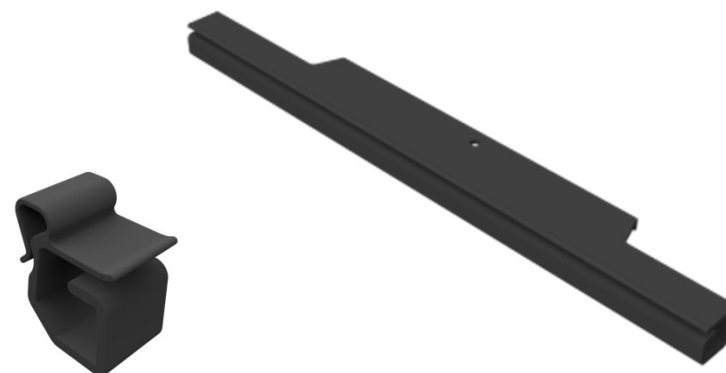




clawFR® & clawFRplus® Wire Management Manual

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Introduction

The clawFR & clawFRplus Wire Management product line is comprised of four major components that intuitively install to safely secure wiring for photovoltaic (PV) arrays.

This installation manual explains how to install Wire Management products for clawFR & clawFRplus 5 Degree, 10 Degree, and Dual Tilt.



WIRE MANAGEMENT PRODUCTS ARE NOT COVERED UNDER THE PANEL CLAW LIMITED PRODUCT LIABILITY WARRANTY



THIS PRODUCT MUST BE INSTALLED AND USED ACCORDING TO THIS WRITTEN INSTRUCTION. ANY INSTALLATION OR USE OF THIS PRODUCT NOT IN ACCORD WITH OR NOT AUTHORIZED BY THIS WRITTEN INSTRUCTION SHALL VOID ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, ON THE PRODUCT OR THE USE OF THE PRODUCT AND MAY CAUSE FAILURE, PROPERTY DAMAGE AND PERSONAL INJURY. PANELCLAW IS NOT LIABLE FOR ANY UNAUTHORIZED USE. INSTALL AND USE ONLY WITH OTHER PANELCLAW **AUTHORIZED** RACKING PRODUCTS TO ENSURE PROPER FIT AND FUNCTION.

Safety Overview

Safety is an essential part of every PV installation and every construction site. It is imperative to plan ahead for any safety concerns and hazards to promote safe work practices during installation. This section does not claim to address or support all safety concerns that may arise during the installation of PanelClaw mounting systems or any other aspect of the work being performed. Before beginning work, installers should refer to all local and federal safety, health, and regulatory requirements to assure compliance. Refer to OSHA Part 1926 and its related Subparts for federal construction related regulations and standards.



