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## LAD-FM Mezzanine Ladders Instruction Manual



Receiving instructions:

After delivery, remove the packaging from the product. Inspect the product closely to determine whether it sustained damage during transport. If damage is discovered, record a complete description of it on the bill of lading. If the product is undamaged, discard the packaging.

**NOTE:** The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

Replacement Parts and Technical Assistance:

For answers to questions not addressed in these instructions and to order replacement parts, labels, and accessories, call our Technical Service and Parts Department at (260) 665-7586. The department can also be contacted online at [http://www.vestilmfg.com/parts\\_info.htm](http://www.vestilmfg.com/parts_info.htm).

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## Signal Words:

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage. The signal words used appear below along with the meaning of each word:



Identifies a hazardous situation which, if not avoided, **WILL** result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.



Identifies a hazardous situation which, if not avoided, **COULD** result in DEATH or SERIOUS INJURY.



Indicates a hazardous situation which, if not avoided, **COULD** result in MINOR or MODERATE injury.



Identifies practices likely to result in product/property damage, such as operation that might damage the product.

## Hazards of using the stair system:

Vestil strives to identify foreseeable hazards associated with the use of its products. However, material handling is dangerous and no manual can address every conceivable risk. The end-user ultimately is responsible for exercising sound judgment at all times.

**WARNING** If this product is used improperly or carelessly, the operator and/or bystanders might sustain serious personal injuries or even be killed. ALWAYS use the product properly:

- *Failure to read and understand the entire manual before installing, using or servicing the product constitutes misuse of the product.* Read the manual to refresh your understanding of proper use and maintenance procedures.

- DO NOT exceed the maximum rated load.
- Inspect the stairs at least once per month according to the instructions in the [Inspections](#) section on [p. 17](#). DO NOT use these stairs if the inspection reveals structural damage. Examples of structural damage include: 1) broken, missing, or deformed risers (steps); 2) damaged or deformed handrails or side rails; 3) cracked welds; 4) damaged fasteners (particularly those used to fasten the top of the stairs to the structure or wall above), enlarged openings for bolts, pins, etc.; 5) corrosion, extreme wear, or other condition that affects the ability of the product to support applied weight or itself; 6) damaged, deformed or cracked jack components, especially the slide. See [FIG. 7](#) on [p. 10](#). Immediately tag the stairway "Out of service" and replace each part that fails to pass inspection. DO NOT use the product until it is restored to normal condition. ONLY use manufacturer-approved replacement parts.

- DO NOT use the stairway if any unusual noise or movement is observed while weight is applied to it. If a malfunction occurs, remove the unit from service and notify your supervisor or maintenance personnel about the issue.

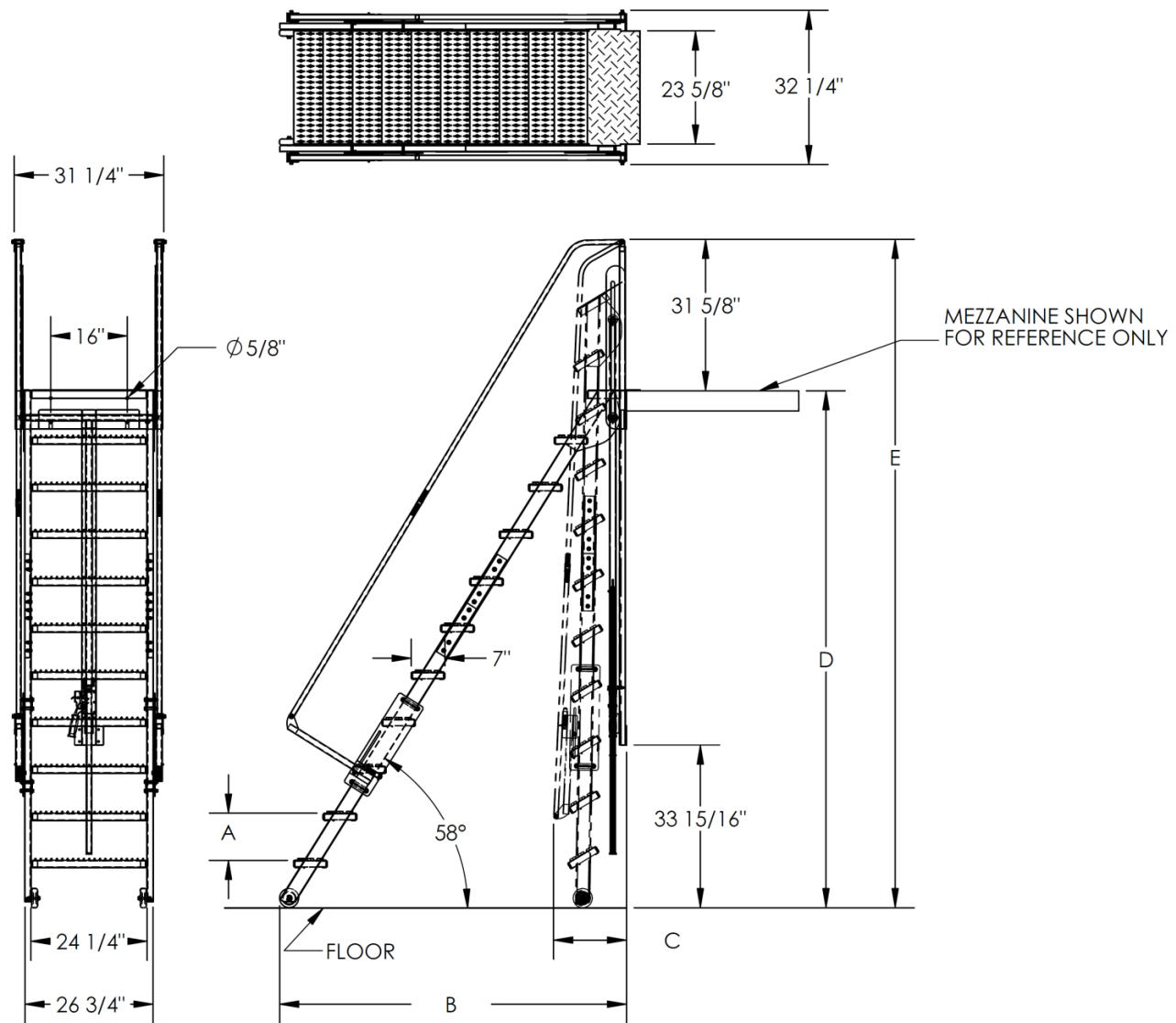
- DO NOT use the stairway UNLESS it is securely fastened to the mezzanine.
- DO NOT store articles on the stairs.
- DO NOT remove or obscure any label. All product labels must be readable and undamaged. See [Labeling diagram](#) on [p. 17](#).
- DO NOT modify the stairs in any way. Unauthorized modifications automatically void the [Limited Warranty](#) ([p. 18](#)) and might make the unit unsafe to use.

**NOTICE** Proper installation, use, and maintenance are essential for this product to function properly.

- Always use this product in accordance with the instructions in this manual.
- Keep the stairs clean & dry.
- Periodically lubricate pivot points.

### Specifications:

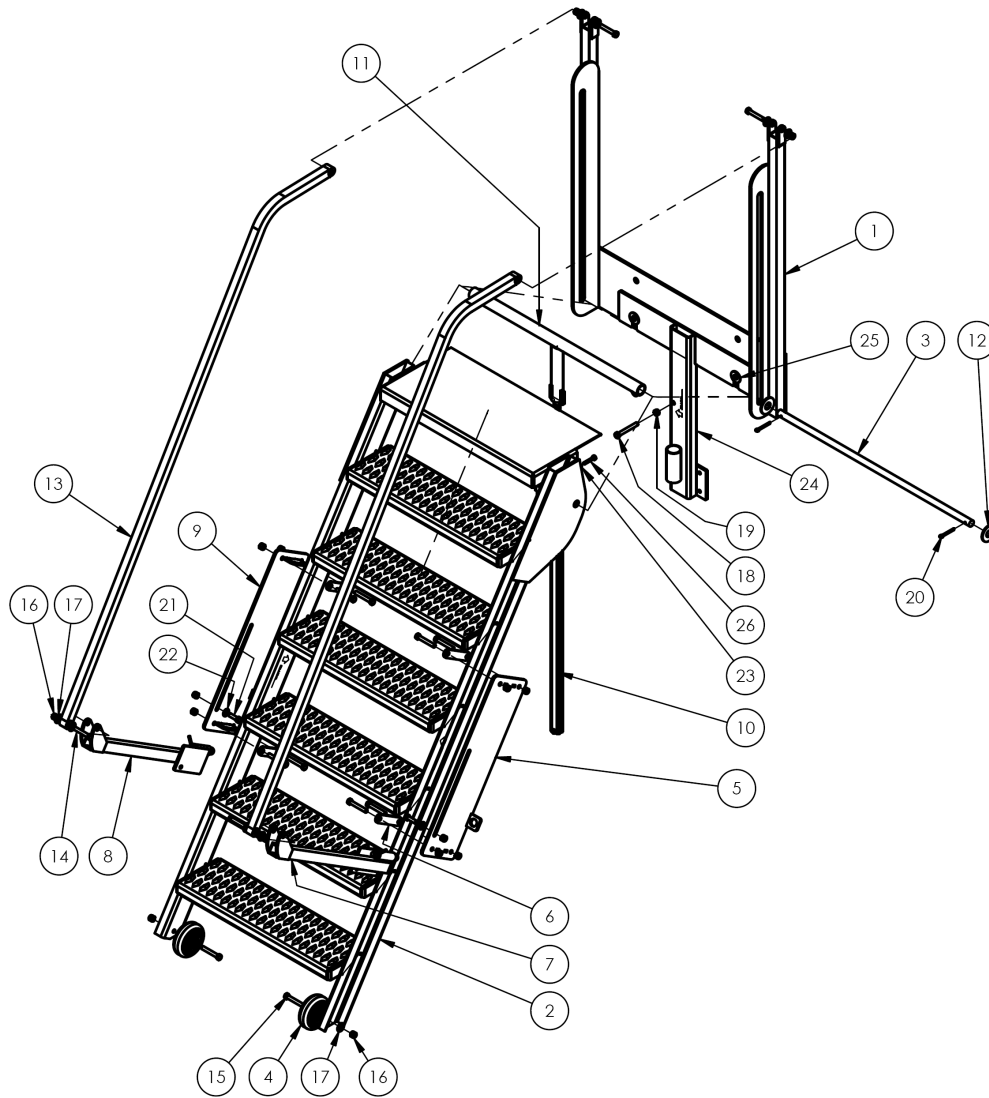
Dimensions and other specifications for all standard models appear in the diagrams and table below.



