

REX

RapidEXtraction

Operations Manual

Model: RexONE Emergency Stretcher





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PRODUCT OVERVIEW



Product Description

The RexONE Mobile Stretcher is a multi-function patient evacuation device designed for all levels of emergency responders. The RexONE's interchangeable tires system provides the ability to rapidly move across a variety of surfaces and terrains. The tri-fold frame quickly folds into an easy storage carrycase which converts into a backpack making it ready for rapid field deployment.

The RexONE's ergonomic design adjusts in multiple positions accommodating the various physical or medical conditions responders must confront. The combination of a centered balanced wheels and telescoping pull-handle allows a single responder 360° maneuverability and agility to quickly move a patient to safety.

The RexONE frame consists of a tri-panel system: the 1) Head Panel, 2) Center Panel, and 3) Foot Panel. Each panel is framed by tubular T-6 aircraft aluminum and welded support panels with circular vents to provide increased structural strength while maintaining a lightweight and sleek profile.

Articulating high-strength steel hinge joints connect the three panels together which can adjust to multiple transport positions. These transport positions can quickly be changed by a simple pull of the Red Release Cables located between both the Head Panel and Foot Panels.

US Patent 7,549,661 B2.

Product Description Continued..

The Head Kickstand and Foot Kickstand can be extended to transform the RexONE into a patient treatment cot and quickly fold under the head or foot panels to be deployed as a mobile stretcher. A telescoping pull handle folds under the foot panel that can quickly be released and locked in position for use.

The protective wheel fenders protect patients from contact with the tires. The color-coded Velcro fender tabs allow responders to match left and right wheel fenders to the correct frame side for quick assembly.

WARNING: Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

CAUTION: Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property.



WARNINGS

- Only personnel who have been properly trained in the manufacturers recommended set-up and operation should use this device.
- Do not exceed the manufacturers maximum load weight of 400 pounds
- Do not use this device if there are any signs of damage, fracture, damaged or missing components
- Do not dismantle or modify this device
- Do not transport any patient without properly securing them using the patient strap system or another approved patient harness
- Do not use this device for technical rescues requiring hoisting or rope suspension
- Do not use the device for stairway evacuations

CAUTIONS

- Do not leave patient on this device for extended periods of time without padding. This may result in tissue damage due to pressure points created between the patient and device.
- If device is stored in extreme hot or cold do not place patient directly onto device surface without insulation
- Ensure that any cleaning or disinfecting solution used is non-toxic and safe for skin contact
- Secure patient so the body and extremities are within the outer frame of the device
- Secure upper extremities to prevent pressing against wheel fenders and exposure to wheels
- Heavy loads or patients may require additional personnel to lift or pull this device

NOTICES

- Follow all Federal, State, Local and Departmental guidelines involving patient immobilization and transport
- This device is not certified for aeromedical use
- This device is not recommended for water rescues
- Adjust Head and Foot panels based on patient's needs

SPECIFICATIONS

Dimensions are measured from the outermost edge of the frame. Conversions are calculated before rounding.

GENERAL SPECIFICATIONS		
CONSTRUCTION		T-6 Aluminum
WEIGHT	Total with Tires	37 lbs.
	Frame Only	28 lbs.
DIMENSIONS	Fully Deployed with Tires	75" x 25"
	Panel Only	23" x 18"
	Folded including Tires	26" x 25"
STORAGE BAG DIMENSIONS	Airless Tire – Large	11" x 29" x 30"
CAPACITY		400 lbs.
HEIGHT FROM GROUND	Airless Tires	9"
	Sand Tires	9"

1. Maximum load capacity is total weight distributed in accordance to basic human anatomy. Operators must consider the weight of the passenger, equipment, and accessories when determining the total load on the product.

AVAILABLE OPTIONS	
ACCESSORIES	Carry Case / Back Pack
	Bike Tow System
	Attachment Point Connections
	Adjustable Support Handles
	Attachment Point Mount
	IV Pole
TIRES	20" Sand Tire
	20" Airless Tire
	18" Airless Tire (Standard)
COLORS	Red
	Tactical Black
	Powder Blue

2. Depth dimensions are measured with extendable handles retracted.

QUESTIONS?



