



#### **Installation Manual:**

Modular Fixed Ladders RoofClimb Series

# Modular Fixed Ladders RoofClimb Series

Model Numbers:

RCL-WT, RCL-WTC, RCL-WTD,
RCL-WTCD, RCL-WTP, RCL-WTPC,
RCL-WTPD, RCL-WTPCD

This Installation Manual is intended to meet the Manufacturer's Instructions requirements and should be used as part of an employee training program.

#### WARNINGS AND CONDITIONS

These instructions must be provided to the installer of this system. The installer must read and understand these instructions and follow.

Failure to follow these instructions or the details of the unique layout drawing provided may result in serious injury or death. If you have any questions about this system's use or care, please contact the manufacturer: 1-800-977-2005 (Canada) or 1-888-242-3045 (US).





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## **WARNING**

# IMPROPER USE OR INSTALLATION OF THIS EQUIPMENT MAY CAUSE INJURY OR DEATH

#### Failure to Read, Understand, and Follow the Installation Manual may result in injury or death

**DO NOT** lean on the walk-thru railing

DO NOT stand or climb on the walk-thru railing

**DO NOT** use rail as a tie-off point

**DO NOT** use rail for lifting or hoisting

**DO NOT** install walk-thru railing or platforms within 10-feet of any electrical lines

**DO NOT** use if any component is found defective or damaged

**DO NOT** attach banners, signs, or equipment to any part of the fixed ladders or platforms

**DO** read and follow this document (Installation Manual) for assembling and mounting the RoofClimb Series Modular Fixed Ladders

Modular Fixed Ladders RoofClimb Series systems are designed and are to be used only for their intended purpose. The use of these ladder systems or their individual components for any other purpose may cause injury or death.

## Required / Suggested Tool List

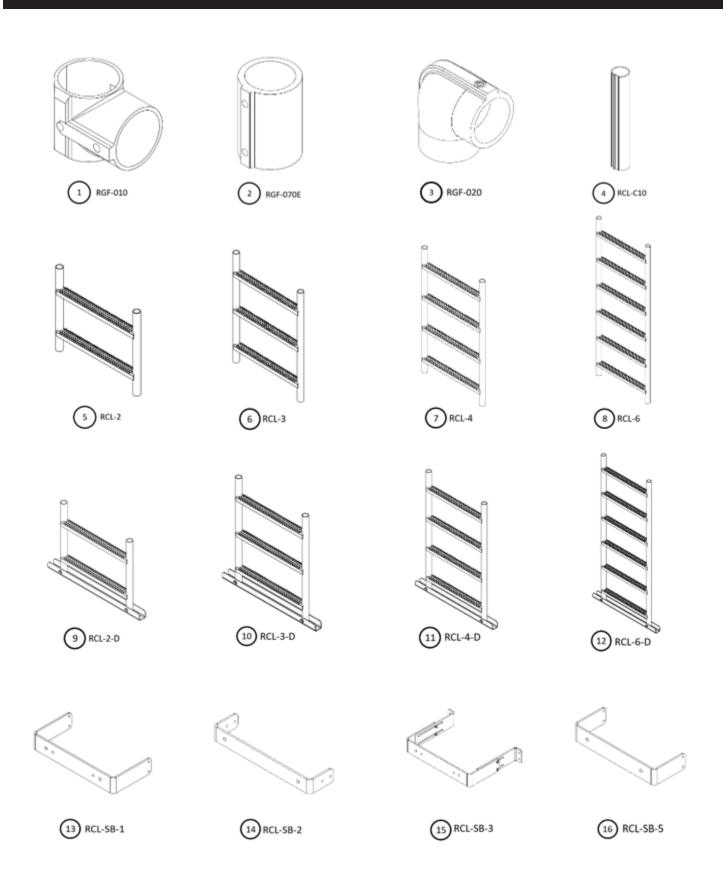
•	2 ft level
•	Marker
•	Hammer
•	Center punch
•	Corded/Cordless Drill
•	Corded/Cordless Hammer Drill
•	Drill bits
•	Masonry bits
•	Wire Brush/Blow Pump/Vaccuum (to clean out holes)