Model	Capacity	A	B	C	D	E	Net Weight
LAD-FM-60	350 lb. 159 kg	8 <sup>5</sup> / <sub>8</sub> " 22 cm	42 <sup>1</sup> / <sub>2</sub> " 108 cm	14 <sup>5</sup> / <sub>8</sub> " 37 cm	60" 152 cm	91 <sup>5</sup> / <sub>8</sub> " 202 cm	253 lb. 115 kg
LAD-FM-72	350 lb. 159 kg	9" 23 cm	49 <sup>3</sup> / <sub>4</sub> " 126.5 cm	14 <sup>5</sup> / <sub>8</sub> " 37 cm	72" 183 cm	103 <sup>5</sup> / <sub>8</sub> " 263 cm	276 lb. 125.5 kg
LAD-FM-84	350 lb. 159 kg	9 <sup>3</sup> / <sub>8</sub> " 24 cm	57 <sup>1</sup> / <sub>2</sub> " 146 cm	14 <sup>13</sup> / <sub>16</sub> " 38 cm	84" 213 cm	115 <sup>5</sup> / <sub>8</sub> " 294 cm	307 lb. 139.5 kg
LAD-FM-96	350 lb. 159 kg	9 <sup>5</sup> / <sub>8</sub> " 25 cm	65" 165 cm	15" 38 cm	96" 244 cm	127 <sup>5</sup> / <sub>8</sub> " 324 cm	329 lb. 149.5 kg
LAD-FM-108	350 lb. 159 kg	9 <sup>1</sup> / <sub>16</sub> " 23 cm	72 <sup>1</sup> / <sub>2</sub> " 184 cm	15 <sup>3</sup> / <sub>16</sub> " 39 cm	108" 274 cm	139 <sup>5</sup> / <sub>8</sub> " 355 cm	351 lb. 159.5 kg
LAD-FM-120	350 lb. 159 kg	9 <sup>1</sup> / <sub>4</sub> " 23.5 cm	80" 203 cm	15 <sup>1</sup> / <sub>2</sub> " 39 cm	120" 305 cm	151 <sup>5</sup> / <sub>8</sub> " 385 cm	383 lb. 174.1 kg

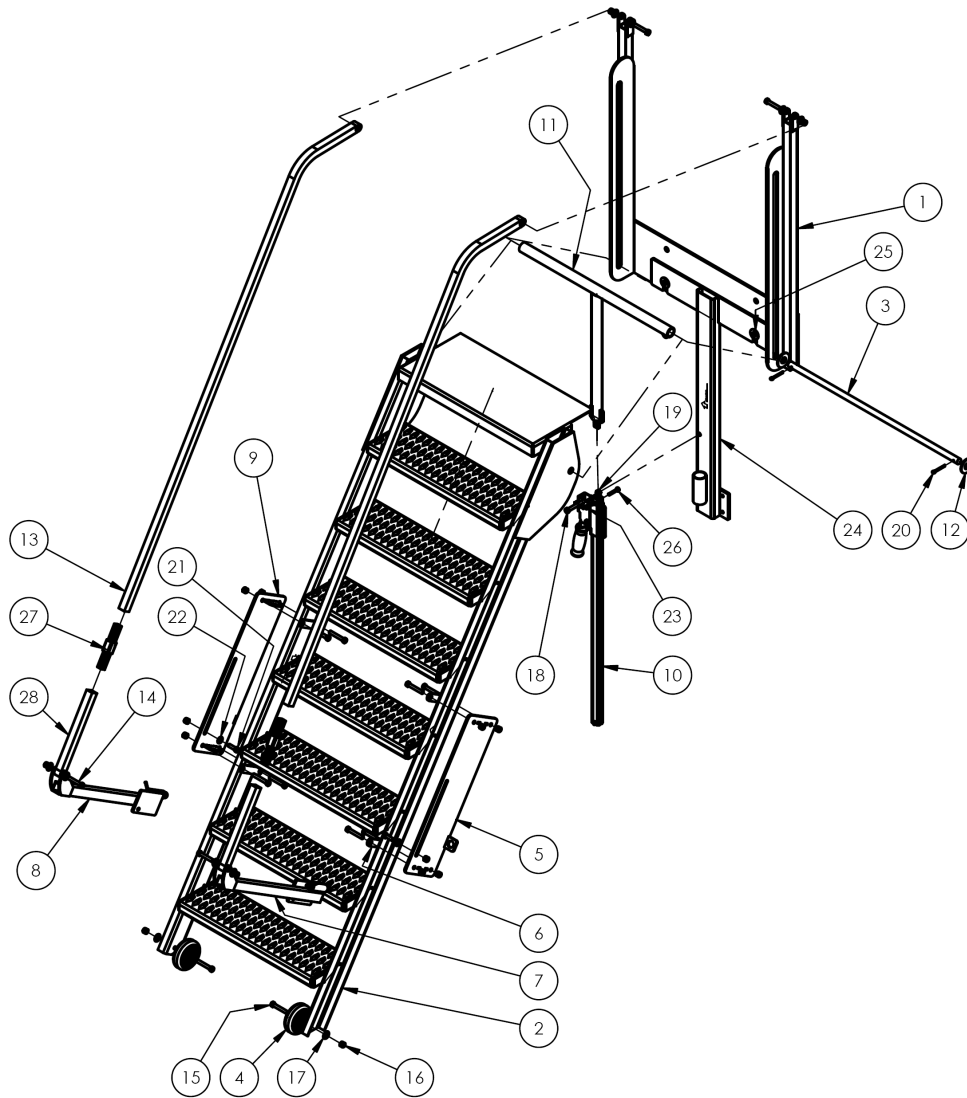
\*Dimension tolerance = ±1/4" (0.64 cm)

**FIG. 1:** LAD-FM-60 exploded view and bill of materials



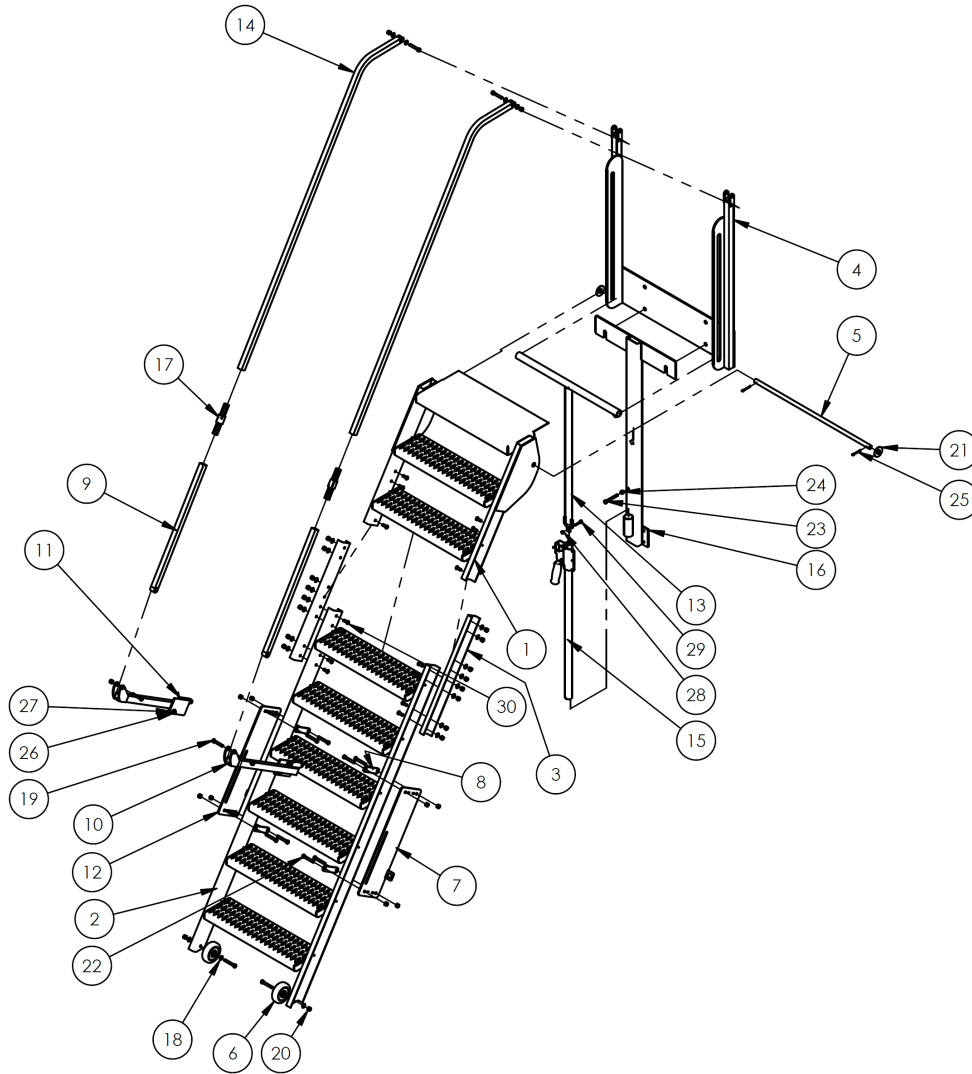
Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	44-514-376	Weldment, frame, back assembly	1	14	11112	Hex bolt, $\frac{3}{8}$ "-16 x $2\frac{1}{4}$ " HHCS	4
2	44-514-425	Weldment, frame, step, lower	1	15	11113	Hex bolt, gr. A, plain finish, $\frac{3}{8}$ "-16 x $2\frac{1}{2}$ "	10
3	44-112-010	Pin, main hinge	1	16	37024	Nylock insert lock nut, gr. 2, zinc finish, $\frac{3}{8}$ "-16	16
4	16-132-009	4" x 1.25" poly-on-poly wheel, PP-4/1.25-W	2	17	33008	Flat washer, low carbon, USS, zinc plated, $\frac{3}{8}$ "	12
5	44-514-277	Weldment, frame, roller bracket, right	1	18	11115	Hex bolt, HHCS, #2, zinc plated, $\frac{3}{8}$ "-16 x 3"	1
6	44-016-081	Bracket, handrail mount	4	19	36106	Hex nut, gr. A, zinc plated, $\frac{3}{8}$ "-16	1
7	44-524-093	Weldment, handrail hinge, right	1	20	65127	Cotter pin, zinc plated, $\frac{3}{8}$ " x 2"	2
8	44-524-094	Weldment, handrail hinge, left	1	21	11107	Hex bolt, gr. A, zinc finish, $\frac{3}{8}$ "-16 x $1\frac{1}{4}$ "	2
9	44-514-278	Weldment, frame, roller, bracket, left	1	22	33006	Flat washer, zinc plated, USS, $\frac{5}{16}$ "	2
10	44-001-215	Jack, manual, ratcheting, 35", long	1	23	37018	Nylon lock nut, gr.2, zinc finish, $\frac{1}{4}$ "-20	1
11	44-544-005	Weldment, push bar	1	24	44-514-427	Weldment, frame, back	1
12	33018	USS flat washer, zinc plated, $\frac{3}{4}$ "	2	25	33012	Flat washer, low carbon, zinc finish, $\frac{1}{2}$ "	2
13	44-525-006	Weldment, handle, rail	2	26	11009	Hex bolt, gr. A, zinc plated, $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ "	1

