The Ultimate in Fall Protection

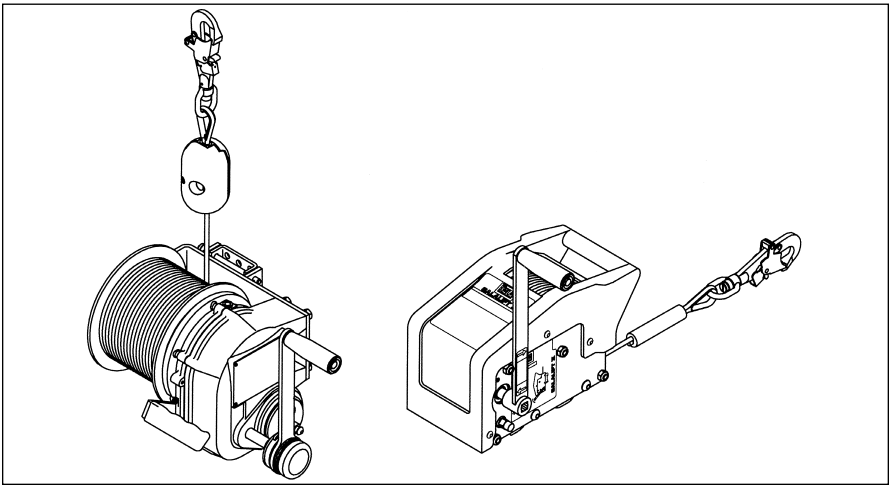
Instructions for the following series products:

Salalift and Salalift II Winches

(See back page for specific model numbers.)

USER INSTRUCTION MANUAL SALALIFT™ AND SALALIFT™ II WINCHES

This manual is intended to meet industry standards, including OSHA 1910.146 and ANSI Z117.1, and should be used as part of an employee training program as required by OSHA.



WARNING: *This product is to be used as part of a complete system. The user must follow the manufacturer's instructions for each component of the complete system. These instructions must be provided to the user of this equipment and the rescuer. Manufacturer's instructions must be followed for proper use and maintenance of this product. Alterations or misuse of this product, or failure to follow instructions may result in serious injury or death.*

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

IMPORTANT: *Before using this equipment record the product identification information from the ID label on the winch in the inspection and maintenance log in section 10.0 of this manual.*

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Figure 1 - 8101000 Series Parts Identification

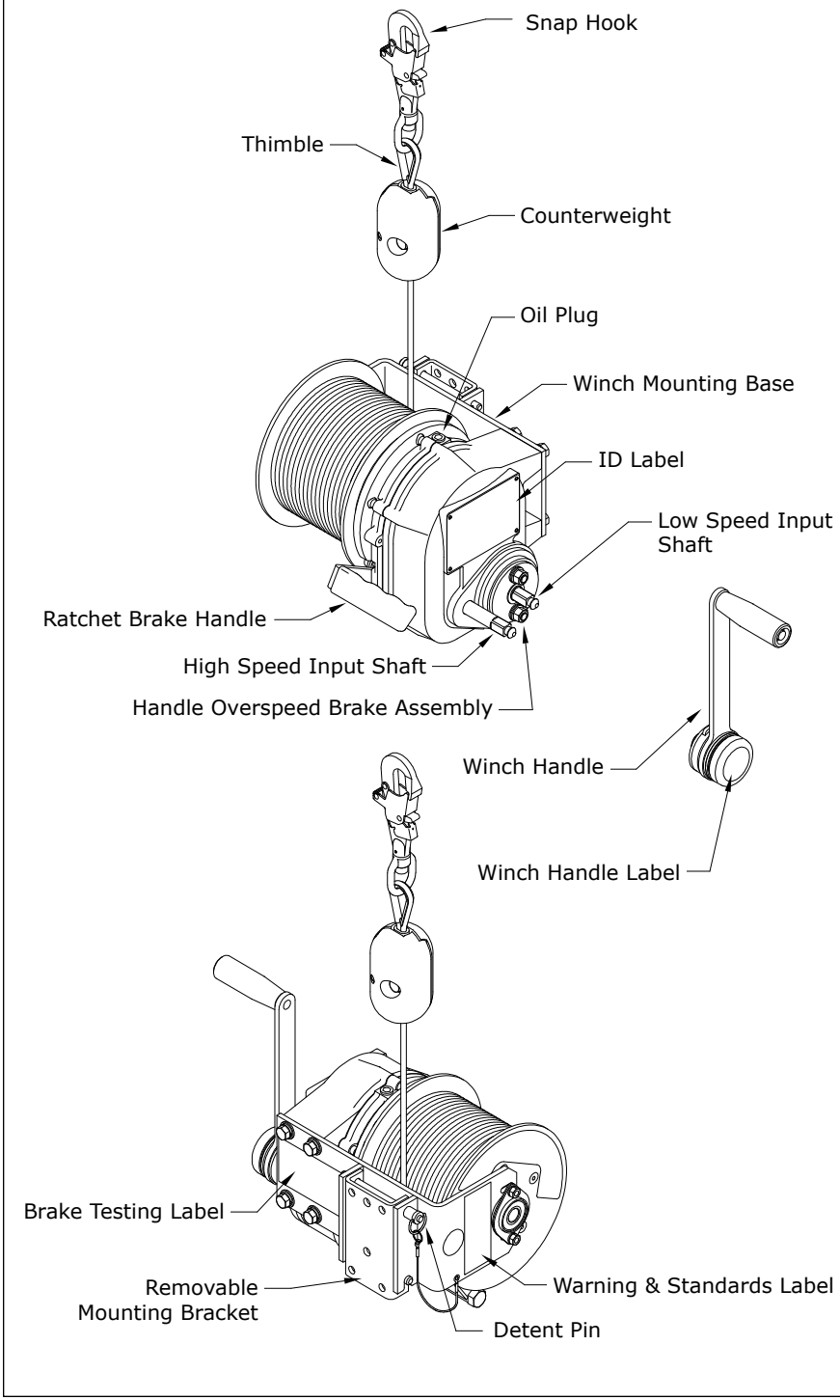
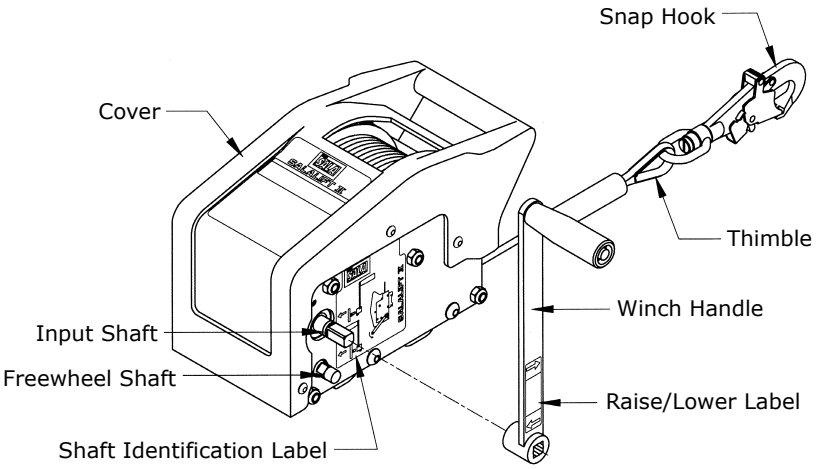
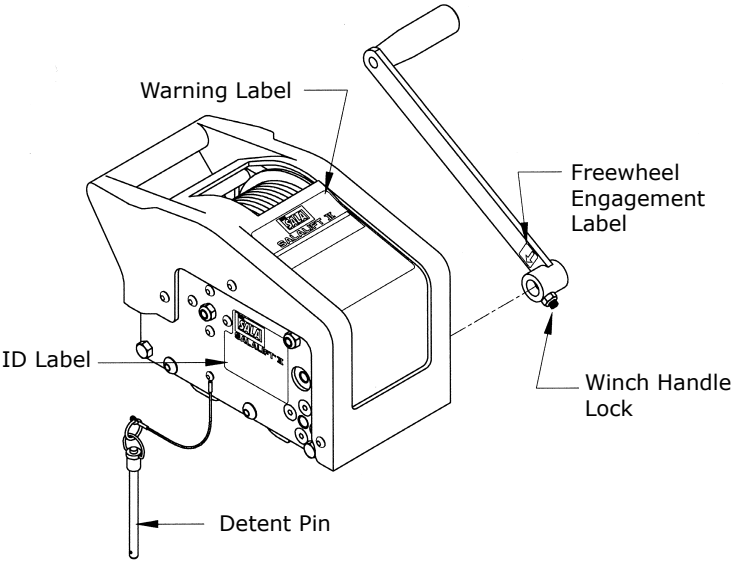


