

SAFETY CLIMB SYSTEM - INFORMATION & OPERATIONS

Allfasteners' Safety Climb Systems offer the premier vertical lifeline system for towers, poles and other permanent structures to maximize safety, climbing mobility and productivity, all with a focus on longevity and minimizing field maintenance requirements.

Safety Climb, Ensuring Safety

Safety is our focus, which is why we use the Travel8 energy absorber exclusively. Tested to all relevant ANSI and TIA-222 standards, our energy absorber is rated for multiple fall events for up to four climbers and provides unmatched visibility from the ground for deployment inspection. We understand that safety climb systems need to withstand the elements for extended periods of time in an adverse environment, which is why all our systems are manufactured with stainless steel and hot dip galvanized components.

Why Choose AF Safety Climb?

- Adaptability. No need to worry about parts not accommodating a variety of tower types, tower heights, and existing hardware, mounts, or obstructions on the tower.
- Customizable or standard. You choose the buying method that works best for you, whether it's standard kits, customized kits, or individual components.
- Buy online. No need to compile lists of information and wait for a quote.
 Just select the items you need to get the job done.
- Made in USA. All our systems are fabricated and assembled in the US with our proprietary Australian made Travel8 energy absorber.
- Special solutions. If we don't have a component to fit a one off application, we'll design, engineer, and manufacture it in-house in our fabrication facility.
- Contractor feedback welcomed. We listen to our customers and are always looking for ways to continually improve our safety climb system capabilities and design.









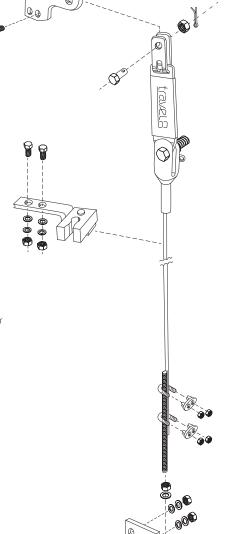




Stainless Steel & Galvanized available in up to 500' length in 10' increments

Kit includes:

- Top Bracket*
- Cable Guides**
- Bottom Bracket***
- Metal Safety Climb Tag (see notes on page 10)
- Wire Rope (Rope will be the finish selected at time of purchase - SS or Galv.)
- * Additional parts may be required.
- ** Cable Guide quantity is determined by tower type and should be positioned every 30' on tower.
- *** Note use of double nut tension method for proper installation.



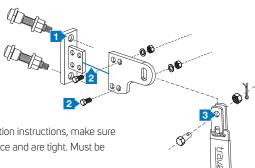
ALL AF SAFETY CLIMB SYSTEMS CONFORM TO ANSI A14.3-2008 & CSA Z259.2.5-2017

4



SYSTEM MAINTENANCE CHECKLIST

More information on page 9.



- According to NexGen2TM installation instructions, make sure NexGen2TM Blind Bolts are in place and are tight. Must be tensioned by shearing off the tip.
- 2. Make sure mounting bracket bolts are in place and are tight (turn of nut).
- 3. Make sure energy absorber bolt is in place and locknut is snug and tight.
- **4.** Ensure that the cable swaged to the safety climb is in serviceable condition.
- 5. A) Must be no evidence of wear, kinks, cuts abrasions fraying, or corrosion of the cable. B) Wire rope must be tensioned snug tight and free of grime and dirt.

WHAT IS IN THE BOX WHEN IT ARRIVES?











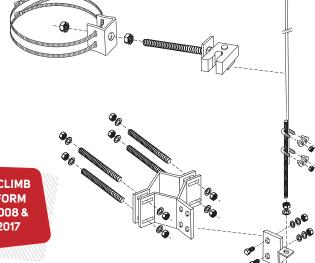
AVAILABILITY & KIT DETAILS



Stainless Steel & Galvanized available in up to 500' length in 10' increments

Kit includes:

- Top Bracket*
- · Cable Guides**
- Bottom Bracket***
- Leg Clamp Brackets (VB-1 & VB2 included)
- Intermediate Brackets
- Metal Safety Climb Tag (see notes on page 10)
- Wire Rope (Rope will be the finish selected at time of purchase - SS or Galv.)
- * Additional parts may be required.
- ** Cable Guide quantity is determined by tower type and should be positioned every 30' on tower.
- *** Note use of double nut tension method for proper installation.





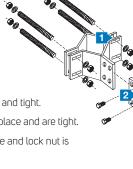
4

5



SYSTEM MAINTENANCE CHECKLIST

More information on page 9.