DO NOT STEP OR STAND ON WIRE MANAGEMENT PRODUCTS

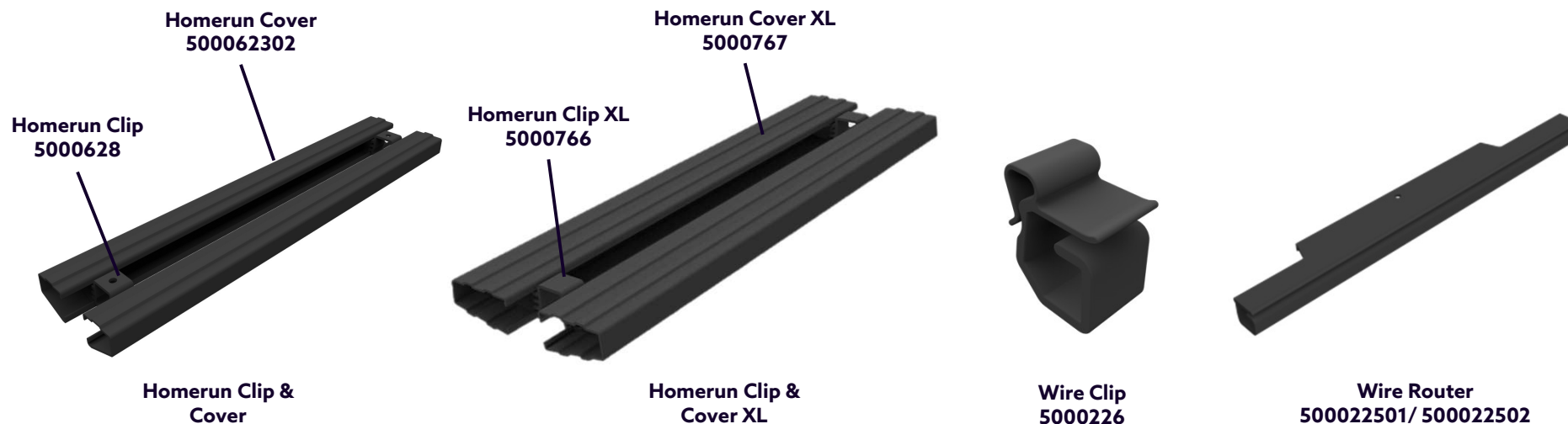
UL 1565 Wire Positioning - Ratings

The clawFR & clawFRplus Wire Management products conform to UL STD 1565 and are Certified to CSA C22.2 #18.5-13 Positioning Devices, with the following ratings:

- Operating Temperature Range: -35 to 90C
- Maximum Load: 10lbs
- For Outdoor Use



Wire Management Accessories



Note: The above images are not on the same scale.

Tools

Drill with torque limiter or torque wrench

ALERT: NO IMPACT DRIVERS

Torque Setting*	Fastening Operation
3 ft-lb (4.1 Nm)	Wire Router

* +/-4% allowable during installation

Socket sizes	Fastening Operation
10 mm Magnetic	Used with 6 mm bolts

Homerun Clip & Cover and Homerun Clip & Cover XL Installation

Part Number: 500062302, 5000628, 5000766, 5000767

Tip: With Homerun Clip & Cover, wires can be installed on one or both sides of the base

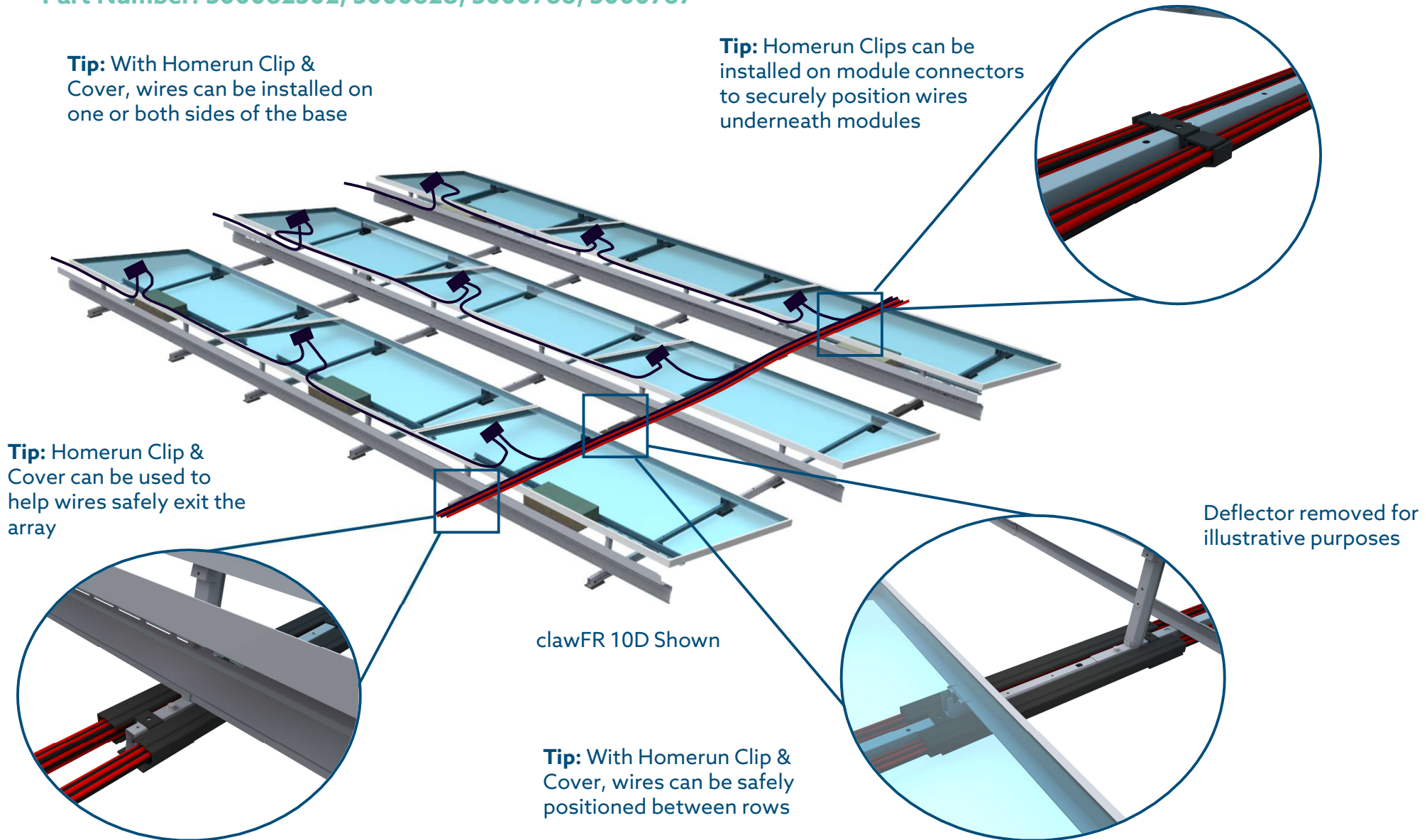
Tip: Homerun Clips can be installed on module connectors to securely position wires underneath modules