Figure 2 - 8102001 Series Parts Identification





DESCRIPTIONS

SALALIFT® Winches:
8101000: 18.30 m (60 ft) of 1/4 inch galvanized wire rope, carrying bag.
8101002: 18.30 m (60 ft) of 1/4 inch stainless steel wire rope, carrying bag.
8101004: 36.60 m (120 ft) of 1/4 inch galvanized wire rope, carrying bag.
8101006: 36.60 m (120 ft) of 1/4 inch stainless steel wire rope, carrying bag.
8101101: 42.70 m (140 ft) of 1/4 inch galvanized wire rope, carrying bag.
8101103: 42.70 m (140 ft) of 1/4 inch stainless steel wire rope, carrying bag.

SALALIFT® II Winches:
8102001: 18.30 m (60 ft) of 1/4 inch galvanized wire rope, carrying bag.
8102003: 18.30 m (60 ft) of 1/4 inch stainless steel wire rope, carrying bag.
8102009: 27.50 m (90 ft) of 3/16 inch galvanized wire rope, carrying bag.
8102011: 27.50 m (90 ft) of 3/16 inch stainless steel wire rope, carrying bag.
8102005: 36.60 m (120 ft) of 3/16 inch galvanized wire rope, carrying bag.
8102007: 36.60 m (120 ft) of 3/16 inch stainless steel wire rope, carrying bag.

IMPORTANT: *For special (custom) versions of this product, follow the instructions herein. See supplemental instructions, if included, for additional instructions on custom equipment.*

The ***i-Safe***™ RFID tag on this winch can be used in conjunction with the ***i-Safe*** handheld reading device and the web based portal to simplify inspection and inventory control and provide records for your fall protection equipment.

DEFINITIONS

ANCHORAGE: A properly selected means, such as a structural beam or member, to which the system is anchored.

ANCHORAGE CONNECTOR: A component, such as a connector or subsystem, specifically intended for coupling the system to an anchorage.

CONNECTOR: A component or element used to couple parts of the system together, such as a lifeline to an anchorage using a carabiner as an anchorage connector.

COMPONENT: An assembly of parts which cannot be disassembled without mutilating, or without the use of special tools, intended to perform one function in the system. Examples of components include a full body harness, lanyard, and connector.

WARNING: *This product is part of a personal restraint, work positioning, suspension, or rescue system. These instructions must be provided to the user and rescuer (see section 8.0 Terminology). The user must read and understand these instructions or have them explained to them before using this equipment. The user must read and follow the manufacturer's instructions for each component or part of the complete system. Manufacturer's instructions must be followed for proper use and maintenance of this product. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.*

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

1.0 APPLICATIONS

1.1 PURPOSE: DBI/SALA Salalift winches are to be used for work positioning (8101000 series only), personnel riding, material handling, climbing protection, or rescue and evacuation. These winch models are to be used with a DBI/SALA tripod, davit arm, or other support structure, and may be used in situations where personnel or materials need to be raised or lowered 60-140 feet.

1.2 WINCH APPLICATION TYPES:

A. WORK POSITIONING: The Salalift winch (8101000 series only) is used to suspend the worker in a work position, acting as the primary means of support. Applications include suspending a worker in a work seat or harness. A back-up personal fall arrest system must be attached to the suspended employee.

NOTE: *OSHA requires that manual or powered winches be independently evaluated and classified for use as a single point suspension system. See OSHA regulation 29 CFR 1926.451, and 29 CFR 1910.28.*

B. PERSONNEL RIDING: The Salalift or Salalift II winch is used to raise or lower a worker to a work level. At the work level the worker is no longer supported by the winch. It is recommended that the worker be connected to a back-up arrest system while being raised or lowered.

C. RESCUE AND EVACUATION: The Salalift or Salalift II winch is used to raise or lower an endangered or injured worker, or rescue personnel. Applications include permit and non-permit confined space entry work.

D. CLIMBING PROTECTION: The Salalift or Salalift II winch is used to protect a worker ascending or descending a fixed ladder or similar structure. It is recommended that this use of the winch be restricted to structures where other means of climbing protection; such as permanently installed ladder safety systems or personal fall arrest systems are infeasible.

For this application, the following conditions must be met:

1. Ladder or steps are in good condition and allows for a straight, continuous climb.
2. The worker climbing the ladder is wearing a full body harness and the winch line is connected to the dorsal (back) D-ring of the harness.
3. The winch operator is trained and competent in the operation of the winch.
4. No slack line is allowed to develop when the worker moves up or down the ladder.
5. DBI/SALA recommends, for the 8101000 series winches only, that an energy absorbing lanyard be connected between the harness dorsal D-ring and the winch line.

1.3 LIMITATIONS: The following application limitations must be considered before using this product. Failure to observe product limitations could result in serious injury or death.

A. INSTALLATION: The winch must be installed in accordance with the requirements stated in section 3.0 of this manual.

B. CAPACITY: The maximum working load for this product is 350 lbs. (160 kg).

C. PERSONAL FALL ARREST SYSTEMS: Personal fall arrest systems used with the Salalift or Salalift II winch must meet applicable state and federal regulations and the requirements stated in section 3.3.

D. PHYSICAL AND ENVIRONMENTAL HAZARDS: Use of this equipment in areas with physical or environmental hazards may require that additional precautions be taken to reduce the possibility of damage to this equipment or injury to the user. Hazards may include, but are not limited to; high heat (welding or metal cutting), acid or caustic chemicals, corrosive environments such as exposure to seawater, high voltage power lines, explosive or toxic gases, moving machinery or sharp edges. Contact DBI/SALA if you have questions about the application of this equipment in areas where physical or environmental hazards are present.

