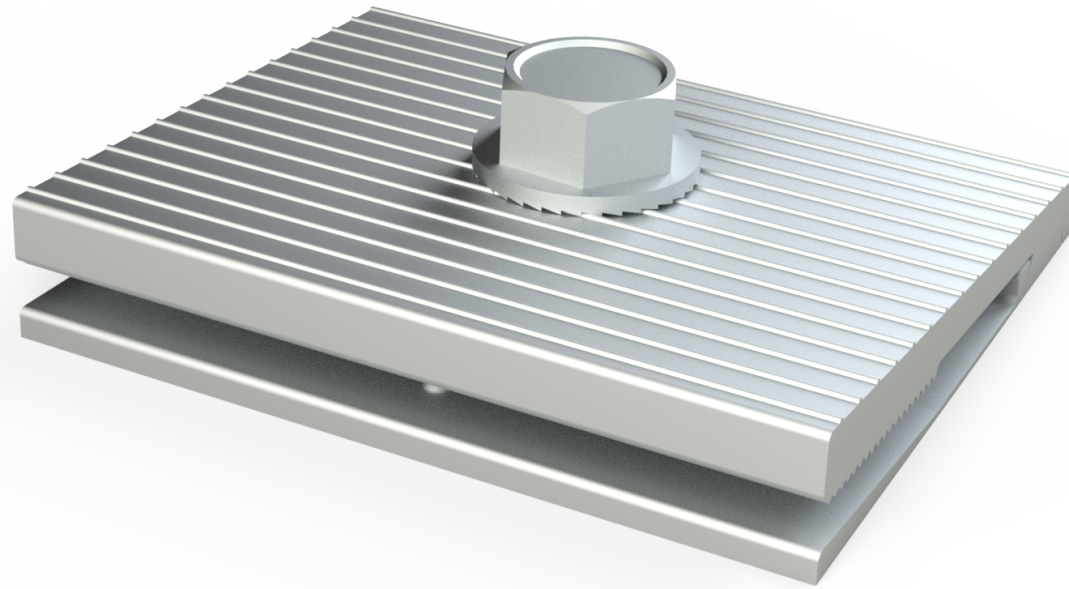




INSTALLATION GUIDE



UNIRAC Code-Compliant Installation Manual

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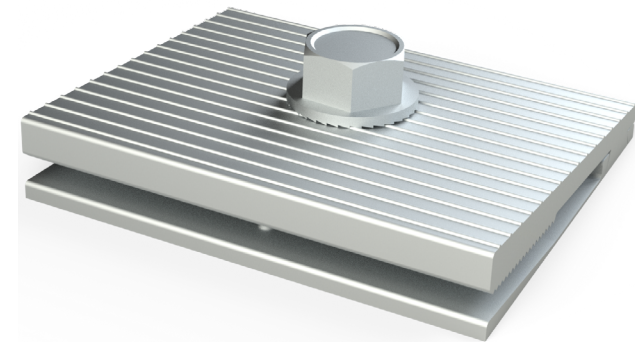
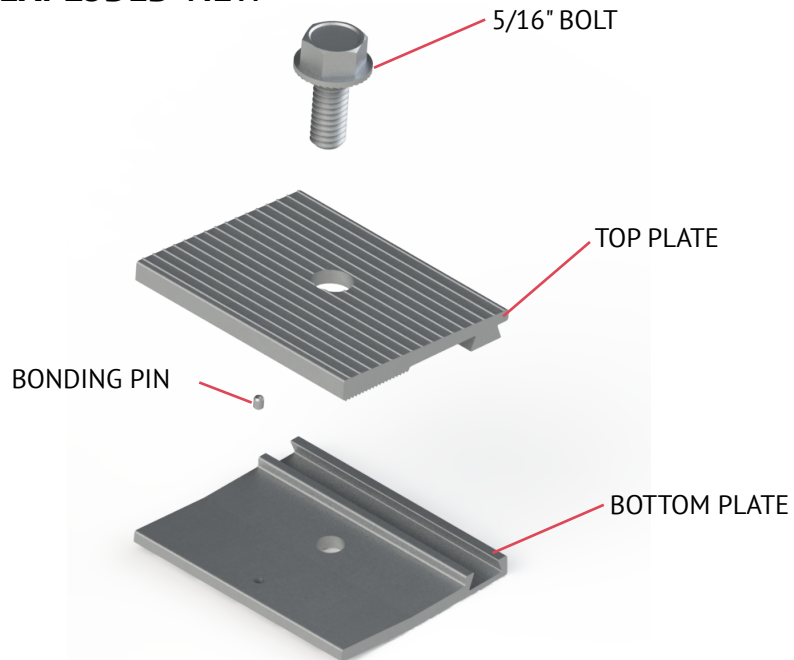
INSTALLATION GUIDE