Contact Information

Contact REX EMS, LLC Customer Service or Technical Support at: (866) 467-3105

REX EMS, LLC

2247 Lindsay Way, Glendora, CA 91740
United States



Serial Number

When calling or emailing your operations or maintenance concerns, have the serial number of your RexONE or part replacement number available. Include the serial number in all written communication.



Tutorials and Training Videos available on our website.

Visit us at: www.rapidextraction.com

WARRANTY

Rex EMS, LLC offers a one (1) year parts and labor warranty. Rex EMS, LLC warrants to the original purchaser that its products should be free from manufacturing non-conformances that affect product performance and customer satisfaction for a period of one (1) year after date of delivery. Rex EMS, LLC obligation under this warranty is expressly limited to supplying replacement parts and labor for, or replacing, at its option, any product that is, in the sole discretion of REX EMS, LLC found to be defective.

If Rex EMS requests, products or parts for which an original purchaser makes a warranty claim, the purchaser shall return the product or part prepaid freight to Rex EMS, LLC corporate office.

Any use of the RexONE outside of what is identified in this manual, alteration/modification to the RexONE frame or components, or any repair by unauthorized service providers in such a manner as in Rex EMS, LLC judgment affects the product materially and adversely, shall void this warranty. Any repair of RexONE products using parts not provided or authorized by Rex EMS, LLC shall void this warranty. No employee or representative of Rex EMS, LLC is authorized to change this warranty.

This statement constitutes the complete warranty with respect to the aforesaid equipment. Rex EMS, LLC MAKES NO OTHER WARRANTY OR REPRESENTATION EITHER EXPRESSED OR IMPLIED, EXCEPT AS SET FORTH HEREIN. THERE IS NO WARRANTY OF MERCHANTABILITY AND THERE ARE NO WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL Rex EMS, LLC BE LIABLE HEREUNDER FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OR IN ANY MANNER RELATED TO SALES OR USE OF ANY SUCH EQUIPMENT.

Return Authorization

Product cannot be returned without prior approval from the Rex EMS, LLC Customer Service Department. A return authorization number will be provided which must be printed and attached to the returned product shipping container. Rex EMS, LLC reserves the right to charge shipping and restocking fees on returned products. Special, modified, or discontinued products are not subject to return.

Rex EMS, LLC Service Department
2247 Lindsay Way, Glendora, CA 91740
(866) 467-3105

Freight Damaged Product

ICC Regulations require that claims for damaged products must be made within fifteen (15) days of receipt of the product. Do not accept damaged shipments unless such damage is noted on the delivery receipt at the time of receipt. Upon prompt notification, Rex EMS, LLC will file a freight claim with the appropriate carrier for damages incurred. Claims will be limited in amount to the actual replacement cost. In the event that this information is not received by Rex EMS, LLC within the fifteen (15) day period following the delivery of the product, or the damage was not noted on the delivery receipt at the time of receipt, the customer will be responsible for payment of the original invoice in full within thirty (30) days of receipt. Claims for any incomplete shipments must be made within thirty (30) days of invoice.

International Warranty

This warranty reflects U.S. domestic policy. Warranty outside the U.S. may vary by country. Contact Rex EMS, LLC for additional information.



MAINTENANCE & CLEANING



Preventative Maintenance

- When RexONE is used in dusty or sandy environment
 - Spray RexONE unit down with water
 - Wipe dry or blow dry with compressed air
- Scheduled Maintenance

Regular maintenance checks are recommended (At least monthly or Dept. SOP)

 - Check panel release cables for wear and ease of use
 - Check that Headrest engages in locking position
 - Lubricate the following using only a silicone-based lubricant. Wipe off excess lubricant
 - Red pull release ring at base of Pull Handle
 - Push pin button on Pull Handle neck
 - Insert wheel attachment points (holes) for Wheel Axles
 - Frame hinge points (Head/Back, Center, and Foot Panels)
 - Red release cords – Pull cords and apply lubricant on metal corner points

