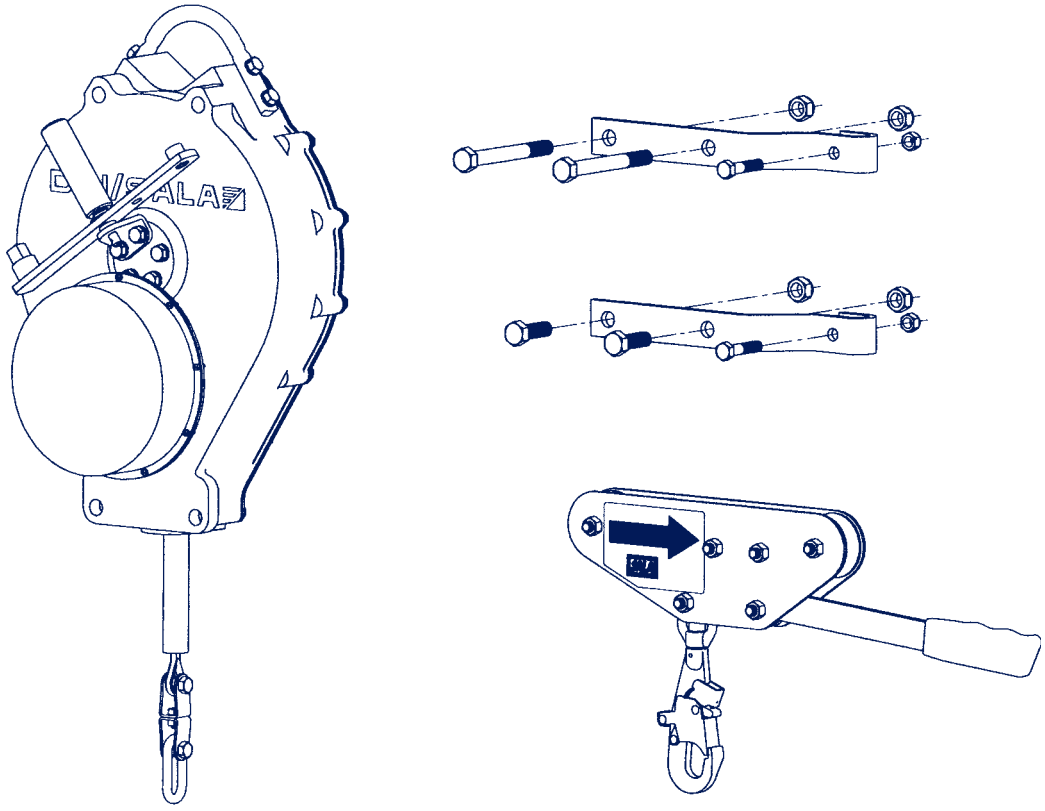
# User Instruction Manual
# Rollgliss® Rescue
# Emergency Descent Device
# with Manual Retract, High-Speed

*This manual is intended to be used as part of an employee training program as required by OSHA.*

**Figure 1 - Emergency Descent Device with Manual Retract**



Emergency Descent Device with Guide Cable Trolley and Suspension Bars for Sloped Descent Applications

WARNING: *This product is part of an emergency descent system. The user must follow manufacturer's instructions for each part of the system. These instructions must be provided to the user of this equipment. The user must read and understand these instructions before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. Alterations or misuse of this equipment, or failure to follow instructions, may result in serious injury or death.*

IMPORTANT: *If you have questions on the use, care, or suitability of this equipment for your application, contact DBI/SALA.*

IMPORTANT: *Record the product identification information from the ID label in the inspection and maintenance log in section 9.0 of this manual.*

DBI SALA 3303015 Rollgliss Emergency Descent Device 200 Feet
DBI SALA 3303016 Rollgliss Emergency Descent Device 200 Feet
DBI SALA 3303019 Rollgliss Low Speed Descent Device 200 Feet
DBI SALA 3303003 Rollgliss Auto Retracting Descent Device 200 Ft.
DBI SALA 3303001 Rollgliss Auto Retracting Descent Device 200 Ft.

## DESCRIPTION

The Emergency Descent Device is only available as a sloped descent model. The Emergency Descent Device is designed to be attached to a guide cable, and includes a Guide Cable Trolley and Suspension Bars. See Figure 1.