Tip: Homerun Clip & Cover can be used to help wires safely exit the array

clawFR 10D Shown

Tip: With Homerun Clip & Cover, wires can be safely positioned between rows

Deflector removed for illustrative purposes



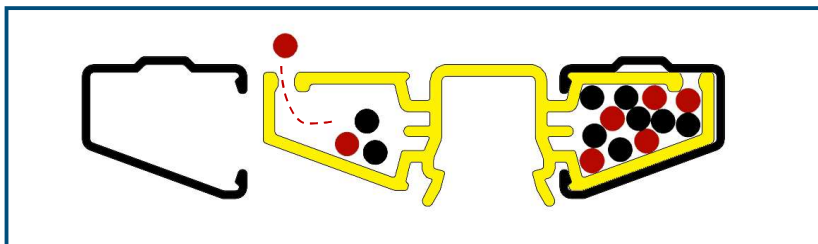
Homerun Clip & Cover Installation (Continued)

Part Number: 500062302, 5000628

Homerun Clip & Cover provide a convenient solution for safely and securely positioning wires running between module rows. Homerun Clip clicks directly onto the Module Connector without the need for any tools.

Each **Homerun Cover** Pack includes 25 Covers.

Each **Homerun Clip** Pack includes 100 Clips.



Insert wires into Homerun Clip as shown, before snapping on Homerun Cover

A maximum of 12 #10 wires, 8 #8 wires, or 6 #6 wires are allowed for each side dependent on outer diameter.

Tip: Homerun Clip and Cover is more easily installed prior to modules being in place.

Alert: MC Connectors shall not be placed inside of the Homerun Clip, Homerun Clip XL, and Wire Router



Reference height from bottom of Homerun Clip to ground.



500062302
For use with all Bases



5000628
For use with all Bases

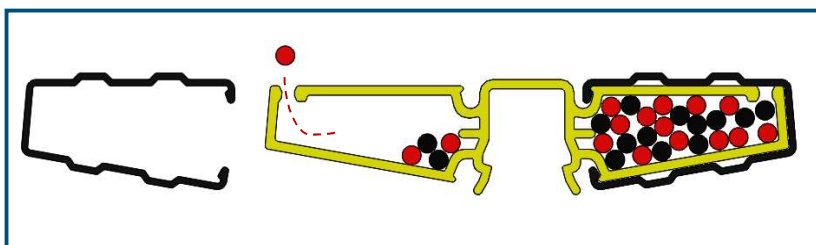
Homerun Clip & Cover XL Installation (Continued)

Part Number: 5000766, 5000767

Homerun Clip & Cover XL provide a convenient solution for safely and securely positioning wires running between module rows. Homerun Clip XL clicks directly onto the Module Connector without the need for any tools.

Each **Homerun Cover XL** Pack includes 25 Covers.

Each **Homerun Clip XL** Pack includes 100 Clips.

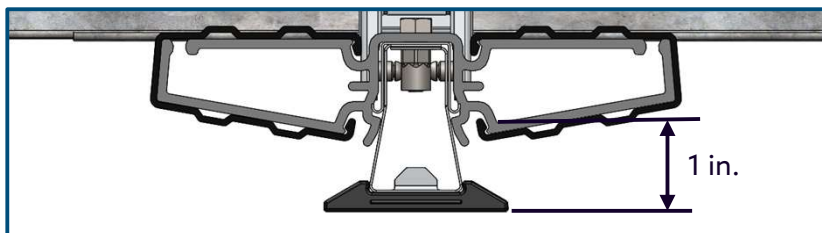


Insert wires into Wire Clip as shown, before snapping on Cover

A maximum of 25 #10 wires, 16 #8 wires, or 10 #6 wires are allowed for each side dependent on outer diameter.

