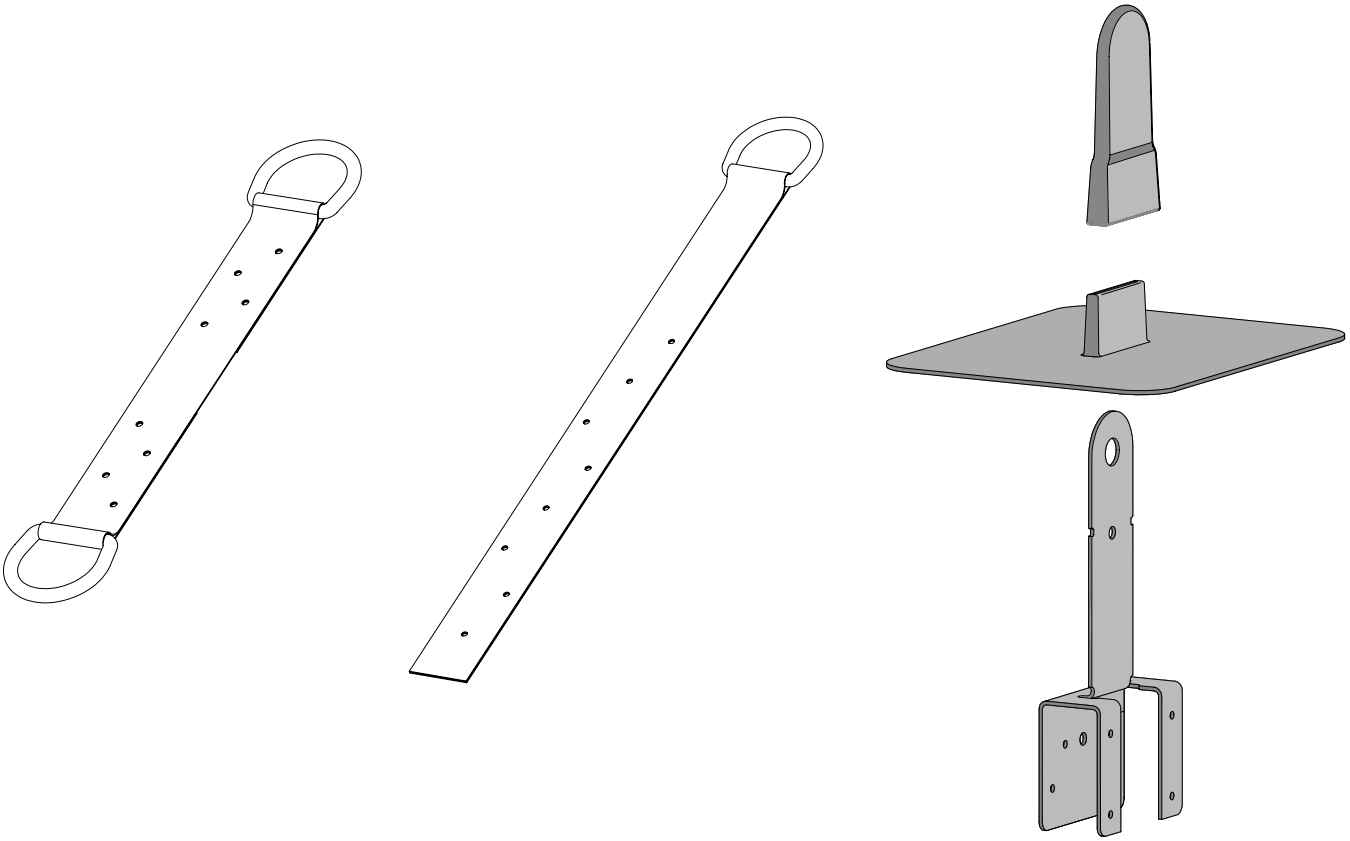
THE MILLER® DOUBLE D MODEL NO. RA40 SINGLE D MODEL NO. RA41 and MILLER® CLAW MODEL NO. RA45 OPERATION AND MAINTENANCE MANUAL

The Miller® Permanent Roof Anchors are designed to provide fall protection for one person at a time and are intended to be installed on standard wood framing structural members such as trusses, rafters, beams and I-joists as a permanent anchorage.

