GUARDIAN
FALL PROTECTION
PERFORMANCE SAFETY GEAR

Swivel Concrete Anchor

USER'S MANUAL

DO NOT THROW AWAY THESE INSTRUCTIONS!
READ AND UNDERSTAND BEFORE USING EQUIPMENT!

TABLE OF CONTENTS:

WARNING!

DO NOT:

- **Do not alter or misuse the equipment unless approved by manufacturer.**
- **Do not use combinations of components or subsystems that may affect or interfere with the safe, compatible function of each other.**
- **Do not expose the equipment to chemicals which may produce a harmful effect or degrade the equipment. Consult manufacturer in cases where doubt exists.**
- **Do not use the equipment around moving machinery or electrical hazards unless specifically designed for such use.**
- **Do not use the equipment around sharp edges or abrasive surfaces unless intended for such use.**

INTRODUCTION:

Thank you for purchasing the Guardian Swivel Concrete Anchor. This manual should be read and understood in its entirety, and used as part of a training program as required by OSHA or any applicable state regulatory agency.

This and any other included instructions must be made available to the users of the equipment. The user must understand the proper equipment use and limitations.

This product meets all applicable OSHA and ANSI standards for fall protection.

This manual covers the maintenance, installation, and use of the Guardian Swivel Concrete Anchor. This manual covers Guardian Part Numbers:

00240 Swivel Concrete Anchor (w/Collar No Bolt)
00241 HSL-3-B M12/5 Bolt (Swivel Anchor Bolt Only)
00242 Swivel Concrete Anchor Kit Includes; (1) 00240 - Swivel Concrete Anchor / (1) 00241 Swivel Concrete Anchor Bolt HSL-3-B M12/5
00243 Swivel Concrete Anchor Bolt (5 Pack) - HSL-3-B M12/5
00244 Swivel Concrete Anchor Bolt (12 Pack) - HSL-3-B M12/5

USER INFORMATION:

Date of First Use _____

Serial # _____

Trainer _____

User _____

GENERAL SYSTEM SELECTION CRITERIA:

Selection of fall protection shall be made by a Competent Person. All fall protection equipment shall be purchased new and unused.

The equipment is designed for use as a part of a personal fall protection system. Components shall not be used for any other operation other than that which it has been designed and approved.

Fall Protection Systems shall be designed to comply with OSHA or applicable state regulatory limitations. Systems must be used in a compliant manner.

Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces or perform setup of equipment. Age, fitness, and health conditions can seriously affect the worker should a fall occur. Pregnant women and minors should not use this equipment.

IMPORTANT!
DO NOT HANG EQUIPMENT, RIGGING, OR STAGING FROM FALL PROTECTION ANCHORS.

TRAINING REQUIREMENTS:

The employer must ensure that each employee who might be exposed to fall hazards has been trained by a Competent or Qualified Person. The training program must include the following:

- The ability to recognize the hazards of falling
- The procedures to be followed in order to minimize these hazards.
- All Relevant Federal, State, and local regulatory requirements, procedures, and standards
- Correct erecting, maintaining, disassembling, and inspection of the fall protection systems being used
- Use of personal fall arrest systems

RESCUE PLAN:

The user is required to have a rescue plan and the means at hand to implement it when using the equipment. The plan shall be project specific. Employees shall be trained in self-rescue or alternate means shall be provided for prompt rescue in the event of a fall.

IMPORTANT!

ANY EQUIPMENT SUBJECTED TO THE FORCES OF A FALL ARREST MUST BE REMOVED FROM SERVICE IMMEDIATELY. CONTACT YOUR DISTRIBUTOR OR GUARDIAN ABOUT POLICIES REGARDING REPLACEMENT OF GUARDIAN COMPONONENTS INVOLVED IN A FALL.

DESCRIPTION OF GUARDIAN SWIVEL CONCRETE ANCHOR:

The Guardian Swivel Concrete Anchor consists of a forged steel D-Ring, an alloy steel anchor bolt, and a swivel D-Ring bracket. It is used for Fall Restraint, Fall Arrest, Work Positioning, or as a Personnel Riding System. It can be used as an anchor point for overhead, horizontal, or vertical concrete applications.