- 1. Make sure all mounting bolts are in place and tight.
- 2. Make sure mounting bracket bolts are in place and are tight.
- Make sure energy absorber bolt is in place and lock nut is snug and tight.
- 4. Ensure that the wire rope swaged to the safety climb is in serviceable condition.
- 5. A) Must be no evidence of wear, kinks, cuts, abrasions, fraying, or corrosion on the wire rope. B) Wire rope must be tensioned snug tight and free of grime and dirt.

WHAT IS IN THE BOX WHEN IT ARRIVES?











AVAILABILITY & KIT DETAILS



Stainless Steel & Galvanized available in up to 500' length in 10' increments

Kit includes:

- Top Bracket*
- Cable Guides**
- Bottom Bracket***
- · Backing Plates
- Metal Safety Climb Tag (see notes on page 10)
- Wire Rope (Rope will be the finish selected for kit - SS or Galv.)
- * Additional parts may be required.
- ** Cable Guide quantity is determined by tower type and should be positioned every 30' on tower.
- *** Note use of double nut tension method for proper installation.

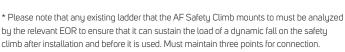
ALL AF SAFETY CLIMB SYSTEMS CONFORM TO ANSI A14.3-2008 & CSA Z259.2.5-2017



SYSTEM MAINTENANCE CHECKLIST

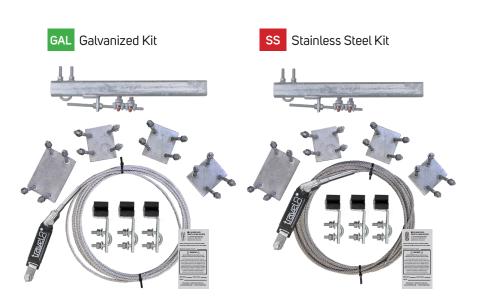
More information on page 9.

- 1. Ensure that the wire rope swaged to the safety climb is in serviceable condition.
- A) Must be no evidence of wear, kinks, cuts, abrasions, fraying, or corrosion on the wire rope. B) Wire rope must be tensioned correctly and free of grime and dirt.
- Make sure energy absorber bolt is in place and lock nut is snug and tight.
- 4. Make sure all mounting bolts are in place and tight.



and tight. and tight.

WHAT IS IN THE BOX WHEN IT ARRIVES?







COLD SHRINK SLEEVE

The cold shrink sleeve is a **REQUIREMENT FOR ALL SAFETY CLIMB SYSTEMS**.

The sleeve is designed to provide a covered end to the bottom of the wire rope assembly - leaving no exposed wire. Fits all Allfasteners Safety Climb Systems & Wire Rope Assemblies.

Required for the Following Assemblies*:

- Pole Mount Assemblies
- Round & Angle Leg Assemblies
- Ladder Mount Assemblies
- Cable Assemblies

*If cold shrink sleeve is not provided in the kit, please contact Allfasteners for a replacement.

INSTALLATION INSTRUCTIONS

For cold shrink sleeve



 With the Safety Climb Assembly properly installed according to the instructions in this booklet. Cut the wire rope roughly 6-10 inches below the bottom bracket.



Pull the sleeve's interior wire away from the wire rope. This will intiate the sleeve wrapping. If sleeve is not wrapping, ensure the wire rope is inserted into the correct end of the sleeve.



Place the wire rope into the cold shrink sleeve opposite the "pull direction" red sticker. See image for reference.



4. Continue to pull the line until the entire sleeve has covered the end of the wire.

^{*}Please not that inserting the wire rope into the wrong end of the cold shrink sleeve will result in improper installation, causing loose or frayed ends to remain exposed.



Pole Mount Head Adapter Bracket

Works with top and bottom brackets. Includes (2)z NexGen™ Bolts.







Bolt-On Intermediate Bracket

Monopole mount style that attached with 3/8" self-threading screws.

Part #14AFABB





Monopole Cable Guide

Standard monopole cable guide bracket assembly.







Stud Mount Cable Guide - 1/2"

Stud mount intermediate bracket.







Bottom Tensioner Plate

Used in monopole and leg mount Safety Climb Systems.







Round Leg Intermediate Bracket

Suits 2"-12" Leg Diameter. Works with stud mount cable guide.

Part #14AFRHC12





Beam Clamp Cable Guide

Clamp on style intermediate bracket.