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

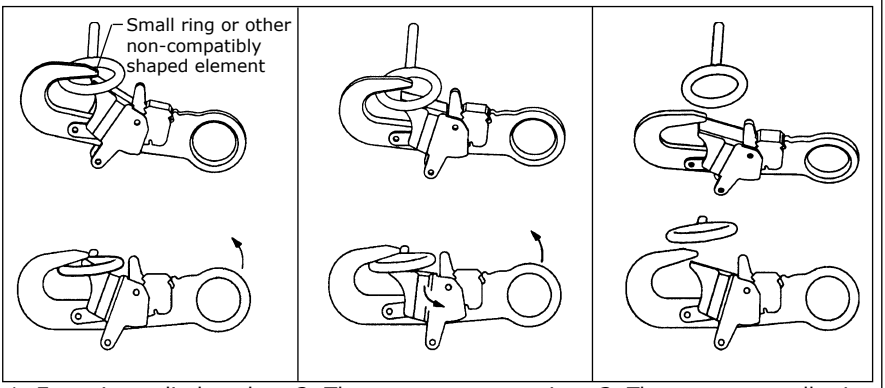
1.4 Refer to national standards, including; ANSI Z117.1,ANSI Z359 (.0, .1, .2, .3, and .4) family of standards on fall protection, ANSI A10.32 and appropriate local, state, and federal (OSHA) requirements (26 CFR 1910.146), for more information on the application of this and associated equipment.

2.0 SYSTEM REQUIREMENTS

2.1 COMPATIBILITY OF COMPONENTS: DBI/SALA equipment is designed for use with DBI/SALA approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of the complete system.

FIGURE 3 - UNINTENTIONAL DISENGAGEMENT (ROLL-OUT)

If the connecting element that a snap hook (shown) or carabiner attaches to is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.



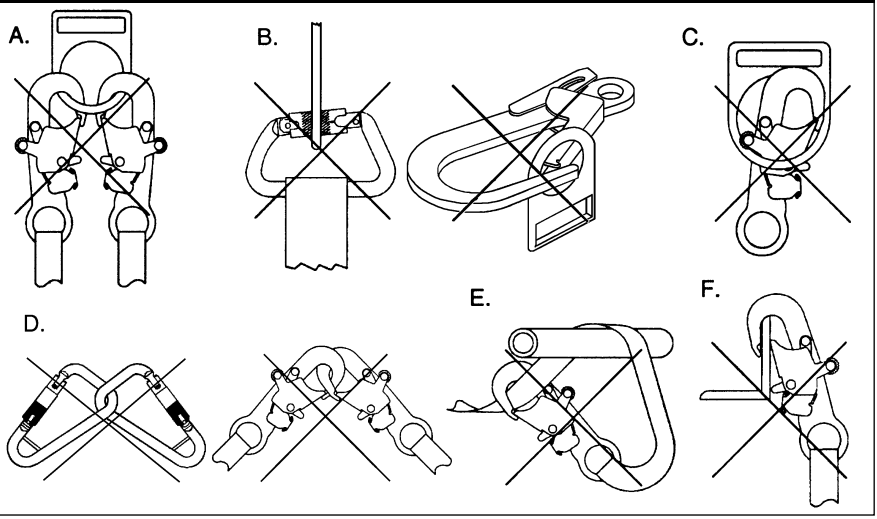
1. Force is applied to the snap hook.
2. The gate presses against the connecting ring.
3. The gate opens allowing the snap hook to slip off.

2.2 COMPATIBILITY OF CONNECTORS: Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open regardless of how they become oriented. Contact DBI/SALA if you have any questions about compatibility.

Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22kN). Connectors must be compatible with the anchorage or other system components. Do not use equipment that is not compatible. Non-compatible connectors may unintentionally disengage. See Figure 3. Connectors must be compatible in size, shape, and strength. Self locking snap hooks and carabiners are required by ANSI Z359.1 and OSHA.

2.3 MAKING CONNECTIONS: Only use self-locking snap hooks and carabiners with this equipment. Only use connectors that are suitable to each application. Ensure all connections are compatible in size, shape and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

FIGURE 4 - INAPPROPRIATE CONNECTIONS



DBI/SALA connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. See Figure 4 for inappropriate connections. DBI/SALA snap hooks and carabiners should not be connected:

A. To a D-ring to which another connector is attached.

B. In a manner that would result in a load on the gate.

NOTE: *Large throat opening snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.*

C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.

D. To each other.

E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allows such a connection).

F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.

2.4 SUPPORT STRUCTURE STRENGTH: The support structure to which the winch is installed must meet minimum strength requirements stated in section 3.4

3.0 OPERATION AND USE

WARNING: *Do not alter or intentionally misuse this equipment. Consult DBI/SALA when using this equipment in combination with components or subsystems other than those described in this manual. Some subsystem and component combinations may interfere with the operation of this equipment. Use caution when using this equipment around moving machinery, electrical hazards, chemical hazards, and sharp edges.*

WARNING: *Consult your doctor if there is reason to doubt your fitness to safely absorb the shock from a fall arrest. Age and fitness seriously affect a worker's ability to withstand falls. Pregnant women or minors must not use a DBI/SALA winch, unless for unavoidable emergency use situations.*

3.1 BEFORE EACH USE: Before each use of this equipment carefully inspect it to ensure it is in good working condition. Check for worn or damaged parts. Ensure all parts are present and secure. Check operation of winch; ensure that it will lift, lower, and hold the load under normal operation. Check winch and entire system for damage and corrosion. See section 5.0 for further inspection details. Do not use if inspection reveals an unsafe condition.

3.2 PLANNING: Plan your system and how it will function before starting your work. Consider all factors that affect your safety during use. Some important points to consider when planning your system are:

A. HAZARD EVALUATION: Evaluate job site hazards prior to starting work. Consult applicable OSHA and industry standards for guidelines and regulatory requirements on issues such as confined space entry, personal fall arrest systems (PFAS), and single point adjustable suspended scaffolds.

B. WORK SITE GEOMETRY: The installation and use of the support structure (tripod, davit arm and base) must be consistent with the geometric requirements stated in the associated manufacturer's instruction manuals. When suspending working lines from the support structure, check for obstructions or sharp edges in the work path. Avoid working where the user may swing and hit an object, or where lines may cross or tangle with that of another worker.

C. SECONDARY OR BACK-UP FALL ARREST SYSTEM: When using the Salalift winch (8101000 series) as a support for work positioning, a secondary or back-up fall arrest system is required. See OSHA 29 CFR 1910.28 and 1926.451. The DBI/SALA tripod and davit arm has provisions for connection of a secondary or back-up PFAS. See sections 3.3 and 3.5 (A).

D. RESCUE: A means of dealing with an accident or emergency must be planned in advance. Response time can play an

important role in the survival of an injured worker. Users of this equipment must be trained in emergency procedures.

3.3 REQUIREMENTS FOR PERSONAL FALL ARREST SYSTEMS: PFAS used with the Salalift or Salalift II winch and support structure must meet applicable OSHA requirements.