MAINTENANCE, CLEANING, AND STORAGE:

- Repairs to the Guardian Swivel Concrete Anchor can be made only by a Guardian representative or person authorized by Guardian. Contact Guardian for maintenance and repair.
- Cleaning after use is important for maintaining the safety and life of the equipment.
- Cleanse the equipment of all dirt, corrosives, and contaminants.
- If the Guardian Swivel Concrete Anchor cannot simply be wiped clean use a mild soap and water, rinse, wipe to dry.
- Store the Guardian Swivel Concrete Anchor where it cannot be affected by heat, light, excessive moisture, oil, chemicals, or other degrading elements.

INSPECTION:

- Before each use, the worker must inspect all fall protection equipment.
- A formal inspection must be made by a Competent or Qualified Person other than the user at least every six months. Record the results of these inspections in the Inspection Log in the back of this manual.
- Inspect the torque setting. If it is loose, the Swivel Concrete Anchor may not have been installed properly or might have been tampered with. If the torque setting is loose or shows any other signs of being tampered with, it must be removed from service immediately. It may not be used in any fall protection applications.
- Inspect the Swivel Concrete Anchor to insure proper embedment. The D-Ring flange must be seated firmly against the concrete.
- Inspect the D-Ring for cracks, corrosion, wear, or other damage that may affect its strength or operation.
- Inspect the D-Ring bracket for deformation, cracks, wear, or other damage that may affect its strength or operation. The bracket should freely swivel on the bolt.

WARNING!

IF ANY COMPONONENT OF THE SWIVEL CONCRETE ANCHOR DOES NOT PASS INSPECTION, REMOVE FROM SERVICE IMMEDIATELY. CONTACT GUARDIAN ABOUT RETURNING DAMAGED UNITS.

PRIOR TO EACH USE:

- Fall protection passive and active equipment shall be inspected by the user for defects, damage, or deterioration.
- Any suspected defective equipment shall be removed from service.
- If the manufacturer's label is not legible or is missing, the equipment shall be removed from service.

IMPORTANT!

CONSULT WITH YOUR DOCTOR IS THERE IS REASON TO DOUBT YOUR FITNESS TO SAFELY ABSORB THE SHOCK FROM A FALL ARREST. AGE, FITNESS, AND HEALTH CONDITIONS CAN SERIOUSLY AFFECT A WORKER'S ABILITY TO WITHSTAND FALLS. PREGNANT WOMEN OR MINORS MUST NOT USE ANY GUARDIAN FALL PROTECTION EQUIPMENT.

PRODUCT APPLICATION INFORMATION:

The Guardian Swivel Concrete Anchor is designed for use as an anchor point for personal fall arrest, fall restraint, personnel riding, and as part of a rescue system.

Do NOT use the Swivel Concrete Anchor in ways not addressed in this instruction manual.

- **WORK POSITIONING:** The Swivel Concrete Anchor can be used as a component of a work positioning system to support the user at a work position. Typical work positioning systems include a full body harness, positioning lanyard, and a back-up personal fall arrest system. Maximum permissible free fall is two (2) feet.

- **PERSONAL FALL ARREST:** The Swivel Concrete Anchor can be used as a component of a Personal Fall Arrest System (PFAS) to protect the user in the event of a fall. PFAS typically include a full body harness, a connecting component, and a secure anchor point. Maximum permissible fall is six (6) feet.

- **RESTRAINT:** The Swivel Concrete Anchor can be used as a component of a restraint system to prevent the user from reaching a fall hazard. Restraint systems typically include a full body harness, a lanyard or restraint line, and a secure anchor point. NO VERTICAL FREE FALL IS PERMITTED.

- **PERSONNEL RIDING:** The Swivel Concrete Anchor can be used as a component of a personnel riding system to transport or suspend the user the user vertically. Typical personnel riding systems include full body harness, boatswains' chair or seat board, and a back-up PFAS. NO VERTICAL FREE FALL IS PERMITTED.

- **RESCUE:** The Swivel Concrete Anchor can be used as a component of a rescue system. There are various configurations for rescue systems depending on the type of rescue. NO VERTICAL FREE FALL IS PERMITTED.

APPLICABLE STANDARDS:

This product is designed to comply with OSHA and ANSI Z359.1 standards when used properly, and in accordance with manufacturer's instructions. Standards might include OSHA regulations, depending on the type of work being done and also might include state regulations if applicable. Consult regulatory agencies for more information on personal fall arrest systems and associated components.