Tape measure

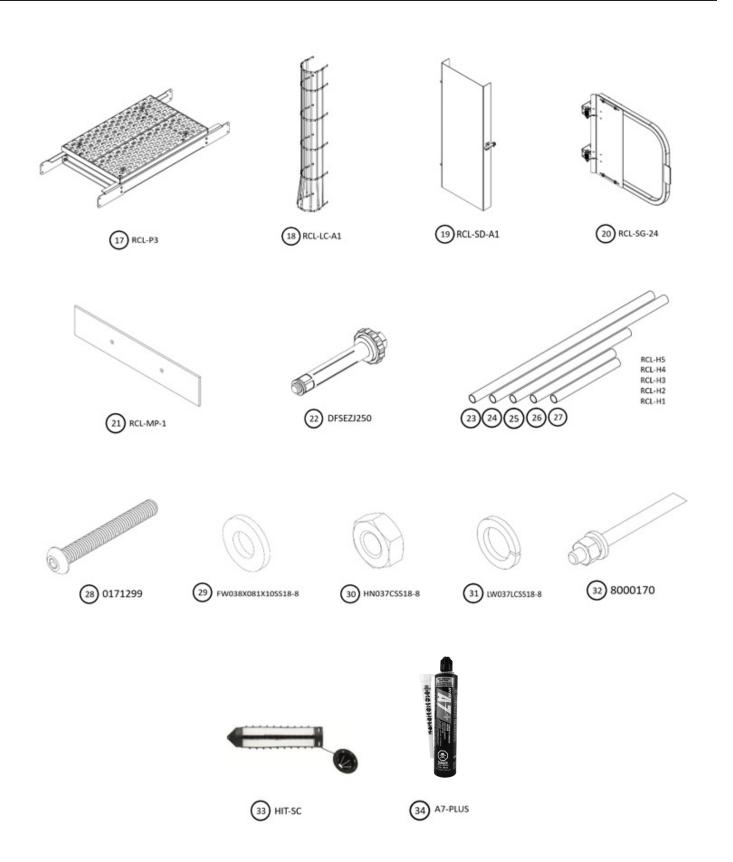
Caulking gun

Allen keys (SAE)

#### Figure 1 - Component Identification



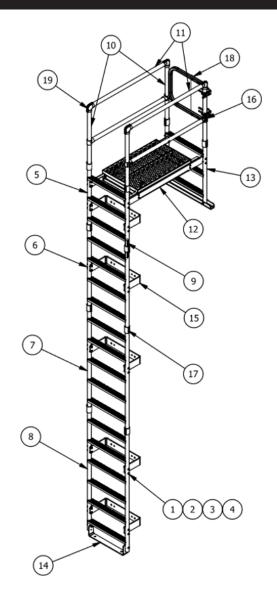
#### Figure 1 - Component Identification