- The PFAS should be rigged to minimize any potential free fall and never allow a free fall greater than 6 feet. It is recommended that the PFAS used with this equipment include a full body harness as the body support component. PFAS's that incorporate full body harnesses must maintain fall arrest forces below 1,800 lbs. and arrest the fall within 42 inches. Body belts, unless incorporated into a full body harness, are not recommended for use with this equipment. A typical PFAS includes a full body harness, connecting subsystem or component (self retracting lifeline or lifeline and rope grab), and the necessary connectors to couple the system together.

- In accordance with ANSI Z359.1, anchorages selected for PFAS shall have a strength capable of sustaining static loads applied in the directions permitted by the PFAS, of at least; (A) 5,000 lbs. (22.2kN) for non-certified anchorages, or (B) two times the maximum arresting force for certified anchorages . When more than one PFAS is attached to an anchorage, the anchorage strengths set forth in (A) and (B) must be multiplied by the number of PFAS attached to the anchorage. Per OSHA 1926.500 and 1910.66: Anchorages used for attachment of a PFAS shall be independent of any anchorage being used to support or suspend platforms, and must support at least 5,000 lbs. (22kN) per user attached, or be designed, installed, and used as part of a complete PFAS which maintains a safety factor of at least two, and is supervised by a qualified person.

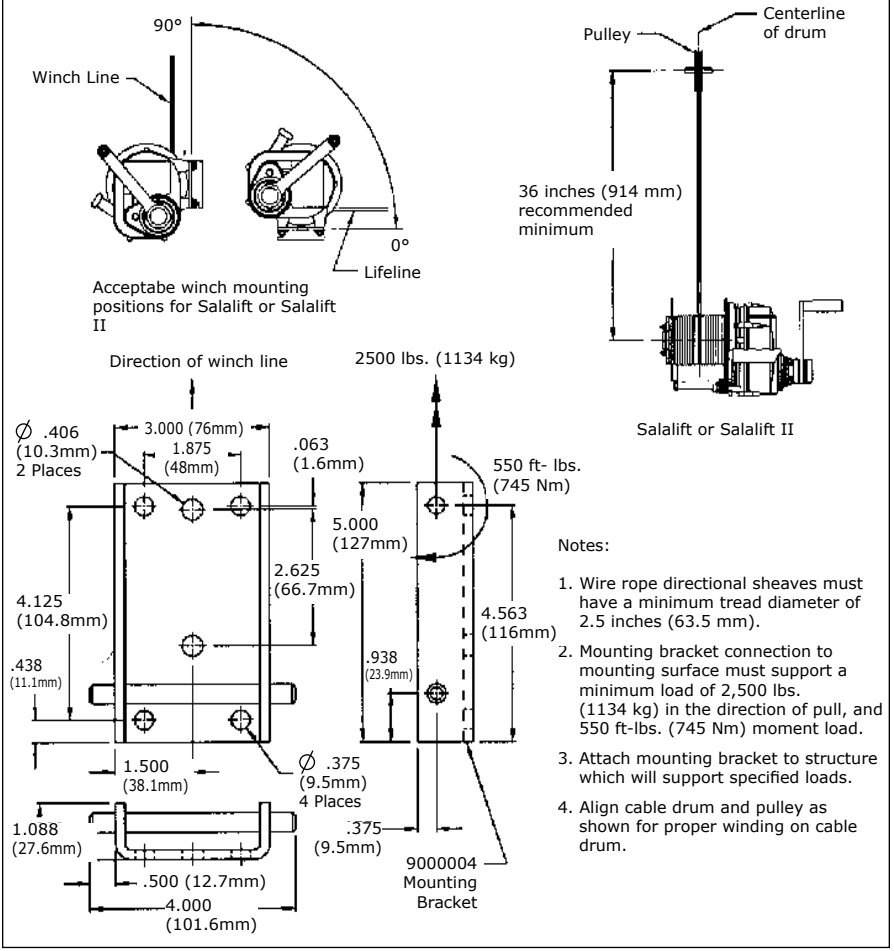
WARNING: *Read and follow manufacturer's instructions for the personal fall arrest equipment selected for use with the winch and support structure.*

IMPORTANT: *Body belts are not allowed for free fall situations. Body belts increase the risk of injury during fall arrest in comparison to a full body harness. Limited suspension time and the potential for improperly wearing a body belt may result in added danger to the user's health.*

3.4 INSTALLATION OF WINCH TO SUPPORT STRUCTURE:

A. MOUNTING BRACKET: These winches incorporate a "quick-mount" style bracket for attachment to the support structure. DBI/SALA tripods, davit arms, and other support structures supplied by DBI/SALA, include a bracket that mates with the winch quick-mount bracket. All DBI/SALA winches include the quick-mount bracket. When using the 8102001 series winch with the 8004176 Wall Mount Bracket, a mounting adapter kit (8100087) is required. Contact DBI/SALA for more information.

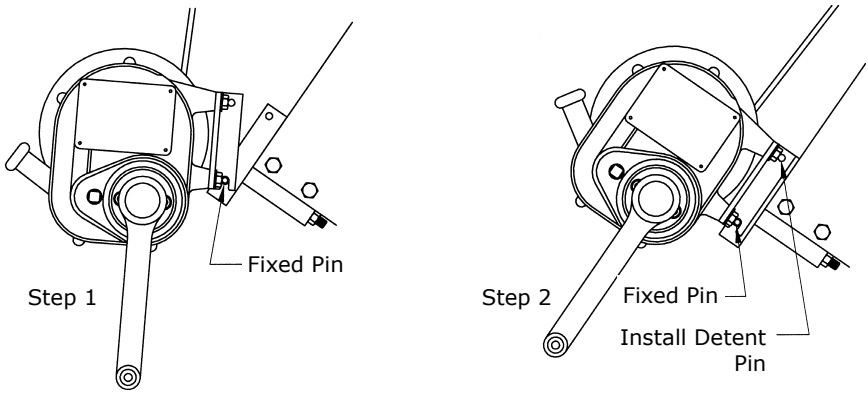
Figure 5 - Load/Geometric Requirements



B. LOAD REQUIREMENTS: Figure 5 illustrates mounting the winch to the support structure and the load requirements. The mounting bracket must support the loads shown in Figure 5.

C. GEOMETRIC REQUIREMENTS: Refer to the support structure manufacturer's instructions for geometric requirements. Installations of the winch to support structures other than those provided by DBI/SALA must meet the geometric requirements shown in Figure 5. Position the support structure so the load and the lifeline of the winch can be directed over the work area when installed. For personnel use, do not position the support structure where the worker will have to swing under the support structure to reach the work area. Avoid positioning the support structure where the working line may abrade against sharp edges.

Figure 6 - Quick-Mount Installation



IMPORTANT: *Position the winch and support structure in a location which allows the operator to safely use the winch.*

D. QUICK-MOUNT INSTALLATION: See Figure 6. Mount the winch using the quick-mount bracket as follows:

Step 1. Pull out the locking detent pin by depressing the button on end of the pin. Lift the winch into place and position the slot in the bracket over the fixed pin on the support structure bracket.

Step 2. Push the top of winch in toward the support structure while the bottom rotates on the fixed pin. Align the holes and push the detent pin through until it stops. Ensure the pin locks in place.