Cleaning & Disinfecting

- The RexONE may be sprayed or wiped down with soap and water. Rinse soap completely
- If contaminated, use disinfectant solution and follow recommended decontamination procedures
- If debris gets between the frame joints or locking pins, the frame must be cleaned. Compressed air may be used.
- Remove wheels prior to cleaning RexONE unit
- Spray and rinse the RexONE unit. Clean front and back of RexONE unit.
- Remove straps and spray with disinfectant or wash with soap and water.
- If straps come in contact with bodily fluids or blood, disinfect straps with soap, commercial solution, or wash in washing machine with commercial detergent.
- Allow the straps to completely dry before reassembling.
- Reassemble the straps and the wheels
- Under HAZMAT situations, follow agency's decontamination procedures

ASSEMBLY INSTRUCTIONS

Unpacking & Inspection

1. Remove the RexONE from the carry case along with two wheels (**Figure 1a, 1b**)
2. Identify LEFT & RIGHT wheels from labels on fenders, set next to frame
3. Inspect for damage, missing parts, breaks, fractures in frame or hinges, bent or damaged components
4. *DO NOT USE IF DAMAGE IS SUSPECTED OR FOUND*



Figure 1a



Figure 1b

Set Up Frame: Head Panel

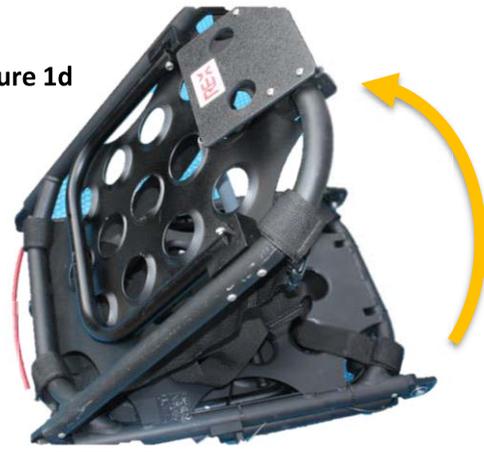
1. Lay folded frame flat so that the **Head Panel** is on top (Head Rest label is facing you)
2. Identify the **RED** Release Cable between the **Head Panel** and **Center Panel** hinge area (**Figure 1c**)
3. Pull the Release Cable and extend the Head Panel to the desired angle. Release pull cable to lock panel into place (**Figure 1d**)
4. Gently move panel to ensure panel is locked in place. Head Panel angles adjust to 0, (fully extended), 30, 60 and 90 (sitting) degrees.



Figure 1c

Pull Red Release Cable

Figure 1d



While pulling Release Cable Extend Head Panel

ASSEMBLY INSTRUCTIONS

Set Up Frame: Foot Panel

1. Identify the **RED** Release Cable between the Foot Panel and Center Panel hinge area (Figure 2a)
2. Pull the Release Cable and extend the Foot Panel to the desired angle (Figure 2b)
3. Release pull cable to lock panel into place
4. Gently move panel to ensure panel is locked in place. Foot Panel angles adjust to 0, (fully extended), 30, 60 and 90 (sitting) degrees.