## Figure 1 - Component Identification

#	PART NUMBER	DESCRIPTION
1	RGF-010	FITTING, TEE, SINGLE SOCKET, 08060
2	RGF-070E	COUPLING FITTING, FOR 1-1/2" SCH.40 PIPE ALUMINUM
3	RGF-020	ELBOW, FOR 1-1/2" SCH.40 PIPE ALUMINUM
4	RCL-C10	INTERNAL PIPE COUPLING, CTPST_OTH
5	RCL-2	LADDER WELDMENT, ALUMINUM - 2 FT
6	RCL-3	LADDER WELDMENT, ALUMINUM - 3 FT
7	RCL-4	LADDER WELDMENT, ALUMINUM - 4 FT
8	RCL-6	LADDER WELDMENT, ALUMINUM - 6 FT
9	RCL-2-D	LADDER WELDMENT, ALUMINUM - 2 FT DOWN
10	RCL-3-D	LADDER WELDMENT, ALUMINUM - 3 FT DOWN
11	RCL-4-D	LADDER WELDMENT, ALUMINUM - 4 FT DOWN
12	RCL-6-D	LADDER WELDMENT, ALUMINUM - 6 FT DOWN
13	RCL-SB1	WALL SUPPORT BRACKET, 3/8" PL/ 5052 ALUM. (10-1/2" CLEARANCE)
14	RCL-SB2	FLOOR SUPPORT BRACKET, ADJUSTABLE
15	RCL-SB3	WALL SUPPORT BRACKET, ADJUSTABLE
16	RCL-SB5	WALL SUPPORT BRACKET, 3/8" PL. 5052 ALUM. (8-1/2" CLEARANCE)
17	RCL-P3	WALKTHROUGH PLATFORM ASSEMBLY, ALUMINUM 3 FT LG.
18	RCL-LC-A1	ALUMINUM LADDER CAGE ASSEMBLY
19	RCL-SD-A1	SAFETY DOOR ASSEMBLY
20	RCL-SG-24	GATE, SELF CLOSING 24" WIDE YELLOW (SUPPLIER PT# SGA024PC)
21	RCL-MP-1	WALL MOUNTING PLATE, 1/2" x 8" FB 6061 ALUMINUM
22	DFSEZJ250	FAB-LOK FASTENERS, 18-8 SS, 1/2-3/4 GRIP RANGE
23	RCL-H4	HANDRAIL FOR WALKTHROUGH PLATFORM
24	RCL-H3	HANDRAIL FOR WALKTHROUGH PLATFORM
25	RCL-H2	HANDRAIL FOR WALKTHROUGH PLATFORM
26	RCL-H1	HANDRAIL FOR WALKTHROUGH PLATFORM
27	RCL-H5	HANDRAIL FOR WALKTHROUGH PLATFORM
28	0171299	BUTTON HD SCS, 3/8"-16 x 3"   7/32" HEX DRIVE
29	FW038X081X10SS18-8	FW - 3/8 x .812 x .109 SS 18-8 BARE
30	HN037CSS18-8	HEX NUT 3/8-16 SS 18-8 BARE
31	LW037LCSS18-8	LOCK WASHER, 3/8 LIGHT SS 18-8 BARE
32	8000170	THR'D ROD, 1/2-13 UNC x 6, SS C/W HN, LW, FW
33	A7-Plus	RED HEAD A7+ ANCHORING ADHESIVE (EPOXY CARTRIDGE - 280 ml)
34	HIT-SC	HILTI ANCHOR SCREEN 18x85 #360486 (20 PER PACK)

Figure 2 - Typical Layout With Walkthrough Platform



	*BOM	I IS FOR QTY OF ONE	
#	PART NUMBER	DESCRIPTION	QTY
1	0171299	BUTTON HD SCS, 3/8"-16 x 3" L	30
		7/32" Hex Drive	
2	FW038X081X10SS18-8	FW - 3/8 X .812 X .109 SS 18-8 BARE	30
3	HN037CSS18-8	HEX NUT 3/8-16 SS18-8 BARE	30
4	LW037LCSS18-8	LOCK WASHER, 3/8 Light SS 18-8	30
		BARE	
5	RCL-2	LADDER WELDMENT, ALUMINUM - 2	1
		FT	
6	RCL-3	LADDER WELDMENT, ALUMINUM - 3	1
		FT	
7	RCL-4	LADDER WELDMENT, ALUMINUM - 4	1
		FT	
8	RCL-6	LADDER WELDMENT, ALUMINUM - 6	1
		FT	
9	RCL-C10	INTERNAL PIPE COUPLING,	10
		CTPST_OTH	
10	RCL-H2	Handrail for Walkthrough Platform	4
		(34 in)	
11	RCL-H3	Handrail for Walkthrough Platform	4
		(50.875 in)	
12	RCL-P3	WALK THRU PLATFORM ASSEMBLY,	1
		ALUMINUM 3 FT LG.	
13	RCL-3-D	LADDER WELDMENT, ALUMINUM - 3	1
		FT DOWN	
14	RCL-SB2	FLOOR SUPPORT BRACKET, 3/8" PL.	1
		5052 ALUM.	
15	RCL-SB1	WALL SUPPORT BRACKET, 3/8" PL.	5
		5052 ALUM. (10-1/2" CLEARANCE)	
16	RGF-010	Fitting, Tee, Single Socket, 08060	4
17	RGF-070E	COUPLING FITTING, FOR 1-1/2"	10
		SCH.40 PIPE ALUMINUM	
18	RCL-SG-24	GATE, SELF CLOSING 24" WIDE	1
-	005.000	YELLOW (SUPPLIER PT# SGNA024PC)	
19	RGF-020	ELBOW, FOR 1-1/2" SCH.40 PIPE	4
		ALUMINUM	