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This manual describes the procedure to install the Tiger Clip product. All installers must thoroughly read this manual and have a clear understanding of the installation procedures prior to installation. Failure to follow the methods and procedures outlined in this manual may result in injury and/or damage to property. This manual must be readily accessible at all times.

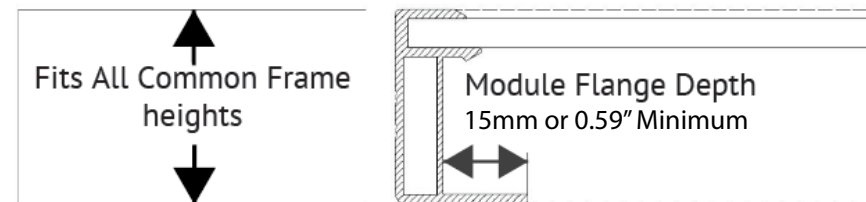
EXPLODED VIEW



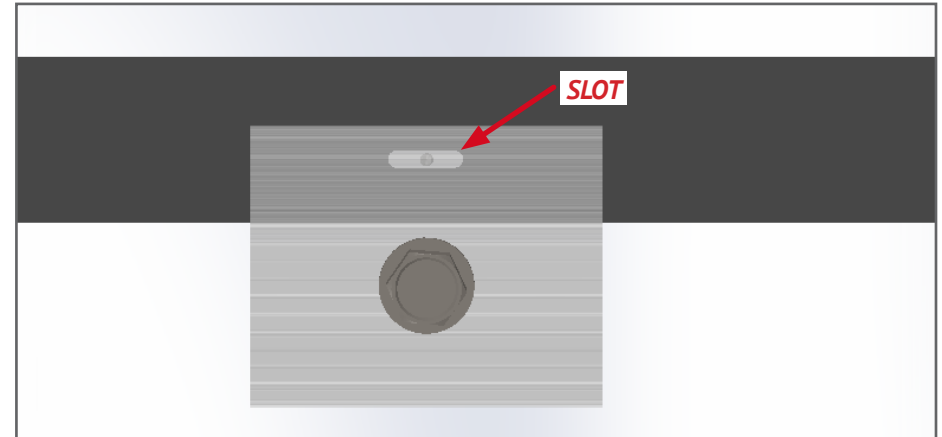
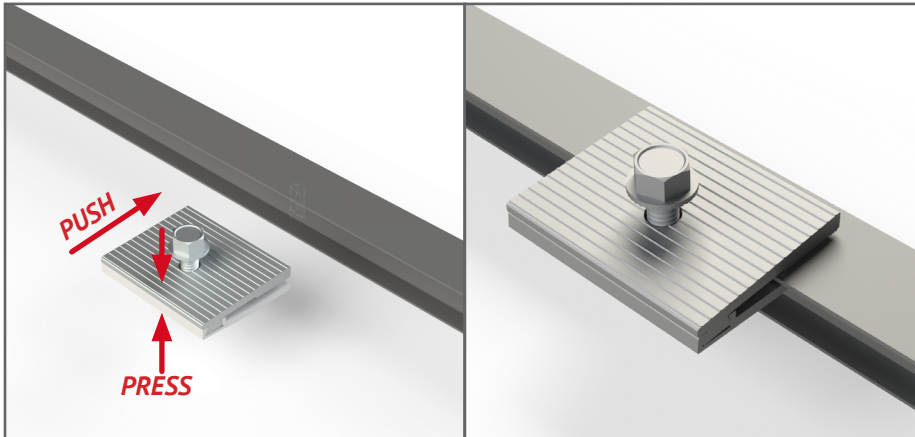
TIGER CLIP MLPE ASSEMBLY
(P/N: 008115M)