## 1.0 APPLICATION

**1.1 PURPOSE:** The Emergency Descent Device is intended to be used as a component of an emergency escape system to provide a means of controlled descent from an elevated structure. The guide cable sleeve and suspension bar kit is used to attach the Emergency Descent Device to a guide cable, and should be used for applications where it is necessary to direct the user to a specific landing area, or when the user must be held stable during the descent (i.e. windy conditions).

WARNING: *The Emergency Descent Device must not be used for fall protection.*

**1.2 LIMITATIONS:** The following application limitations must be considered before using this equipment:

**A. CAPACITY:** This equipment is designed for use by persons with a combined weight (including tools, clothing, body support, etc.) of 75 lbs. to 310 lbs.

**B. DESCENT:** This equipment descends at high speed and must not be used for vertical descents. This equipment must only be used as described in this manual.

**C. DESCENT SPEED:** The speed at which the user will be lowered when using the Emergency Descent Device increases with the weight of the user. The descent speed will change depending on the slope of the guide cable. The user must determine if the descent speed is suitable for the application. See Table 1.

**Table 1 - Descent Speed**

| Distance (in feet) | | 100 | 120 | 140 | 160 | 180 | 200 |
|---|---|---|---|---|---|---|---|
| Angle | Weight (lbs.) | Velocity (ft/sec) | | | | | |
| 45 | 120 | 12.46 | 12.53 | 12.59 | 12.63 | 12.66 | 12.68 |
| 45 | 220 | 17.14 | 17.34 | 17.48 | 17.60 | 17.68 | 17.75 |
| 45 | 300 | 20.47 | 20.83 | 21.09 | 21.29 | 21.45 | 21.58 |
| 50 | 120 | 11.88 | 11.95 | 12.00 | 12.04 | 12.07 | 12.09 |
| 50 | 220 | 16.14 | 16.33 | 16.46 | 16.56 | 16.64 | 16.71 |
| 50 | 300 | 19.21 | 19.53 | 19.76 | 19.95 | 20.09 | 20.20 |
| 55 | 120 | 11.25 | 11.32 | 11.37 | 11.41 | 11.44 | 11.46 |
| 55 | 220 | 15.07 | 15.24 | 15.36 | 15.45 | 15.52 | 15.58 |
| 55 | 300 | 17.83 | 18.11 | 18.32 | 18.48 | 18.61 | 18.72 |
| 60 | 120 | 10.59 | 10.65 | 10.70 | 10.73 | 10.76 | 10.78 |
| 60 | 220 | 13.92 | 14.07 | 14.18 | 14.26 | 14.32 | 14.38 |
| 60 | 300 | 16.34 | 16.59 | 16.78 | 16.92 | 17.03 | 17.12 |
| 65 | 120 | 9.88 | 9.94 | 9.98 | 10.02 | 10.04 | 10.07 |
| 65 | 220 | 12.69 | 12.83 | 12.92 | 13.00 | 13.06 | 13.11 |
| 65 | 300 | 14.76 | 14.98 | 15.14 | 15.26 | 15.36 | 15.43 |
| 70 | 120 | 9.13 | 9.19 | 9.24 | 9.27 | 9.30 | 9.32 |
| 70 | 220 | 11.40 | 11.52 | 11.61 | 11.68 | 11.73 | 11.77 |
| 70 | 300 | 13.08 | 13.27 | 13.41 | 13.51 | 13.59 | 13.66 |
| 75 | 120 | 8.35 | 8.41 | 8.46 | 8.49 | 8.52 | 8.54 |
| 75 | 220 | 10.05 | 10.16 | 10.24 | 10.30 | 10.35 | 10.38 |
| 75 | 300 | 11.32 | 11.48 | 11.60 | 11.69 | 11.76 | 11.81 |

**D. HAZARDOUS AREAS:** Use of this equipment in hazardous areas may require additional precautions to reduce the possibility of injury to the user or damage to the equipment. Hazards may include, but are not limited to: high heat, caustic chemicals, corrosive environments, high voltage power lines, explosive or toxic gases, moving machinery, and sharp edges.

**E. TRAINING:** This equipment is intended to be installed and used by persons trained in its correct application and use.

**1.3 APPLICABLE STANDARDS:** Refer to local, state, and federal (OSHA) standards for requirements governing the use of this equipment.

