

Stiff Arms™ Ladder Stiffener
for use on
Extension Ladders



Assembly, Set Up and Use Manual

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General Information

Introduction

Congratulations on the purchase of your new *Stiff Arms*™ Ladder Stiffener, for use on extension ladders. Your new ladder stiffener is an effective tool to increase the rigidity of your extension ladder and create a safe climbing platform. You have taken an important step towards increasing your ladder safety and are to be commended for promoting safety around the home and at the worksite. To ensure the best experience and maximum benefit from using this product, it is critical that you read and understand this manual before you begin using the *Stiff Arms*™ Ladder Stiffener. If you have questions regarding its assembly and/or use after reading this manual, please refer to our Assembly and Use videos, available online at companyname.com/support, or you may call our Support team at 1-800-XXX-YYYY, between 8:00 – 5:00 pm EST, and they will be happy to offer assistance.

Yours in Ladder Safety,

Company Name

Important Safety Information

It is the sole responsibility of the purchaser of this *Stiff Arms*™ Ladder Stiffener to instruct all individuals, whether they are the end user or supervising personnel, on the proper usage of this product. *Company Name* recommends that all users of this product be informed of the following safety information prior to use.

1. Read and keep these instructions.
2. Heed all warnings and follow all instruction.
3. Use the *Stiff Arms*™ Ladder Stiffener only for its intended purpose of structurally stiffening your extension ladder, as described in this manual.
4. Never support or suspend objects or tools on the Ladder Stiffener arms or cables.
5. Never hang from the Ladder Stiffener arms or cables.
6. Routinely check the condition of all Ladder Stiffener components. Immediately replace damaged, worn, or broken parts and do not use the Ladder Stiffener until all repairs are completed. Contact companyname.com/support for replacement parts.
7. Always inspect the attachment of the cable anchors and cable clamps to the rail brackets prior to use to ensure the connections are in place and secure.
8. Always ensure the arm clamps are secure to the base rails, with the wing nuts tightened adequately by hand, prior to using the ladder and Ladder Stiffener.
9. Always engage the secondary rung locks when climbing your ladder with the Ladder Stiffener installed.
10. Never attempt to adjust the length or position of the Ladder Stiffener arms while standing on an upright ladder. Always adjust arm length and position while the ladder is lying on the ground.

11. Always watch for power lines. The cables and arms on the Ladder Stiffener are electrical conductors. Never use your ladder and the Ladder Stiffener near any electrical current as shock or electrocution can occur.
12. Never place your ladder on an unlevel surface without the use of a ladder leveling product. Your *Stiff Arms*™ Ladder Stiffener removes the sway and motion from the ladder, but it will not prevent it from falling if used on unlevel ground.
13. Never exceed your ladder's rated weight limit.
14. Always keep your body between the rails of your ladder when ascending, working on, or descending your ladder. Never shift your body outside of the ladder's rails.
15. Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact with the ladder, and always face the ladder while climbing.
16. Always follow all ladder safety and use instructions provided by the ladder manufacturer.