Tip: Homerun Clip and Cover XL is more easily installed prior to modules being in place.

Alert: MC Connectors shall not be placed inside of the Homerun Clip, Homerun Clip XL, and Wire Router



Reference height from bottom of Homerun Clip to ground.



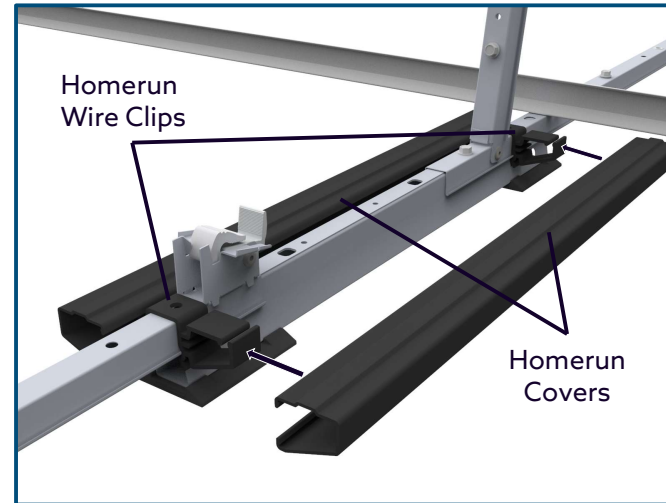
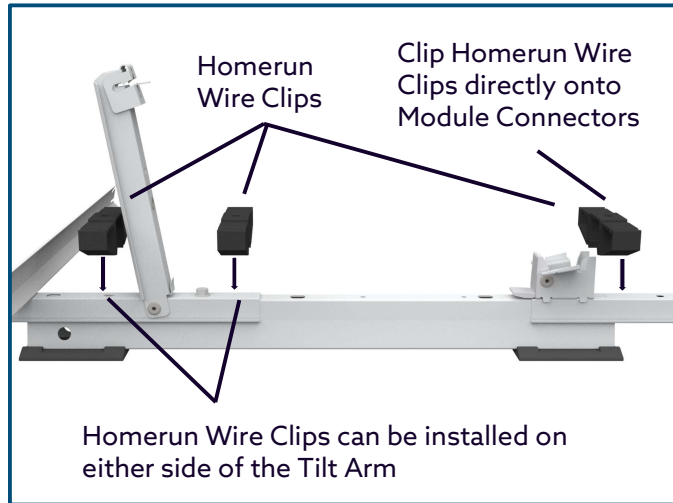
5000767 Homerun Cover XL
For use with all Bases



5000766 Homerun Clip XL
For use with all Bases

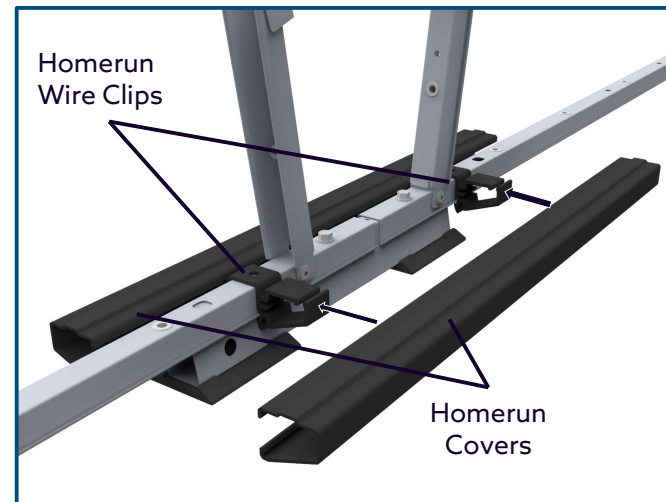
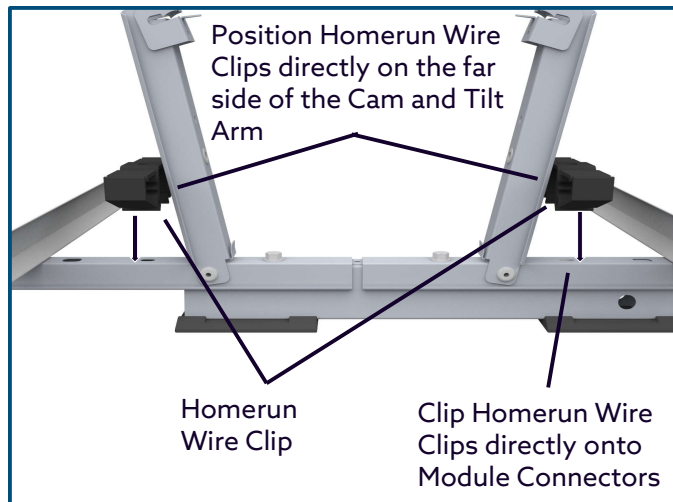
Homerun Clip & Cover and Homerun Clip & Cover XL Installation (Continued)