## 2.0 SYSTEM REQUIREMENTS

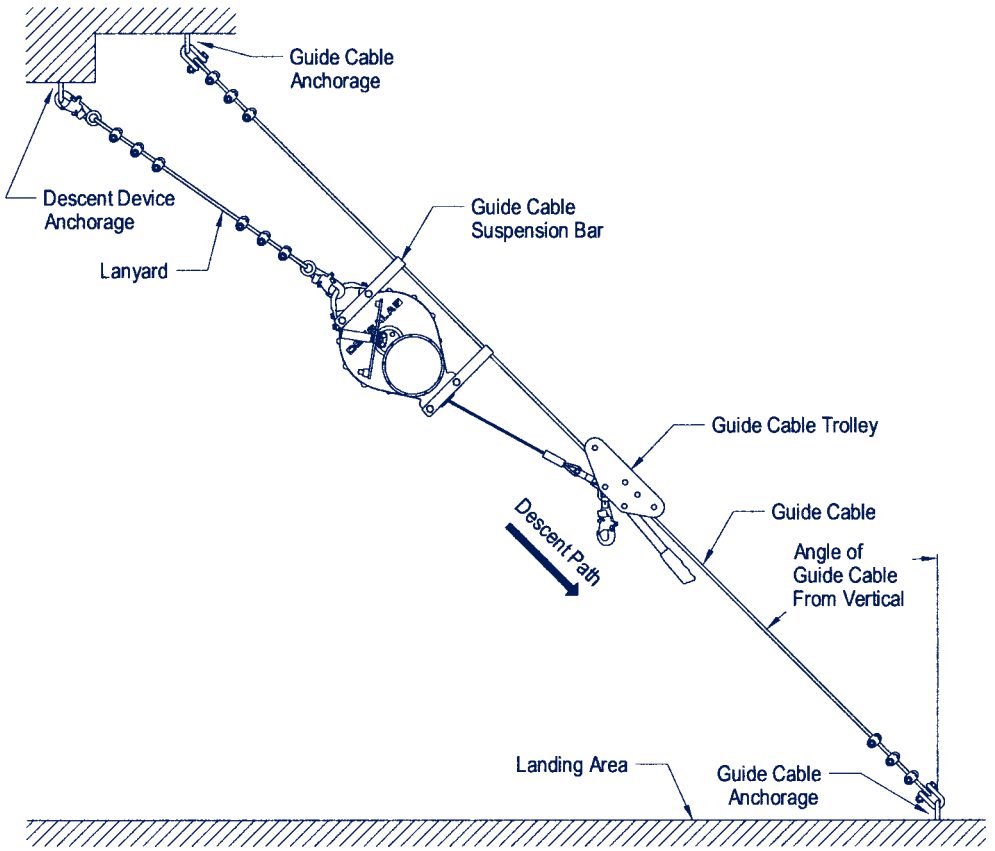
**2.1 COMPATIBILITY OF COMPONENTS:** This equipment is designed to be used with DBI/SALA approved components. Substitutions or replacements made with non-approved components may jeopardize compatibility of equipment, and may affect the safety and reliability of the complete system.

**2.2 COMPATIBILITY OF CONNECTORS:** Connectors (hooks, carabiners, D-rings) must be capable of supporting at least 5,000 lbs. Connectors must be compatible in size, shape, and strength. Noncompatible connectors may unintentionally disengage (roll-out). Roll-out occurs when interference between the connector and anchorage connector causes the hook or carabiner gate to unintentionally open and release. Self locking snap hooks and carabiners must be used with this system to reduce the possibility of roll-out. Do not use connectors that will not completely close over the attachment element.

**2.3 ANCHORAGE STRENGTH FOR EMERGENCY DESCENT DEVICE:** The anchorage used to suspend the Emergency Descent Device must sustain static loads, applied along the axis of the device, of at least 3,100 lbs. When more than one Emergency Descent Device is attached to an anchorage the strengths stated above must be multiplied by the number of descent devices attached to the anchorage. Anchorages used to support a guide cable must be sufficiently strong to withstand the forces generated in the guide cable during descent.

**2.4 GUIDE CABLE:** A guide cable must be used with this equipment. See Figure 2. The guide cable installation must be designed by a qualified person. The angle at which the guide cable is secured, as well as the amount of sag in the guide cable, will affect the descent speed. The guide cable must be installed with sufficient slope and limited sag to ensure the user will reach the landing area in the event of an emergency descent. The guide cable and the anchorage point must support the weight of the user in a descent. Guide cable must be 3/8 inch to 5/8 inch diameter wire rope. The operation of the emergency descent system should be verified by performing a test descent in accordance with section 3.2.C.