Assembly

Tools Required



Safety Glasses



Scissors



#2 Phillips
Screwdriver



3/8" & 1/2" Wrench



Electric Drill



3/16" & 1/4" Drill Bits

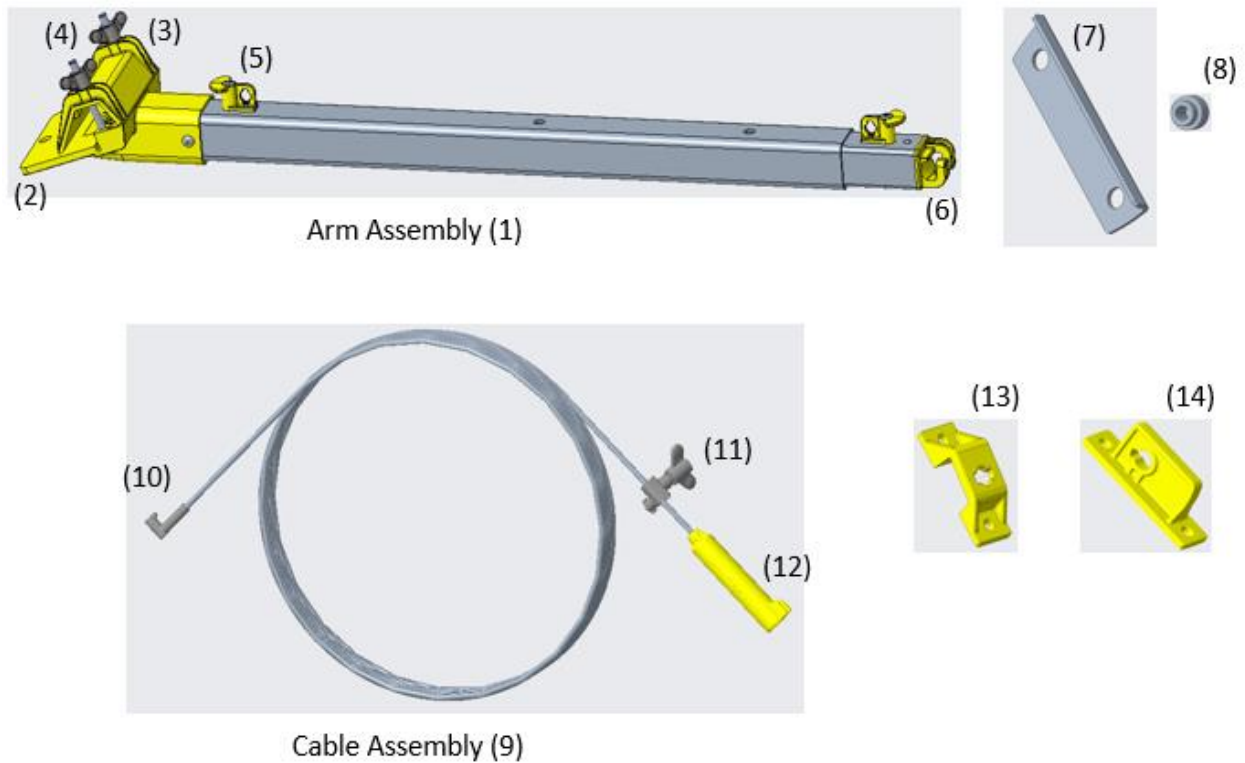


Tape Measure



Pencil

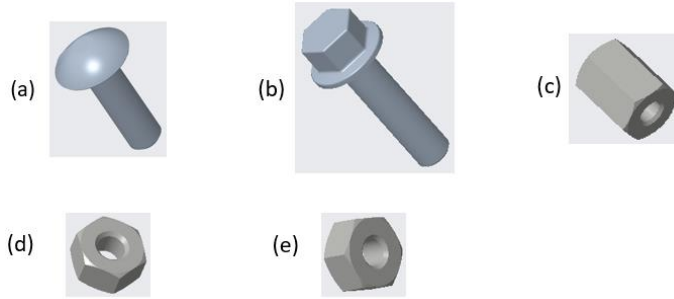
Parts List



Item	Description	Qty	Part Number
1	Arm Assembly	2	AF1-Exx*
2	Clamp Bracket	2	MN1-113
3	Clamp Jaw	2	MN1-114
4	1/4-20 Wing Nut	4	BN1-105
5	Cable Storage Post	4	MN1-122
6	Cable Guide	2	MN1-109
7	Rung Lock	2	FD1-124
8	Rung Lock Hub	2	X01-106
9	Cable Assembly	2	AD1-Exx*
10	Anchor	2	CV1-103
11	1/4-20 Wing Screw	2	BS1-104
12	Tensioning Handle	2	MN1-118
13	Cable Clamp Bracket	4	MN1-117
14	Cable Hanger	2	MN1-130

* xx = length of extension ladder, eg. AD1-E28 is cable assembly part number for 28 ft extension ladder.