FEATURES

- For use with Micro Invertors and Power Optimizers
- Engages with module flange, compatible with both rail and rail-less racking systems
- 2 piece design grabs both sides of flange
- Integrated bonding
- Ribbed surface grips MLPE mounting plate
- Compatible with All Module Frame Heights
- UL2703 Certified



MINIMUM MODULE REQUIREMENTS



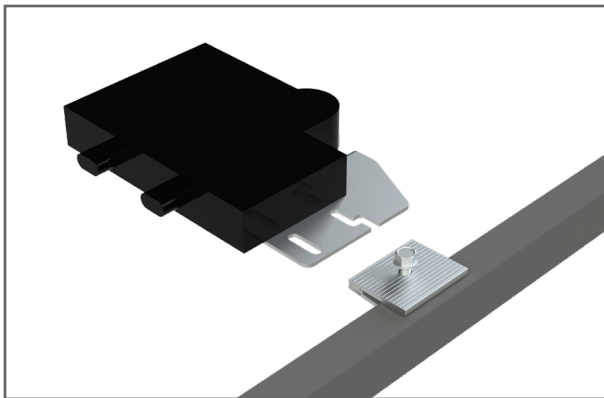
STEP 1: ATTACH TIGER CLIP TO MODULE

- Push the Tiger Clip onto the module's return flange by pressing down on the opposite end of the Clip.
- Ensure the bonding feature is fully engaged with the return flange.

NOTE: Use the Tiger Clip only with return flanges that are 0.24 inches thick or less.

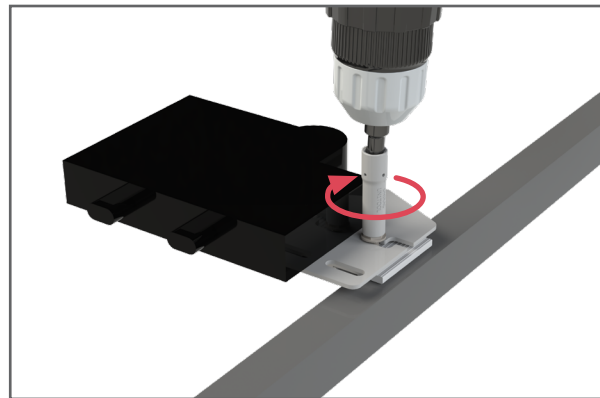


CAUTION
Ensure the bonding feature does not engage with a slot or gap in the module's return flange, as this may compromise electrical bonding.



STEP 2: ATTACH MLPE TO TIGER CLIP

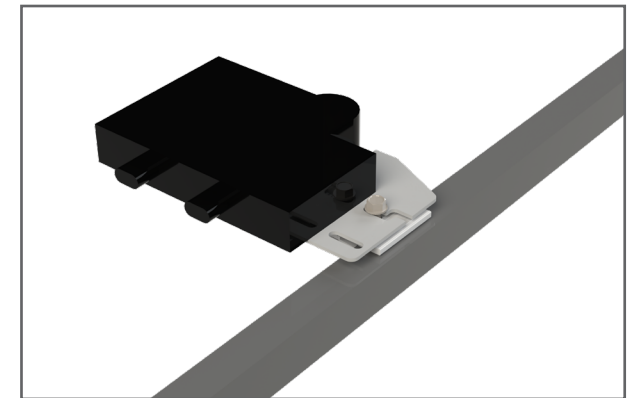
- Once Tiger Clip is fully engaged with the module's return flange, attach the MLPE mounting plate to the pre-installed bolt on the Tiger Clip.