#### Typical Layout - For Ladder Assembly

- Assemble ladder as per Figures 4, 6, 7, 8 & 10 (if applicable) in numerical order.
- Measure height of ladder required on wall side A (top of parapet to ground/lower roof).
- Measure height of ladder required on wall side B (top of parapet to top of roof).
- Take both measurements and add 7" (2" of clearance between bottom of platform and top of parapet). Those measurements will be used to cut the side rails to the appropriate length.
- Using those measurements; measure from the top rung down the side rail and make a mark. Make sure the bottom rung is positioned no more than 14" from ground/lower roof level.
- Cut side rail tubes at this measurement. There should be 1" clearance to ground/lower roof & 2" of clearance between bottom of platform and top of parapet.
- Stand ladder up against wall/mounting surface, ensure the ladder is level using 2ft. Level, and mark mounting-holes on wall surface using marker.



#### Typical Layout - For Anchoring to Solid Concrete Wall

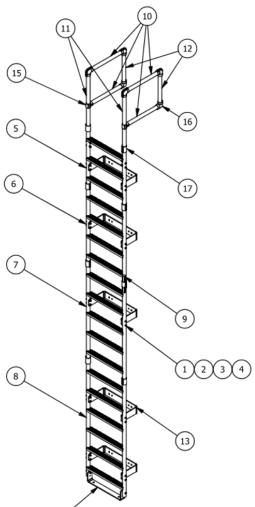
- Drill into wall using 5/8" Masonry Bit x 4" embedment for epoxy anchoring.
- Use Wire Brush/Blow Out Pump/Vacuum to clean holes.
- Insert tube of Anchoring Adhesive into silicon/caulking gun, remove cap and screw on dispensing nozzle.
- Squeeze gun to begin pushing adhesive through mixing/dispensing nozzle, the first two pumps of Adhesive should be discarded.
- Fill holes with provided epoxy adhesive.
- Insert 1/2"-UNC anchor rods, twisting clockwise as you insert into hole, remove any access that spills out of hole.

#### Typical Layout - For Anchoring to For Anchoring to Hollow Brick/Block Wall

- Drill into wall using 11/16" Masonry Bit (for HIT-SC Screen Tubes), 5/8" Masonry Bit (for Red Head Stainless Screen Tubes), to accept 3.5" long screen-tubes for epoxy anchoring.
- Use Wire Brush/Blow Out Pump/Vacuum to clean holes.
- Insert tube of Anchoring Adhesive into silicon/caulking gun, remove cap and screw on dispensing nozzle.
- Squeeze gun to begin pushing adhesive through mixing/dispensing nozzle, the first two pumps of Adhesive should be discarded.
- Insert mixing/dispensing nozzle into Screen Tube (note: Do not puncture through back-side of screen tube), begin filling Screen Tube with Adhesive, moving nozzle out as you fill, must try to fill completely without any air-gaps.
- Once Screen Tube is full of Adhesive, insert into the holes that were drilled into the brick/block wall.
- Insert 1/2"-UNC anchor rod into each tube, twisting clockwise as you insert into the screen tube, remove any access that spills out of screen tube.
- Epoxy Adhesive will begin to harden, Gel-Time / Full Cure Time differ based on temperature of base material, see attached supporting documents from DeWalt/Red Head depending on Adhesive being used.
- Once anchors feel solid/secure to touch and no longer wiggle/move inside holed, secure ladder to
  wall using washers and hex nuts provided. Hex nuts to be tightened until lock/split washers are fully
  depressed.