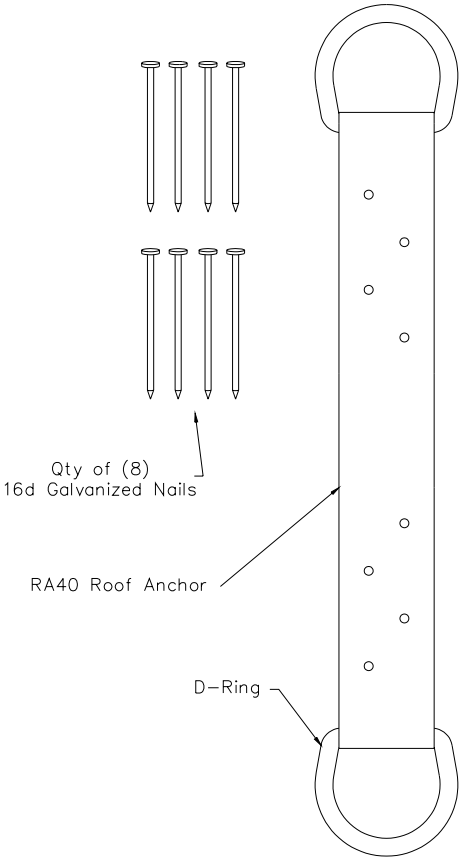
WARNING: ALL PERSONS USING THIS EQUIPMENT MUST READ, UNDERSTAND, AND FOLLOW ALL INSTRUCTIONS. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH.



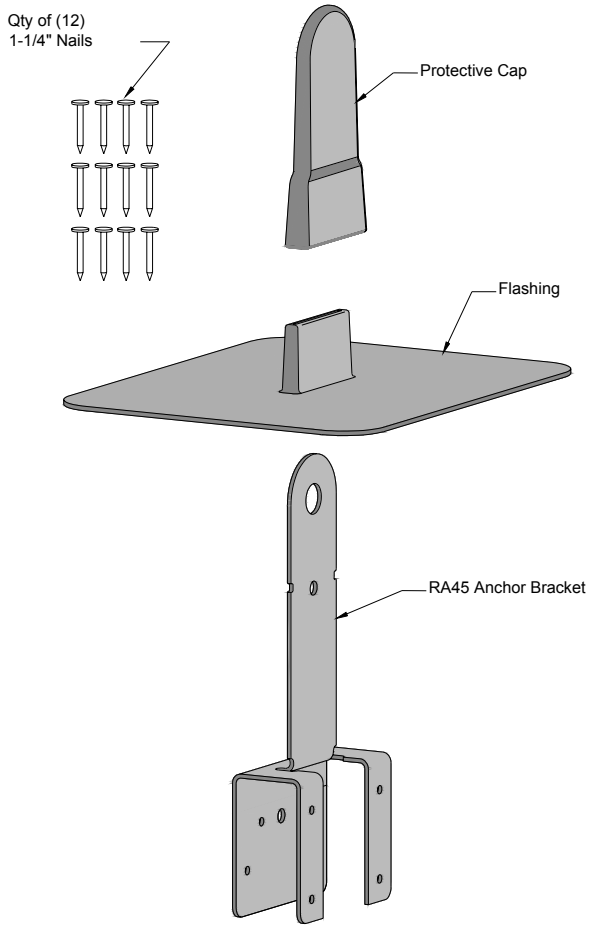
Proper use of fall arrest systems can save lives and reduce the potential of serious injuries from a fall. The user must be aware that forces experienced during the arrest of a fall or prolonged suspension may cause bodily injury. Consult a physician if there is any question about the user's ability to use this product. Pregnant women and minors must not use this product.