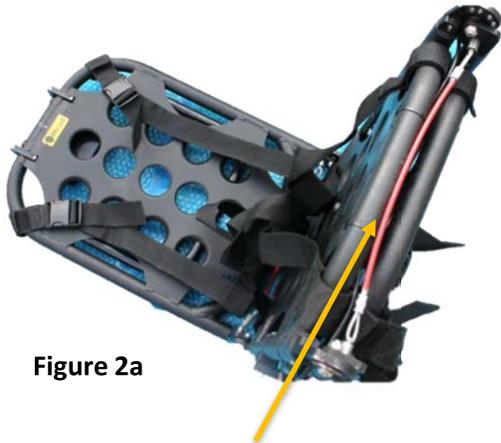


Figure 2a

Identify Foot Panel Release Cable

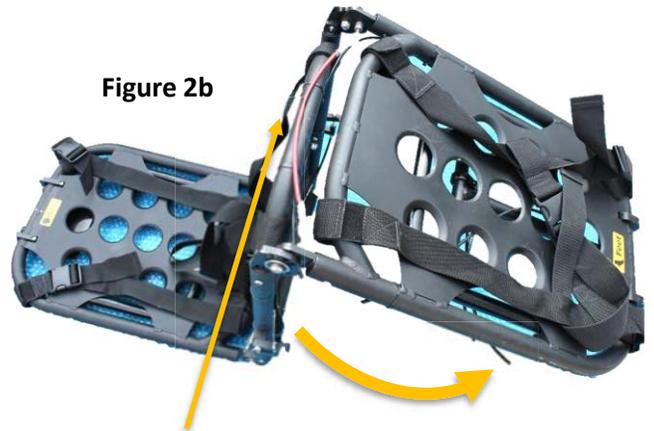


Figure 2b

While pulling Release Cable extend foot panel

Wheel Installation Prep

1. Identify the Wheel Axle Port on Head/Center Panel hinge joint (Figure 2c)
2. Match LEFT & RIGHT tire to LEFT & RIGHT side of RexONE (Left is RED, Right is GREEN) (Figure 2d & 2e)
3. Identify Velcro area on Center panel that matches VELCRO tab on fender

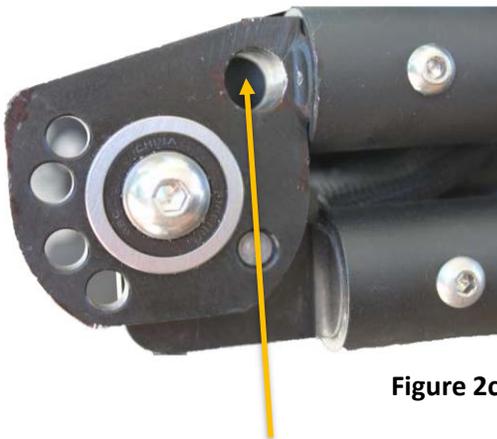


Figure 2c

Wheel Axle Port (largest opening)



Figure 2d



Figure 2e

LEFT & RIGHT VELCRO Fender Tab

ASSEMBLY INSTRUCTIONS

Wheel Installation

1. Select LEFT or RIGHT wheel and match to proper side of REX frame
2. Grasp tire. DEPRESS and HOLD center Release Button (**Figure 3a**)
3. Center tire over axle, align and insert Wheel Axle in Wheel Axle Port on HEAD/CENTER Panel hinge (**Figure 3b**)



Figure 3a

Wheel Quick Release Button

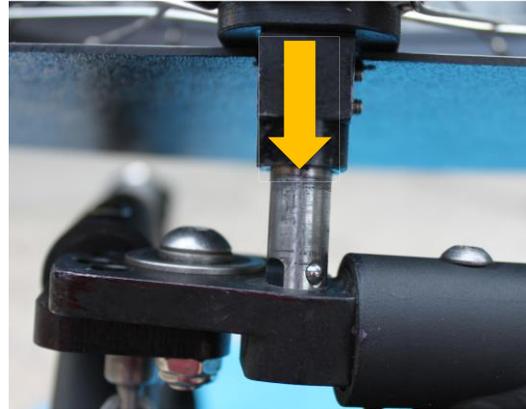


Figure 3b

Inserting Axle into Wheel Axel Port

4. Release Black Quick Release Button to lock wheel into place
5. Turn frame on other side and repeat with opposite wheel (**Figure 3c**)
5. Confirm wheels are fully inserted and wheels can freely rotate
7. Secure Wheel Fender by attaching colored Velcro flaps to matching colored Velcro attachment on each side of frame (**Figure 3d**)



Figure 3c

Installing opposite wheel



Figure 3d

Attach Fender Velcro to Velcro area on frame
Repeat for other wheel

ASSEMBLY INSTRUCTIONS

Pull Handle

1. Identify the **Red** Release Ring at the base of the Pull Handle (**Figure 4a**)
2. Pull the **Red** Release Ring while rotating Pull Handle upward (**Figure 4b**)
3. Release **Red** Release Ring to lock Pull Handle into place
4. Pull Handle has Release Button on handle to extend or reduce length –press Button and pull or push handle

