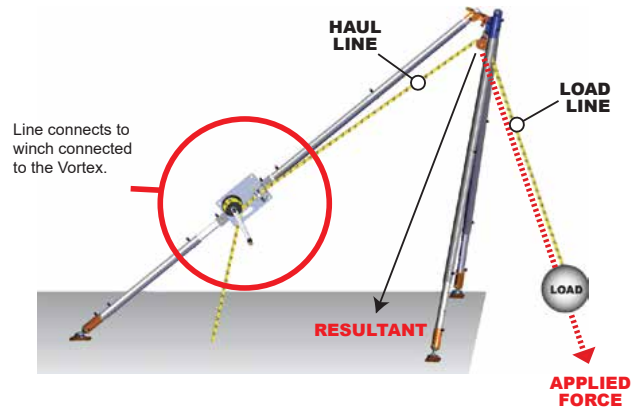
B. In-use with Vortex as ANCHOR FRAME & Variants

When the line running through the Omni-Block Resultant Finder connects to or redirects from the Vortex, the laser-indicated resultant will **NOT** correspond with the direction of Applied Force.

RESULTANT ≠ APPLIED FORCE

(Bisect of Haul Line & Load Line)

When the line connects to the Vortex leg as shown in this example, the Vortex functions as an **ANCHOR FRAME**. The applied force in all variations of the anchor frame will not be equal to the resultant, or bisect of the line running through the Omni-Block Resultant Finder.



loosened or feel rough. Check all parts for cracks, deformation, corrosion, wear, legibility of product markings, etc. Verify that the swivel top rotates normally & the axle screw has not loosened. Verify smooth rotation of the sheaves & security of the axle screw. Verify that the sideplate rotates normally & the button operates properly. The button must not be impaired by dirt, ice, corrosion, etc. Additionally, see fig. 6 & 7 for additional inspection details.

Inspection During Use Regularly inspect and monitor your system, confirming proper connections, position, fully locked sideplates & fully extended buttons. Additionally, see fig. 6 & 7 for additional inspection details.

Thorough and specific training is absolutely essential before use. Being at height is dangerous and it is up to you to reduce the risks as much as possible - but the risks can never be eliminated. There are many ways to misuse this equipment, too many to list or imagine. You must personally understand and assume all risks and responsibilities of using this equipment. If you cannot or do not want to do this, do not use this equipment.

Environmental Factors: Moisture, ice, salt, sand, snow, chemicals and other factors can prevent proper operation or can greatly accelerate wear.

Compatibility: Verify compatibility with other components of your system. EN12275, EN565, EN566, EN1891. An incompatible connection can cause accidental disconnection, breakage, or affect the safety function of another piece of equipment. Use appropriate EN362:2004 connector. You must verify the suitability of this equipment for use in your application with regard to applicable governmental regulations and other standards on occupational safety.

Lifetime: Unlimited for metal products, but will often be much less depending on conditions and frequency of use; it could even be a single use in some cases. The integrity of this equipment is essential to your safety. Retire from Service & Destroy if the Equipment:

1. Is significantly loaded.
2. Does not pass inspection or there is any doubt about its safety.
3. Is misused, altered, damaged, exposed to harmful chemicals, etc.
4. Button fails to extend fully.
5. Sheave or swivel does not rotate smoothly.

Do not return to service until the unit in question has been inspected and approved for use in writing by a competent person that is authorized to do so. Consult the manufacturer if you have any doubts or concerns.

Maintenance & Storage Clean if necessary with fresh water, then dry, or allow to dry away from direct heat. Light surface corrosion may be removed with a wire brush (no power tools). Retire if corrosion is heavy. A light lubricant may be applied. Store and transport in a dry place away from extremes of heat and cold and avoid exposure to chemicals.

Principal Material: Aluminum alloy, anodized. Corrosion resistant steel axle. Steel ball bearing.

Repairs or Modifications to Equipment Are only allowed by the manufacturer or those authorized in writing by the manufacturer.

Detailed Inspection In addition to inspection before, during and after each use, a detailed inspection by a competent inspector must be done at least every 12 months or more frequently depending on amount and type of use. Make a copy of these instructions and use one as the permanent inspection record and keep the other with the equipment. It is best to issue new gear to each user so they know its entire history.

Stay Up To Date! Regularly go to our website and read the latest user instructions. Copyright 2010 Rock Exotica Equipment LC

If re-sold outside the original country of destination, the re-seller must provide instructions for use, maintenance, periodic examination and for repair in the language of the country in which this product is to be used.

Rock Exotica 3-year guarantee: If your Rock Exotica product has a defect due to workmanship or materials please contact us for warranty service. This warranty does not cover damages caused by improper care, improper use, alterations and modifications, accidental damage or the natural breakdown of material over extended use and time.

DOCUMENTATION

Model	
Complete Batch #	
Year of Manufacture	
Purchase Date	
Date of 1st Use	
User	

DATE	CONDITION	INSPECTOR	DATE (next inspection)