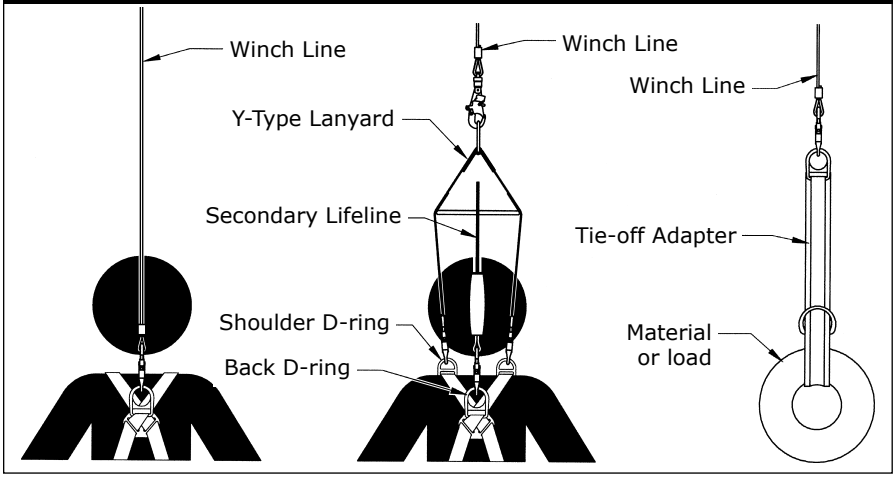
Step 3. Slowly pull out the winch line. Route the line over the support structure pulley system. See the support structure manufacturer's instructions for details.

E. WELDED INSTALLATIONS: If welding the mounting bracket to a support structure it is recommended that the welding be done by a certified welder. Portions of the mounting bracket that have been exposed due to welding should be painted or otherwise protected from corrosion.

3.5 OPERATION OF WINCH:

A. CONNECTING WINCH LINE TO LOAD: See Figure 7. For applications that do not require a secondary PFAS, the winch line should be connected to the worker's harness back D-ring. For applications requiring a secondary PFAS, the winch line should be connected to a Y-type lanyard and this lanyard should be attached to the worker's harness shoulder D-rings. The secondary lifeline should be connected to the worker's harness back D-ring. For material handling applications, connect the winch line to the load using a tie-off adapter or other anchoring device.

Figure 7 - Connection



B. SALALIFT WINCH (8101000 SERIES): Attach the winch to the support structure as described in section 3.4 (D). Install the winch crank handle onto the high or low speed shaft by aligning the handle with the shaft and pushing firmly inward until the handle snaps in place. To release the handle from the shaft, depress the handle release and pull the handle off the shaft. Pull the ratchet lever downward and feed the line off the drum by rotating the crank handle in the "lower" direction. Route the line over the support structure pulley system.

TO RAISE A LOAD: Rotate the winch crank handle clockwise when using the low speed shaft and counterclockwise when using the high speed shaft. For worker safety, the crank handle incorporates an overload clutch which limits the winch lifting force on the high speed shaft to approximately 250 lbs. (113 kg) and 500 lbs. (227 kg) on the low speed shaft, thus reducing the possibility of injury should a worker become entangled during retrieval. Do not exceed the rated capacity of 350 lbs (159 kg).

TO LOWER A LOAD: Rotate the winch crank handle in the "raise" direction until the ratchet brake lever can be pulled down, then rotate the crank handle in the "lower" direction. When a load is suspended from the winch, use caution when the ratchet brake lever is pulled down since the load will be transferred to the winch crank handle. To prevent loss of control of the load, do not block or restrict the ratchet lever from engaging the teeth on the drum, except by normal manual operation. If the operator fatigues, or for any reason desires to "hold" the load, allow the ratchet brake to engage and support the load.

The Salalift® I winch is designed and typically used for manual operation. Certain situations where the speed of the rescue,

coupled with fatigue experienced by operator during long lifts, may necessitate the need for a powered drive operation. Contact DBI/SALA for more information.

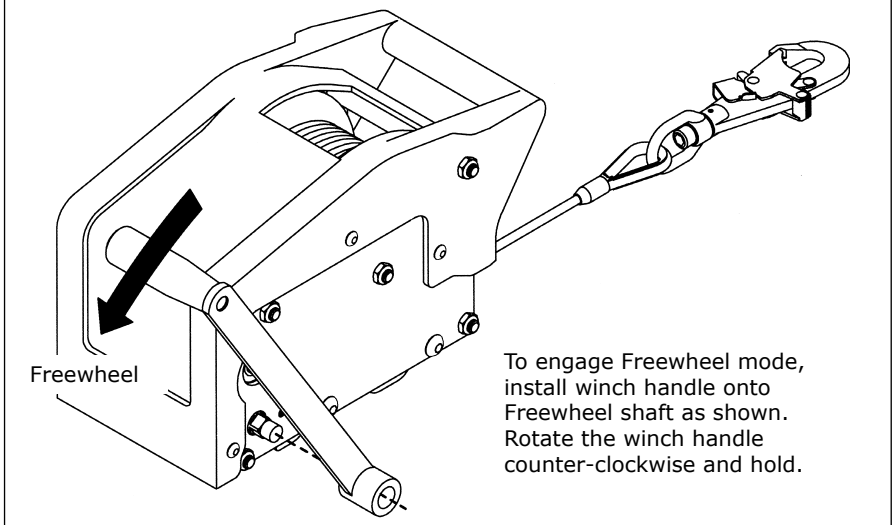
C. SALALIFT II WINCH (8102001 SERIES): Attach the winch to the support structure as described in section 3.4 (D). Install winch crank handle onto the input shaft by aligning the hub of the crank handle with the square drive marked "winch shaft" and pushing firmly inward until handle snaps in place (the grip on the handle should face outward). To release the crank handle from the shaft, pull the handle off the shaft. Feed the line off the winch drum by rotating the crank handle in the lowering direction (counterclockwise). Apply slight tension to the line while feeding it off the drum. Free-wheel mode may also be used, see section 3.5 (C). Route the line over the support structure pulley system.

TO RAISE A LOAD: Rotate the winch crank handle in the raise direction (clockwise). To hold or momentarily suspend the load, stop cranking. The automatic clutch/brake will hold the load if handle is released. The winch incorporates an overload clutch limiting the lifting force to approximately 700 lbs. (318 kg), reducing the chance of injury if a worker becomes entangled during retrieval. Do not exceed the rated capacity of 350 lbs (159 kg).

TO LOWER A LOAD: Rotate the winch crank handle in the lower direction (counterclockwise). When lowering line without a load, maintain slight tension on the line to aid payout.

FREE-WHEEL MODE: Remove the crank handle from the

Figure 8 - Free-Wheel Mode



raise/lower input shaft. Reverse the crank handle and install it onto the square drive marked "freewheel shaft" by aligning the handle hub with the shaft. See Figure 8. To engage free-wheel mode, rotate the crank handle counterclockwise until it stops and hold. The line can now be freely pulled off of the winch drum. To avoid build-up of slack line on the drum, pull the line off the drum smoothly, remove slack on the drum by releasing the crank handle and pulling on the line. If the line pays out too rapidly, an over speed brake will activate and lock, stopping the line. If this happens, return to the winch mode and rotate the crank handle clockwise two turns to unlock the over speed brake. Do not engage free-wheel mode with load on the lifting line, remove load on the line before engaging free-wheel mode. When using the Salalift II for climbing protection applications, free-wheel mode is not recommended. The operator must be attentive to slack line; paying out and reeling in line as needed.