**FIG. 2:** LAD-FM-72 exploded view and bill of materials



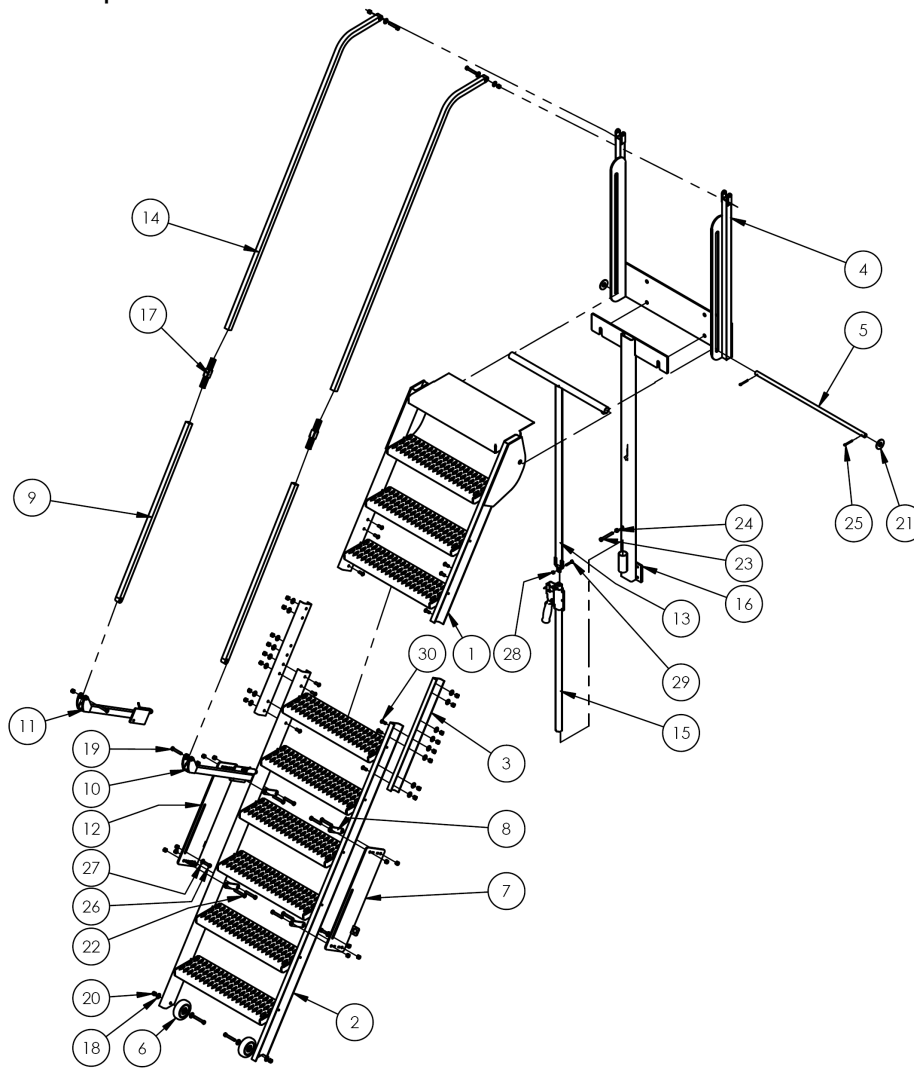
Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	44-514-376	Weldment, frame, back assembly	1	15	11113	Hex bolt, gr. A, plain finish, $\frac{3}{8}$ "-16 x $2\frac{1}{2}$ "	10
2	44-514-426	Weldment, frame, step, lower	1	16	37024	Nylock insert lock nut, gr. 2, zinc finish, $\frac{3}{8}$ "-16	16
3	44-112-010	Pin, main hinge	1	17	33008	Flat washer, low carbon, USS, zinc plated, $\frac{3}{8}$ "	12
4	16-132-009	4" x 1.25" poly-on-poly wheel, PP-4/1.25-W	2	18	11115	Hex bolt, HHCS, #2, zinc plated, $\frac{3}{8}$ "-16 x 3"	1
5	44-514-277	Weldment, frame, roller bracket, right	1	19	36106	Hex nut, gr. A, zinc plated, $\frac{3}{8}$ "-16	1
6	44-016-081	Bracket, handrail mount	4	20	65127	Cotter pin, zinc plated, $\frac{3}{8}$ " x 2"	2
7	44-524-093	Weldment, handrail hinge, right	1	21	11107	Hex bolt, gr. A, zinc finish, $\frac{3}{8}$ "-16 x $1\frac{1}{4}$ "	2
8	44-524-094	Weldment, handrail hinge, left	1	22	33006	Flat washer, zinc plated, USS, $\frac{5}{16}$ "	2
9	44-514-278	Weldment, frame, roller, bracket, left	1	23	37018	Nylon lock nut, gr.2, zinc finish, $\frac{1}{4}$ "-20	1
10	44-001-215	Jack, manual, ratcheting, 35" long	1	24	44-514-428	Weldment, frame, back	1
11	44-544-006	Weldment, push bar	1	25	33012	Flat washer, low carbon, zinc finish, $\frac{1}{2}$ "	2
12	33018	USS flat washer, zinc plated, $\frac{3}{4}$ "	2	26	11009	Hex bolt, gr. A, zinc plated, $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ "	1
13	44-525-004	Weldment, handle, rail	2	27	44-516-024	Assembly, bracket, handrail splice	2
14	11112	Hex bolt, $\frac{3}{8}$ "-16 x $2\frac{1}{4}$ " HHCS	4	28	44-524-187	Weldment, handrail, bottom	2

**FIG. 3: LAD-FM-84 exploded view and bill of materials**

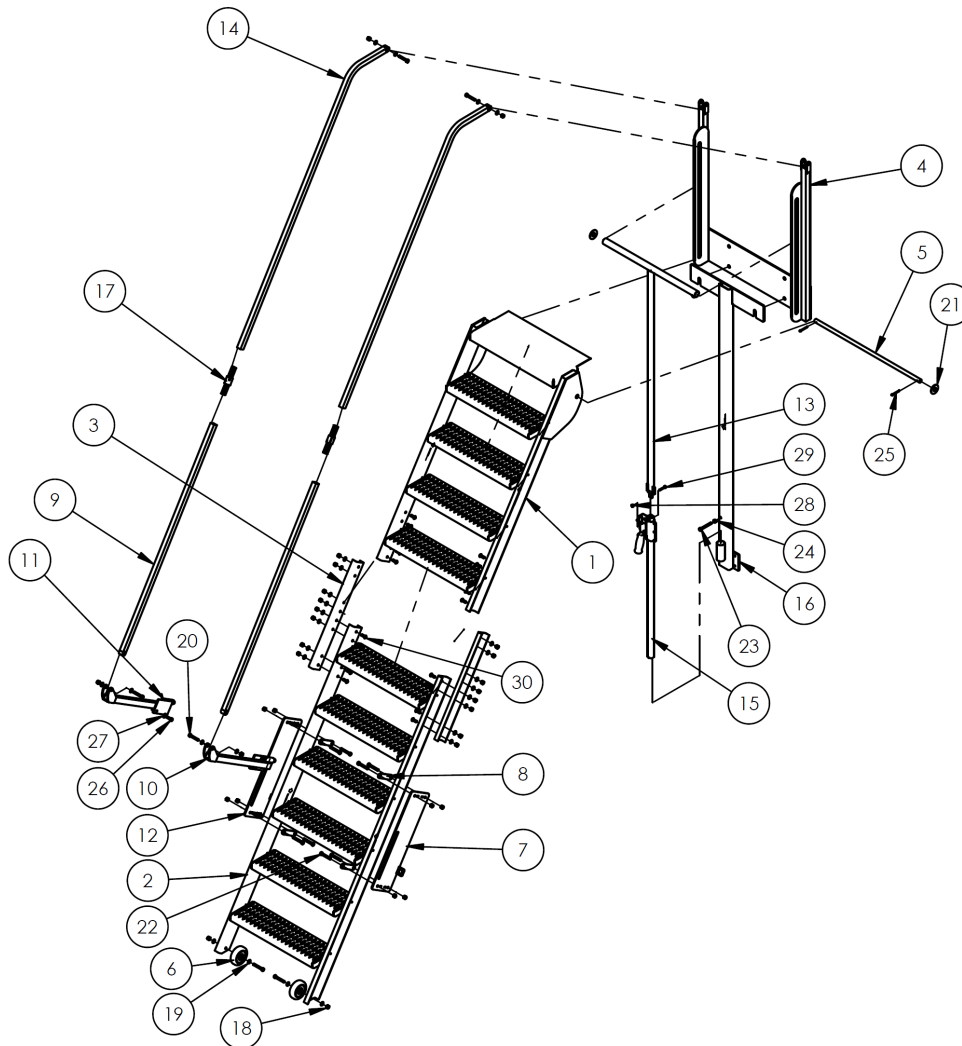


Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	44-514-413	Weldment, frame, top steps	1	16	44-514-415	Weldment, frame, back assembly	1
2	44-514-414	Weldment, frame, steps, lower	1	17	44-516-024	Assembly, bracket, handrail splice	2
3	44-014-544	Frame, side stiffener, formed	2	18	33008	Flat washer, low carbon, USS, zinc plated, $\frac{3}{8}$ "	28
4	44-514-376	Weldment, frame, back assembly	1	19	11112	$\frac{3}{8}$ " - 16 x 2 $\frac{1}{4}$ " HHCS bolt	4
5	44-112-010	Pin, main hinge	1	20	37024	Nylon insert lock nut, grade 2, zinc finish, $\frac{3}{8}$ " - 16	32
6	16-132-009	PP-4/1.25-W	2	21	33018	USS flat washer, zinc plated, $\frac{3}{4}$ "	2
7	44-514-277	Weldment, frame, roller bracket, right	1	22	11113	Hex bolt, grade A, plain finish, $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ "	10
8	44-016-081	Bracket, handrail mount	4	23	11115	$\frac{3}{8}$ " - 16 x 3" HHCS bolt	1
9	44-524-171	Weldment, handrail, bottom	2	24	36106	Hex nut, grade A, zinc plated, $\frac{3}{8}$ " - 16	1
10	44-524-093	Weldment, handrail, hinge, right	1	25	65127	Cotter pin, zinc plated, $\frac{3}{16}$ " x 2"	2
11	44-524-094	Weldment, handrail, hinge, left	1	26	11107	Hex bolt, grade A, zinc finish, $\frac{3}{8}$ " - 16 x 1 $\frac{1}{4}$ "	2
12	44-514-278	Weldment, frame, roller bracket, left	1	27	33006	Flat washer, zinc plated, USS, $\frac{5}{16}$ "	2
13	44-544-003	Weldment, push bar	1	28	37018	Nylon lock nut, grade 2, zinc finish, $\frac{1}{4}$ " - 20	1
14	44-524-004	Weldment, handle, rail assy.	2	29	11009	Hex bolt, grade A, zinc plated, $\frac{3}{8}$ " - 20 x 1 $\frac{1}{2}$ "	1
15	44-001-215	Jack, manual, ratcheting, 35" long	1	30	24092	BHCS, utility grade, black oxide, $\frac{3}{8}$ " - 16 x 1"	16