**Figure 2 - Installation Configuration**



| Table 2 - Guide Cable Anchorage Strength Recommendations | | | |
|---|---|---|---|
| **Angle of Guide Cable From Vertical** | **Guide Cable Pretension** | **Initial Guide Cable Sag** | **Recommended Anchorage Strength (including 2:1 Safety Factor)** |
| 45 degrees | 1,260 lbs. | 24 inches | 13,100 lbs. |
| 45 degrees | 630 lbs. | 48 inches | 11,000 lbs. |
| 45 degrees | 420 lbs. | 72 inches | 9,000 lbs. |
| 45 degrees | 320 lbs. | 96 inches | 7,400 lbs. |
| 60 degrees | 1,550 lbs. | 24 inches | 15,300 lbs. |
| 60 degrees | 770 lbs. | 48 inches | 13,300 lbs. |
| 60 degrees | 520 lbs. | 72 inches | 11,300 lbs. |
| 60 degrees | 390 lbs. | 96 inches | 9,500 lbs. |
| 75 degrees | 1,730 lbs. | 24 inches | 16,700 lbs. |
| 75 degrees | 860 lbs. | 48 inches | 14,600 lbs. |
| 75 degrees | 580 lbs. | 72 inches | 12,700 lbs. |
| 75 degrees | 430 lbs, | 96 inches | 10,800 lbs. |

**2.5 ANCHORAGE STRENGTH FOR GUIDE CABLE:** Table 2 provides recommended anchorage strengths for various system configurations using 200 ft. long, 5/8 inch diameter, 7x19 steel aircraft cable.

## 3.0 INSTALLATION AND USE

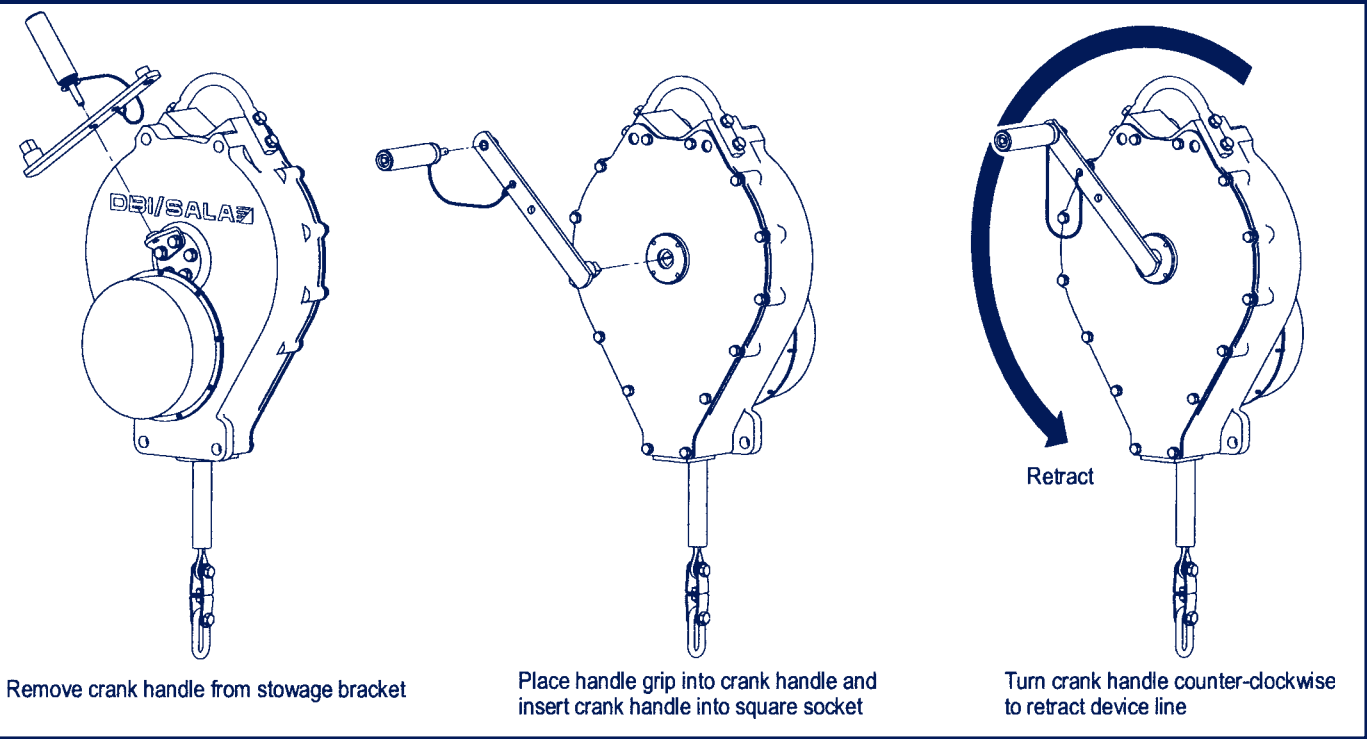
**3.1 BEFORE EACH USE** of this equipment, carefully inspect it according to section 5.0 of this manual.