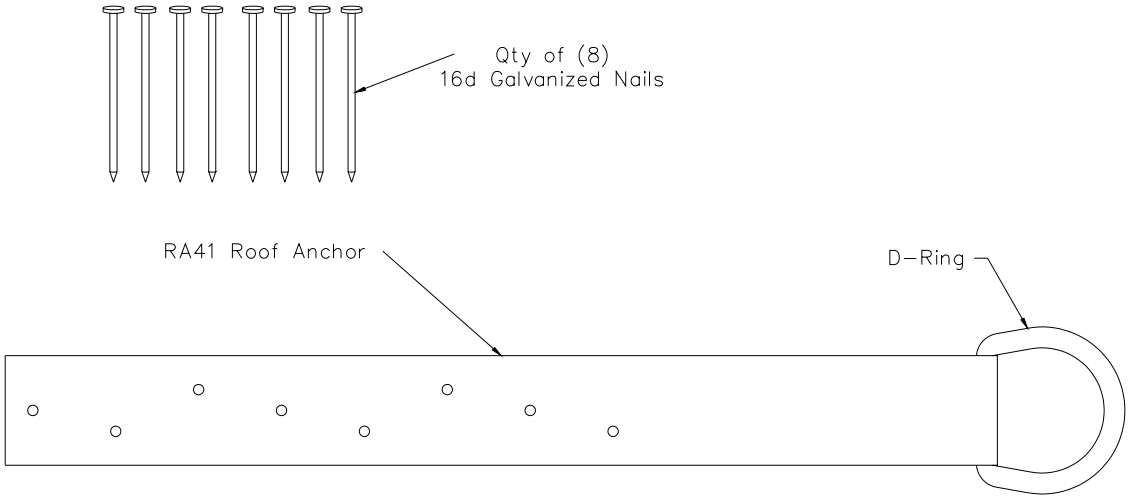
RA40, RA41 and RA45 Permanent Roof Anchor Parts Identification

RA40 Fig. 1



RA45 Fig. 2





RA41 Fig. 3

I. REQUIREMENTS

A. WARNINGS AND LIMITATIONS

Proper precautions should always be taken to remove any obstructions, debris and other material from the work area that could cause injuries or interfere with the operation of the device. Also, caution should be taken to insure that all equipment will be clear of all other recognized hazards before work begins. Only trained personnel should install and use the RA40, RA41 and RA45 Permanent Roof Anchors and their components. Please read, understand and follow all pertinent instructions, labels and warnings included with the Miller® RA40, RA41 and RA45 Permanent Roof Anchors at the time of shipment.

Note: Users should be familiar with pertinent regulations governing this equipment. All individuals who use this product must be correctly instructed on how to use the system, and must read and understand the following instructions before using the unit.

- For use by one person only. The design-working load is 310 pounds (140.6 kg) – DO NOT EXCEED THIS WEIGHT.
- Do not install anchor to gable ends, facias, rake ends, overhangs, bottom cords, collar boards, spliced sections, damaged framing, or framing that is not structurally capable of withstanding anticipated loads in the direction of the pull.
- The structure that this product is attached to must be capable of supporting a 5,000 lb. (22kN) static load in the direction of pull "or shall be designed, installed and used as follows: (i) as part of a complete personal fall arrest system which maintains a minimum safety factor of two; and (ii) under the supervision of a qualified person" as per OSHA 1926.502.
- Only trained and competent personnel should install and use this device and its components.
- Do not use the device if any part of the system appears to be damaged.
- The use of a shock absorber is required to limit the fall arresting forces to 900 lbs. or less.
- Do not use this device if it has been subjected to fall arresting forces. OSHA requires all components of a personal fall arrest system be removed from service if subjected to fall arresting forces.
- Do not attempt to repair this device or alter in any way.
- The equipment should be used in such a manner as to reduce the potential for a swing fall.
- Allow for adequate fall clearance taking into account the maximum arresting distance of 42" (1.06m) of clearance below the work surface in the event of a free fall. *NOTE: Shock absorbers may elongate 3 1/2 feet upon activation.*
- Never allow the lifeline to pass under or entwine around the user's arms, legs, or any other obstacle or person.
- Do not allow the connecting lifeline to come in contact with anything that will damage the lifeline including but not limited to sharp, abrasive, rough or high temperature surfaces, welding, heat sources, electrical hazards, or moving machinery.
- Use in highly corrosive or caustic environment dictates a more frequent inspection and servicing program to ensure the integrity of the unit is maintained. Contact Miller Fall Protection in cases of doubt.
- Employers must provide for prompt rescue in the event of a fall.
- Failure to follow instructions could cause serious injury or death.

B. SYSTEM COMPATIBILITY

The Miller® RA40, RA41 and RA45 Permanent Roof Anchors are designed for use with Miller approved components. Substitution or replacement with non-approved components will endanger the compatibility within the system and may affect the reliability and safety of the total system.