WARNING!

- **Guardian Fall Protection equipment is designed to be used with Guardian approved components.**

- **Please contact Guardian if you have a question regarding compatibility.**

- **Making substitutions without approval from Guardian Fall Protection may lead to injuries or death by compromising the safety and reliability of the complete system.**

LIMITATIONS:

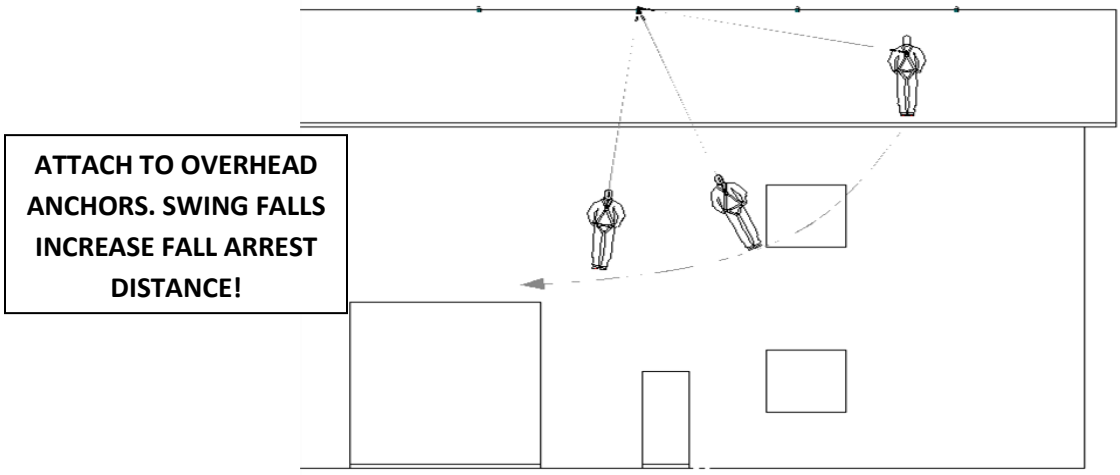
Consider the following application limitations before using this equipment.

- **CAPACITY:** The Swivel Concrete Anchor is designed for use by persons with a combined weight (clothing, tools, etc.) or no more than 310 lbs. using an approved connecting system. No more than one personal protective system may be connected at one time.

- **FREE FALL:** Personal Fall Arrest Systems (PFAS) used with this equipment must be rigged to limit the freefall to six (6) feet as called out in ANSI Z359.1. Only qualified and personnel trained on the proper use of fall protection such as this anchor are allowed to use this product. Restraint, Personnel Riding, and Rescue systems must be rigged so that no vertical free fall is possible.

- **FALL CLEARANCE:** There must be sufficient clearance below the use to arrest a fall before the user strikes the ground or any other obstruction. A hazard assessment by a trained and Competent Person is recommended before any work is started that would include the use of fall protection.
  Consider the following when calculating distance:
  - Deceleration Distance
  - Movement of harness attachment (D-Ring)
  - Free Fall Distance
  - User Height (how tall the user is could affect the free fall distance)
  - Elevation of the Swivel Concrete Anchor
  - Connecting Subsystem Length

- **SWING FALLS:** Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize the risk of swing falls by working as close to the anchorage point as possible. **Do NOT permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a self retracting lifeline or other variable length connecting system is used.**



- **POTENTIAL ENVIRONMENTAL HAZARDS:** Use of fall protection equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include but are not limited to chemicals, corrosive environments, high voltage power lines, gases, moving machinery and sharp edges.

SYSTEM REQUIREMENTS:

- **COMPATIBILITY OF COMPONENTS:** Guardian Fall Protection equipment is designed to be used with Guardian approved components. Please contact Guardian if you have a question regarding compatibility. Making substitutions without approval from Guardian may lead to injuries and/or death by compromising the safety and reliability of the complete system. A Qualified Person can make a determination on compatibility of equipment from different manufacturers. If in doubt, please contact Guardian for clarification.

- **COMPATIBILITY OF CONNECTORS:** Connectors (D-Rings, hooks, carabiners) must be capable of supporting at least 5,000 lbs. Non-compatible connectors may unintentionally disengage. Self-locking snap hooks and carabiners are *required* by ANSI and OSHA. Connectors must be compatible in size, shape, and strength.