Part #14HABNG2





Intermediate Extension

Used in monopole and ladder safety climbs

Part #14AFPMIBS01-EXT





U-Bolt Cable Guide

U-bolt style intermediate bracket for ladder mount safety climb.

Part #14AFLMIB01

GAL



Energy Absorber Connector Plate

Used in Monopole and Leg Mount Safety Climb Systems

Part #14AFLMIB01









Ladder Mount Backing Plate

Works with top and bottom ladder mount brackets.

Part #14AFLMKTB01





Face Mount Extended Backing Plate

Used with 60" top bracket.

Part #14AFLMKTB01-EXT





Round Leg Clamp Bracket

Available in diameters: 0-2". 2-4"and 4-8"

Part #14AFB0, 14AFB1 & 14AFB2





Round Leg Bottom Bracket

For up to 12in leg.







Collar Mount Top Bracket

Used in round safety climb systems.

Part #14AFVB7





Head Extension Plate

Extension plate for plate style head connection.

Part #14HEP

GAL



Head Extension Bracket

Extension bracket for square tube head connection

Part #14HEP-2





Ladder Mount Head Bracket

Available in 42" & 60" Lengths

Part #14LMHB01 & 14LMHB01-06

GAL



Ladder Mount Bottom Bracket

Used in ladder and face mount Safety Climb Systems.

Part #14AFLMBB01

GAL



ALL AF SAFETY CLIMB SYSTEMS CONFORM TO ANSI A14.3-2008 & CSA Z259.2.5-2017





Step Bolt Tie Off Bracket

45 Degree, Yellow.
Part #14STO34
SS

M20 x 32 Grip Length NexGen2™ OneSide Bolt Assembly

Magni Coated

Part #2NG2032



Cable Assembly

Available in lengths up to 500' in 10' increments. Galvanized & Stainless Steel finish available.









5/8-11 x 8-1/4" - Step Bolt A449

2-1/4" Thread. Includes 2 nuts & lock washer.

Part #2SBG58814A449-ASSEMBLY





OPERATIONS MUST BE READ PRIOR TO USE

- 1. Prior to use, ensure all operating procedures have been read and understood.
- This fall arrest system is only to be used by competent climbers who have experience and training in the safe use of the system and associated equipment.
- Ensure all workplace OSHA requirements are identified and understood. A job hazard assessment with a safe work method ANSI/ASSE A10.48 must be completed and approved by management prior to work commencing.
- **4.** This system requires periodic inspection and maintenance by a competent person.
- 5. Authorization to access any risk area must be obtained from the person in control of the worksite
- Only approved full body harness, gear and equipment with energy absorber certified to ANSI 359, to be used with this system.
- Visually inspect the system for damage prior to use. System must not be used if there is any deterioration or deformation of any components or structure to which the system is attached.
- 8. If the safety system is damaged or has arrested a fall, discontinue use until it has been fully inspected and re-certified by a competent person.
- **9.** Ensure all fixings, fittings and components are securely attached. Any tightening and replacement of components must be carried out by a competent person.
- Persons must not be allowed to work alone in fall arrest situations in case emergency rescue assistance or first aid is required.
- 11. All applicable ANSI Standards, OHSA Acts & Regulations, and Codes of Practice & Guidelines must be read and obeyed when using this safety system.
- 12. This user manual does not in any way, does not replace the need for competent/authorized climber.
 Failure to follow all warnings, usage and maintenance instructions may result in serious injury or death.





MAINTENANCE

- This system needs to be checked and re-certified by a competent person according to ANSI and/or CSA requirements.
- 2. Never clean using acids or other chemicals that could damage the system components.
- The identification/certification label must be completed confirming maintenance and recertification of the system.
- Any deterioration or damage to the system or equipment must be reported to the person in control of the worksite and relevant corrective action undertaken.
- Maintenance inspections must be clearly documented. Any non-conformance must be clearly identified and tagged 'Do Not Use' until corrective action by a competent person has been completed.

System Maintenance Checklists are located on individual product pages.

The checklists mentioned above, outlines key checking criteria required to ensure the safe use of this system. Any item of concern not shown on the checklist must be noted on the maintenance report and brought to the attention of the tower owner.

Items checked PASS- YES means they conform with the required checking criteria and are suitable for normal use.

Item checked PASS - **NO** means they do not conform to the required checking criteria. These items must be clearly tagged 'Do Not Use' and the required corrective actions put in place. The maintenance report must clearly document all non-conforming criteria.

This system must be maintained by a person trained in the safe use and maintenance of this system.

This section is to define the maintenance and condition assessment requirements of a wire rope safety climb.