#### Figure 3 - Typical Layout With Walkthrough



		IS FOR QTY OF ONE	
#	PART NUMBER	DESCRIPTION	QTY
1	0171299	BUTTON HD SCS, 3/8"-16 x 3" L 7/32"	26
		Hex Drive	
2	FW038X081X10SS18-8	FW - 3/8 X .812 X .109 SS 18-8 BARE	26
3	HN037CSS18-8	HEX NUT 3/8-16 SS18-8 BARE	26
4	LW037LCSS18-8	LOCK WASHER, 3/8 Light SS 18-8	26
		BARE	
5	RCL-2	LADDER WELDMENT, ALUMINUM - 2	1
		FT	
6	RCL-3	LADDER WELDMENT, ALUMINUM - 3	1
		FT	
7	RCL-4	LADDER WELDMENT, ALUMINUM - 4	1
		FT	
8	RCL-6	LADDER WELDMENT, ALUMINUM - 6	1
		FT	
9	RCL-C10	INTERNAL PIPE COUPLING,	8
		струт_отн	
10	RCL-H1	Handrail for Walkthrough (23.5 in)	4
11	RCL-H2	Handrail for Walkthrough Platform (34	2
		in)	
12	RCL-H5	Handrail for Walkthrough Platform	2
		(18.75 in)	
13	RCL-SB1	WALL SUPPORT BRACKET, 3/8" PL.	5
		5052 ALUM. (10-1/2" CLEARANCE)	
14	RCL-SB2	FLOOR SUPPORT BRACKET, 3/8" PL.	1
		5052 ALUM.	
15	RGF-010	Fitting, Tee, Single Socket, 08060	2
16	RGF-020	ELBOW, FOR 1-1/2" SCH.40 PIPE	1
		ALUMINUM	
17	RGF-070E	COUPLING FITTING, FOR 1-1/2"	8
	I	SCH.40 PIPE ALUMINUM	

#### Typical Layout - For Ladder Assembly

- Assemble ladder as per Figures 4, 6, 9 & 10 (if applicable) in numerical order.
- Measure height of ladder required (top of parapet to ground/lower roof). Make sure to have the top rung level with the top of the parapet or access/egress level.
- Take that measurement and subtract 1". That measurement will be used to cut the side rails to the appropriate length.
- Using that measurement; measure from the top rung down the side rail and make a mark. Make sure the bottom rung is positioned no more than 14" from ground/lower roof level.
- Cut side rail tubes at this measurement. There should be 1" clearance to ground/lower roof.
- Stand ladder up against wall/mounting surface, ensure the ladder is level using 2ft. Level, and mark mounting-holes on wall surface using marker.



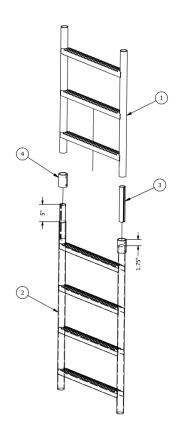
#### Typical Layout - For Anchoring to Solid Concrete Wall

- Drill into wall using 5/8" Masonry Bit x 4" embedment for epoxy anchoring.
- Use Wire Brush/Blow Out Pump/Vacuum to clean holes.
- Insert tube of Anchoring Adhesive into silicon/caulking gun, remove cap and screw on dispensing nozzle.
- Squeeze gun to begin pushing adhesive through mixing/dispensing nozzle, the first two pumps of Adhesive should be discarded.
- Fill holes with provided epoxy adhesive.
- Insert 1/2"-UNC anchor rods, twisting clockwise as you insert into hole, remove any access that spills out of hole.