- **MAKING CONNECTIONS:** Only use self-locking snaphooks and carabiners with any Guardian equipment. Do not use equipment that is not compatible. If you have any questions on compatibility, please call Guardian.

WARNING!

LARGE THROAT OPENING SNAPHOOKS 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 SNAPHOOKS ARE DESIGNED FOR USE ON FIXED STRUCTURAL ELEMENTS SUCH AS REBAR OR CROSS MEMEBERS THAT ARE NOT SHAPED IN A WAY THAT CAN CAPTURE THE GATE OF THE HOOK.

ANCHORAGE STRENGTH REQUIREMENT:

The anchorage strength required is dependent on the application. Following are anchorage strength requirements for specific applications. Ensure that any anchorage point used in the personal fall protection system meet the following requirements.

- **WORK POSITIONING:** The structure to which Swivel Concrete Anchor is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs. or twice the potential impact load, whichever is greater. Only one work positioning system may be attached to the Swivel Concrete Anchor

- **FALL ARREST:** The structure to which the Swivel Concrete Anchor is attached must sustain static loads applied in the directions permitted by the fall arrest system of at least 3,600 lbs. with the certification of a Qualified Person, or 5,000 lbs. without certification. Refer to OSHA and ANSI for specific definition. This anchor is to be used by one worker only. Do not tie off equipment. Anchorages used for attachment of a personal fall arrest system shall be independent of any anchorage being used to support or suspend platforms.

- **RESTRAINT:** The structure to which the anchor point is attached must sustain static loads applied in the directions permitted by the restraint system or at least 3,000 lbs. Only one fall restraint system may be attached to the Swivel Concrete Anchor.

ANCHORAGE STRENGTH REQUIREMENT continued:

- **RESCUE:** The structure to which the anchor point is attached must sustain static loads applied in the directions permitted by the system of at least 3,000 lbs.

- **PERSONNEL RIDING:** The structure to which the Swivel Concrete Anchor is attached must sustain static loads applied in the directions permitted by the personnel riding system of at least 2,500 lbs. Only one personnel riding system may be attached to a single Swivel Concrete Anchor.

BEFORE INSTALLING THE SWIVEL CONCRETE ANCHOR:

Before installation, plan your system. Consider all factors that will affect your safety during use of this equipment. The following list give important points to consider when planning your system.:

- **ANCHORAGE:** Select a rigid anchorage capable of supporting the loads no less than 5,000 lbs. per worker attached.

- **SHARP EDGES:** Avoid working where system components may be in contact with, or abrade against, unprotected sharp edges.

- **RESCUE:** OSHA requires that the employer have a rescue plan when using this equipment. The employer must have the ability to perform a rescue quickly and safely.

- **AFTER A FALL:** Components which have been subjected to the forces of arresting a fall must be removed from service and destroyed.

- **LOCATION:** Select a location for installing the Swivel Concrete Anchor that has adequate strength and will provide overall safety. The anchorage must be free of deformities, weather deterioration, or defets that may weaken the structure.

- **STRUCTURE:** The structure to which the Swivel Concrete Anchor is attached must be void of any cracks, corrosion, and defects that may weaken the structure. Do not install anchor to gable ends, unknown anchorages, damaged framing, or framing that is not structurally capable of withstanding anticipated loads in the direction of the fall.

WARNING!
TRAINING SHOULD BE CONDUCTED WITHOUT EXPOSING ANYONE TO A FALL HAZARD. TRAINING SHOULD BE REPEATED ON A PERIODIC BASIS IN ACCORDANCE WITH YOUR ORGANIZATION'S POLICY AND COMPLIANCE WITH OSHA REGULATIONS.