The wire rope safety climb is considered an appurtenance and therefore maintenance and condition assessments shall occur in accordance with recommended ANSI/TIA-222 intervals or tower owner/EOR recommendations, who may shorten or lengthen ANSI/TIA-222 intervals based upon an established maintenance and condition program.

If deficiencies, outside of routine maintenance or manufacturer specifications, are found in any of the wire rope safety climb components, the manufacturer of the wire rope safety climb or tower owner/EOR shall be consulted for corrective action.

For questions associated with the ANSI/TIA-222 antenna supporting structure, including climbing facilities and appurtenance connections, communication shall occur with the tower owner/EOR.

TECHNICAL

FALL CLEARANCE

There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or another lower level hazard. The clearance required is dependent on the following factors and analyzed by competent climber.

- Elevation of anchorage
- Anchorage deflection
- Lanyard elongation on deceleration pull out (personal energy absorber)
- · Lanyard length
- Operator height
- Fall distance residual clearance

SYSTEM REQUIREMENTS

The worker must wear a full body harness when connected to any fall arrest system including a personal energy absorber compliant with the relevant ANSI Standards.



Don't risk it...check from the ground before you climb.

If the Energy Absorber System is deployed, do not climb!



TECHNICAL SPECIFICATIONS

SYSTEM TYPE

Allfasteners Safetu Climb

COMPLIANCE

AF Safety Climb conforms to ANSI A14.3-2008 & CSA 7259.2.5-2017

CSA Z259.2.5-2017 NOTE

instructions on the proper method of and limitations on use, including the following statement: "The lower end of the lifeline shall have a termination that prevents the fall arrester from passing through that termination. When the line is installed, the bottom end shall have a counterweight to provide stiffness"

Le bout de la corde d'assurance, situé à l'opposé de l'ancrage, doit absolument être muni d'un point d'arrêt pour empêcher le dispositif antichute de se séparer de la corde. Après l'installation de la corde, le bout opposé à l'ancrage doit être muni d'un contrepoids afin d'assurer une tension sur la corde.

IMPORTANT NOTE

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

TECHNICAL DATA

Dimensions

- Energy absorber 5" (static length), 16" (deployed length) in the event of a fall
- Vertical line wire rope 3/8" stainless steel

Materials

- Vertical line wire rope stainless steel (316) 3/8"
- · Cable end terminations stainless steel (316)
- Vertical line wire rope galvanized = 3/8"

WARRANTY

WARRANTY PERIOD ON THIS SYSTEM - 3 YEARS FROM DATE OF PURCHASE.

Warranty on full system is for 3 years from date of purchase. Travel 8 Top Bracket Energy Absorber comes with a 5 year warranty from date of purchase. Warranty does not include general wear and tear and is subject to approval/inspection by manufacturer.

Should you have a warranty claim as a result of a defect the following procedure must be followed:

Identify the following information:

- The product/system name and code number.
- The date of purchase/installation.
- Installation company details.
- The installation identification number.
- The name of the company using this system.
- A description of the defect/warranty claim.
- The periodic system maintenance report.
- · DO NOT proof load over 350lbs.

Forward the above information to salescle@allfasteners.com or contact 888.859.6060.

SAFETY CLIMB METAL TAG

Allfasteners requires our "Safety Climb Tag" to be included in your installation process.

This tag is to be attached to the wire rope at the base of the structure, before installation is complete.

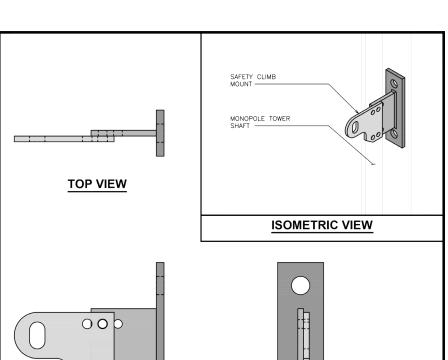
Before attaching tag, installation date will need to be completed by installer using a heavy duty permanent marker. See circled area to the left for location.

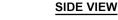
Allfasteners suggests a permanent marker with fade and weather resistant qualities, such as the example shown to the right.

Our AF reps are available to answer any questions you have on this process and suggested tips.