Part Number: 500062302, 5000628



clawFR & clawFRplus 5D & 10D: Click Homerun Wire Clips directly onto the Module Connectors on the far side of the Cam and Tilt Arm. Homerun Covers click directly onto one or both sides of the Wire Clip. No mechanical fasteners are needed for installation.

clawFR 10D Shown



clawFR & clawFRplus DT: Click Homerun Wire Clips directly onto the module connector on the far side of the two Tilt Arms. Homerun Covers click directly onto one or both sides of the Wire Clip. No mechanical fasteners are needed for installation.

clawFR 10D Shown

Alert: Two Homerun Wire Clips must be used per walkway aisle.

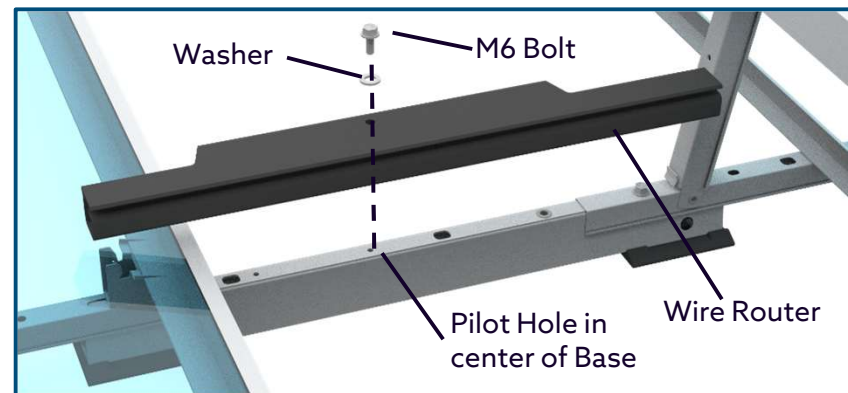
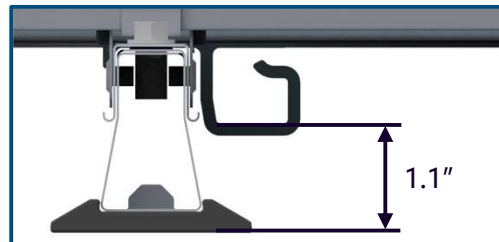
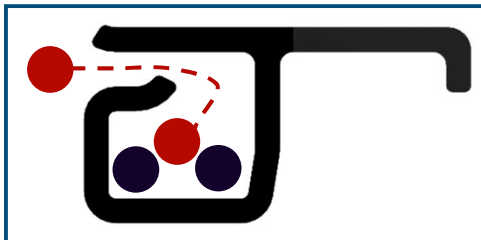
Wire Router Installation

Part Number: 5000225 [01/02]

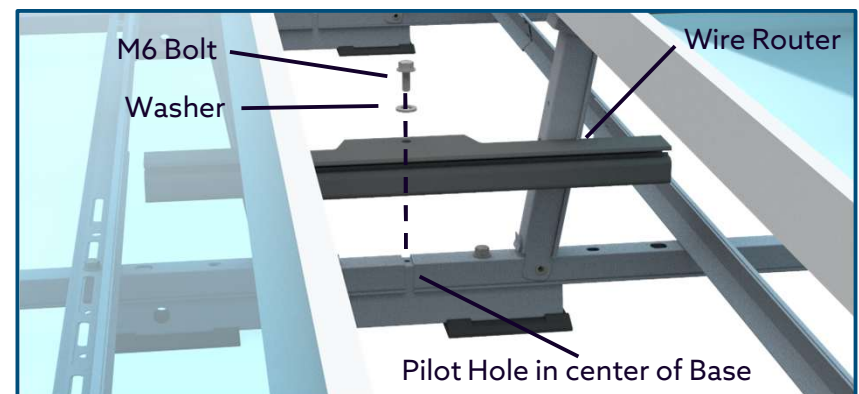
Wire Routers provide a convenient solution for safely and securely positioning up to 4 #10 wires or 2 #6 wires between module rows. Wire Routers install directly onto the Base and provide both physical and UV protection to the PV wire.