**FIG. 4:** LAD-FM-96 exploded view and bill of materials



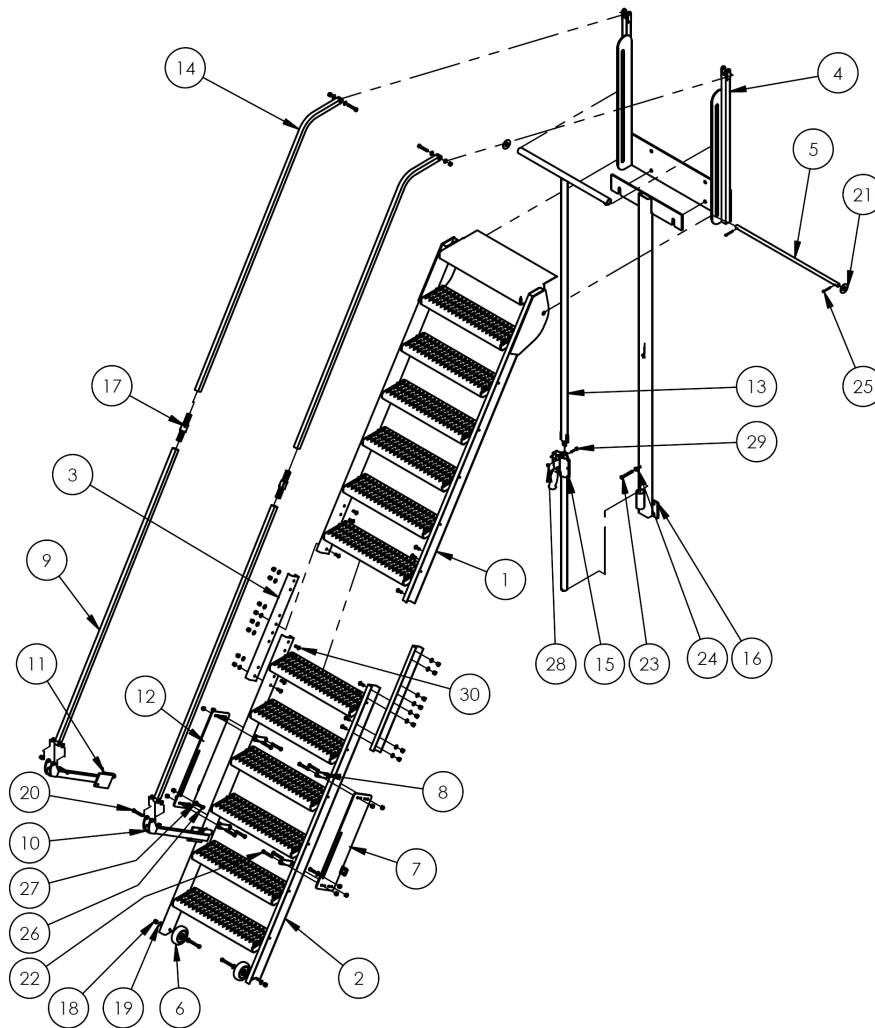
Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	44-514-416	Weldment, frame, top steps	1	16	44-514-418	Weldment, frame, back assembly	1
2	44-514-417	Weldment, frame, steps, lower	1	17	44-516-024	Assembly, bracket, handrail splice	2
3	44-014-544	Frame, side stiffener, formed	2	18	33008	Flat washer, low carbon, USS, zinc plated, $\frac{3}{8}$ "	28
4	44-514-376	Weldment, frame, back assembly	1	19	11112	$\frac{3}{8}$ " - 16 x $2\frac{1}{4}$ " HHCS bolt	4
5	44-112-010	Pin, main hinge	1	20	37024	Nylon insert lock nut, grade 2, zinc finish, $\frac{3}{8}$ " - 16	32
6	16-132-009	PP-4/1.25-W	2	21	33018	USS flat washer, zinc plated, $\frac{3}{4}$ "	2
7	44-514-277	Weldment, frame, roller bracket, right	1	22	11113	Hex bolt, grade A, plain finish, $\frac{3}{8}$ " - 16 x $2\frac{1}{2}$ "	10
8	44-016-081	Bracket, handrail mount	4	23	11115	$\frac{3}{8}$ " - 16 x 3" HHCS bolt	1
9	44-524-179	Weldment, handrail, bottom	2	24	36106	Hex nut, grade A, zinc plated, $\frac{3}{8}$ " - 16	1
10	44-524-093	Weldment, handrail, hinge, right	1	25	65127	Cotter pin, zinc plated, $\frac{3}{16}$ " x 2"	2
11	44-524-094	Weldment, handrail, hinge, left	1	26	11107	Hex bolt, grade A, zinc finish, $\frac{3}{8}$ " - 16 x $1\frac{1}{4}$ "	2
12	44-514-278	Weldment, frame, roller bracket, left	1	27	33006	Flat washer, zinc plated, USS, $\frac{5}{16}$ "	2
13	44-544-004	Weldment, push bar	1	28	37018	Nylon lock nut, grade 2, zinc finish, $\frac{1}{4}$ " - 20	1
14	44-524-004	Weldment, handle, rail assy.	2	29	11009	Hex bolt, grade A, zinc plated, $\frac{3}{8}$ " - 20 x $1\frac{1}{2}$ "	1
15	44-001-215	Jack, manual, ratcheting, 35" long	1	30	24092	BHCS, utility grade, black oxide, $\frac{3}{8}$ " - 16 x 1"	16

**FIG. 5:** LAD-FM-108 exploded view and bill of materials

Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	44-514-407	Weldment, frame, top steps	1	16	44-514-409	Weldment, frame, back assembly	1
2	44-514-408	Weldment, frame, steps, lower	1	17	44-516-024	Assembly, bracket, handrail splice	2
3	44-014-544	Frame, side stiffener, formed	2	18	37024	Nylon insert lock nut, grade 2, zinc finish, $\frac{3}{8}$ " - 16	32
4	44-514-376	Weldment, frame, back assembly	1	19	33008	Flat washer, low carbon, USS, zinc plated, $\frac{3}{8}$ "	28
5	44-112-010	Pin, main hinge	1	20	11112	$\frac{3}{8}$ " - 16 x $2\frac{1}{4}$ " HHCS bolt	4
6	16-132-009	PP-4/1.25-W	2	21	33018	USS flat washer, zinc plated, $\frac{3}{4}$ "	2
7	44-514-277	Weldment, frame, roller bracket, right	1	22	11113	Hex bolt, grade A, plain finish, $\frac{3}{8}$ " - 16 x $2\frac{1}{2}$ "	10
8	44-016-081	Bracket, handrail mount	4	23	11115	$\frac{3}{8}$ " - 16 x 3" HHCS bolt	1
9	44-524-169	Weldment, handrail, bottom	2	24	36106	Hex nut, grade A, zinc plated, $\frac{3}{8}$ " - 16	1
10	44-524-093	Weldment, handrail, hinge, right	1	25	65127	Cotter pin, zinc plated, $\frac{3}{16}$ " x 2"	2
11	44-524-094	Weldment, handrail, hinge, left	1	26	11107	Hex bolt, grade A, zinc finish, $\frac{3}{8}$ " - 16 x $1\frac{1}{4}$ "	2
12	44-514-278	Weldment, frame, roller bracket, left	1	27	33006	Flat washer, zinc plated, USS, $\frac{5}{16}$ "	2
13	44-544-001	Weldment, push bar	1	28	37018	Nylon lock nut, grade 2, zinc finish, $\frac{1}{4}$ " - 20	1
14	44-524-004	Weldment, handle, rail assy.	2	29	11009	Hex bolt, grade A, zinc plated, $\frac{3}{8}$ " - 20 x $1\frac{1}{2}$ "	1
15	44-001-215	Jack, manual, ratcheting, 35" long	1	30	24092	BHCS, utility grade, black oxide, $\frac{3}{8}$ " - 16 x 1"	16

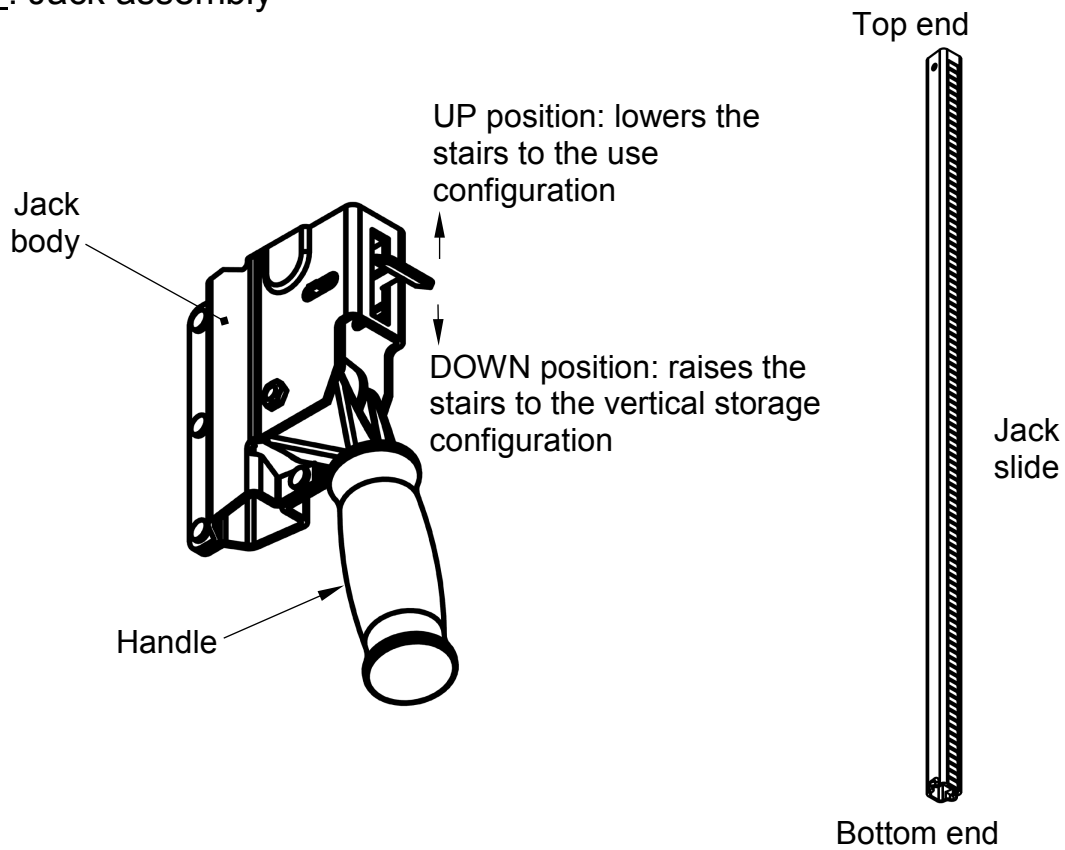


**FIG. 6: LAD-FM-120 exploded view and bill of materials**



Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	44-514-410	Weldment, frame, top steps	1	16	44-514-412	Weldment, frame, back assembly	1
2	44-514-411	Weldment, frame, steps, lower	1	17	44-516-024	Assembly, bracket, handrail splice	2
3	44-014-544	Frame, side stiffener, formed	2	18	37024	Nylon insert lock nut, grade 2, zinc finish, $\frac{3}{8}$ " - 16	32
4	44-514-376	Weldment, frame, back assembly	1	19	33008	Flat washer, low carbon, USS, zinc plated, $\frac{3}{8}$ "	28
5	44-112-010	Pin, main hinge	1	20	11112	$\frac{3}{8}$ " - 16 x 2 $\frac{1}{4}$ " HHCS bolt	4
6	16-132-009	PP-4/1.25-W	2	21	33018	USS flat washer, zinc plated, $\frac{3}{4}$ "	2
7	44-514-277	Weldment, frame, roller bracket, right	1	22	11113	Hex bolt, grade A, plain finish, $\frac{3}{8}$ " - 16 x 2 $\frac{1}{2}$ "	10
8	44-016-081	Bracket, handrail mount	4	23	11115	$\frac{3}{8}$ " - 16 x 3" HHCS bolt	1
9	44-524-170	Weldment, handrail, bottom	2	24	36106	Hex nut, grade A, zinc plated, $\frac{3}{8}$ " - 16	1
10	44-524-093	Weldment, handrail, hinge, right	1	25	65127	Cotter pin, zinc plated, $\frac{3}{16}$ " x 2"	2
11	44-524-094	Weldment, handrail, hinge, left	1	26	11107	Hex bolt, grade A, zinc finish, $\frac{3}{8}$ " - 16 x 1 $\frac{1}{4}$ "	2
12	44-514-278	Weldment, frame, roller bracket, left	1	27	33006	Flat washer, zinc plated, USS, $\frac{5}{16}$ "	2
13	44-544-002	Weldment, push bar	1	28	37018	Nylon lock nut, grade 2, zinc finish, $\frac{1}{4}$ " - 20	1
14	44-524-004	Weldment, handle, rail assy.	2	29	11009	Hex bolt, grade A, zinc plated, $\frac{3}{8}$ "-20 x 1 $\frac{1}{2}$ "	1
15	44-001-215	Jack, manual, ratcheting, 35" long	1	30	24092	BHCS, utility grade, black oxide, $\frac{3}{8}$ " - 16 x 1"	16