NOTES:

- ALL STRUCTURAL STEEL PLATES CONFORM TO ASTM A572-50.
 THE SAFETY CLIMB ATTACHMENT HAS BEEN DESIGNED AS A CLIMBING ATTACHMENT ANCHORAGE IN ACCORDANCE WITH

- THE SAFETY CLIMB ATTACHMENT HAS BEEN DESIGNED AS A CLIMBING ATTACHMENT ANCHORAGE IN ACCORDANCE WITH ANSI/THA-222-G AND ANSI/THA-222-H.

 THE SAFETY CLIMB ATTACHMENT SHALL BE ANCHORED INTO THE TOWER SHAFT WITH NEXGEN2 BLIND BOLT FASTENERS TOWER SHAFT THICKINES SHALL BE A MINIMUM OF 3/6."

 TOWER SHAFT THICKINESS SHALL BE A MINIMUM OF 35 KSI.

 ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AISC STEEL CONSTRUCTION MANUAL, LOAD AND RESISTANCE FACTOR DESIGN (LRFD), LATEST EDITION.



PREPARED FOR:

ALLFASTENERS

959 LAKE ROAD MEDINA, OH 44256 (440) 232-6060

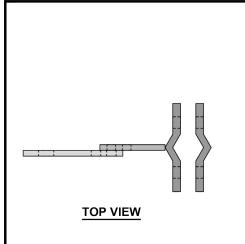
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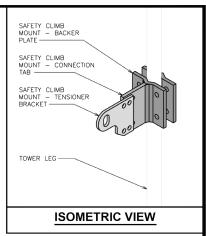
MONOPOLE SAFETY CLIMB MOUNT

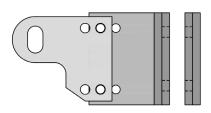


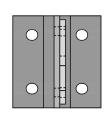












SIDE VIEW

FRONT VIEW

NOTES:

- THE CONNECTION TAB AND TENSIONER BRACKET STEEL PLATE CONFORMS TO ASTM A572-50.
 THE BACKER PLATE STEEL PLATE CONFORMS TO ASTM A572-65.
 THE SAFETY CLIMB ATTACHMENT HAS BEEN DESIGNED AS A CLIMBING ATTACHMENT ANCHORAGE IN ACCORDANCE WITH
- ANSI/TIA-222-G AND ANSI/TIA-222-H.

 THE SAFETY CLIMB ATTACHMENT SHALL BE ONLY USED FOR TOWER LEGS WITH AN OUTSIDE DIAMETER BETWEEN 1.25" AND 2".
- TOWER LEG THICKNESS SHALL BE A MINIMUM OF \$5.2".
 TOWER LEG THICKNESS SHALL BE A MINIMUM OF \$5.5 KSI.
 TOWER LEG YIELD STRENGTH, FY, SHALL BE A MINIMUM OF 35 KSI.
 ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AISC STEEL CONSTRUCTION MANUAL, LOAD
 AND RESISTANCE FACTOR DESIGN (LRFD), LATEST EDITION.

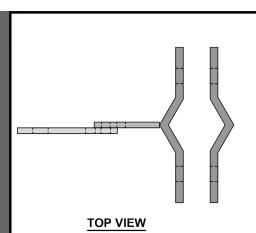


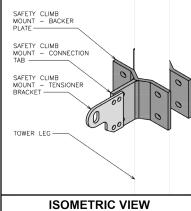
PREPARED FOR: ALLFASTENERS

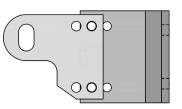
959 LAKE ROAD MEDINA, OH 44256 (440) 232-6060 PROJECT INFORMATION: TOWER LEG SAFETY CLIMB **MOUNT -**14AFVB0-U

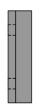


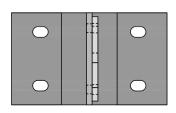












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- THE SAFETY CLIMB ATTACHMENT SHALL BE ONLY USED FOR TOWER LEGS WITH AN OUTSIDE DIAMETER BETWEEN 2" AND

- TOWER LEG THICKNESS SHALL BE A MINIMUM OF 5½".

 TOWER LEG YIELD STRENGTH, FY, SHALL BE A MINIMUM OF 35 KSI.

 ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AISC STEEL CONSTRUCTION MANUAL, LOAD

 AND RESISTANCE FACTOR DESIGN (LRFD), LATEST EDITION.