D. IMPACT INDICATOR AND CABLE RESERVE: The Salalift II winch is supplied with a connecting swiveling hook that incorporates a load indicator. This indicator functions if the winch is severely impact loaded or if the lifting capacity is exceeded by a preset amount. See section 5.0 for inspection of load indicator. The Salalift II incorporates a reserve cable retention feature on the cable drum. With the drum near empty (single layer of cable remaining), the shear pin is visible. See Figure 10. The reserve cable ensures that the shock absorbing feature is available throughout the working range of the winch. If the winch is shock loaded at the reserve point of cable payout, the shear pin will shear, allowing the shock absorber to function normally. If the shear pin has been sheared, the unit must be returned for inspection and repair. See section 5.0 for inspection details.

IMPORTANT: *Do not use winch for lifting or lowering of more than one person, except for emergency situations. In this case, if using the 8101000 series, the low speed shaft must be used to prevent handle slippage. The maximum lifting force is approximately 500 lbs (227 kg).*

WARNING: *If the cranking tension eases during lowering, the person or material being lowered has reached a work level or obstruction. Do not continue cranking without communicating with the person or checking the material being lowered. Always keep the cable tension firm. Slack cable could cause a free fall.*

WARNING: *A minimum of four wraps of line must remain on the drum at all times on the 8101000 series. One complete layer of line must remain on the 8102001 series. Do not attempt to reverse wind the line onto the drum. Line must wind onto the drum by turning the crank handle in the "raise" direction only. Check periodically to see that the line is winding evenly on the drum. Use gloves when handling line.*

4.0 TRAINING

4.1 It is the responsibility of the user to assure they are familiar with these instructions, and are trained in the correct care and use of this equipment. User must also be aware of the operating characteristics, application limits, and the consequences of improper use of this equipment.

IMPORTANT: *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 FREQUENCY:

- **Before Each Use:** Visually inspect per steps listed in sections 5.2 and 5.3.
- Monthly: A formal inspection of the winch should be done by a competent person other than the user. See sections 5.2 and 5.3 for guidelines. Record the results of each formal inspection in the inspection and maintenance log in section 10.0, or use the i-Safe™ inspection web portal to maintain your inspection records. If you are a first-time user, contact a Customer Service representative in the US at 800-328-6146 or in Canada at 800-387-7484 or if you have already registered, go to: www.capitalsafety.com/isafe.html.
  Follow instructions provided with your i-Safe handheld reader or on the web portal to transfer your data to your web log.
- **Annual:** It is recommended that the winch be serviced by a factory authorized service center or the manufacturer. Extreme working conditions may require increasing the frequency of inspections. Annual servicing shall include, but not be limited to, an intensive inspection and cleaning of all internal and external components. Failure to provide proper service may shorten product life and could endanger performance.
- **After An Impact:** Inspect entire winch according to section 5.2.

WARNING: *If the winch has been subjected to impact forces, it must be immediately removed from service and inspected. If the winch fails to pass the inspection, do not use. The equipment must be sent to an authorized service center for repair.*

IMPORTANT: *Extreme working conditions (harsh environment, prolonged use, etc.) may require increasing the frequency of inspections.*

5.2 GENERAL INSPECTION STEPS FOR ALL WINCH MODELS:

Step 1. Inspect all screws, bolts and nuts. Ensure they are securely attached and tight. Check to see if any bolts, nuts or other parts are missing, or have been substituted or

altered in any way. Inspect covers, housings, guards, etc. Ensure they are free of cracks, dents, or other damage.

Step 2. Crank handle must lock positively onto the shaft and be free of cracks, bends, or other damage.

Step 3. Connecting hook must not be damaged, broken, distorted, or have any sharp edges, burrs, cracks, worn parts, or corrosion. Ensure the connecting hook works properly. Hook gate must move freely and lock upon closing. Hook must swivel freely.

Step 4. **Wire Rope:** Inspect entire length of wire rope assembly starting at the hook. Always wear protective gloves when inspecting wire rope.

A. Inspect for broken wires by passing the wire rope through gloved hands, flexing it every few inches to expose breaks. Broken wires can be removed by bending the wire back and forth parallel to the rope length. Do not attempt to pull wires out of rope. Inspect for kinks, cuts, crushed burned areas, or other damage. Wire rope with serious damage must be removed from service.

B. The wire rope assembly must be replaced by an authorized service center if there are six or more randomly distributed broken wires in one lay, or three or more broken wires in one strand in one lay. Note: A "lay" of wire rope is the length of wire rope that it takes for a strand (the larger groups of wires) to complete one revolution or twist along the rope.

C. The wire rope assembly must be replaced by an authorized service center if there are any broken wires within one inch of the metal compression sleeves at either end of the assembly. Note: To inspect wire rope area near compression sleeves on hook end, remove counterweight (8101000 series) or slide rubber hook bumper up on wire rope (8102001 series).

D. Inspect entire length of wire rope for signs of corrosion. Severely corroded wire rope must be replaced.

SYNTHETIC ROPE: Inspect for the following if the winch uses synthetic rope:

A. Inspect for concentrated wear, frayed strands, broken yarns, cuts, and abrasions. The line must be free of knots, excessive soiling, heavy paint buildup, and rust staining throughout its length.

B. The line must be free of chemical or heat damage, indicated by brown, discolored, or brittle areas.

C. The line must be free of ultraviolet damage, indicated by discoloration and the presence of splinters and slivers on the rope surface.

D. All of the above factors are known to reduce rope strength. As a rule of thumb, rope strength is reduced proportional to the cross sectional area of the rope damaged. Damaged or questionable rope should be replaced by an authorized service center.

Step 5. Inspect all identification and warning labels, ensuring that they are legible and securely attached. See Figure 1 (8101000 series), Figure 2 (8102001 series) and section 9.0.

Step 6. Inspect each system component (support structure, back-up fall arrest system, body support, connectors, etc.) according to manufacturer's instructions.

Step 7. See additional inspection steps for the winch in sections 5.3, 5.4, and 5.5.

5.3 INSPECTION OF SALALIFT WINCH (8101000 SERIES): The following steps are additional inspection procedures to those in section 5.2 that must be performed on the 8101000 series winch. See Figure 1.

Step 1. Check operation of the winch in high and low speed positions; it must crank up and down freely. Stiff or rough operation may indicate a worn gear or bearing.

Step 2. Inspect the ratchet brake. With the brake engaged, the drum should be prevented from paying off cable. The spring must be in place and undamaged. The ratchet brake lever must fully engage the teeth on the drum, the drum teeth must be in good condition.

Step 3. Inspect for oil in the gearbox by removing plug on top and tilting unit so oil can be seen through hole. Inspect for oil leaks.