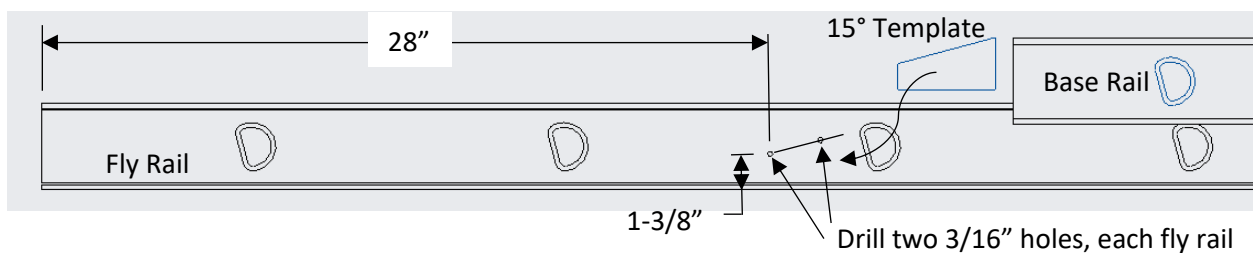
Hardware List



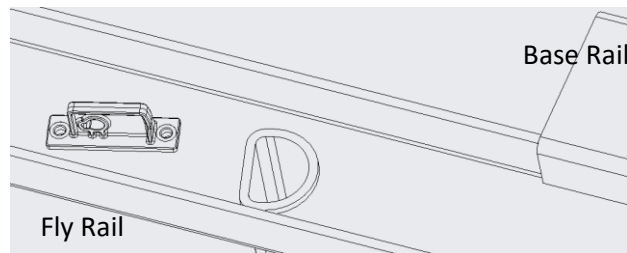
Item	Description	Qty
a	10-24 x 3/4" Pan Head Screw	10
b	1/4-20 x 1" Flange Head Screw	2
c	10-24 x 1/2" Coupling Nut	2
d	10-24 Nylock Nut	8
e	1/4-20 Nylock Nut	2

Assemble the Brackets and Rung Locks

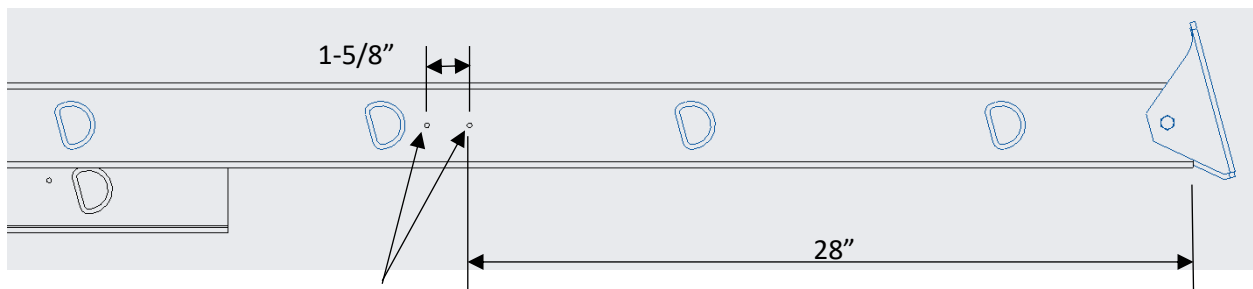
1. Measure 28" from the top end and 1-3/8" from the outside edge of the fly rail and mark the top-hole location. Use the supplied 15° angle template and draw a line from the top-hole. Lay a cable hanger bracket (MN1-130) on the outside face of the fly rail and line it up with the top-hole mark and the pencil line. Mark the location of the second hole. Drill two 3/16" diameter holes in each fly rail.



- Using the supplied #10-24x3/4" pan head screws and locknuts, attach the hanger bracket to each fly rail, with the cable anchor keyhole towards the top end of the fly rail.

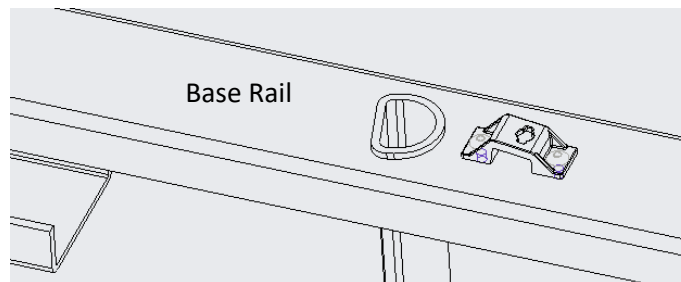


- Measure 28" and 29-5/8" from the bottom end of the base rail and mark hole locations, centered on the width of the rail. Drill two 3/16" diameter holes in each base rail.