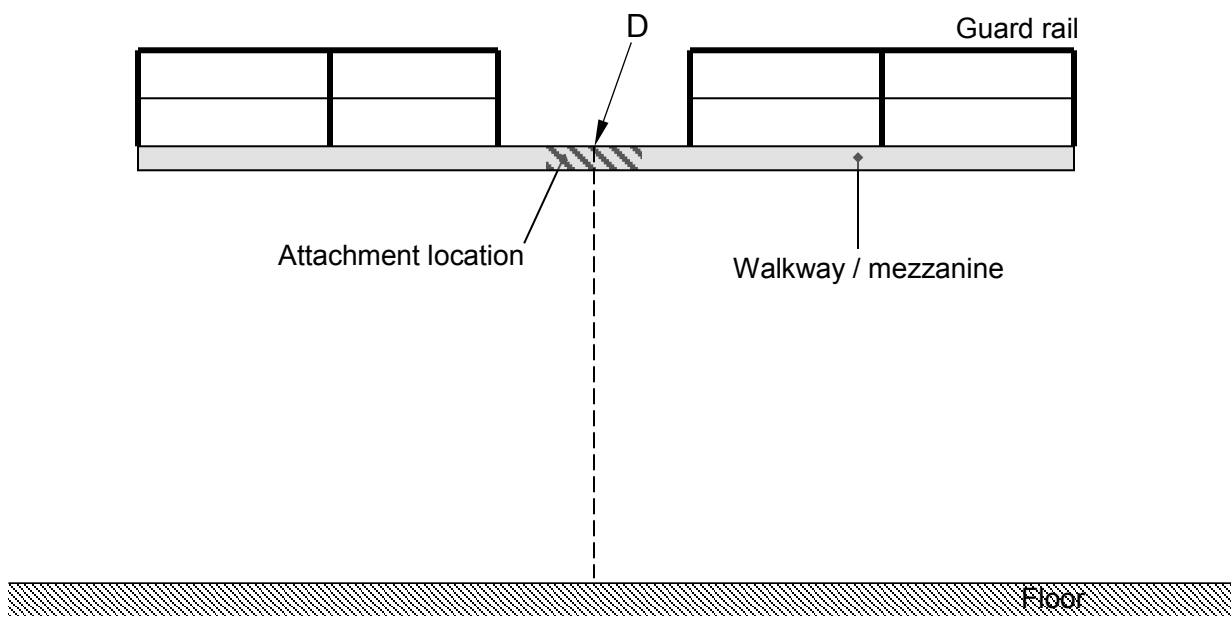
**FIG. 7: Jack assembly**



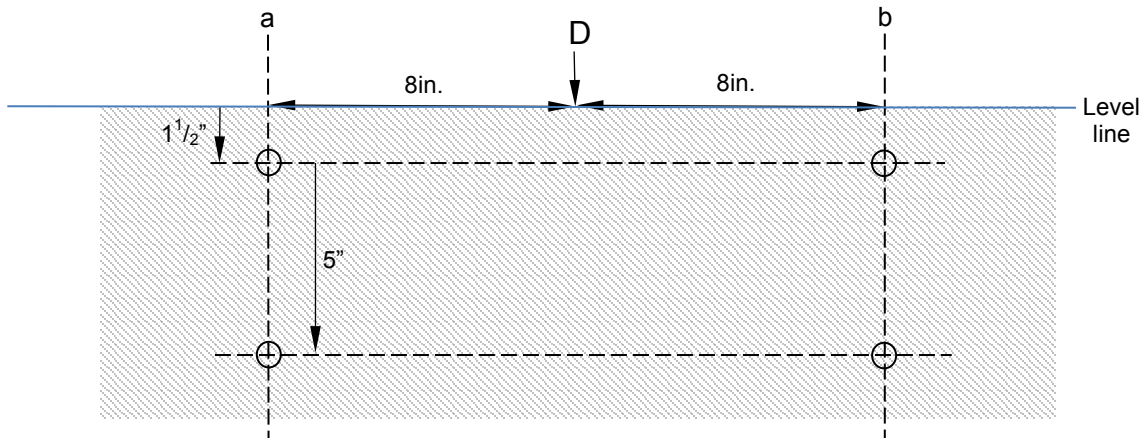
**Installation:**

This folding stairway system must be fastened securely to a wall or a walkway capable of supporting AT LEAST the combined weight of the stairway plus the maximum rated load (see "Specifications" table on p. 3).

**Step 1:** Select the location where the stairs will be installed.

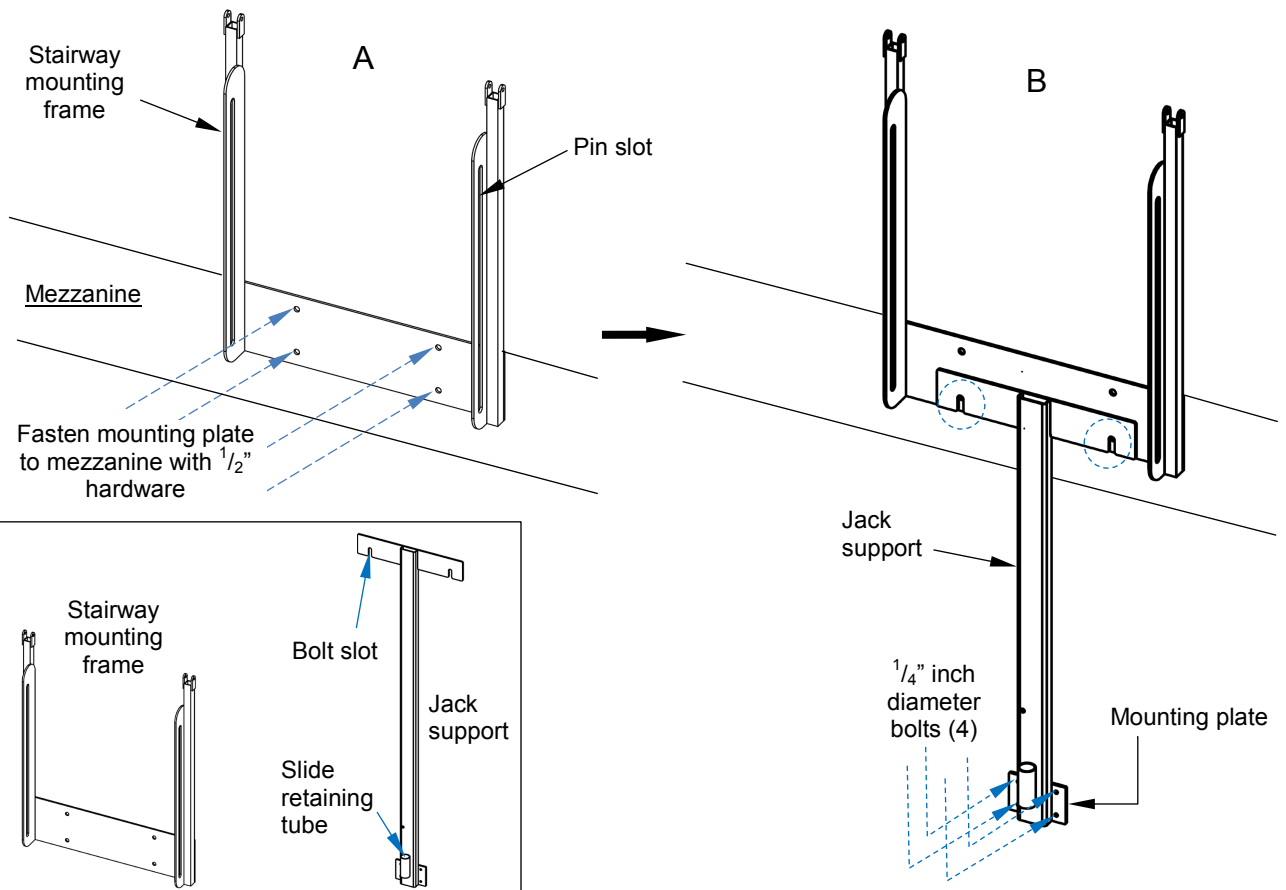


**Step 2:** Use point D as the reference for determining the proper locations of bolt holes. The holes drilled into the mezzanine/walkway must match the positions of bolt holes in the stairway mounting frame. Dimensions are shown below.

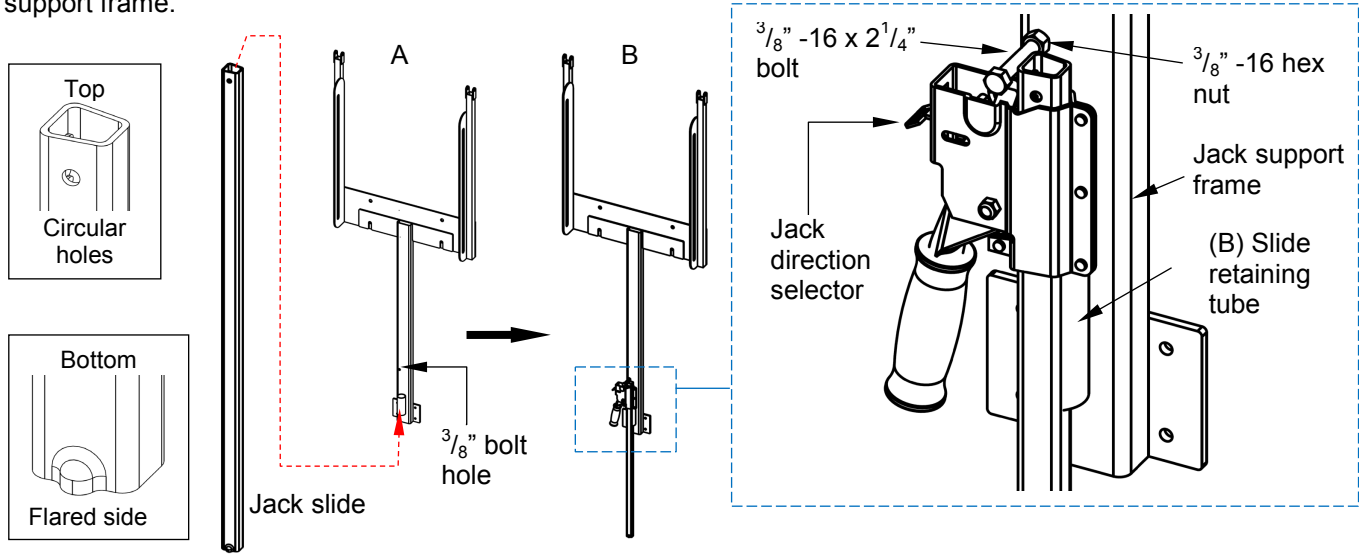


Make a line that extends 8" on both sides of point D on the wall or mezzanine. The line must be parallel to the floor. Next, draw a plumb line at both 8" marks (lines are labeled "a" and "b" in the diagram above). Mark each plumb line 1 1/2" and 6 1/2" below the level line. Bolt holes will be drilled at all four points as shown above. The pre-drilled holes in the mounting frame are 5/8" (diameter). We recommend using 1/2" (diameter) fasteners to connect the mounting plate to the wall or mezzanine. Your building engineer should select hardware appropriate for the wall or mezzanine material and of suitable length.