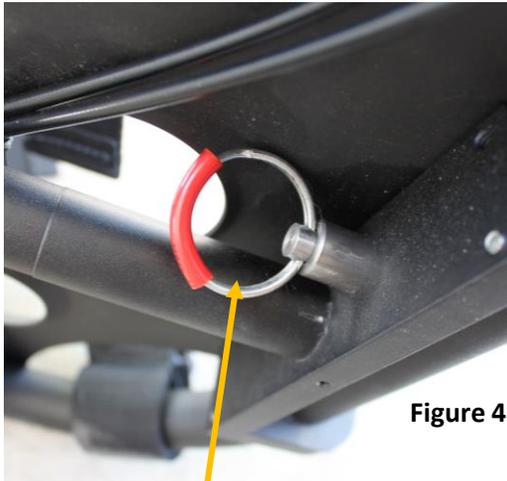


Figure 4a

Red Release Ring



Figure 4b

While pulling Ring extend out Pull Handle

Head and Foot Kickstands

1. Locate the Foot and Head Plate Kickstands on the underside of the panels. Pull the Kickstand away from the Foot Panel (**Figure 5a**) until it is fully open and locks into place.
2. Repeat on Head Panel Kickstand if being used as a stretcher without wheels (**Figure 5b**)



Figure 5a

Extend out and lock Foot Kickstand



Figure 5b

Extend out and lock Head Kickstand
Not normally used

ASSEMBLY INSTRUCTIONS

Headrest

1. Identify the Headrest. When stored in bag, Headrest is located on backside of the Head Panel.
2. Pull Headrest downward to disengage lock from storage position (Figure 6a)
3. Rotate Headrest upward until it aligns with the Head Panel (Figure 6b)
4. Push Headrest in (towards the frame) to lock into position (Figure 6c)



Figure 6a



Figure 6b



Figure 6c

Attaching Patient Straps

The system consists of adjustable chest, pelvic and leg straps with Quick-Release buckles

All straps can be moved up or down based on patient needs or injuries

1. Secure Chest strap first. Position strap with buckle across center of chest. Snap buckle and tighten (**Figure 7**)
2. Do not over tighten as this may interfere with respirations
3. Repeat process for Pelvic strap
4. Use caution in patients with abdominal or pelvic injuries
5. Repeat process for Leg straps.
6. Secure loose ends of straps



Figure 7

DISASSEMBLY INSTRUCTIONS

Headrest

1. Pull Headrest upward until it releases (Figure 8a)
2. Rotate Headrest back towards frame (Figure 8b)
3. Lay Headrest flat against the back of the Head panel (Figure 8c)



Figure 8a



Figure 8b



Figure 8c

Pull Handle

1. Place RexONE on its side or stand the RexONE unit upright with Pull Handle upward
2. Pull and hold the Red Release Ring (**Figure 9a**) at base of Pull Handle. Fold Pull Handle down until it lays flat against back of the Foot Panel (**Figure 9b**)
3. If using Telescoping Pull Handle, push release button in and push Pull Handle downward to shortest length. This will prevent kickstand from jamming when in closed position



Figure 9a



Figure 9b

DISASSEMBLY INSTRUCTIONS

Wheel Release

1. Release the Velcro tags holding the Wheel Fenders to the Center Panel
2. Press Wheel Quick Release Button in the center of wheel. At same time, pull the wheel out from the Wheel Axle Post **(Figure 10)**
3. Turn RexONE over and repeat for the other wheel

Quick Release Button



Figure 10

Head and Foot Kickstands

1. Fold both kickstands underneath panels until they lay flat.
2. Shorten telescoping handle before closing kickstands **(Figure 11)**



Figure 11

Foot Panel

1. To release Foot Panel, pull and hold the Red Release Cable at the Foot Panel
2. Fold the Foot Panel back and underneath the Center Panel until lays flat **(Figure 12)**
3. Release Red Release Cable to lock the Foot Panel in place