Each **Wire Router Pack** includes a total of 25 Wire Routers and 30 washers.

Alert: Wire Routers may not be used on Bases to which Mechanical Attachment Struts are installed.



clawFR & clawFRplus 5D & 10D: Place Wire Router on top of Base and bolt through mounting hole into pilot hole in center of Base. Torque to **3 ft-lb**. clawFR 10D Shown.



clawFR & clawFRplus DT: Place Wire Router on top of Base and bolt through mounting hole into pilot hole in center of Base. Torque to **3 ft-lb**. clawFR DT Shown.

Wire Router Installation (Continued)

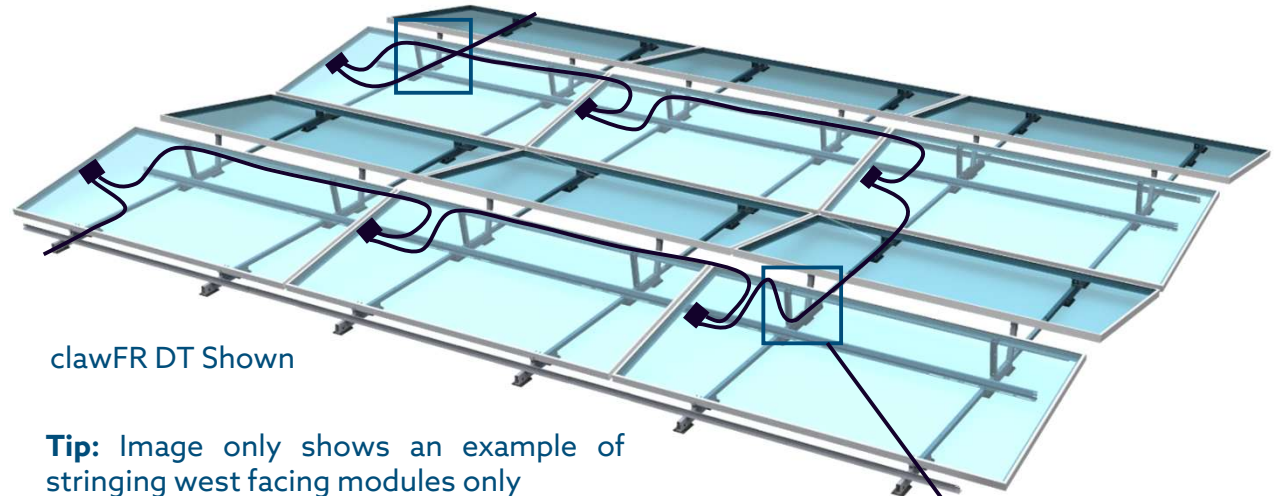
Part Number: 5000225 [01/02]

Alert: Wire Routers may not be used on Bases to which Mechanical Attachment Struts are installed.

Tip: The gap on the valley is 1.6" [40 mm], which provides built-in physical protection of the wire

Alert: MC Connectors shall not be placed inside of the Homerun Clip, Homerun Clip XL, and Wire Router