**3.2 PLAN** your emergency escape system and how it will be used before starting your work. Consider all factors that will affect your safety before, during, and after an escape. Consider the following when planning your system:

**A. ANCHORAGE:** Select a rigid anchorage point that is capable of supporting at least 3,100 lbs. See section 2.3.

**B. DESCENT PATH AND LANDING AREA CLEARANCE:** Your descent path must be unobstructed. The landing area must be clear of obstructions to permit safe landing of the user. Failure to provide an unobstructed descent path and landing area may result in serious injury. See Figure 2.

**Figure 3 - Retracting the Device Line**

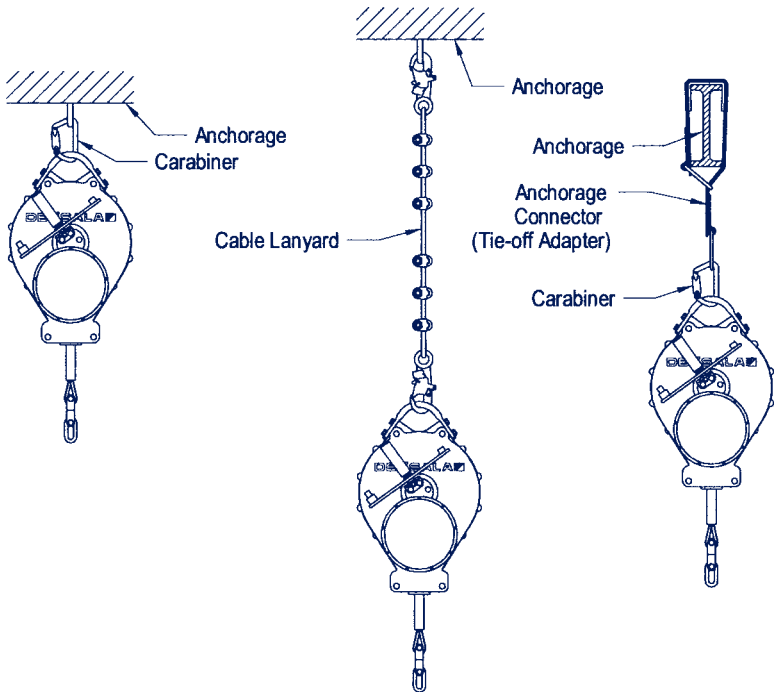


**C. TESTING THE SYSTEM:** DBI/SALA recommends performing a test descent using a 120 lb. weight (minimum). The descent speed should be uniform, and allow the user to reach the landing area safely.

**D. SHARP EDGES:** Avoid using this equipment where system components will be in contact with, or abrade against, unprotected sharp edges. If working with this equipment near sharp edges is unavoidable, cover the sharp edge with a heavy pad.

**E. AFTER A DESCENT:** See Figure 3. To retract the device line, remove crank handle from stowage bracket. Place handle grip into crank handle. Insert crank handle into square socket on the opposite side of the device. Retract the device line by turning the crank handle counter-clockwise. Remove handle grip from crank handle and return to stowage position on crank handle. Return crank handle to stowage bracket. The system is now ready for another descent.

**Figure 4 - Connecting the Emergency Descent Device to the Anchorage**

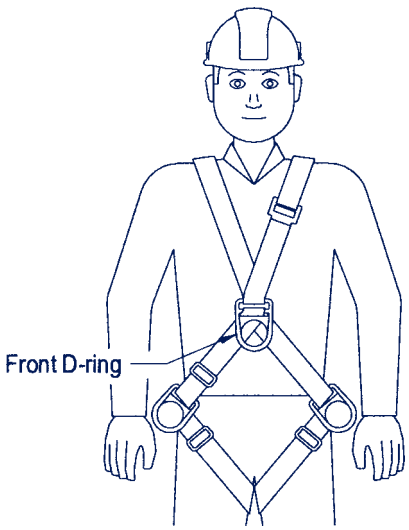



**3.3 INSTALLATION:** See Figure 2 for installation configuration. Figure 6 illustrates installation of the Emergency Descent Device to the guide cable. The Guide Cable Trolley must be installed as shown, with the descent direction arrow pointing to the landing area.

