

# Light Access Scaffolding Assembly and Use Manual

US Patent 8,640,827



**WARNING:** This booklet contains important safety information which must be read, understood, and followed by ALL workers on and around the tower. Failure to do so could cause serious injury or death.

## IMPORTANT:

Read this manual all the way through before assembling, using, or dismantling Light Access Scaffolding, also known as The Light Bulb Scaffold System. If there is *anything* you don't understand, call 800-845-0845 for assistance.

## OVERVIEW

Light Access Scaffolding features a special Spanner Kit that supports the tower. Four legs support the Spanner Kit. They can be individually adjusted up and down a total of 60 inches, in 1/2-inch increments, to make up for uneven floor elevations (see photo at right).

Special scaffold frames are built on top of the Spanner Kit to reach the work. 5-foot aluminum planks are laid in place as needed on the frames.

Guardrails are provided for the work platform. Workers on and around the scaffold should wear hardhats for protection from falling objects.

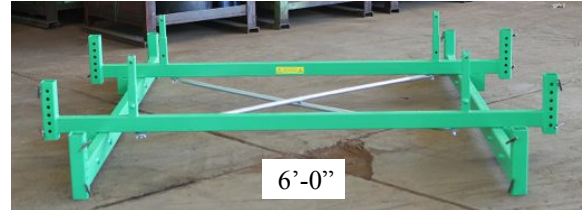


## Understanding the Spanner Kit

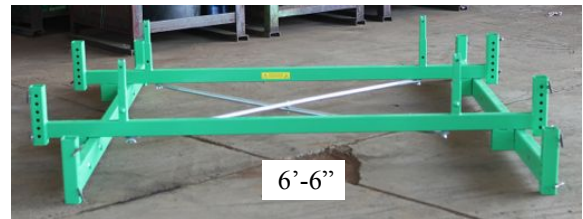
(Refer to the Parts Diagram on page 4)

1. The Frame Beams always sit on top of the Main Beams (the beams with the nuts welded on one side). The Adjustable Legs always go in the sockets on the

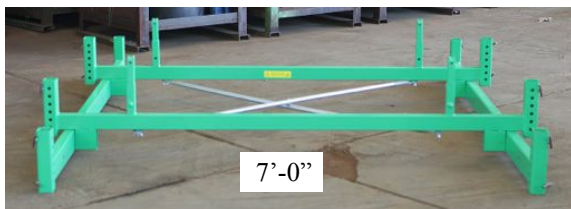
ends of the Main Beams. The Main Beams will usually run parallel to your seating or pews. How you connect the Frame Beams and Main Beams together sets the spacing of the Main Beams at 6'-0", 6'-6", or 7'-0". If you rotate the entire unit 90 degrees (like item 4 below), where the Main Beams are perpendicular to the rows, the spacing will be 7'-4".



2. In the picture above, the spacing is set at 6'-0". The nuts on the Main Beams are facing inside. The short pieces of tubing welded to the Frame Beams are on the outside of the Main Beams. In the picture below, the right-hand Main Beam has been turned so the nuts face outside. It is placed on the right side of the short pieces of tubing. This is a 6'-6" spacing.



3. In the picture below, both Main Beams are turned so the nuts face outward. The short pieces of tubing on the Frame Beams are on the inside. This is a 7'-0" spacing. Use it whenever you can.



4. The two pictures below were taken from the side. The Frame Beams are usually centered on the Main Beams, but they can be offset if you need to get next to a wall.



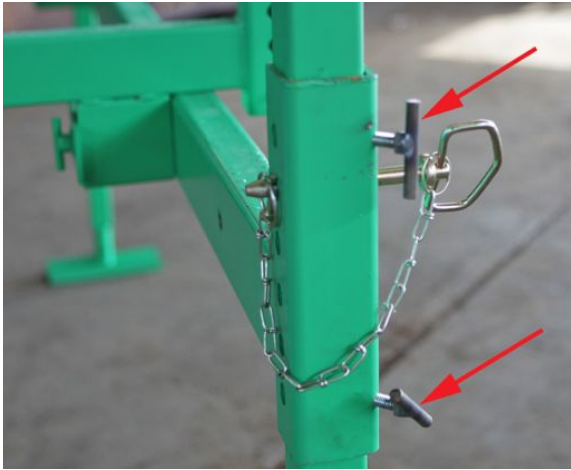
5. Now that you're familiar with how the Beams go together, we'll look at actual assembly in a situation where one side will be higher than the other, like in a church balcony or a theater with stadium seating.



6. Insert the Adjustable Legs with Base Plates into the ends of the Main Beams. The beams will usually be parallel to your rows of seats.

(If you ever need the 7'-4" row-to-row spacing, which is very rare, these beams would be turned perpendicular to the rows, where one leg is on the high side, and the other leg on the low side.)