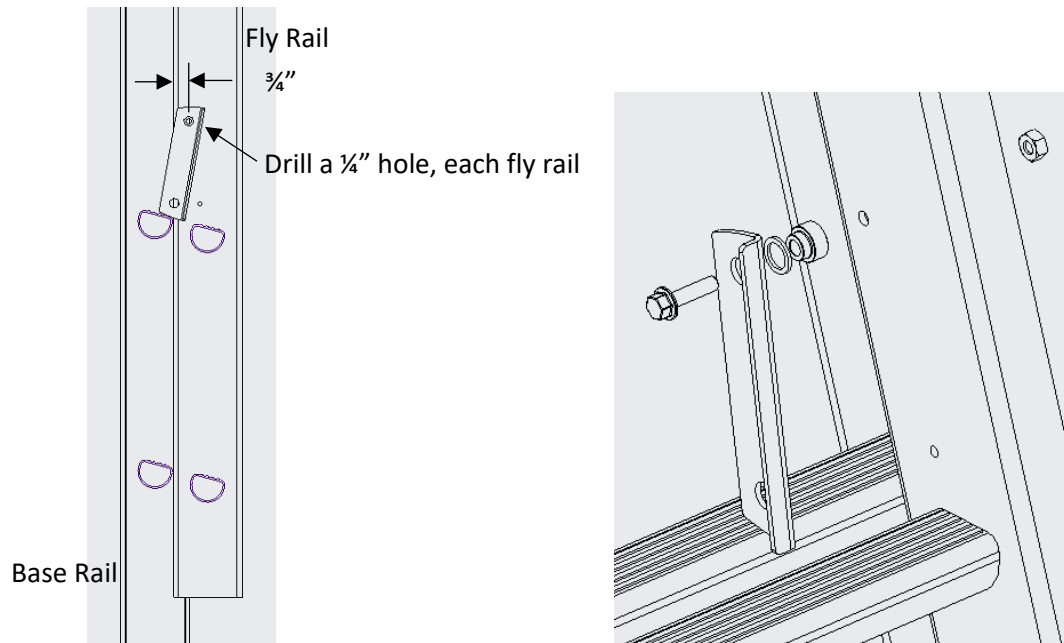
Drill two 3/16" holes, each base rail

- Using the supplied #10-24x3/4" pan head screws and lock nuts, attach the clamp bracket to each base rail, with the top bracket surface sloping downward towards the bottom of the rail.

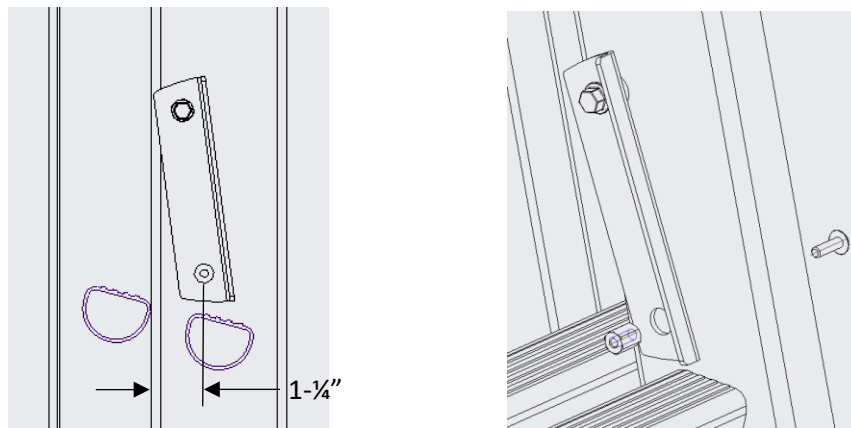


- With the fly section fully lowered, stand the ladder upright. Make sure the rung locks are supporting the full weight of the fly section. Mark a line parallel to and 3/4" from the flange of the fly rail, in the space between the second and third lowest rungs. Hold a supplied rung lock (FD1-124) flat against the fly rail. With the bottom of the lock resting on the base rung, mark an upper hole location on the pencil line. Drill a 1/4" diameter hole in each fly rail. Assemble the supplied

rubber washer onto the rung hub (X01-106). Using the supplied $\frac{1}{4}$ -20x1" flange head screw and lock nut, attach the rung lock and lock hub to the inside surface of each fly rail.