#### Typical Layout - For Anchoring to For Anchoring to Hollow Brick/Block Wall

- Drill into wall using 11/16" Masonry Bit (for HIT-SC Screen Tubes), 5/8" Masonry Bit (for Red Head Stainless Screen Tubes), to accept 3.5" long screen-tubes for epoxy anchoring.
- Use Wire Brush/Blow Out Pump/Vacuum to clean holes.
- Insert tube of Anchoring Adhesive into silicon/caulking gun, remove cap and screw on dispensing nozzle.
- Squeeze gun to begin pushing adhesive through mixing/dispensing nozzle, the first two pumps of Adhesive should be discarded.
- Insert mixing/dispensing nozzle into Screen Tube (note: Do not puncture through back-side of screen tube), begin filling Screen Tube with Adhesive, moving nozzle out as you fill, must try to fill completely without any air-gaps.
- Once Screen Tube is full of Adhesive, insert into the holes that were drilled into the brick/block wall.
- Insert 1/2"-UNC anchor rod into each tube, twisting clockwise as you insert into the screen tube, remove any access that spills out of screen tube.
- Epoxy Adhesive will begin to harden, Gel-Time / Full Cure Time differ based on temperature of base material, see attached supporting documents from DeWalt/Red Head depending on Adhesive being used.
- Once anchors feel solid/secure to touch and no longer wiggle/move inside holed, secure ladder to
  wall using washers and hex nuts provided. Hex nuts to be tightened until lock/split washers are fully
  depressed.





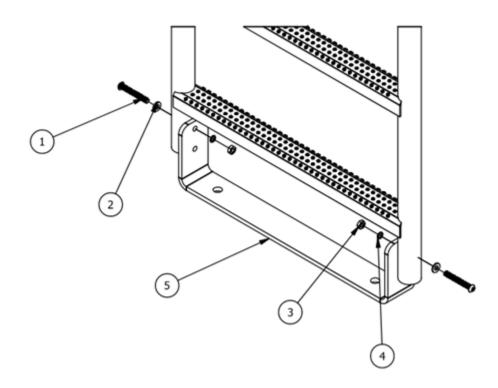
#	PART NUMBER	DESCRIPTION	QTY
1	RCL-3	LADDER WELDMENT, ALUMINUM - 3 FT	1
2	RCL-4	LADDER WELDMENT, ALUMINUM - 4 FT	1
3	RCL-C10	INTERNAL PIPE COUPLING, CTPST_OTH	1
4	RGF-070E	COUPLING FITTING, FOR 1-1/2" SCH.40 PIPE AL.	1

#### **Ladder Assembly**

- With the set screws not tightened, place the external couplings (item 4) onto the bottom ladder.
- Using vice grips, clamp and slide internal pipe coupling (item 3) into bottom ladder side rail tubes.
- Connect top and bottom ladder after removing the vice grips from the internal couplings.
- Slide the external couplers fitting (item 4) overtop of the ladder connection point and secure tightly by fastening the set screws into the side rail ladder tubes.



#### Figure 5 - Floor Bracket Assembly



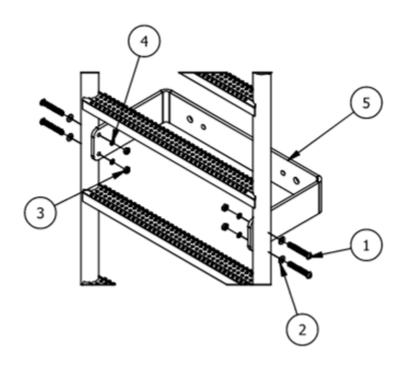
#	PART NUMBER	DESCRIPTION	QTY
1	0171299	BUTTON HD SCS, 3/8"-16 x 3" L 7/32" Hex Drive	2
2	FW038X081X10SS18-8	FW - 3/8 X .812 X .109 SS 18-8 BARE	2
3	HN037CSS18-8	HEX NUT 3/8-16 SS 18-8 BARE	2
4	LW037LCSS18-8	LOCK WASHER, 3/8 Light SS 18-8 BARE	2
5	RCL-SB2	FLOOR SUPPORT BRACKET, 3/8" PL. 5052 AL.	1

#### Floor Bracket Assembly

- Once side rail tubes have been cut to length, measure 1" below bottom of the side rail tubes and that will be the bottom of the floor support bracket (item 5).
- Mark the hole locations on the side rail tubes using the existing holes on the floor support bracket \
   (item 5).
- Remove floor bracket from ladder tubes and drill 7/16" hole through both sides of each ladder side rail tube.
- Install floor support bracket to ladder with provided hardware.