II. INSTALLATION

The Miller® RA40, RA41 and RA45 Permanent Roof Anchors are intended to be installed on roofs and structures comprised of wood members and sheathing. (The roof structure anchor location must be capable of supporting a minimum of 5000 lbs. (22kN) tensile load “or shall be designed, installed and used as follows: (i) as part of a complete personal fall arrest system which maintains a minimum safety factor of two; and (ii) under the supervision of a qualified person” as per OSHA 1926.502.) Review all warnings and instructions when selecting a mounting location. Before installation of this equipment, carefully inspect all equipment to assure that it is in proper operating condition. Check for missing or damaged parts. Trusses, rafters and structural members must be inspected for rot, decay or defects before installation can begin.

A. Installation Requirements for Miller Model# RA40 Ref. Fig. 4

The following guidelines must be followed to properly install the RA40 Roof Anchor.

Step 1. Inspect the Miller® RA40 Permanent Roof Anchor before installation begins. Do not continue installation if there are any signs of damage, defects or missing components.

Step 2. Select a mounting location for the RA40 roof anchor that meets or exceeds the requirements explained in Section II. Installation. *Note: Installation sites must be selected to minimize the swing fall hazard and to limit the free fall distance to less than 6 feet.*

Step 3. If installing into the existing residential roofing comprised of asphalt shingles, shake or tile it will be necessary to remove one to two pieces of the ridge cap to install the RA40 Roof Anchor.

Step 4. Place and center the RA40 Roof Anchor over the ridge ensuring all eight (8)16d nails will pass through the pre-punched holes and can be securely fastened to the truss or structural member once nailed. To ensure each nail will penetrate the structural member as required nail with an inward angle toward the structural member until the nail head is flat against the anchor.
Warning: All eight (8) nails supplied must be installed to ensure proper performance of the RA40 Roof Anchor.

Step 5. For added protection caulk can be applied to the nail heads before reinstallation of the ridge cap. Only the D-ring portion of the anchor should be exposed once installation is complete.

RA40 INSTALLATION DETAIL

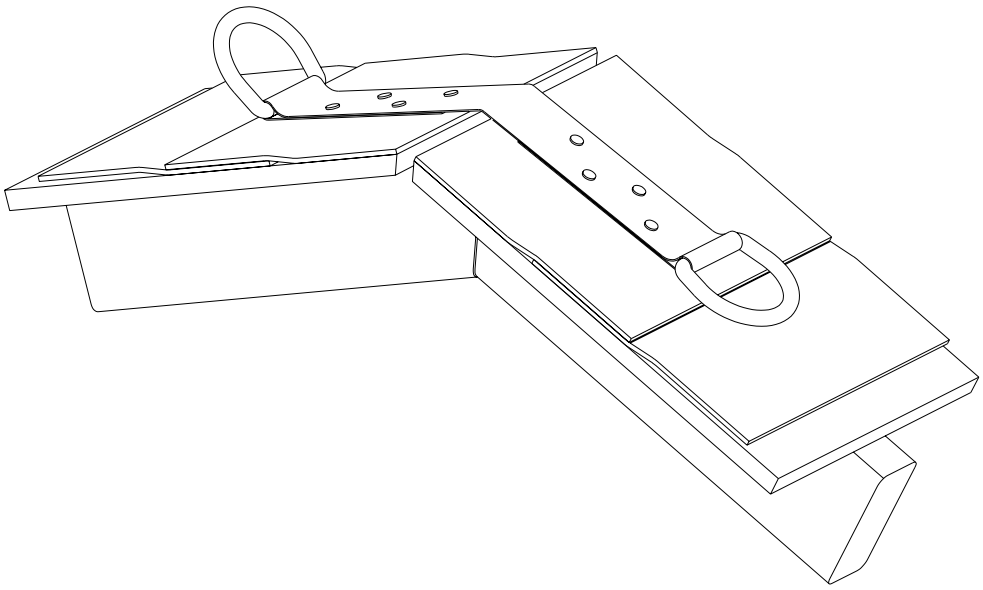


Fig. 4

B. Installation Requirements for Miller® Single D Model# RA41 Ref. Fig. 5

The following guidelines must be followed to properly install the RA41 Roof Anchor.

Step 1. Inspect the Miller® RA41 Single D Permanent Roof Anchor before installation begins. Do not continue installation if there are any signs of damage, defects or missing components.

Step 2. Select a mounting location for the RA41 roof anchor that meets or exceeds the requirements explained in Section II. Installation. *Note: Installation sites must be selected to minimize the swing fall hazard and to limit the free fall distance to less than 6 feet.*

Step 3. If installing into the existing residential roofing comprised of asphalt shingles, shake or tile it will be necessary to remove one to two pieces of the ridge cap to install the RA41 Roof Anchor.