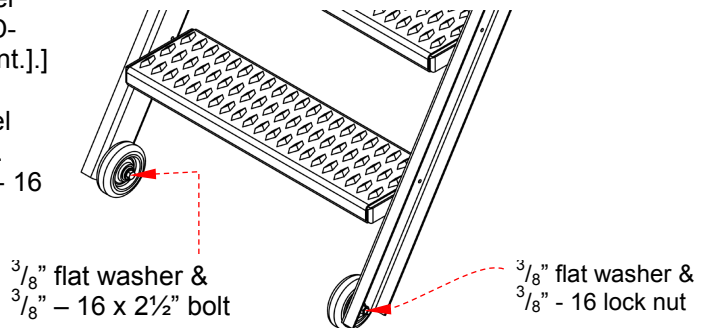
**Step 3:** A) Fasten the stairway mounting frame to the mezzanine using the 1/2" bolts selected by your building engineer. Install but do not tighten the two bottom bolts. B) Align the bolt slots in the jack support with the lower bolts (circled); then tighten the bolts. Fasten the mounting plate to the wall with 1/4" bolts of appropriate length.



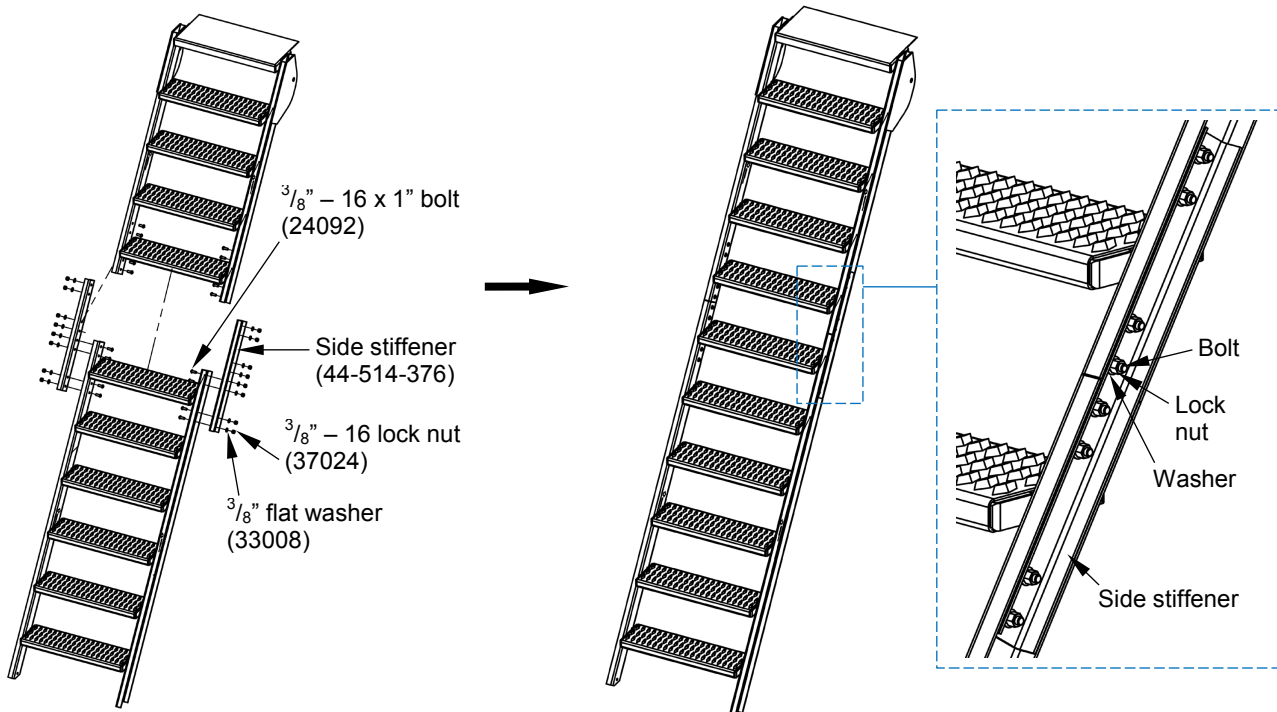
**Step 4:** A) Insert the top end of the jack slide up through the slide retaining tube as shown below. B) Install the jack body on the top end of the slide. Wind a  $\frac{3}{8}$ " -16 hex nut onto a  $\frac{3}{8}$ " -16 x  $2\frac{1}{4}$ " bolt. Install the bolt through the  $\frac{3}{8}$ " bolt hole in the support frame and wind a  $\frac{3}{8}$ " - 16 square nut onto the end of it. Tighten the hex nut against the jack support frame.



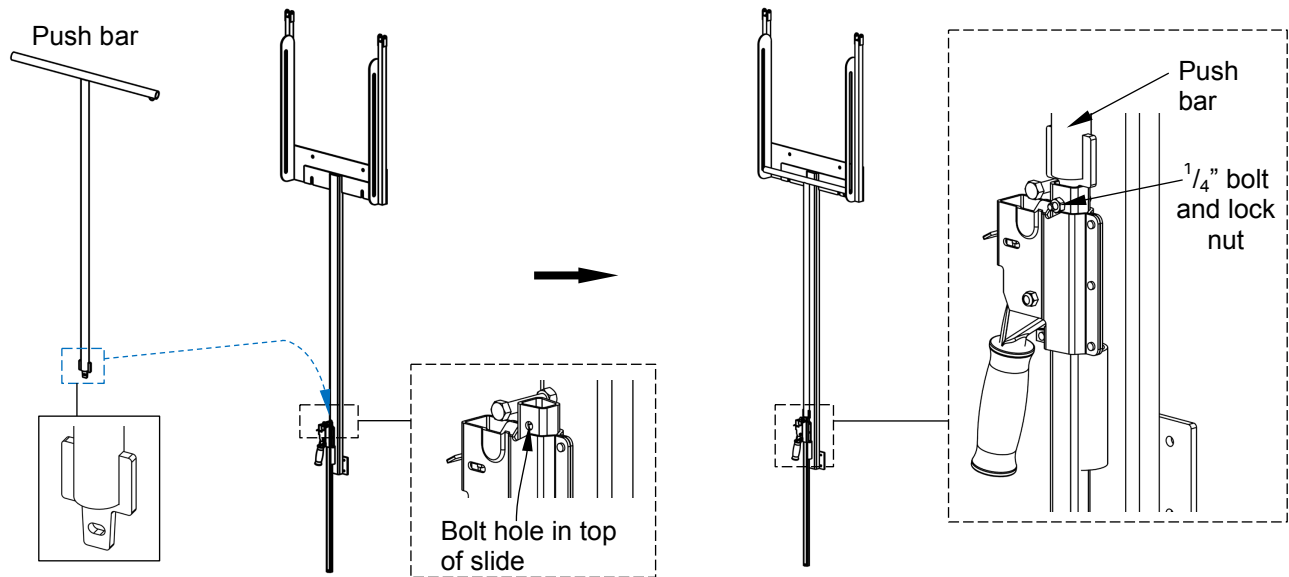
**Step 5:** Attach the wheels to the side rails of the lower step weldment. [NOTE: Models LAD-FM-60 and LAD-FM-72 only have an upper and a lower step weldment.] Slide a  $\frac{3}{8}$ " flat washer onto two  $\frac{3}{8}$ " - 16 x  $2\frac{1}{2}$ " bolts; then insert the bolts through the center of each wheel and through the holes in the bottom of each side rail. Secure each bolt with another flat washer and a  $\frac{3}{8}$ " - 16 lock nut.



**Step 6:** [This step does not apply to models LAD-FM-60 and LAD-FM-72.] Assemble the stairs. Fasten the top step weldment to the lower step weldment using 2 side stiffeners and  $\frac{3}{8}$ " hardware as shown in the diagrams.

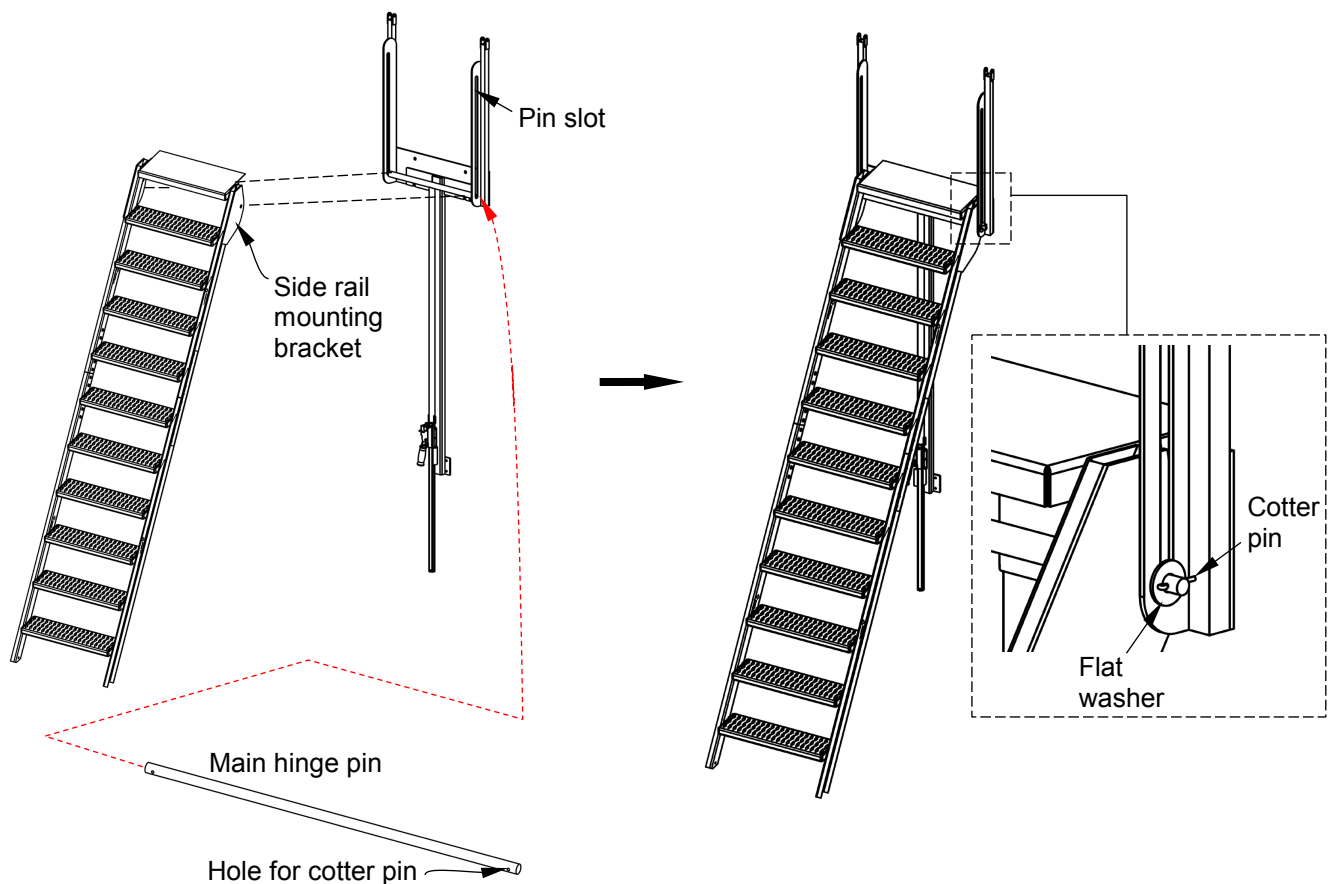


**Step 7:** Attach the push bar to the top of the jack slide. Insert the bottom end of the push bar into the top of the slide and fasten them with a  $\frac{1}{4}$ " -20 x  $1\frac{1}{2}$ " bolt and  $\frac{1}{4}$ " -20 lock nut as shown.