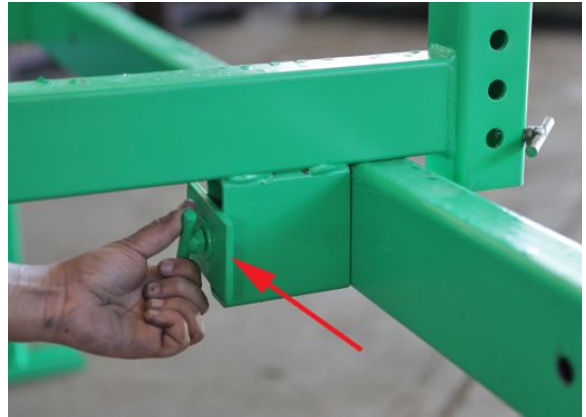
7. Use the 1/2" pins to lock the beams to the legs. The legs are adjustable in 1/2" increments over the entire 5-foot range. The thumb screws (red arrows) in the leg sockets are used to remove any wiggle in the structure. It's OK to snug them with a wrench.



**WARNING:** Be sure to lock the height of the Adjustable Legs with the 1/2" pins. DO NOT rely on the thumb screws to set the leg height.

8. Next, lay the Frame Beams on top of the Main Beams. Fasten the Frame Beams together with an x-brace (you can see the silver x-brace in the pictures on page 1).

9. Use a t-handle bolt (red arrow) with a plate attached to fasten the Frame Beams to the Main Beams. The bolt must pass through the piece of tubing welded to the Frame Beam, through the Main Beam, and then into the nut on the back side of the Main Beam. It's OK to snug the bolt down with a wrench but do not over-tighten it and collapse the Main Beam.



**WARNING:** The t-handle bolt must pass through the box tube, the Main Beam, and *then* engage the nut to tighten properly. Make sure you can always see the nut, and that it's not inside the box tube.

## Swivel Casters

If you want to use the rolling swivel casters to roll along a row, swap them out for the base plates now, after the Spanner Kit is fastened together, but before you add frames.

## Assemble The Tower

10. Put frames on the stack pins on the Frame Beams. You may need to loosen the t-handle bolts slightly to get the first frames to fit.



11. Connect the frames together with x-braces. X-braces can be a little tricky to install. Always work from bottom up. Put the x-brace on the bottom flip-locks first, then fasten the top ones. Be sure to push the flipper all the way down to lock it in place. Sometimes when they are new, the paint makes the flip-locks a little sticky.



Toe boards around the platform are only mandatory when there are loose objects that may be kicked off the platform. Keep your platform free of debris. 1x4s can be used for toe boards if necessary.



## Using the Gin Pole

**12.** The gin pole makes it much easier and safer to add frames to the tower. It is shipped in two pieces. Put them together and hook the pulley and rope to the eye at the top.



The person on the ground hoists the frames (35 lbs. each) up to the person on the top platform. All the person on top has to do is guide the frames into position on the stack pins.

**14.** Add Guardrail Posts. There are two sizes that can be used together or separately, to put your guardrails at the right height, depending on the level of your aluminum planks. The top rail should be 36 to 45 inches above the platform.



Additional copies of this manual are available free of charge from Light Access Scaffolding, LLC at 800-845-0845, or online at [www.lightbulbscaffold.com](http://www.lightbulbscaffold.com).

**13.** The Gin Pole attaches to the center of the frames on any rung. The red arrow shows the bottom portion of the Gin Pole hooked on to a frame.



**WARNING:** When the tower exceeds 30 feet high, it must be guyed down in three directions. Use rope with a 200-lb. working load and an attachment point that will withstand a 200-lb. pull.

**15.** Install Guardrails. The guardrails **MUST** be installed so that any outward force on the guardrail will push against the guardrail post, and **NOT** the flipper on the flip-lock. Follow the directions on the warning labels. If your guardrail posts do not have warning labels, contact us and we will send them to you.