Figure 12

DISASSEMBLY INSTRUCTIONS

Head Panel

1. To release Head Panel, pull Red Release Cable at base of Head Panel (**Figure 13**)
2. Fold the Head Panel forward on top off the Center Panel until it lays flat on the Center Panel
3. Release Red Release Cable to lock the Head Panel in place

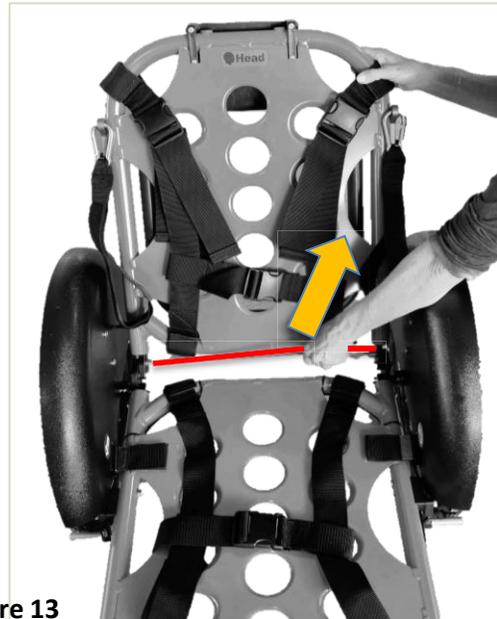


Figure 13

Bag Placement

1. Lay RexONE Carry Bag on flat surface. Unzip carrycase and lay top panel open
2. Place the RexONE frame into the carry case with Head Panel down (**Figure 14a**)
3. Tuck frame hinges deep within corner of the case to avoid wear on the bag
4. Place Protective Axle Sleeves on wheel axles to prevent scratching frame
5. Lay the wheels with axles downward. Place axles inside a panel vent. This will allow wheels to lay flat (**Figure 14b**)
6. Zip the carry case closed

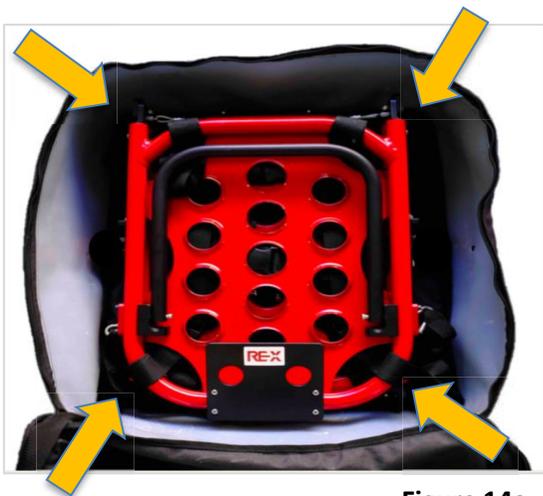


Figure 14a



Figure 14b

INDICATIONS FOR USE

The RexONE is a multi-functional unit which can be used for an adult, adolescent, or child for the following uses:

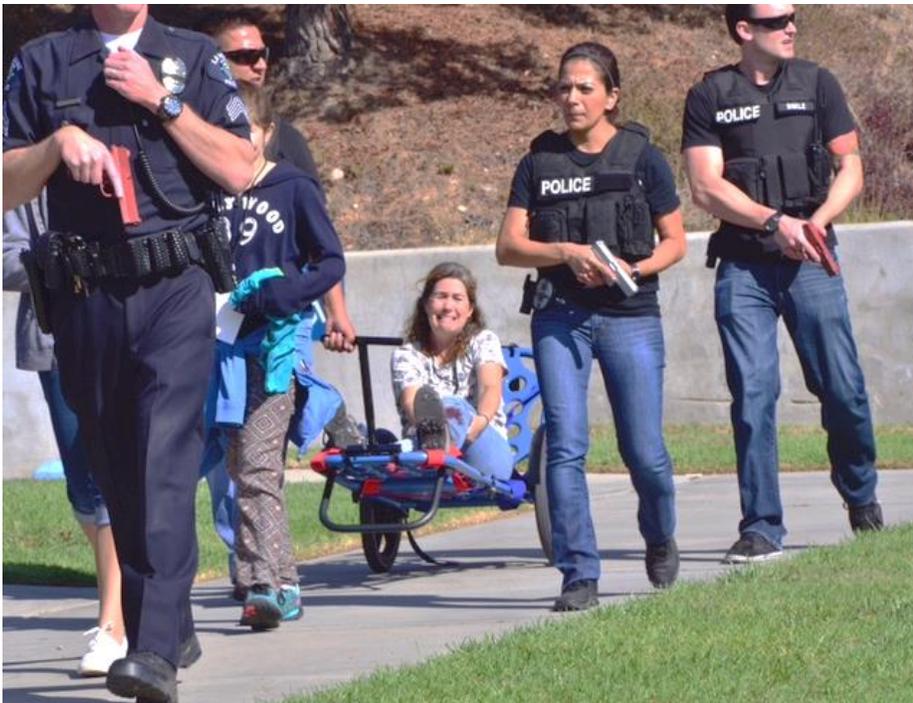
1. The RexONE can be used as a backboard to stabilize and transfer a patient.
2. The RexONE can transport patients on flat surfaces and uneven terrain
3. When extending the Head and Foot Kickstands and removing quick-release wheels, the RexONE becomes a patient treatment cot.

The RexONE can support a maximum capacity of 400 lbs. during rest or on flat surfaces.

Deployment

Prior to use always do a Safety Check

- Make sure all connections are secured and locked into place
- Ensure headrest is in locked position by pushing down into frame
- Pull on hub of wheel to ensure locked and engaged
- Check that Head Panel is securely engaged in locked position by moving panel back and forth
- Move Foot Panel to secure in locked position
- Move Pull Handle to ensure base connection is in locked position
- Pull on Pull handle to ensure the telescoping pull handle is locked into position



RexONE Applications

Backboard Use

1. Assess patient's transport needs
2. Extend RexONE frame to a prone or flat position
3. Ensure frame hinge points are in locked position. (Will hear "click" when hinge joints are moved into locked position)
4. Align RexONE frame with patient in backboard position
5. Pull lower restraint strap out and away from RexONE frame
6. Use approved technique to move patient onto RexONE Backboard – stabilize patient neck and trunk.
7. Roll patient on side and place RexONE frame against patient's spine (Figure 15a)
8. With RexONE supporting patient's spine, roll patient into a prone position (Figure 15b).
9. Once in prone (flat) position, secure patient with strapping system (Figure 15c)
10. RexONE can continued to be used as a back board and carried by responders

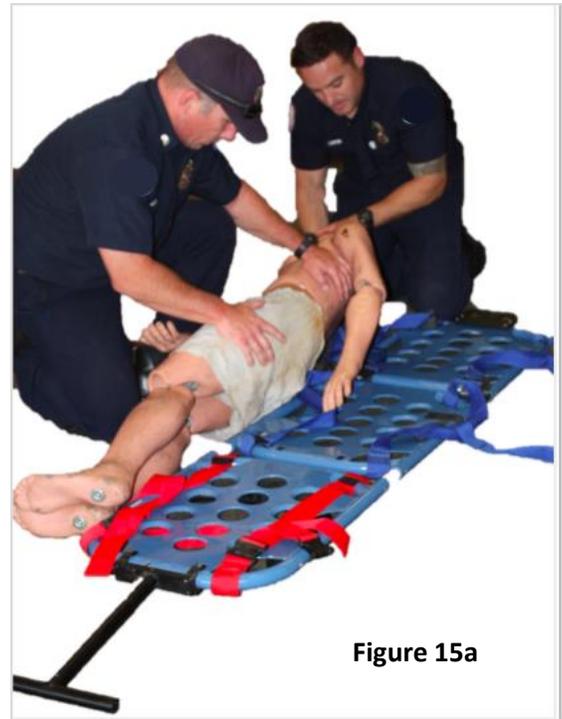


Figure 15a



Figure 15b



Figure 15c

RexONE Applications

RexONE Backboard to Mobile Stretcher

1. With patient in prone (flat) position, check that chest, pelvic, and leg straps are secured
2. Lift Head Panel and extend head kickstand
3. Lift Foot Panel and extend Foot Kickstand
4. Attach wheels to frame (**Figure 16a, 16b**)
5. Once wheels are attached, return Head and foot kickstand to closed position