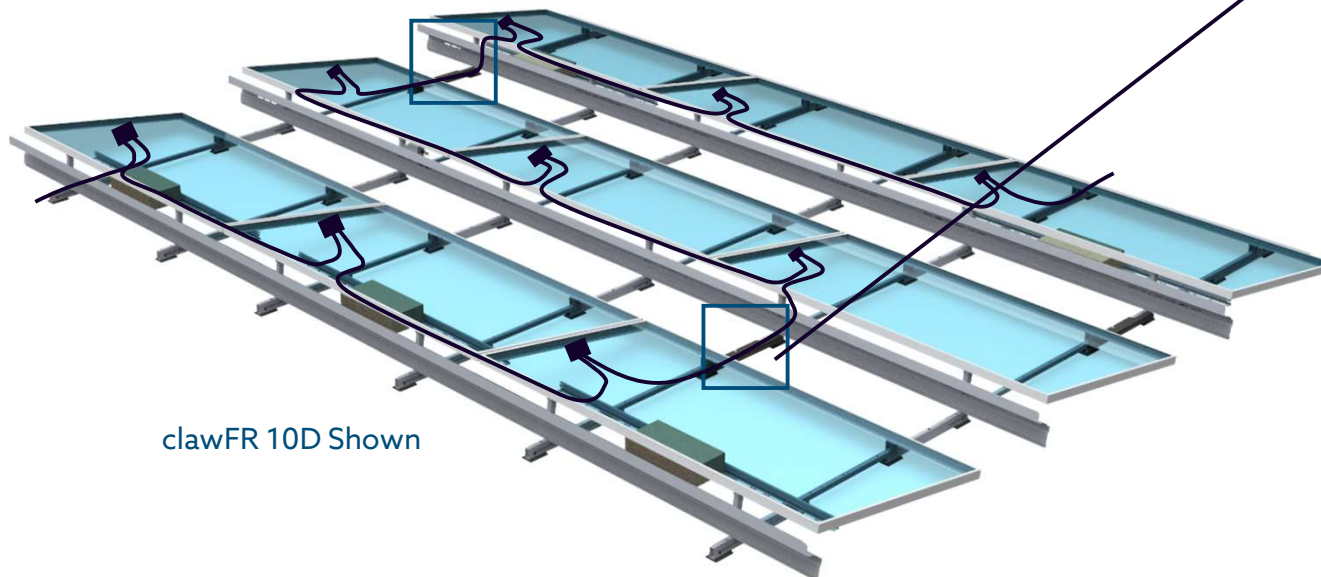
Tip: Wire Router can be installed on either side of the Base.



clawFR DT Shown

Tip: Image only shows an example of stringing west facing modules only

Wire Router installed to facilitate safe wire management across the gap



clawFR 10D Shown

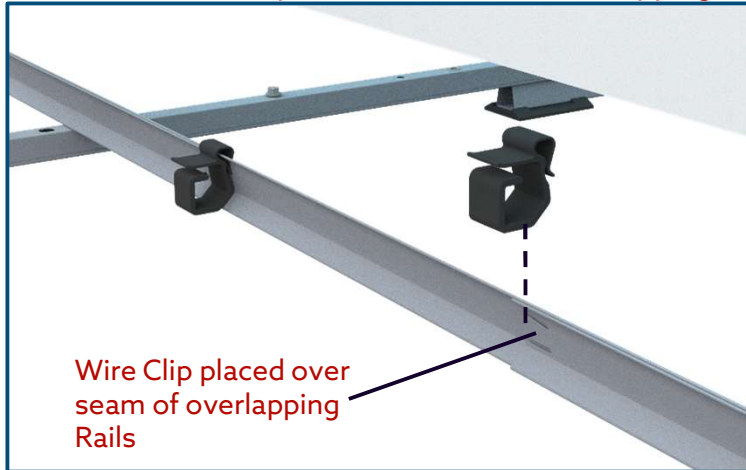
Wire Clip Installation

Part Number: 5000226

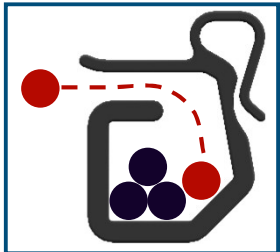
Wire Clips are an optional accessory that provide a convenient solution for safely and securely positioning wires along rows. Wire Clips clip directly onto clawFR & clawFRplus Rails without tools.

Each **Wire Clip Pack** includes a total of 100 Wire Clips.

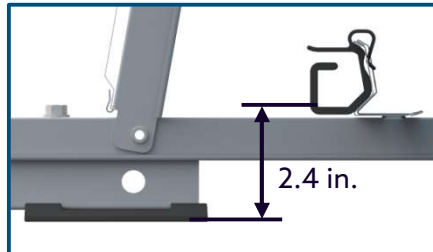
Alert: Place Wire Clips over the seam of overlapping Rails.