**16.** The maximum working load on the platform is 800 pounds. The maximum working height is 150 feet.

# Light Bulb Scaffold System Parts Diagram



**5-foot Frame**



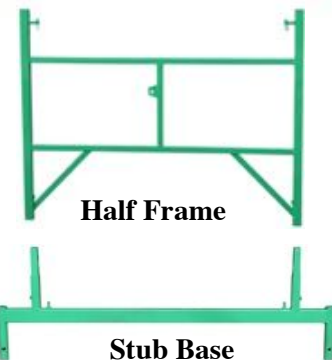
**X-Brace  
(green or  
silver)**



**5-Foot Aluminum  
Walkboard**

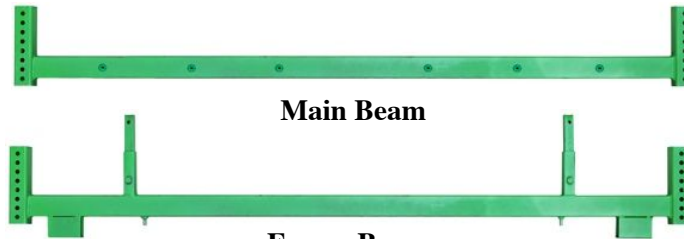


**Long and Short  
Guardrail Posts  
(1 of each makes  
a complete GR  
Post)**



**Half Frame**

**Stub Base**



**Main Beam**

**Frame Beam**



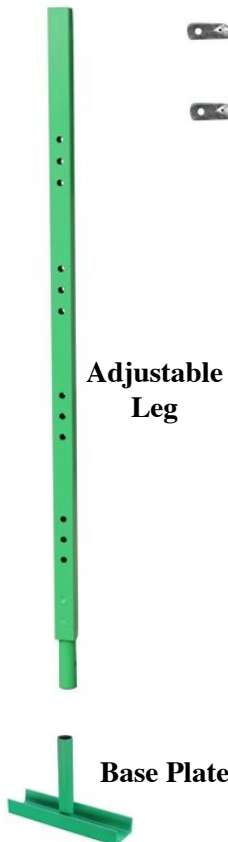
**4-ft. Guardrail**

**5-ft. Guardrail**



**Frame  
Rack**

**Gin Pole  
(rope and  
hook not  
shown)**



**Adjustable  
Leg**

**Base Plate**



**Locking Swivel  
Caster**

**Leveling Jack**



**Board and Brace Rack**

**MANUFACTURED IN THE USA by:**  
Light Access Scaffolding, LLC  
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Shreveport, LA 71104  
800-845-0845

# Light Access Scaffolding Assembly and Use Manual Quiz

This quiz is given to be sure that users of the scaffolding understand the key points contained in the Light Access Scaffolding Assembly and Use Manual.

Circle the correct answer and check your answers against the answer key below. If you miss any questions, tell your instructor or the competent person and have them explain the correct answer to you. Put your initials next to any question you missed, after you understand why you missed it.

At the end of the test, sign and date it, and give it to your employer.

1. The Light Access Scaffolding Assembly and Use Manual should always be kept at the work site. If you need additional copies, you can: (p.3)

- a) Call Light Access Scaffolding and we will mail you one.
- b) Print one from the web site at lightbulbscaffold.com.
- c) Both a and b.

2.. The Adjustable Legs always go in the sockets at the ends of: (Item 1)

- a) The Main Beams.
- b) The Frame Beams.

3. The Frame Beams are connected together with: (Item 8)

- a) Nuts and bolts.
- b) An x-brace.
- c) T-handle bolts.

4. To set the tower up close to a wall you will: (Item 4)

- a) Offset the Frame Beams on top of the Main Beams.
- b) Offset the Main Beams on top of the Frame Beams.
- c) Either a or b.

5. The Adjustable Legs that support the Spanner Kit can be adjusted up and down a total of: (p. 1)

- a) 24 inches in half-inch increments.
- b) 36 inches in half-inch increments.
- c) 48 inches in half-inch increments.
- d) 60 inches in half-inch increments.

6. The Adjustable Legs are locked at the correct height with: (Item 7)

- a) the 1/2" lock pins only.
- b) the thumb screws.
- c) either a or b.

7. When attaching x-braces to the frames, you should: (Item 11)

- a) fasten the x-brace to the top flip-lock and work down.
- b) fasten the x-brace to the bottom flip-lock and work up.
- c) either a or b.

8. The tower must be guyed down to prevent tipping when the work platform reaches a height of: (p. 3)

- a) 15 feet.
- b) 25 feet.
- c) 30 feet.
- d) 40 feet.

9. The top guardrail should be placed at a height of: (Item 14)

- a) 34 to 48 inches above the platform.
- b) 32 to 40 inches above the platform.
- c) 36 to 45 inches above the platform.
- d) 40 to 48 inches above the platform.

10. When attaching the guardrails to the guardrail posts, both parts must be oriented so that a man leaning against the guardrail will: (Item 15)

- a) push the guardrail against the post.
- b) push the guardrail against the flip-lock.
- c) either a or b.

11. The maximum weight allowed on the top platform, including men, tools, and equipment is: (Item 16)

- a) 350 pounds.
- b) 500 pounds.
- c) 650 pounds.
- d) 800 pounds.

12. The maximum height you can build the Light Bulb Scaffold System is: (Item 16)

- a) 45 feet.
- b) 65 feet.
- c) 95 feet.
- d) 150 feet

Sign here: \_\_\_\_\_

Print name: \_\_\_\_\_

Date: \_\_\_\_\_

Instructor: \_\_\_\_\_

Answer key:  
1. c  
2. a  
3. b  
4. a  
5. d  
6. a  
7. b  
8. c  
9. c  
10. a  
11. b  
12. d