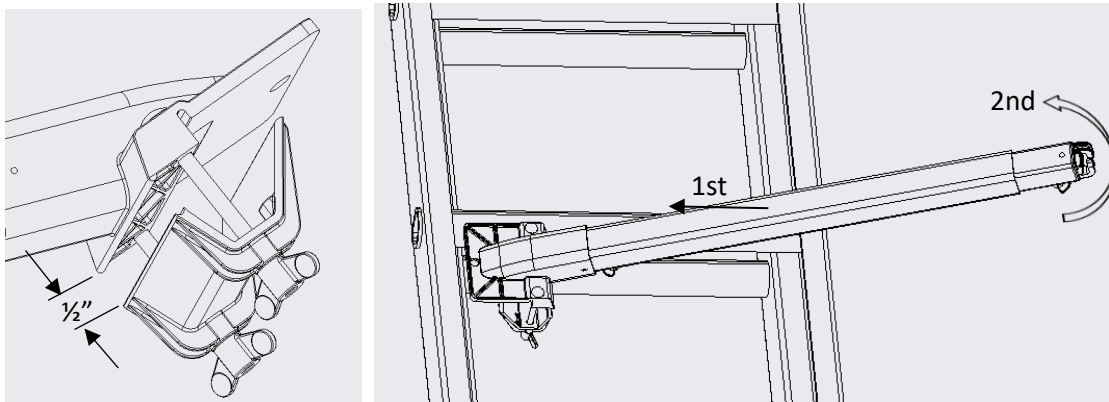


6. Pivot the installed rung lock (FD1-124) away from the base rung so the bottom hole is 1- $\frac{1}{4}$ " from the rail flange. Mark the hole location and drill a $\frac{3}{16}$ " hole in each rail. Using the supplied #10-24x $\frac{3}{4}$ " pan head screw, attach the supplied coupling nut to the inside surface of each rail.



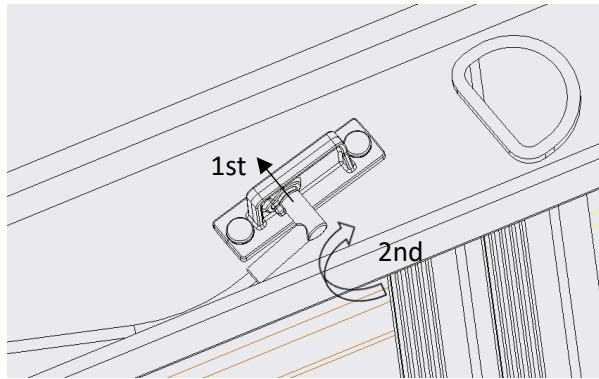
Ladder Stiffener Set Up and Use

1. Lay the ladder on the ground with the base section on top of the fly section.
2. Consider the anticipated working height of the ladder. Locate the stiffener arms along the base section so that they will be approximately mid-height on the ladder when it is extended.
3. Loosen the wing nuts on the arm clamps and open the jaws approximately 1/2". Hold the arm so its clamp face is parallel to the rail flange and move the jaw under the flange of the rail.
4. Rotate the arm upward so the clamp face contacts the outside face of the rail. Slide the arm upwards so it is located under a rung. Tighten the wing nuts by hand. Repeat the process to install the second arm.