Step 4. Place and center the RA41 Roof Anchor over the ridge ensuring all eight (8)16d nails will pass through the pre-punched holes and can be securely fastened to the truss or structural member once nailed. To ensure each nail will penetrate the structural member as required nail with an inward angle toward the structural member until the nail head is flat against the anchor.
Warning: All eight (8) nails supplied must be installed to ensure proper performance of the RA41 Roof Anchor.

Step 5. For added protection caulk can be applied to the nail heads before reinstallation of the ridge cap. Only the D-ring portion of the anchor should be exposed once installation is complete.

RA41 INSTALLATION DETAIL

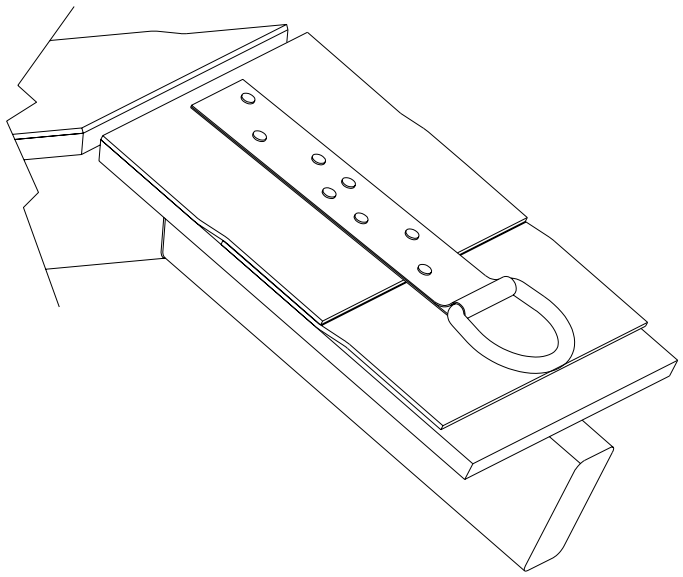


Fig. 5

C. Installation Requirements for the Miller® Claw Model# RA45 Ref. Figures 6, 7 & 8

The following guidelines must be followed to properly install the RA45 Roof Anchor.

The Miller® Claw is designed to fit 2 x 4, 6, 8 etc. or greater in height structural member.

Step 1. Inspect the Miller® Claw Permanent Roof Anchor before installation begins. Do not continue installation if there are any signs of damage, defects or missing components.

Step 2. Select a mounting location for the RA45 Permanent Roof Anchor that meets or exceeds the requirements explained in Section II. Installation. *Note: Installation sites must be selected to minimize the hazard of a swing fall and to limit the free fall distance to less than 6 feet.*

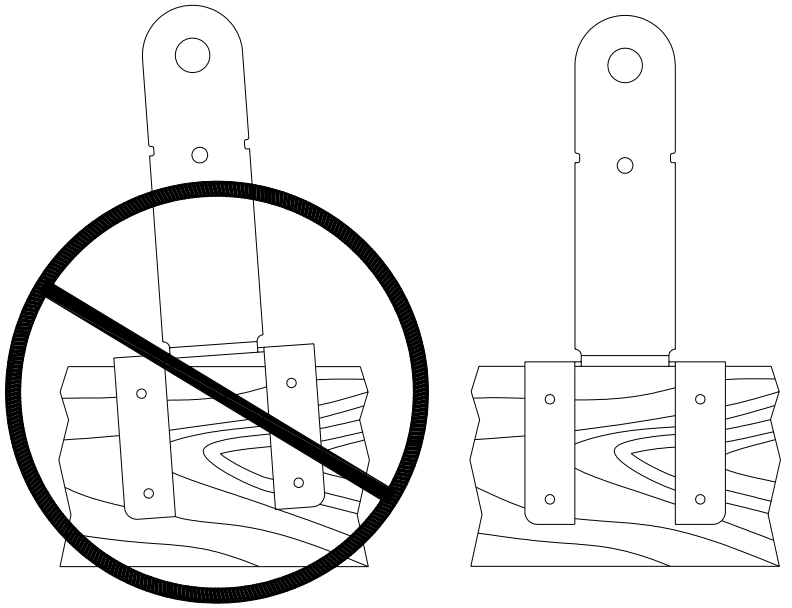
Step 3. Place the RA45 Permanent Roof Anchor over any standard 2 x truss, rafter or structural member ensuring that the device rests flush on the 2 x. Install all eight (8) nails in the pre-punched holes until the nail head is flat against the anchor. Ref. figures. 6 & 7.