#### Figure 6 - Wall Bracket Assembly



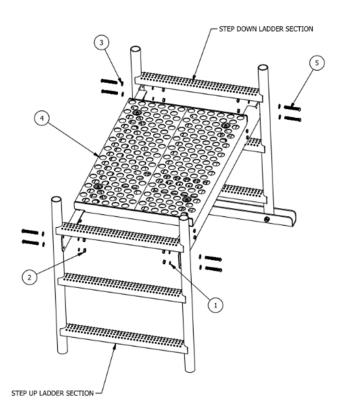
#	PART NUMBER	DESCRIPTION	QTY
1	0171299	BUTTON HD SCS, 3/8"-16 x 3" L 7/32" Hex Drive	4
2	FW038X081X10SS18-8	FW - 3/8 X .812 X .109 SS 18-8 BARE	4
3	HN037CSS18-8	HEX NUT 3/8-16 SS 18-8 BARE	4
4	LW037LCSS18-8	LOCK WASHER, 3/8 Light SS 18-8 BARE	4
5	RCL-SB1/SB3/SB5	WALL SUPPORT BRACKET, 3/8" PL. 5052 AL.	1

#### Wall Bracket Assembly

- Wall mount brackets are required within 2ft of every ladder connection point. Make sure when assembling wall mount brackets, there is minimum 7" of clearance between the center of the ladder rung and any obstruction.
- Position wall brackets on ladder and mark hole locations on side rail tubes with a center punch.
- Remove wall bracket from ladder rungs and drill 7/16" hole through both sides of tube. Make sure to drill a pilot hole for this.
- Install wall bracket to ladder with provided hardware. Ensure the head of the bolt is on the outside of the side rail tubes.



#### Figure 7 - Platform Assembly



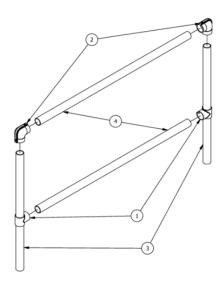
#	PART NUMBER	DESCRIPTION	QTY
1	0171299	BUTTON HD SCS, 3/8"-16 x 3" L 7/32" Hex Drive	8
2	RCL-P3	WALK THRU PLATFORM ASSEMBLY, ALUMINUM 3 FT LG.	1
3	FW038X081X10SS18-8	FW - 3/8 X .812 X .109 SS 18-8 BARE	8
4	HN037CSS18-8	HEX NUT 3/8-16 SS 18-8 BARE	8
5	LW037LCSS18-8	LOCK WASHER, 3/8 Light SS 18-8 BARE	8

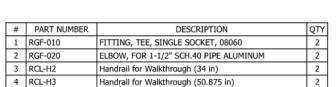
#### **Platform Assembly**

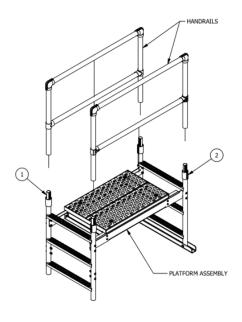
- Top of platform is to be flush with ladder top of rung.
- Position platform with ladders on both sides ensuring rungs align correctly with the platform. Mark hole location with center punch on side rail tubes.
- Remove ladders from the platform and drill 7/16" hole through both sides of tube at marked locations.
   Ensure to use a pilot hole for this.
- Install platform to ladder with provided hardware.



#### Figure 8 - Handrail Assembly for Platform







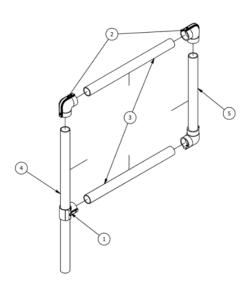
#	PART NUMBER	DESCRIPTION	QTY
1	RGF-070E	COUPLING FITTING, FOR 1-1/2" SCH.40 PIPE AL.	4
2	RCL-C10	INTERNAL PIPE COUPLING, CTPST_OTH	4

#### Handrail Assembly for Platform

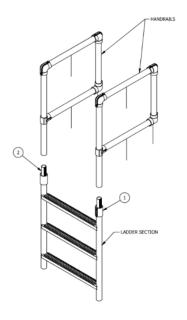
- Handrails shipped preassembled.
- With the set screws not tightened, place the external couplings (item 2) onto the platform assembly.
- Install the internal couplings (item 1) by clamping the flat surfaces of internal couplings along halfway point using vice grips and lock. Slide internal couplings into side tubes.
- Slide handrails over top of platform after removing the vice grips.
- External couplings (item 2) can be fastened into position such that the center of the coupling aligns with the connection line between the platform assembly of handrails.