**3.4 CONNECTING EMERGENCY DESCENT DEVICE TO THE ANCHORAGE:** Figure 4 illustrates means of attaching the Emergency Descent Device to the anchorage. See section 2.0 for compatibility and anchorage strength requirements.

**3.5 CONNECTING TO BODY SUPPORT:** See Figure 5. A full body harness or other means of supporting the user must be used with this device. Do not use a body belt with this device. When using a full body harness, connect to the front D-ring. Ensure the D-ring is positioned to hold yourself upright. See full body harness manufacturer's instructions for more information.

**Figure 5 - Connecting to Full Body Harness**

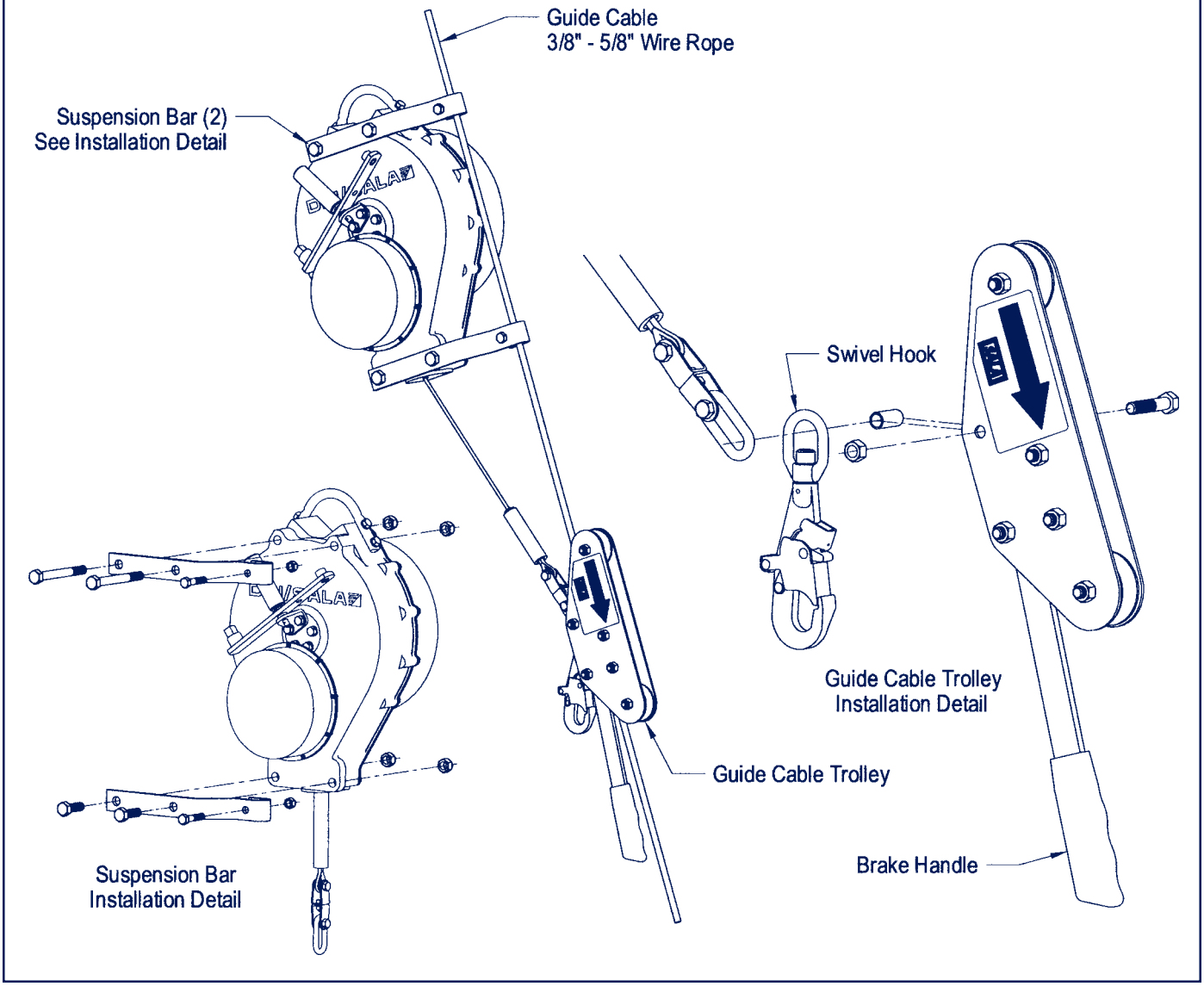



WARNING: *Do not use a body belt with this equipment. Body belts do not support your entire body, which may result in serious injury.*

**3.6 CONNECTING EMERGENCY DESCENT DEVICE TO GUIDE CABLE:** Use the guide cable trolley and suspension bars to align the Emergency Descent Device to the guide cable as shown in Figure 6.