PREPARED BY: **TOWER ENGINEERING PROFESSIONALS** 326 TRYON ROAD RALEIGH, NC 27603 (919) 661-6351 www.tepgroup.net

PREPARED FOR:

ALLFASTENERS

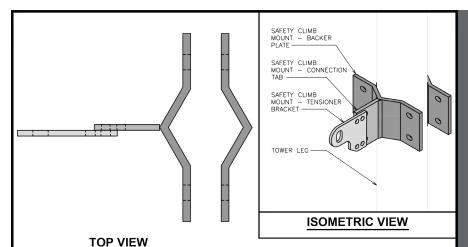
959 LAKE ROAD MEDINA, OH 44256 (440) 232-6060

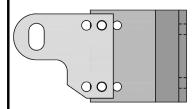
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TOWER LEG SAFETY CLIMB **MOUNT -**14AFVB1-U

REVISION: TEP JOB #: SHEET NUMBER:











SIDE VIEW

FRONT VIEW

NOTES:

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- THE SAFETY CLIMB ATTACHMENT SHALL BE ONLY USED FOR TOWER LEGS WITH AN OUTSIDE DIAMETER BETWEEN 4" AND 8".
- TOWER LEG THICKNESS SHALL BE A MINIMUM OF $\frac{5}{2}$.

 TOWER LEG YIELD STRENGTH, FY, SHALL BE A MINIMUM OF $\frac{3}{2}$ S. I.

 TOWER LEG YIELD STRENGTH, FY, SHALL BE A MINIMUM OF $\frac{3}{2}$ S. I.

 ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AISC STEEL CONSTRUCTION MANUAL, LOAD AND RESISTANCE FACTOR DESIGN (LRFD), LATEST EDITION.

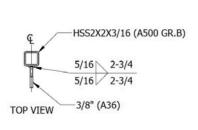


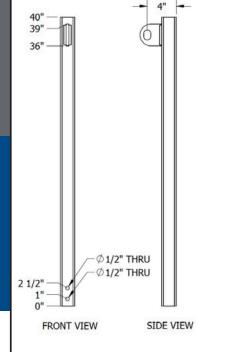
PREPARED FOR: **ALLFASTENERS**

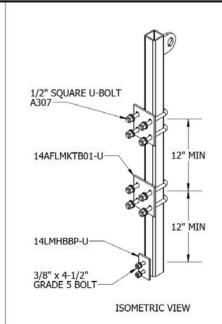
959 LAKE ROAD MEDINA, OH 44256 (440) 232-6060 PROJECT INFORMATION: **TOWER LEG** SAFETY CLIMB **MOUNT -**14AFVB2-U











NOTES:

- 1. THE LADDER SYSTEM MUST BE INDEPENTLY VERIFIED TO DETERMINE IF IT IS SUITABLE FOR ANCHORAGE DEMANDS IN ACCORDANCE WITH ANSI/TIIA-222.
- 2. ALL SAFETY CLIMB ATTACHMENT
 STRUCTURAL ELEMENTS HAVE BEEN
 DESIGNED TO MEET THE REQUIREMENTS OF
 THE LATEST AISC STEEL CONTRUCTION
 MANUAL AND STRUCTURAL STANDARDS FOR
 ANTENNA SUPPORTING STRUCTURES,
 ANTENNAS AND SMALL WIND TURBINE
 SUPPORT STRUCTURES (TIA-222).

PREPARED BY:
STRUCTURAL COMPONENTS
1870 W 64TH LANE
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structuralcomponents.net

PREPARED FOR:

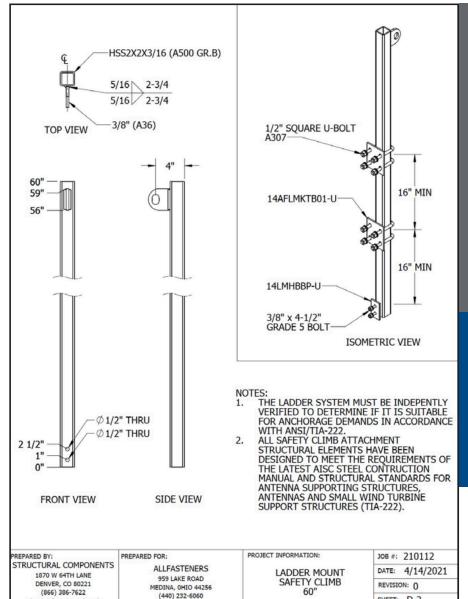
ALLFASTENERS 959 LAKE ROAD MEDINA, OHIO 44256 (440) 232-6060 PROJECT INFORMATION:

LADDER MOUNT SAFETY CLIMB 40" JOB #: 210112

DATE: 4/14/2021

REVISION: 0

SHEET: D-1



SHEET: D-2

structuralcomponents.net