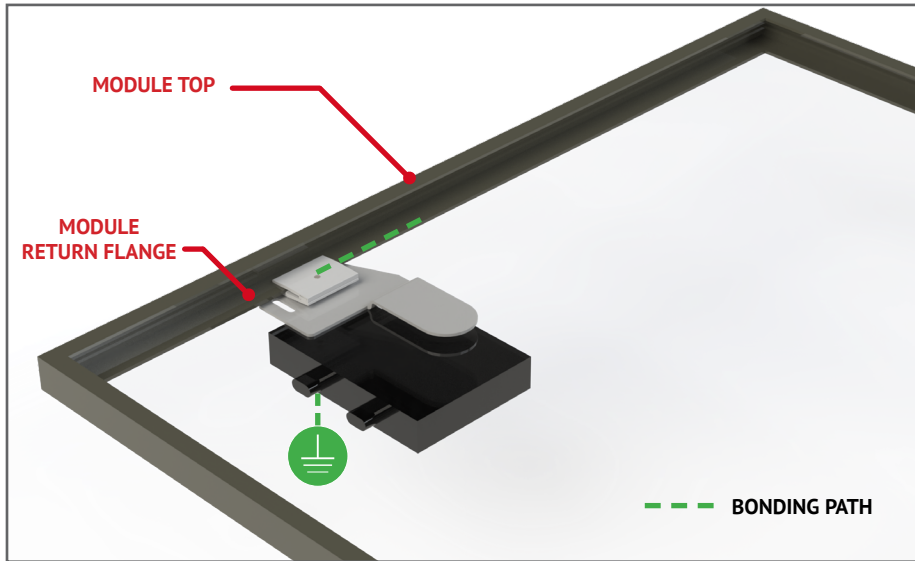
STEP 3: SECURE TIGER CLIP AND MLPE TO MODULE

- While applying light pressure toward the module return flange, tighten the Tiger Clip bolt to secure the MLPE mounting plate.

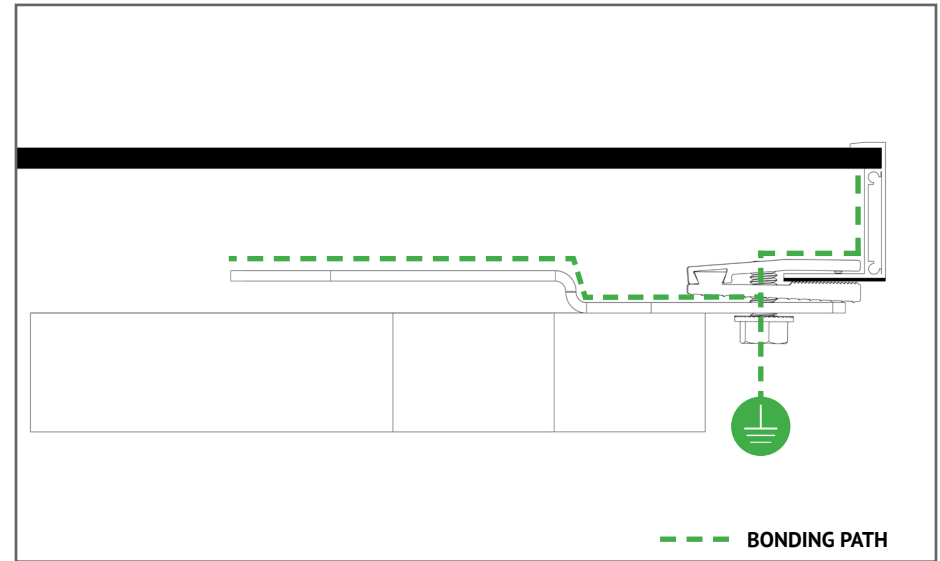
Torque Value: 14 ft-lbs



- Ensure the bonding feature maintains full contact with the flange.



TIGER CLIP VIEW FROM MODULE TOP



BONDING AND GROUNDING PATH

CAUTION

- If loose components or loose fasteners are found during periodic inspection, re-tighten immediately.
- Any components showing signs of corrosion or damage that compromise safety shall be replaced immediately.

- The Tiger Clip's bolt and bonding pin establish bonding between Tiger Clip and module.
- It is Single Use only.