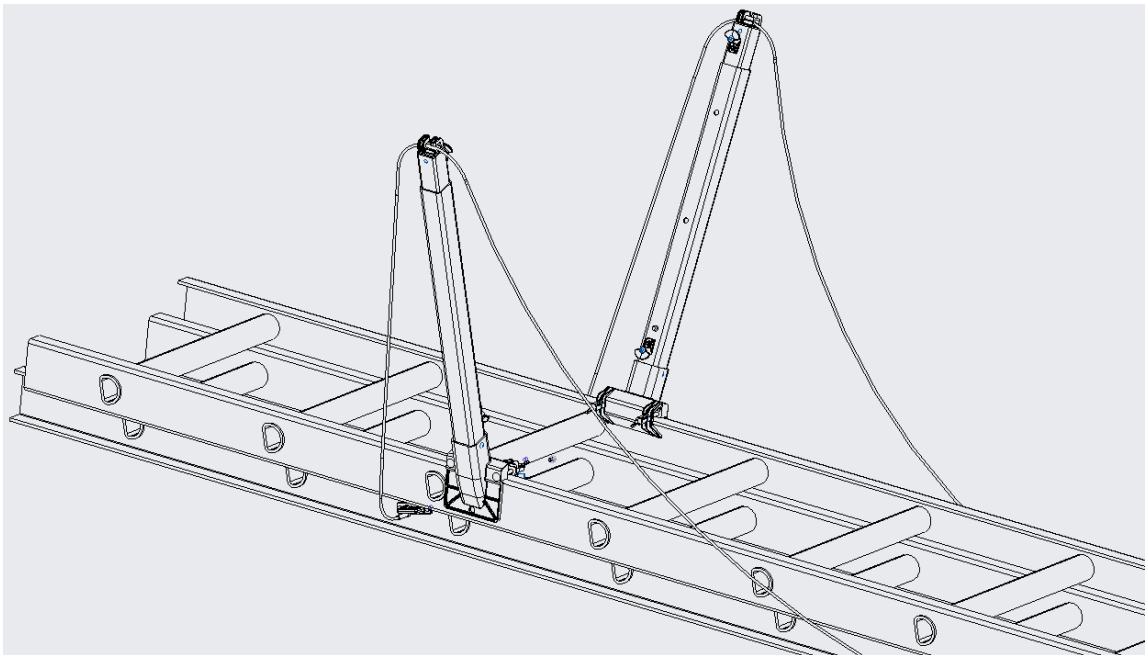


5. Remove the cable from the outermost storage post by squeezing the cable bundle. Holding onto the cable handle, walk the cable down towards the foot of the ladder. Disconnect the cable anchor from the innermost storage post by rotating the anchor 90°.
6. Extend the arms to the desired length. The longer the arm setting, the greater the stiffening effect. Make sure, however, that the arms are not extended too far so that they contact the structure that the ladder will be leaning against.
7. Connect the cable anchors to the hanger brackets. To engage the bracket, insert the anchor key through the matching keyhole, then rotate the anchor roughly a quarter turn. Be sure the anchor enters the hanger keyhole on the side farthest from the base rail, as shown below.

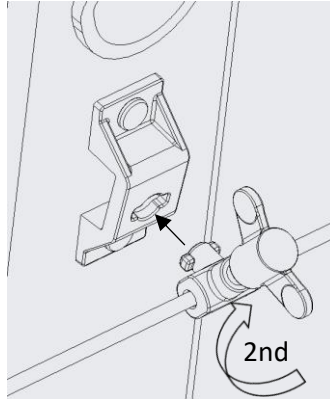
Note: On fiberglass ladders, the cable must first be brought over the fly support bracket at the top of the base section, prior to connecting the anchor to the hanger. In this case, do not rotate the anchor relative to the hanger after the key engages the keyhole.



8. Insert the cable between the fingers of the cable guide on the end of each stiffener arm and then rotate to align the cable with the crowned guide seat.



9. Stand the ladder up and ensure the feet rest firmly on the ground. Level the ladder if necessary, side to side.
10. Raise the fly section until the ladder is at the desired working height. Rest the top of the ladder against the supporting structure and move the base until the ladder is 15° from the vertical.
11. Connect the cable clamps to the brackets by engaging the keyed protrusion with the keyhole and then rotating roughly a quarter turn. Pull on the handle to remove cable slack and then firmly tighten the thumb screws by hand to clamp the cables.



12. You may now climb the stiffened ladder. As you reach the fly section, pivot each rung lock until its bottom surface contacts the closest rung on the base section.
13. When your work on the ladder is completed and you descend the ladder, pause when you are below the rung locks and pivot them back into their stowed position.
14. When you reach the ground, loosen the cable clamp thumb screws, and disengage the clamps from the brackets.
15. Completely lower the fly section and then lay the ladder down, with the base section on top of the fly. Collapse the arms to their shortest length by depressing the spring buttons.
16. Remove the cable from the cable guides and disconnect the cable anchors from the hangers.
17. Loosen the wing nuts on the arm clamps and open the jaws. While gently lifting, rotate the arms inward to remove them from the base rails.
18. Attach the anchors to the storage post nearest the arm clamps and coil the cable.