**3.7 USE:** See Figures 5 and 6. Connect the trolley swivel hook to the front D-ring on your body support. Check your descent path and landing area for obstructions before stepping off the structure. The device will allow you to descend at a rapid rate. Pull down on the Guide Cable Trolley handle to slow or stop your descent. Do not grasp the guide cable while descending. Bend your knees and be prepared for landing. After landing disconnect from your body support. Retract the hook back to the device as stated in section 3.2.E.

**Figure 6 - Connecting Emergency Descent Device to Guide Cable**




WARNING: *The users of this equipment must be in good physical condition. The device will allow rapid descent; the user must have the ability to absorb the landing.*

## 4.0 TRAINING

**4.1** It is the responsibility of the user and purchaser of this equipment to be trained in the correct care and use of this equipment. The user and purchaser must be aware of the operating characteristics, application limits, and consequences of improper use of this equipment.

WARNING: *Training must be conducted without exposing the trainee to a fall hazard. Training should be repeated on a periodic basis.*

## 5.0 INSPECTION

**5.1** **MONTHLY:** A formal inspection should be completed by a competent person other than the user. A formal inspection should be completed if the system parameters are changed, such as after a system is moved, Re-rigged, anchorages moved, guide cable angle changed, etc. Extreme working conditions may require increasing the Inspection frequency. Inspect the Emergency Descent Device according to sections 5.2 and 5.3. Record inspection results in the inspection and maintenance log in section 9.0.

**EVERY TWO YEARS:** The device must be sent to an authorized service center for inspection and service. See section 6.2.

**5.2 INSPECTION STEPS:**

**Step 1.** Inspect device for loose fasteners and bent or damaged parts.

**Step 2.** Inspect device housing for distortion, cracks, or other damage. Ensure the anchorage handle and crank handle is not damaged or distorted.

**Step 3.** Device lifeline must pull out and retract fully. Inspect wire rope for cuts, kinks, broken wires, corrosion, or severely abraded areas.

**Step 4.** Device labels must be present and fully legible. See section 8.0.

**Step 5.** Inspect for corrosion on the entire device.

**Step 6.** Inspect connecting hooks or carabiners for damage, corrosion, and working condition.

**Step 7.** Inspect Guide Cable Trolley for excessive wear. Guide Cable Trolley handle must move freely.

**Step 8.** Inspect guide cable. Inspect wire rope for cuts, kinks, broken wires, corrosion, or severely abraded areas. If guide cable is damaged do not use the system.

**Step 9.** Inspect each system component and subsystem according to manufacturer's instructions.

**Step 10.** Record inspection results in section 9.0.

**5.3** If inspection reveals an unsafe or defective condition, remove device from service and contact an authorized service center for repair.

## 6.0 MAINTENANCE, SERVICING, STORAGE

**6.1 MAINTENANCE:** Periodically clean the exterior of the Emergency Descent Device with water and mild detergent. Position the device so excess water can drain out. Clean labels as required. Clean device lifeline with water and mild detergent. Rinse and thoroughly air dry. Do not force dry with heat. An excessive buildup of dirt, paint, etc., may prevent the lifeline from retracting back into the device.

**6.2 SERVICING:** Maintenance and servicing must be completed by an authorized service center. An authorization and return number must be issued by DBI/SALA. Do not attempt to disassemble the device. The Emergency Descent Device is required to be serviced at least every two years by an authorized service center. Extreme working conditions may require increasing the service frequency. Contact DBI/SALA for service frequencies when this equipment is used in extreme working conditions. Service shall include an intensive inspection and cleaning of all components. Failure to provide required service may shorten the product life and compromise safety and performance.

NOTE: *Only DBI/SALA or parties authorized in writing may make repairs to this equipment.*

**6.3 STORAGE:** Store the Emergency Descent Device in a cool, dry, clean environment, out of direct sunlight. Avoid areas where chemical or organic vapors are present. Thoroughly inspect the Emergency Descent Device after extended storage.