Electrical Bonding and Grounding Test Modules

The list below is not exhaustive of compliant modules but shows those that have been evaluated and found to be electrically compatible with the Tiger Clip.

Manufacture	Module Model / Series	Manufacture	Module Model / Series	Manufacture	Module Model / Series
BenQ Solar	PMxxxP01				
Boviet Solar	BVM6610M (BB)-xxx BVM6610M-xxx BVM6610P (BB)-xxx BVM6610P-xxx BVM6612 M-xxx (BB) BVM6612 P-xxx BVM6612 P-xxx (BB)				
Canadian Solar	CS3U-xxxMB-AG CS3U-xxxMS-AG CS3W-MB-AG CS3W-PB-AG CS6P-xxxM CS6P-xxxP CS6U-xxxM CS6U-xxxM (1500V) CS6U-xxxP CS6U-xxxP (1500V) CS6X-xxxP	Hanwha Q Cells	B.LINE PLUS BFR G4.1 xxx B.LINE PLUS L-G4.2 xxx B.LINE PRO BFR G4.1 xxx B.LINE PRO L-G4.1 xxx B.LINE PRO L-G4.2 xxx Q.PEAK BLK G4.1 xxx Q.PEAK BLK G4.1/TAA xxx Q.PEAK DUO XL-G10.3 / BFG; Q.PEAK DUO XL-G10.d / BFG Q.PEAK L-G4.2 xxx Q.PEAK-G4.1 xxx Q.PEAK-G4.1/MAX xxx Q.PEAK-G4.1/TAA xxx Q.PLUS BFR G4.1/TAA xxx Q.PLUS BFR-G4.1 xxx Q.PLUS G4 xxx Q.PLUS L-G4 xxx Q.PLUS L-G4.1 xxx Q.PLUS L-G4.2 xxx Q.PRO BFR-G4 xxx Q.PRO BFR-G4.1 xxx Q.PRO BFR-G4.3 xxx Q.PRO G4 xxx Q.PRO L-G4 xxx Q.PRO L-G4.1 xxx Q.PRO L-G4.2 xxx Q.PEAK DUO BLK ML-G10 Q.PEAK DUO BLK ML-G10+ Q.PEAK DUO ML-G10 Q.PEAK DUO XL-G10.2 Q.PEAK DUO XL-G10.3	Q Cells(Cont.)	Q.PEAK DUO XL-G10.c Q.PEAK DUO XL-G10.d / BFG Q.PEAK DUO BLK ML-G9 Q.PEAK DUO BLK ML-G9+ Q.PEAK DUO BLK-G10 Q.PEAK DUO BLK-G10+ Q.PEAK DUO G10 Q.PEAK DUO L-G5 Q.PEAK DUO L-G5.3 Q.PEAK DUO L-G7 Q.PEAK DUO L-G7.3 Q.PEAK DUO L-G7.4 Q.PEAK DUO L-G7.7 Q.PEAK DUO ML-G10+ Q.PEAK DUO ML-G9 Q.PEAK DUO ML-G9+ Q.PEAK DUO XL-G10.3 / BFG Q.PEAK DUO XL-G10.d Q.PEAK DUO XL-G9/G9.2/G9.3 Q.PEAK DUO-G10+ Q.PLUS DUO L-G5 Q.PLUS DUO L-G5.3 Q.PLUS L G4.2 Q.PEAK DUO BLK ML-G9
CSUN	CSUN-72M CSUN-72P				
ET Solar	ET-M672xxxBB ET-M672xxxWB ET-M672xxxWW ET-P672xxxBB ET-P672xxxWB ET-P672xxxWW			Hanwha Q Cells with Mid Rail	Q.PEAK DUO L-G5.2 Q.PEAK DUO L-G6 Q.PEAK DUO L-G6.2 Q.PEAK DUO L-G6.3 Q.PEAK DUO L-G7.1 Q.PEAK DUO L-G7.2
Hansol	HSxxxTD-AN3 HSxxxTD-AN4 HSxxxUD-AN1				