SWIVEL CONCRETE ANCHOR INSTALLATION:

INSTALLATION REQUIREMENTS: To ensure the safe use of the Swivel Concrete Anchor, the following requirements must be observed:

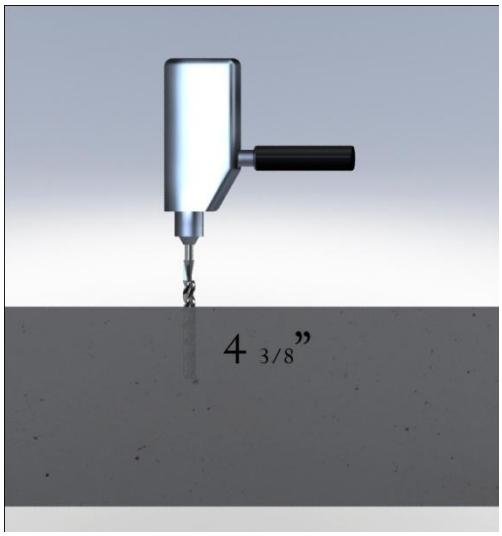
- The Swivel Concrete Anchor is NOT intended for use in wood, steel, hollow block, grout, or lightweight concrete.
- The concrete in which the anchor is secured must have a compressive strength of 3,000 psi.
- The concrete base material must be at least 6¼ inches thick.
- The mounting hole must be at least 15 inches away from any obstruction that might prevent the D-Ring from swiveling freely when a PFAS is attached to it.
- When mounting more than one Swivel Concrete Anchor, they must be separated by at least 10 inches.
- Drill bits used to create the mounting holes must conform to ANSI B212.5
- A rotary hammer and a hammer are required for installation.

INSTALLATION:

STEP 1: Inspect the Swivel Concrete Anchor before installation. Do NOT use if there are signs of damage, defect or missing parts.

SWIVEL CONCRETE ANCHOR INSTALLATION continued:

STEP 2: Use a rotary hammer and 11/16 ", ¾", or 18-mm bit to drill a hole to the depth of 4 3/8"

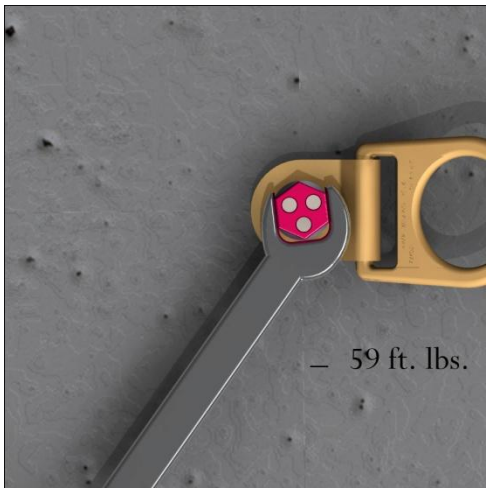


STEP 3: Clean the hole using compressed air or a blow out hammer. The hole must be empty of all debris.

STEP 4: Use a hammer to drive the Swivel Concrete Anchor into the hole. The D-Ring bracket should be seated firmly against the concrete. Do not expand the anchor bolt by hand before completing installation.

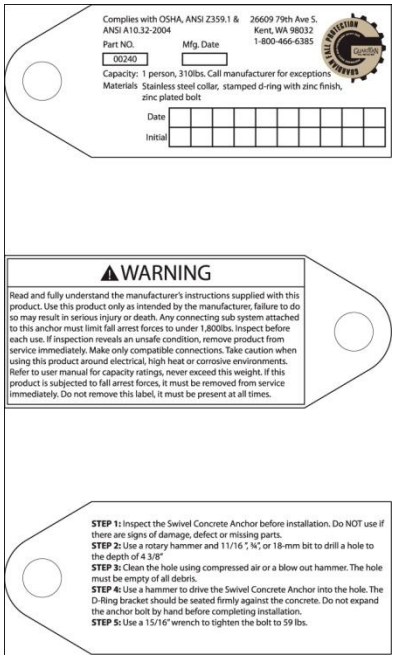
SWIVEL CONCRETE ANCHOR INSTALLATION continued:

STEP 5: Use a 15/16” wrench to tighten the bolt.
Note: the red cap will break off once the proper torque is reached



LABELS:

These labels must be present and legible on the Guardian Swivel Concrete Anchor at all times.



INSPECTION LOG:

USER MUST INSPECT EQUIPMENT BEFORE EACH USE. COMPETENT PERSON TO INSPECT AND INITIAL AT LEAST EVERY 6 MONTHS. Date of First Use_____												
YR.	J	F	M	A	M	J	J	A	S	O	N	D
This is a permanent system and has no expiration date. However regular semi-annual inspection is required												

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