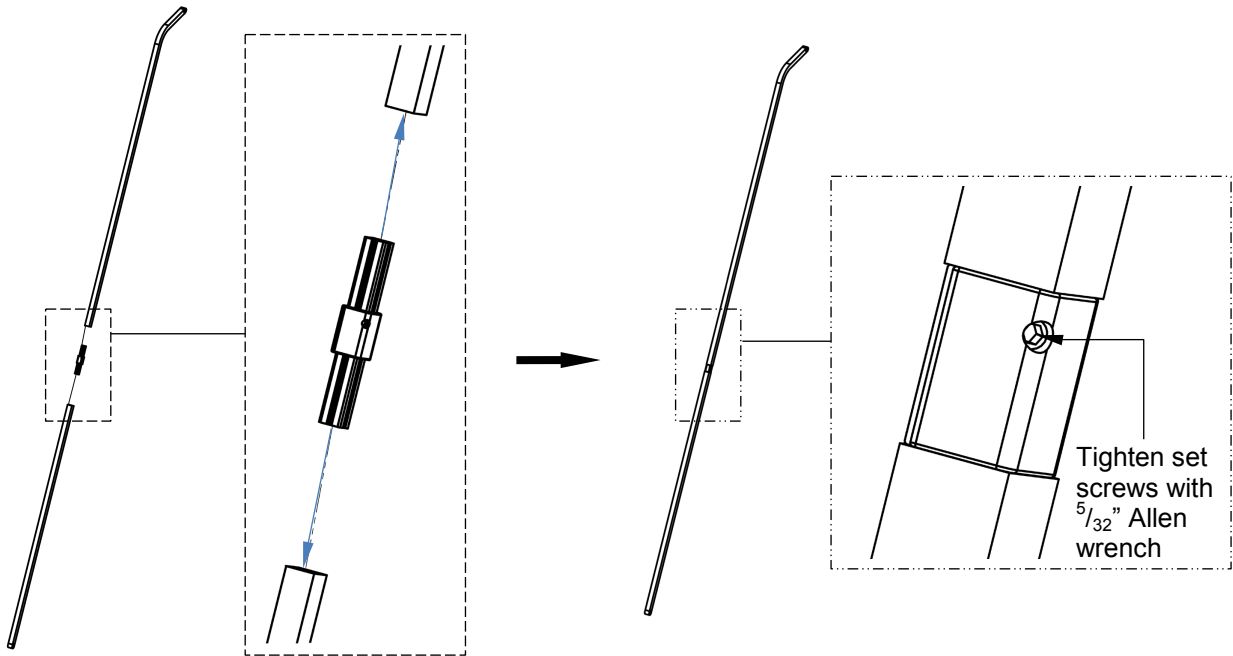


**Step 8:** Fasten the stairway to the stairway mounting frame.

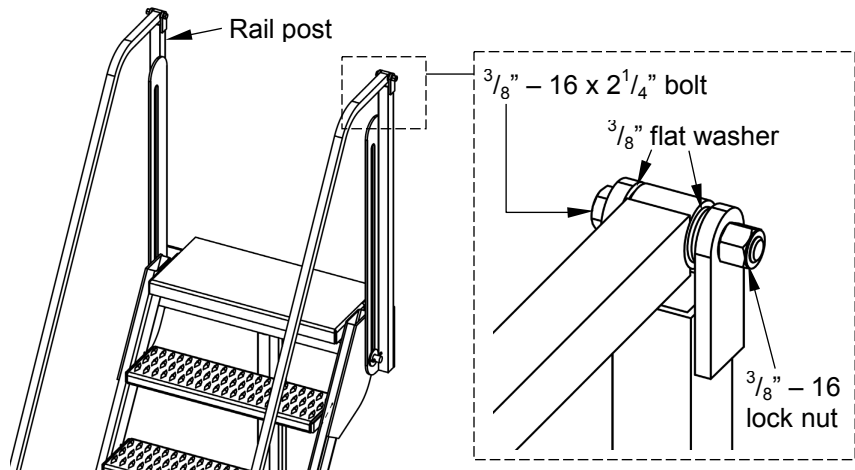
1. Lift the top end of the stairway with a hoist or a fork truck.
2. Align the pin holes in the side rail mounting brackets with the pin slots in the stair mounting frame and the top of the push bar.
3. Insert the main hinge pin through the pin slots, the side rail mounting brackets, and the push bar.
4. Slide a  $\frac{3}{4}$ " flat washer over each end of the hinge pin.
5. Install a cotter pin through each end of the hinge pin.



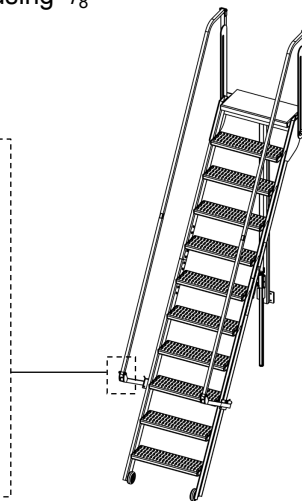
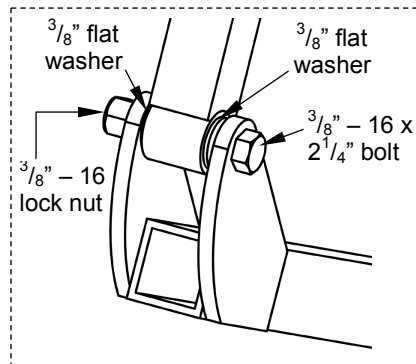
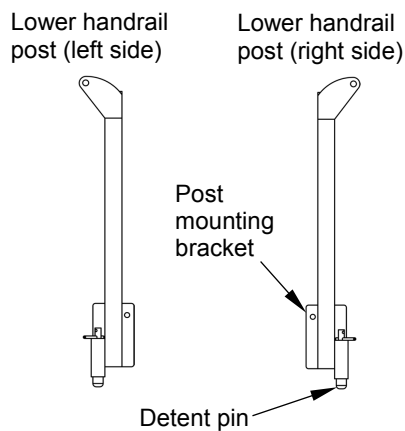
**Step 9A:** [This step does not apply to model LAD-FM-60.] Connect the upper and lower handrails using the handrail splices (44-516-024). Insert the splices into the ends of the upper and lower handrails. Tighten the set screws (2 per splice) as illustrated below to secure the connections.



**Step 9B:** Attach the handrails to the stairway mounting frame. Move the jack direction selector to the down position (see diagram on p. 10). Move the jack handle back-and-forth and completely lower the stairway. Fasten the curved end of each upper stair rail to the rail posts of the stairway mounting frame with  $\frac{3}{8}$ " hardware as shown in the following diagrams.

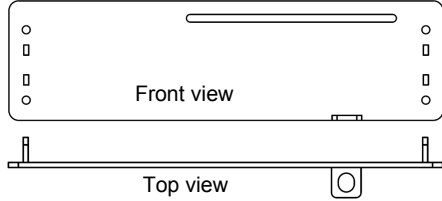


**Step 10:** Attach the ends of the lower handrails to the lower handrail posts using  $\frac{3}{8}$ " - 16 x 2 1/4" bolts and  $\frac{3}{8}$ " - 16 lock nuts.

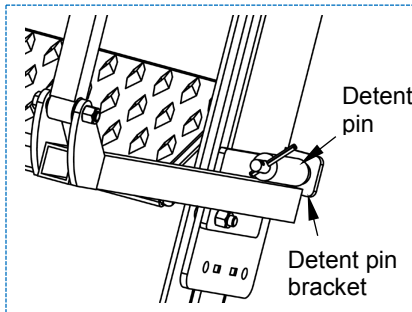
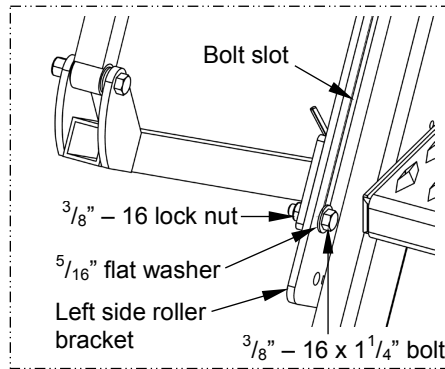
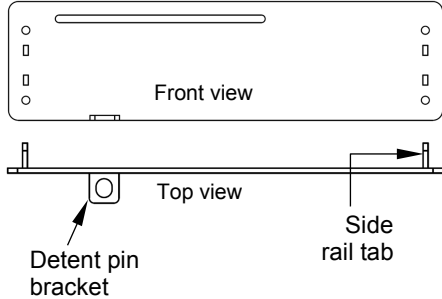


**Step 11:** Attach the lower handrail posts to the roller brackets. Begin by inserting the bottoms of the detent pins into the detent pin brackets. Put a  $\frac{5}{16}$ " flat washer onto a  $\frac{3}{8}$ " - 16 x  $1\frac{1}{4}$ " bolt and insert the bolt through the roller bracket bolt slot and bolt hole in the post mounting bracket. Secure each bolt with a  $\frac{3}{8}$ " - 16 lock nut. Fasten the  $\frac{3}{8}$ "-16 bolt and nut as tightly as possible while still allowing the bolt to slide smoothly in the slot.

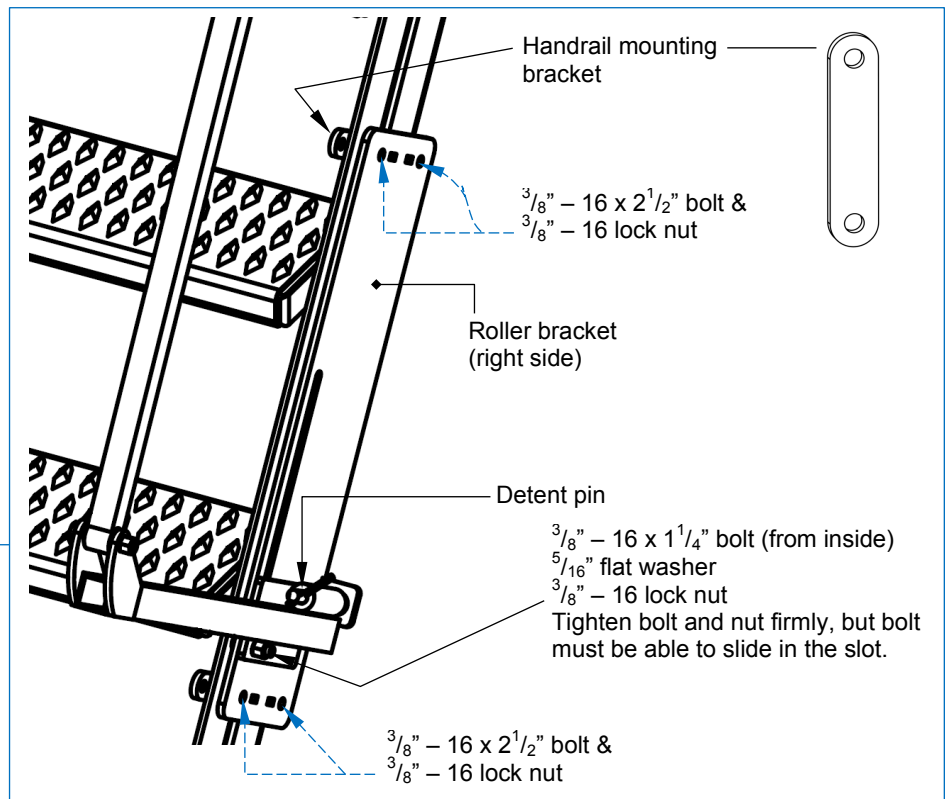
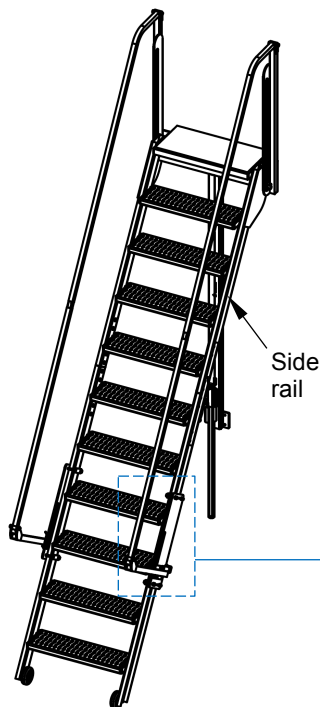
Roller bracket, left side