Step 4. Check operation of the handle over speed brake as follows:

A. Over level ground set up support structure and winch as it will be used.

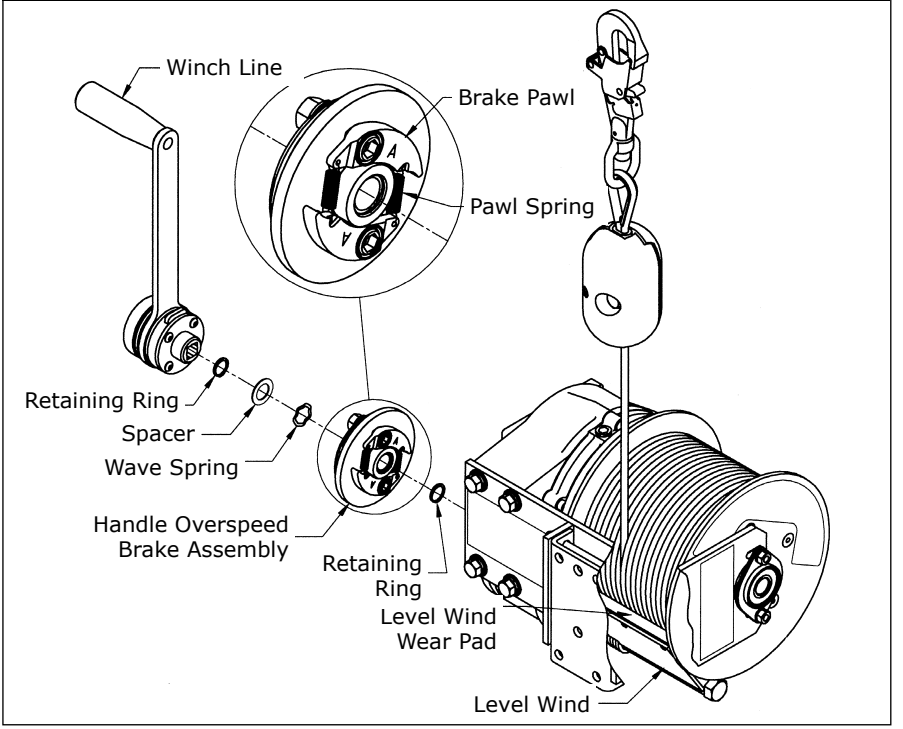
B. By raising or lowering the winch cable, position the lifting hook to approximately chest height.

C. Remove the winch crank handle and have someone hold the ratchet brake lever in its disengaged position, such as when lowering a load.

D. Pull down sharply on the lifting hook to engage the over speed brake.

E. If the brake fails to engage or noticeable brake slippage occurs, remove from service and return to an authorized service center for repair.

Figure 9 - Inspecting level wind 8101000



Step 5. Check operation of the drum over speed brake as follows, see Figure 9:

A. To test the drum over speed brake, remove the handle over speed brake assembly. Using a snap ring pliers, remove the ring that retains the handle over speed brake assembly on the low speed shaft. Remove the brake assembly, taking care not to damage the pawl springs on the back side of the brake. Note: If damage exists on the shaft such as a nick or corrosion, repair the damaged area using a file or emery cloth before removing the brake assembly.

B. With the handle over speed brake removed, on level ground, set up the support structure and winch as it will be used. To test the drum over speed brake, remove the crank handle and disengage the ratchet brake, then pull down sharply on the winch cable to engage brake.

C. If the brake fails to engage or slippage of more than one inch occurs (a small amount of brake slippage is normal), remove the winch from service immediately and return to an authorized service center for repair.

D. If the brake functions properly, reassemble the handle over speed brake. Ensure the pawls are in place and the "A" side is showing on each pawl. Reinstall the retaining ring onto the

shaft. Test the handle over speed brake for proper operation using the method given in step 4.

Step 6. See Figure 9. Inspect the level wind assuring that it moves freely and applies pressure against the line. If the plastic wear pad needs to be replaced, return the winch to an authorized service center.

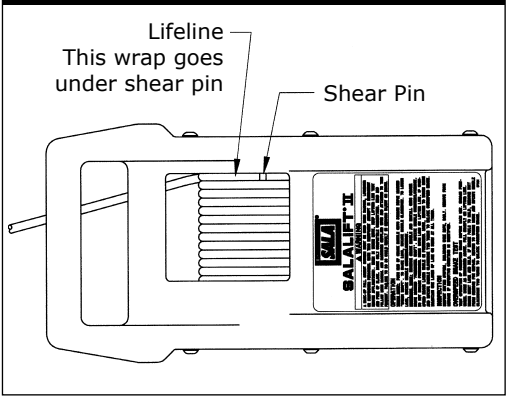
5.4 INSPECTION OF SALALIFT II WINCH (8102001 SERIES):
The following steps are additional inspection procedures to those in section 5.2 that must be performed on the 8102001 series winch. See Figure 2.

Step 1. Check operation of the free-wheel mode and the drum over speed brake as follows:

A. Engage free-wheel mode by connecting the crank handle to the free-wheel shaft and rotating the handle counterclockwise. The winch line should pay out freely. Pull down sharply on the winch line with the winch in the free-wheel mode to engage the brake.

B. The brake must lock and hold. If the brake fails to engage or slippage of more than one inch occurs (a small amount of brake slippage is normal), remove the winch from service immediately and return to an authorized service center for repair.

Figure 10 - Inspecting shear pin



Step 2. See Figure 10.
Inspect the shear pin. The shear pin should retain one complete wrap of line on the drum. If the shear pin is broken or missing the unit must be returned to an authorized service center for repair.

Step 3. See Figure 11. Inspect the impact indicator on the snap hook. If the hook is in the indicated mode, return the winch to an authorized service center for repair.

Step 4. See Figure 12. Inspect the level wind assuring that it moves freely and applies pressure against the line. If the plastic wear pad needs to be replaced return the winch to an authorized service center.

5.5 If inspection or operation reveals a defective condition, remove the winch from service immediately and contact an authorized service center for repair.

Figure 11 - Impact Indicator

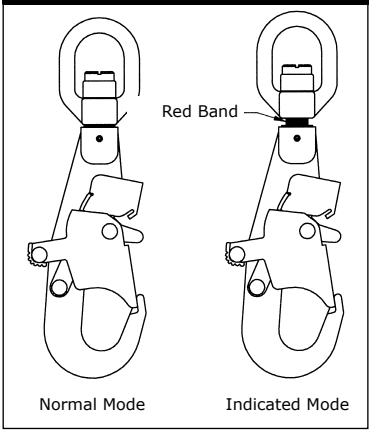
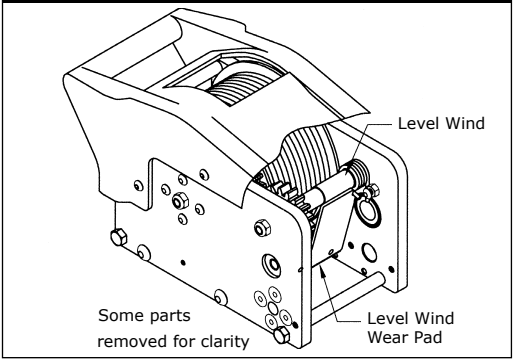


Figure 12 - Inspection level wind 8102000



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

6.0 MAINTENANCE, SERVICING, STORAGE

6.1 Periodically clean the exterior of the winch using water and a mild detergent solution. Clean labels as required. At least twice a year, clean and lubricate the wire rope. Do not use solvents to clean the wire rope as they will remove internal lubrication. Lubricate wire rope using a cloth (wearing gloves) and a light machine oil.