## 7.0 SPECIFICATIONS

**7.1 MATERIALS:**

**EMERGENCY DESCENT DEVICE:**

**Housing:** Cast aluminum
**Housing Cover:** Stainless steel
**Anchorage Handle:** Stainless steel
**Fasteners:** Stainless steel
**Main Shaft:** Stainless steel
**Crank Handle:** Plated steel, plastic grip, stainless steel detent pin
**Cable Bumper:** Urethane
**Lifeline (Galvanized):** 3/16" dia., 7x19 aircraft wire rope, 4,200 lbs. minimum tensile strength
**Lifeline (Stainless steel):** 3/16" dia. 7x19 aircraft wire rope, 3,600 lbs. minimum tensile strength
**Finish Paint:** Polyester baked finish

**GUIDE CABLE TROLLEY AND SUSPENSION BARS:**

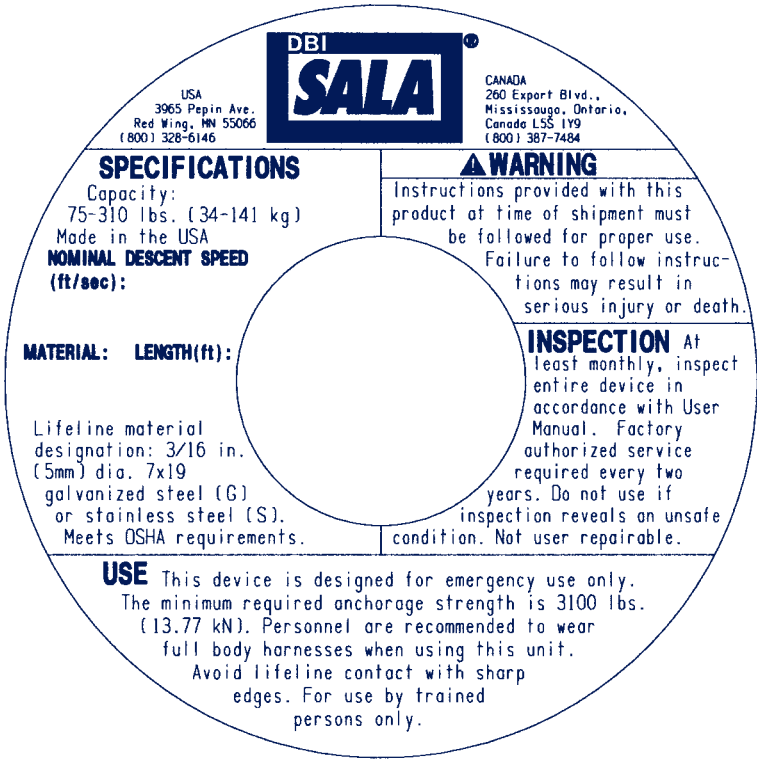
**Guide Cable Trolley:** Nylon wheels, Stainless steel side plates and fasteners, brass braking mechanism
**Suspension Bars and Mounting Hardware:** Stainless steel
**Connecting Hook:** Forged alloy steel or stainless steel

## 7.2 PERFORMANCE SPECIFICATIONS:

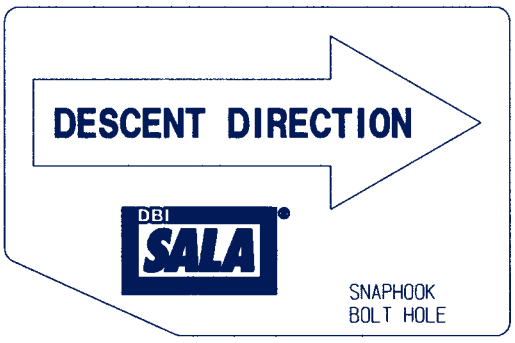
**Capacity:** 75-310 lbs., one person
**Emergency Descent Device Weight:** 50 lbs.
**Guide Cable and Suspension Bar Kit Weight:** 5 lbs.
**Emergency Descent Device meets OSHA requirements**

## 8.0 LABELING

**8.1** These labels must be present and fully legible:




**Specifications/Warning Label - Emergency Descent Device**




**Descent Direction Label - Guide Cable Trolley**

## 9.0 INSPECTION AND MAINTENANCE LOG

**SERIAL NUMBER:** _____

**MODEL NUMBER:** _____

**DATE PURCHASED:** _____

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**MODEL NUMBER:** _____

**DATE PURCHASED:** _____

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