Warning: All eight (8) nails supplied must be installed to ensure proper performance of the device.

Step 4. Install sheathing over the RA45 anchor. Ref. Fig. 7.

Step 5. Flashing installation: Install flashing with nails provided 1" from each end as shown in Fig. 8 Be sure the shingles/roofing will cover the flashing when completed. Snap the weather cap over the anchorage stem when the anchorage is not in use to protect it and the structure from the elements.

Fig. 6



Improperly Installed Installed Properly

Fig. 7

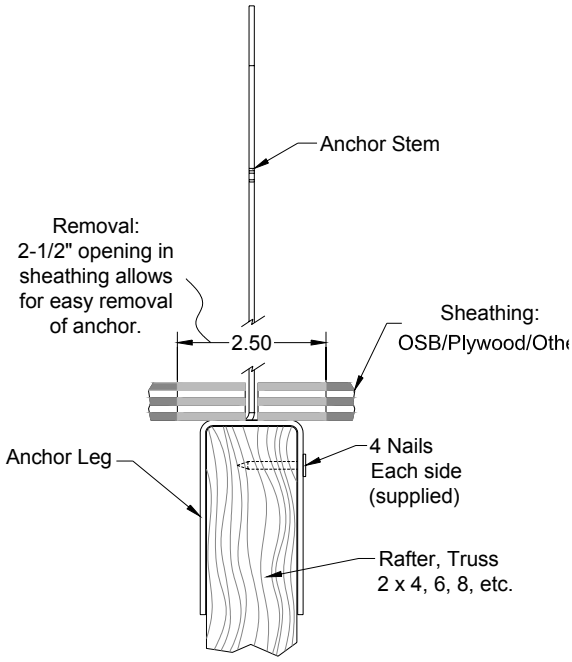
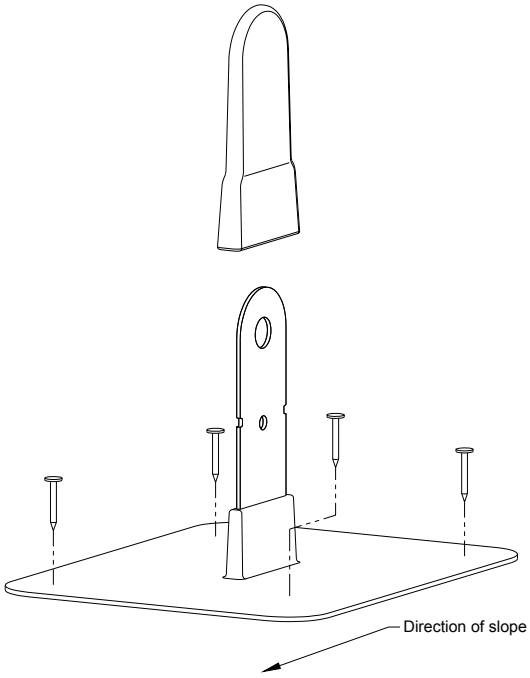


Fig. 8



III. ANCORAGE CONNECTION & INSPECTION

A. Anchorage Connection: Connection must only be made with a Miller approved locking snap hook or a locking carabiner. The use of a shock absorbing lanyard is required to limit the fall arresting forces to 900 lbs. or less.

B. Anchorage inspection: Before each use, visually inspect for the following:

- Inspect for physical damage, cracks, wear, corrosion.
- Ensure the condition of the roof and structure will support the anticipated loads created by the fall arresting forces.
- Inspect the structure for deteriorated wood, rot and decay or where their condition is questionable.
- Ensure the anchor is securely attached with a total of eight (8) nails and ensure each nail is installed so that the head of each nail is flat against the leg of the anchor.
- Inspect each system component in accordance with the associated operation and instruction manual.

Warning: If inspection reveals any defects or damage remove from service immediately.

IV. TRAINING

It is the responsibility of the user to assure that they read, understand and follow all instructions and are trained in the care and operation of this device. Training should be repeated periodically and any time there is a change of components within the system. Training must be conducted without exposing personnel to any hazards.

VI. WARNING LABEL