#### Figure 9 - Handrail Assembly for Walkthrough



#	PART NUMBER	DESCRIPTION	QTY
1	RGF-010	FITTING, TEE, SINGLE SOCKET, 08060	2
2	RGF-020	ELBOW, FOR 1-1/2" SCH.50 PIPE ALUMINUM	2
3	RCL-H1	Handrail for Walkthrough Platform (23.5 in)	2
4	RCL-H2	Handrail for Walkthrough Platform (34 in)	1
5	RCL-H5	Handrail for Walkthrough Platform (18.75 in)	1



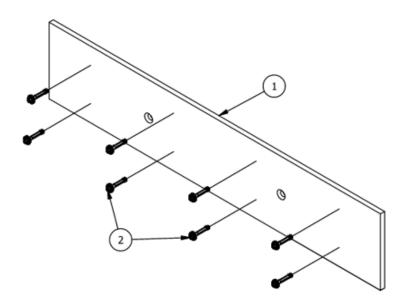
-	#	PART NUMBER	DESCRIPTION	QTY
	1	RGF-070E	COUPLING FITTING, FOR 1-1/2" SCH.40 PIPE AL.	2
	2	RCL-C10	INTERNAL PIPE COUPLING, CTPST_OTH	2

#### Handrail Assembly for Walkthrough

- Handrails shipped preassembled.
- With the set screws not tightened, place the external couplings (item 1) onto the platform assembly.
- Install the internal couplings (item 2) by clamping the flat surfaces of internal couplings along halfway point using vice grips and lock. Slide internal couplings into side tubes.
- Slide handrails over top of platform after removing the vice grips.
- External couplings (item 1) can be fastened into position such that the center of the coupling aligns with the connection line between the platform assembly of handrails.



Figure 10 - Mounting Plate Assembly (Only for Cladded Walls)



#	PART NUMBER	DESCRIPTION	QTY
1	RCL-MP-1	WALL MOUNTING PLATE, 1/2" x 8" FB 6061 ALUMINUM	1
2	DFSEZJ250	FAB-LOK FASTENERS, 18-8 SS, 1/2-3/4 GRIP RANGE	8

### Mounting Plate Assembly (Only for Cladded Walls)

- Drill pilot holes into mounting plate for fab lok fasteners.
- Equally space all fasteners across mounting plate.



# IMPROPER USE OR INSTALLATION OF THIS EQUIPMENT MAY CAUSE INJURY OR DEATH

Failure to Read, Understand, and Follow the Installation Manual may result in injury or death

DO NOT lean on the walk-thru railing

**DO NOT** stand or climb on the walk-thru railing

DO NOT use rail as a tie-off point

**DO NOT** use rail for lifting or hoisting

**DO NOT** install walk-thru railing or platforms within 10-feet of any electrical lines

DO NOT use if any component is found defective or damaged

**DO NOT** attach banners, signs, or equipment to any part of the fixed ladders or platforms

**DO** read and follow this document (Installation Manual) for assembling and mounting the RoofClimb Series Modular Fixed Ladders

Modular Fixed Ladders RoofClimb Series systems are designed and are to be used only for their intended purpose. The use of these ladder systems or their individual components for any other purpose may cause injury or death.

## **Fall Protection Warranty**

Please refer to website for product warranty information.

fallsafetysolutions.com/terms-conditions/

factorysupply.com/terms-conditions/



Liftsafe 306 Darrel Drive Ayr, ON NOB 1E0 1 (800) 977-2005 info@liftsafegroup.com www.liftsafegroup.com



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