Roller bracket, right side



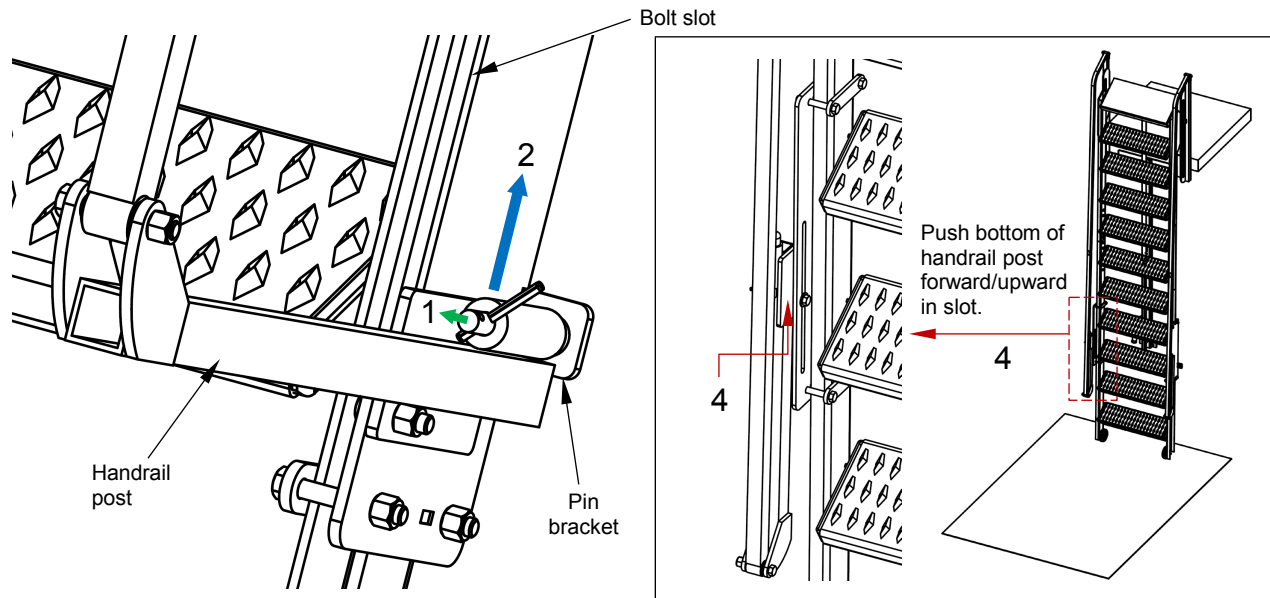
**Step 12:** Attach the roller brackets to the stairway side rails with  $\frac{3}{8}$ " hardware. Install  $\frac{3}{8}$ " - 16 x  $2\frac{1}{2}$ " bolts through the bolts holes (2) in the handrail mounting bracket and the bottom holes of the brackets. Secure the bolts with  $\frac{3}{8}$ " - 16 lock nuts. When properly positioned, the lower handrail posts are perpendicular to the side rails.



## Storage:

To store the stair system:

- 1) Pull the detent pins up and out of the pin brackets [NOTICE: Failure to disengage the detent pins will result in ladder damage].
- 2) Slide the bottom of each post forward in the bolt slot (make sure that the jack direction selector is in the "DOWN" position (see FIG. 7 on p. 10).
- 3) Use the jack to raise the stairs. [NOTE: Stop raising the stairs before they become vertical, i.e. the stairs should be slightly angled away from the wall/mezzanine.]
- 4) Lower the handrails by pushing the handrail posts forward in their slots.



## Extending the stair system:

- 1) Jack direction selector must be in the UP position (see FIG. 7 on p. 10).
- 2) Stand to the side of the ladder in position to be able to operate the jack.
- 3) Gently but firmly press the bottom of the ladder away from the wall/mezzanine with your foot.
- 4) Move the jack handle back-and-forth to lower the ladder. Continue lowering the ladder until the top step rests on the mezzanine surface.
- 5) Slide the handrail posts down the slots.
- 6) Pull the detent pins up, slide the posts to the lower ends of the bolt slots, and release the detent pins. Pins should project through the holes in the pin brackets.

## Putting the stair system into storage position without using the jack:

- 1) Jack direction selector must be in the UP position (see FIG. 7 on p. 10).
- 2) Pull the detent pins out of the pin brackets.
- 3) Slide the bottom of each post forward in the bolt slot.
- 4) Push the stairway towards the wall/mezzanine. Stop just before the ladder becomes vertical, i.e. the bottom of the ladder should be slightly angled away from the wall.
- 5) Lower the handrails by pushing the handrail posts forward in their slots.

## Record of Normal Condition:

After assembling and installing the unit and before putting the stair system into service, make a detailed record about its appearance and operation. Include descriptions of the steps, wheels, hardware, handrails, and jack. Describe the connection of the stairway mounting frame to the mezzanine. Use the jack to raise and lower the stairs. Include observations about the process: how the jack sounds as it operates; how the top of the stairs slides in the pin slot of the stairway mounting frame; and how the handrails fold. Describe the effort needed to work the jack. Thoroughly photograph the ladder from multiple angles. Include photographs of all labels. Add the photographs to the record. This record establishes normal condition of the stair system. When conducting subsequent inspections, compare the condition of the stair system to the record to determine if it is in normal condition. Do not use the stair system unless it is in normal condition. If repairs are necessary, only use manufacturer-approved replacement parts.



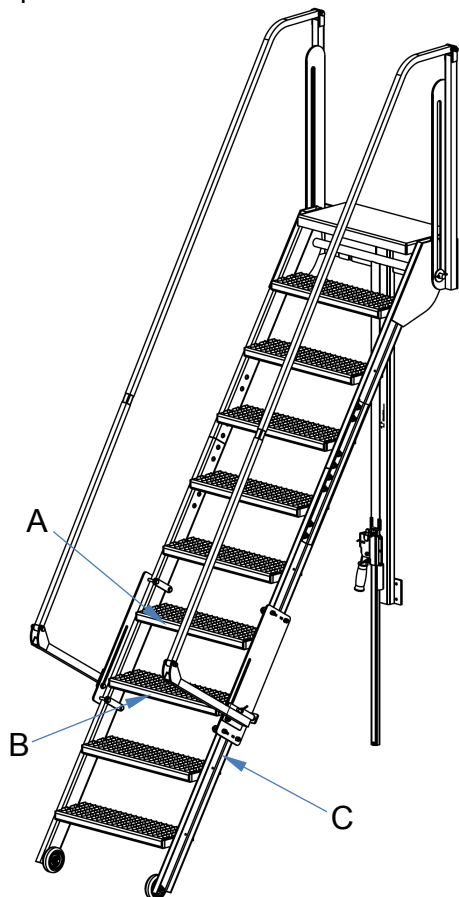
### Inspections:

At least once per month inspect the following:

1. Stairway: examine the stairway for cracked welds, broken rungs, and severe corrosion. Remove rust/corrosion with steel wool or a steel bristle brush and apply touchup paint to the affected areas.
2. Stairway mounting frame (see p. 11): inspect the connections to the mezzanine. Make sure that mounting hardware is in normal condition. Check the bolt holes in the mounting frame for elongations, cracks, and corrosion. Examine the pin slots for bends and damage that affects the travel of the push bar. Remove corrosion. If cracks are found, contact the manufacturer.
3. Jack support and jack slide (see pages 11 & 12): inspect the bolts slots and the bolt holes in the mounting plate. Check for elongations, cracks, and corrosion. Examine the slide retaining tube for bends, cracks, etc.
4. Handrails: closely examine all hardware. Tighten loose connections. Confirm that detent pins work properly (see p. 15) and securely fit inside the detent pin brackets. Check the handrails for bends and cracks, particularly around the handrail splices and connections at each end. Both handrails should be rigid and undamaged. Replace all damaged sections of the handrails before returning the stair system to service.
5. Jack: operate the jack in forward and reverse modes to determine if it is functioning properly. Replace the jack if it malfunctions or is damaged.
6. Labels: the stairs should always be labeled as shown in the "Labeling diagram" (below). Replace a label that is missing, damaged or not easily readable, e.g. faded.

### Labeling diagram:

Each unit should be labeled as shown in the diagram. However, label content and locations are subject to change so your product might not be labeled exactly as shown. Compare the diagram below to your [Record of Normal Condition](#). If there are any differences between actual labeling and this diagram, adapt the diagram to reflect actual labeling. Replace all labels that are damaged, missing, or not easily readable (e.g. faded). To order replacement labels or to inquire whether your unit is properly labeled, contact the technical service and parts department online at [http://www.vestilmfg.com/parts\\_info.htm](http://www.vestilmfg.com/parts_info.htm) or by calling (260) 665-7586 and asking for the Parts Department.



A: Label 821



B: Label 740

⚠ WARNING	⚠ ADVERTENCIA	⚠ AVERTISSEMENT
<ul style="list-style-type: none"> <li>• Do not use near live electric lines</li> <li>• Do not climb rails or lean over rails</li> <li>• Do not use if damaged or worn</li> <li>• Use ladder on level, smooth surfaces only</li> </ul>	<ul style="list-style-type: none"> <li>• No use cerca de líneas eléctricas</li> <li>• No se suba o se asome en la barandilla</li> <li>• No use si está dañado o gastado</li> <li>• Use la escalera en superficies a nivel y lisas</li> </ul>	<ul style="list-style-type: none"> <li>• Ne pas utiliser près des lignes électriques sous tension</li> <li>• Ne pas grimper sur ou vous pencher des rails</li> <li>• Ne pas utiliser si endommagé ou usagé</li> <li>• Utiliser l'échelle seulement sur des surfaces plates et lisses</li> </ul>

C: Label 287

MODEL/MODÉLO/MODÈLE	_____
STATIC CAPACITY (evenly distributed)	_____ lbs.
LA CAPACIDAD CONSTANTE (distribuida uniformemente)	_____ kgs.
CAPACITÉ STATIQUE (distribuée régulièrement)	_____ kgs.
SERIAL/SERIE/SÉRIE	_____

287 REV 0812

## LIMITED WARRANTY

Vestil Manufacturing Corporation (“Vestil”) warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

### Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

### Definition of “original part”?

An original part is a part used to make the product as shipped to the Warrantee.

### What is a “proper request”?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by one of the following methods:

<u>US Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	info@vestil.com Enter “Warranty service request” in subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

### What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions (“wearing parts”), such as bearings, hoses, wheels, seals, brushes, and batteries.

### How long is the warranty period?

The warranty period for original dynamic components is 90 days. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

### If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

### What is not covered by the warranty?

The Warrantee (you) is responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

### Events that automatically void this Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- Unauthorized modifications: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

### Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty. Vestil makes no warranty or representation that this product complies with any state or local design, performance, or safety code or standard. Noncompliance with any such code or standard is not a defect in material or workmanship.