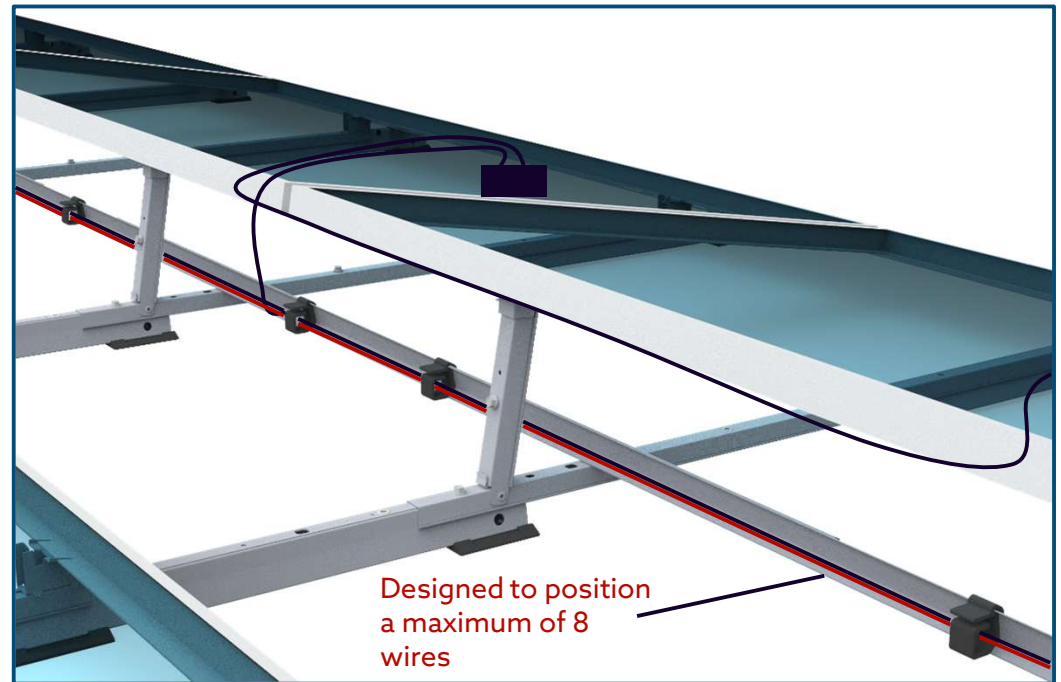
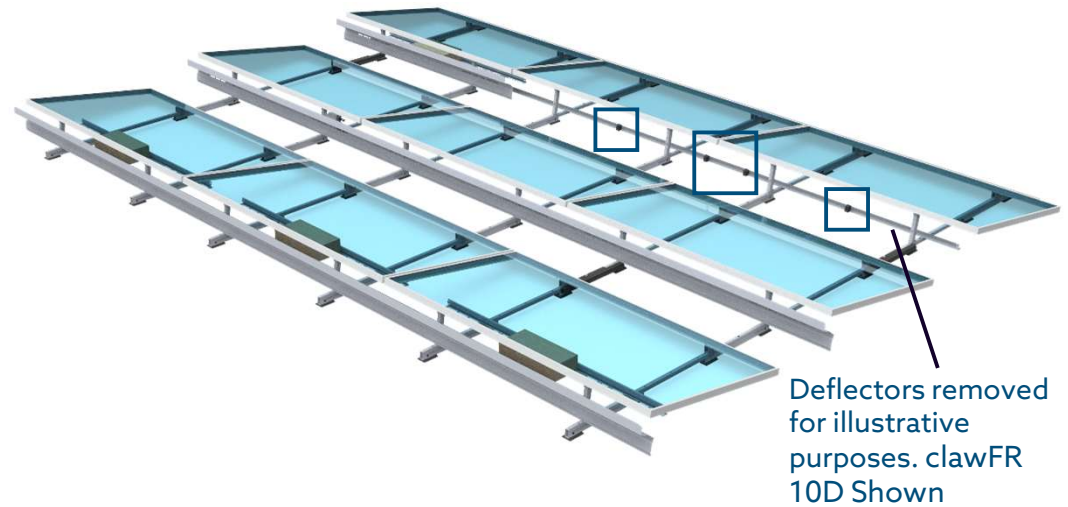
Place Wire Clip over the top of Rail.



Insert wires into Wire Clip as shown. A maximum of 8 #10 wires, 5 #8 wires, or 4 #6 wires are allowed dependent on outer diameter.



Reference height from bottom of Wire Clip to ground. clawFR 10D Shown.



Tip: Installation is identical for clawFR & clawFRplus 5D, 10D & DT. clawFR 10D Shown.