Figure 16a



Figure 16b

Wheel Attachment

RexONE Applications

Mobile Stretcher

1. Assess patient's transport needs
2. Roll RexONE unit next to patient and position at an angle to best transfer patient onto RexONE
3. Angle RexONE Chest and Foot Panel in position to support patient's comfort or injury
4. Prepare straps by laying them in position on either side of RexONE
5. Using proper body mechanics, transfer patient onto RexONE
 - a. Patient transfer onto RexONE can be done with a soft stretcher, backboard, or sled device
6. Ensure patient's arms are secured within the RexONE unit
7. Secure patient to RexONE using strap system
 - a. Do not over tighten straps
 - b. Ensure the correct straps are connected and locked in place
8. Readjust chest and Foot Panel to appropriate angle, as needed

Mobile Stretcher to Patient Treatment Cot

Retract adjustable Pull Handle in upright position to avoid trip hazard.

1. Extend Foot and Head Kickstands
2. If RexONE is in a seated or semi-recline position:
 - a. Support Head/Head Panel while releasing Head Panel Red Release Cord to lower Head Panel to flat level
 - b. Support Foot Panel while releasing red release cord to lower Head Panel to flat level
3. Remove wheels from frame
4. Keep patient strapped until treatment begins
5. When using RexONE as Cot system, it is recommended that padding be used to increase patient comfort

Patient Treatment Cot to Mobile Stretcher

1. Push and hold the Wheel Quick Release Button and insert wheel into Wheel Axle Port
2. Release button to lock wheel in place
3. Repeat on other side
4. Support Head Panel and pull Red Release Cable for Head Panel to adjust Head Panel to desired position
5. Release red cable once position has been chosen
6. While supporting Head Panel, tug on panel to ensure it is locked in position
7. Retract chest kickstand
8. Pull Red Release Ring at base of Foot Panel to adjust Pull Handle to desired angle
9. Push in the pin on neck of Pull Handle to adjust length of handle
10. Lift Foot Panel up with Pull Handle
11. Push Foot Kickstand underneath Foot Panel

REX Part Numbers

DESCRIPTION	P.N.	Unit
Base Units (Include carry case and pair of wheels)		
RexONE-Black	RX01TC	Each
RexONE-Blue	RX02EM	Each
RexONE-Red	RX03FR	Each
RexONE-Black with Brake System	RXB01TC	Each
RexONE-Blue with Brake System	RXB02EM	Each
RexONE-Red with Brake System	RXB03FR	Each
Accessories		
Rex Accessory – Sand Tire Kit	RXACC01	Pair
Rex Accessory-Bike Tow Kit	RXACC02	Each
Rex Accessory-All Terrain Tires 20"	RXACC03	Pair
Rex Accessory-Std Carry Case/Backpack	RXACC04	Each
Rex Accessory-Lrg Carry Case/Backpack	RXACC05	Each
Rex Accessory-Strap Set/Black	RXACC06	Set
Rex Accessory-Strap Set/Multi-color	RXACC07	Each
Rex Accessory: Owners Manual	RXACC08	Each
Replacement Parts		
Rex Part - Pull handle, standard	RXPR01	Each
Rex Part - Pull Handle, extended	RXPR02	Each
Rex Part - Kick-stand, foot	RXPR03	Each
Rex Part - Kick stand, head	RXPR04	Each
Rex Part - Head rest, standard	RXPR05	Each
Rex Part - Hand Brake control assembly	RXPR06	Each
Rex Part - Head panel assembly	RXPR07	Each
Rex Part - Center panel assembly	RXPR08	Each
Rex Part - Foot panel assembly	RXPR09	Each



Multiple Patients
Requiring Rapid Extraction
To Safety and Care
When Time Is Critical

REX is a System Solution

No other patient transport product offers the time
and resource advantages of REX . . . none

