

# ASCENT/DESCENT DEVICE

**Ref**.: T-4543 **Revision**: 5 **Date**: 11/2019

The ascent/descent system is a manually operated rescue and positioning system. Designed for raising and lowering personnel or equipment, it can be used in rescue situations as well as in industrial work access. The system is also ideal for confined space applications.

The main feature of the system is the special design of the double pulleys. The sheave of the pulleys has a built-in antireversing lock that activates when the system is used in descent mode. This locking action results in added friction that contributes substantially to reduce the effort and increase the control during the lowering operation. The system requires only 10 lbs. (4.5 kg) of effort to hold a 220 lb. (100 kg) load.

For further safety, the ascent/descent sytem comprises a right-hand ascender (left-hand also available) attached to both the operating rope and the user via a kernmantle retainer. The ascender will automatically stop the descent if the operating rope is accidentally released.

The ascent/descent system offers the ability to work solo, operator assisted or operator assisted rescue tasks. Providing a mechanical advantage of 4:1, it allows the operator to lower and raise load with ease and efficiency.

The system is offered with two types of ropes. It is available standard with  $\frac{1}{16}$  in. (11 mm) diameter kernmantle rope or can be supplied, on request, with  $\frac{1}{12}$  in. (13 mm) diameter kernmantle rope for special applications requiring a higher strength.

For further information, refer to "Use and Maintenance Instructions" for the ascent/descent system.

### **⚠ WARNING**

Always select an anchorage point that is capable of supporting 5,000 lbs. (22.2 kN).

## **MARNING**

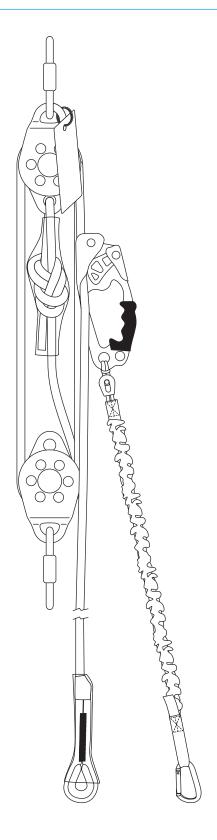
Ascent/descent system must be used in conjunction with a complete fall protection system.

### **FEATURES**

- Reverse-locking double pulleys
- Righ hand high strength ascender with a tool lanyard retainer (left hand available)
- Two autolocking carabiners
- ¾6 or ½ in. (11 mm or 13 mm) kernmantle rope
- Anchor attachment sling
- Carrying and storage bag

#### **APPLICATIONS**

- Rope access
- Window cleaning (chair work)
- Industrial adventure climbing
- Caving activities





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#### **REVERSE-LOCKING PULLEYS - K5SP3**

- 4 in. (100 mm) double pulleys with antireverse sheaves
- High-grade anodized aluminum
- Weight: 1.8 lbs. (840 g)
- Strength: 10,000 lbs. (44.5 kN)

## AUTOLOCKING CARABINER FOR 7/16 IN. (11 MM) SYSTEM - PM11Z

- Alloy steel
- Minimum breaking strength: 5,000 lbs. (22.2 kN)
- Gate opening: 5% in. (16 mm)
- Weight: 0.47 lbs. (215 g)

# RIGHT HAND ASCENDER – K3020492 (OPTIONAL LEFT-HAND – K3020502 – sold separately)

- High-grade cast aluminum with stainless steel cam assembly
- Weight: 24 oz. (660 g), including retainer
- Strength: sheath damage to rope results at 2,500 lbs. (11 kN)

### **TOOL LANYARD - XTL**

- Constructyion: polyester, elastic, plastic and aluminum
- Measures 2 ft. (61 cm) unstretched and 3.3 ft. (100 cm) stretched
- Maximum tool weight: 10 lbs. (4.5 kg)
- Weighs 0.01 lbs. (0.05 kg)

## **KERNMANTLE ROPE** 7/16 IN. (11 MM) - K51538

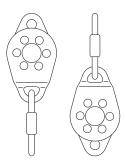
- Construction: polyester outside, nylon inside
- Weight: 6.5 lbs./100 ft. (9.7 kg/100 m)
- Strength: 7,800 lbs. (35 kN)

# **KERNMANTLE ROPE 1/2 IN. (13 MM) – K51512**

- Construction: polyester outside, nylon inside
- Meets or exceeds 1983 NFPA standard
- Weight: 8.2 lbs./100 ft. (12.2 kg/100 m)
- Strength: 10,000 lbs. (44.5 kN)

#### **CARRYING AND STORAGE BAG**

- Medium waterproof carrying and storage bag, 23 x 14 x 4 in. (58 x 35 x 10 cm) – XB23144
- Large waterproof carrying and storage bag, 26 x 16 x 8 in. (66 x 40 x 20 cm) – XB26168



Upper and lower pulley



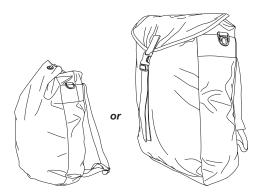
Autolocking carabiner



Right and left hand ascender



Tool lanyard



Carrying and storage bag



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# $\frac{7}{16}$ IN. (11 MM) SYSTEM – STANDARD

SYSTEMS SPECIFICATIONS	K50S25	K50S50	K50S75	K50S100	K50S125	K50S150				
RATED CAPACITY PERSONNEL	310 lbs. (140 kg), 1 person									
RATED CAPACITY EQUIPMENT	1,000 lbs. (454 kg)									
MECHANICAL ADVANTAGE	4:1									
WORKING HEIGHT	25 ft. (7.5 m)	50 ft. (15 m)	75 ft. (23 m)	100 ft. (30 m)	125 ft. (38 m)	150 ft. (46 m)				
ROPE LENGTH	100 ft. (30 m)	200 ft. (61 m)	300 ft. (91 m)	400 ft. (122 m)	500 ft. (152 m)	600 ft. (183 m)				
WEIGHT	15 lbs. (6.8 kg)	21.5 lbs. (9.8 kg)	28 lbs. (12.7 kg)	34.5 lbs. (15.6 kg)	43 lbs. (19.5 kg)	50 lbs. (22.7 kg)				

## 1/2 IN. (13 MM) SYSTEM - STANDARD

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SYSTEMS SPECIFICATIONS	K51S25	K51S50	K51S75	K51S100	K51S125	K51S150		
RATED CAPACITY PERSONNEL	600 lbs. (272 kg), 2 persons							
RATED CAPACITY EQUIPMENT	2,000 lbs. (907 kg)							
MECHANICAL ADVANTAGE	4:1							
WORKING HEIGHT	25 ft. (7.5 m)	50 ft. (15 m)	75 ft. (23 m)	100 ft. (30 m)	125 ft. (38 m)	150 ft. (46 m)		
ROPE LENGTH	100 ft. (30 m)	200 ft. (61 m)	300 ft. (91 m)	400 ft. (122 m)	500 ft. (152 m)	600 ft. (183 m)		
WEIGHT	17 lbs. (7.7 kg)	25 lbs. (11.3 kg)	33.2 lbs. (15 kg)	41.5 lbs. (18.8 kg)	52 lbs. (23.6 kg)	60 lbs. (27.2 kg)		