6.2 LUBRICATION OF SALALIFT WINCH;

- For the 8101000 series Salalift winch, the gear box contains eight ounces of high quality gear oil, SAE 80 or 90. The oil does not require changing unless there is evidence of contaminants in the oil. See section 5.3, step 3. If the oil is contaminated or leaking contact DBI/SALA for repair.
- For the 8102001 series Salalift winch, lubrication should be applied periodically to the winch drum gear. Maintain a light film of grease on the drum gear teeth at all times. Apply grease to the drum gear teeth as required. Do not over lubricate.

6.3 Replacement parts, as well as additional maintenance and servicing procedures, must be completed by a factory authorized service center. An authorization and a return number must be issued by DBI/SALA.

6.4 Store this equipment in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors exist. Inspect after any period of extended storage.

6.5 Clean and store body support, support structure, and associated system components according to separate instructions provided with that equipment.

7.0 SPECIFICATIONS

* Note: Speeds given assume 60 rpm cranking rate. Actual rates may vary depending on cranking speed and the amount of rope on the drum.

Rated Working Load	350 lbs. (158 kg.)
Wire Rope Type	1/4 inch diameter, 6x37 galvanized or stainless steel, 3/16 inch diameter, 7x19 galvanized or stainless steel
Synthetic Rope Type	3/8 inch diameter synthetic rope braid on braid polyester
Drum Capacity	8101000 Series: 1/4 inch cable: 140 feet (43 m) 8102001 Series: 1/4 inch cable: 85 feet (26 m) 3/16 inch cable: 150 feet (46 m)
Weight	8101000: 62 lbs. (28 kg.) 8101004: 71 lbs. (32 kg.) 8102001: 36 lbs. (16 kg.) 8102005: 37 lbs. (17 kg.) 8102009: 35 lbs. (16 kg.)
*Lifting or Lowering Speed/Gear Ratio	8101000 Series Low Speed: 13.2 ft/min. (4.0 m/min.) average / 6.6:1 ratio 8101000 Series High Speed: 26.8 ft/min. (8.2 m/min.) average / 3.3:1 ratio 8102001 Series: 12.5 ft/min. (3.8 m/min.) average / 6:1 ratio
Material	Predominantly aluminum and zinc plated steel, Polyethlyene (8102001 Series only)

AUTHORIZED PERSON: A person assigned by the employer to perform duties at a location where the person will be exposed to a fall hazard (otherwise referred to as “user” for the purpose of these instructions).

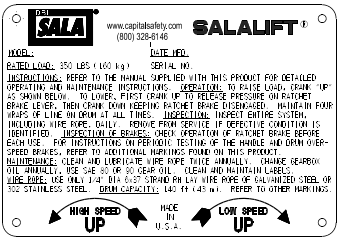
RESCUER: Person or persons other than the rescue subject acting to perform an assisted rescue by operation of a rescue system.

CERTIFIED ANCHORAGE: An anchorage for fall arrest, positioning, restraint, or rescue systems that a qualified person certifies to be capable of supporting the potential fall forces that could be encountered during a fall or that meet the criteria for a certified anchorage prescribed in this standard.

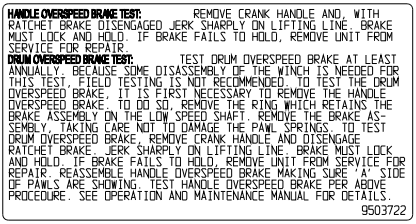
QUALIFIED PERSON: A person with a recognized degree or professional certificate and with extensive knowledge, training, and experience in the fall protection and rescue field who is capable of designing, analyzing, evaluating and specifying fall protection and rescue systems to the extent required by this standard.

9.0 LABELING

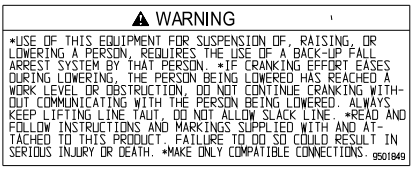
9.1 The following labels must be present and fully legible:



8101000 Series ID Label



8101000 Series Brake Testing Label



8101000 Series Warning Label

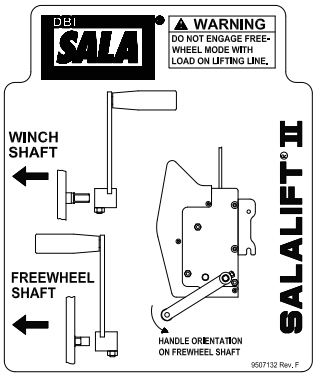
8101000 Series Winch Handle Label

8101000/8102001 Series Standards Label

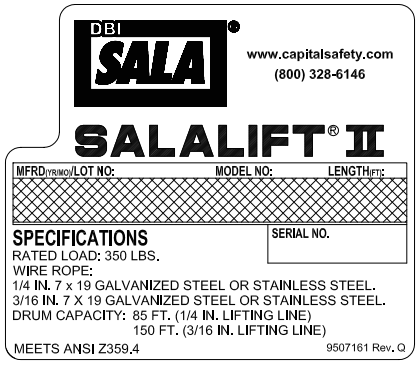
8102001 Series Winch Handle Label

8102001 Series Raise/Lower Label

8102001 Series Freewheel Engagement Label



8102001 Series Shaft Identification Label



8102001 Series ID Label

RFID Serial Number Tag

8102001 Series iSafe Label

10.0 INSPECTION AND MAINTENANCE LOG

SERIAL NUMBER:	
MODEL NUMBER:	
DATE PURCHASED:	**DATE OF FIRST USE:**

INSPECTION DATE	INSPECTION ITEMS NOTED	CORRECTIVE ACTION	MAINTENANCE PERFORMED
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
Approved By:			
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Approved By:			
Approved By:			

This instruction applies to the following models:					
8100113	8101008	8101104	8102005F	8102014	8102021
8100114	8101009	8101200	8102007	8102015	8102022
8101000	8101010	8101201	8102007F	8102016	8102050
8101001	8101011	8101220	8102009	8102017	8102060
8101002	8101012	8102001	8102011	8102018	8300100
8101004	8101101	8102003	8102012	8102019	8300101
8101006	8101103	8102005	8102013	8102020	8102050B
Additional model numbers may appear on the next printing of these instructions.					

LIMITED LIFETIME WARRANTY

Warranty to End User: D B Industries, Inc., dba CAPITAL SAFETY USA ("CAPITAL SAFETY") warrants to the original end user ("End User") that its products are free from defects in materials and workmanship under normal use and service. This warranty extends for the lifetime of the product from the date the product is purchased by the End User, in new and unused condition, from a CAPITAL SAFETY authorized distributor. CAPITAL SAFETY'S entire liability to End User and End User's exclusive remedy under this warranty is limited to the repair or replacement in kind of any defective product within its lifetime (as CAPITAL SAFETY in its sole discretion determines and deems appropriate). No oral or written information or advice given by CAPITAL SAFETY, its distributors, directors, officers, agents or employees shall create any different or additional warranties or in any way increase the scope of this warranty. CAPITAL SAFETY will not accept liability for defects that are the result of product abuse, misuse, alteration or modification, or for defects that are due to a failure to install, maintain, or use the product in accordance with the manufacturer's instructions.

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