- Unless otherwise noted, all modules listed above include all wattages and specific models within that series. Variable wattages are represented as "xxx"
- Items in parenthesis are those that may or may not be present in a compatible module's model ID
- Slashes "/" between one or more items indicates that either of those items may be the one that is present in a module's model ID.
- The frame profile must not have any feature that might interfere with the bonding devices that are integrated into the racking system
- Use with a maximum over current protection device OCPD of 30A

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Manufacture	Module Model / Series	Manufacture	Module Model / Series	Manufacture	Module Model / Series
Hanwha Q Cells with Mid Rail (Cont.)	Q.PEAK DUO L-G8	Jinko(Cont.)	JKMxxxPP-60	LONGi with Mid Rail	LR4-HPH-xxxM
	Q.PEAK DUO L-G8.1		JKMxxxPP-60-V	Panasonic - EverVolt5	EVPVxxx
	Q.PEAK DUO L-G8.2		JKMxxxPP-72		EVPVxxxH
	Q.PEAK DUO L-G8.3	JKMxxxPP-72-V	EVPVxxxK	EVPVxxxPK	
	Q.PEAK L G4.2	LG	LG xxxNxxW(T)-V5	REC	RECxxxAA
Q.PEAK L G4.5	LG xxxQ1C(K)-V5		RECxxxAA Black	RECxxxAA Pure	
Q.PLUS DUO L-G5.1	LGxxxA1C-A6		Risen Solar Technology	RSM144-6-xxxBMDG	
Q.PLUS DUO L-G5.2	LGxxxM1C-A6		S-Energy	SNxxxM-10	
Q.PLUS L G4.2	LGxxxM1K-A6			SNxxxP-10	
Heliene	60M-xxx		LGxxxN1C-A6	Silfab	SIL-xxxNU
	60M-xxx BLK HOME PV		LGxxxN1C-N5		SLA-M xxx
	60M-xxx HOME PV		LGxxxN1K-A6		SLA-X xxx
	60P-xxx		LGxxxN1K-L5		SLG-M xxx
	72M-360		LGxxxN2T-E6		SLG-X xxx
Hyundai	72M-xxx	LGxxxN2W(T)-L5 (72cell)	SolarWorld	Sunmodule Plus SW Mono	
	72M-xxx BLK	LGxxxQ1K-A6		Sunmodule Plus SW Mono SWxxx	
	72P-xxx	LGxxxQAC-A6		Sunmodule Protect SW Mono	
	JA Solar	HiS-MxxxRI		LGxxxQAK-A6	Sunmodule Protect SW Mono SWxxx
		HiS-MxxxTI		LG xxxN1C-V5, LG xxxQ1C-V5	SW Poly 2.5
HiS-SxxxKI	LGxxxN1C-A5	Sunpower	SW Poly 2.5 SW xxx		
HiS-SxxxRI	LGxxxN1K-A5		SW Poly Pro		
HiS-SxxxTI	LGxxxN2W-A5	LR4-72-HBD-xxx	SW Poly Pro SW xxx		
Jinko	JAM72S10-xxx/MR	LGxxxN2W-E6	LR6-72HPH-xxxM		
	JKMSxxxPP-60	LGxxxN2W-G4	LR6-72HV-xxxM		
Jinko	JKMxxxM-60	LGxxxQ1C(K)-N5	LR6-72-xxxM		
	JKMxxxM-60B	LGxxxQ1C-A6			
	JKMxxxM-60-V	LGxxxS1C-A5			
	JKMxxxM-72	LGxxxS2W-A5			
	JKMxxxP-60				
	JKMxxxP-72				

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Manufacture	Module Model / Series
Talesun	BIPRO TD6I72M TD6I72M & TD7G72M TD7G72M TP672M-xxx TP672P-xxx
Trina Solar	DE15V DEG15VC DEG19 TSM-DD06M.05(II) TSM-DE06X.05(II) TSM-DE15H(II) TSM-DE15H(II) (Long and Short Sides) TSM-DE15M(II) TSM-DE15M(II) (Long and Short Sides) TSM-DE19; TSM-DE15V(II) TSM-DEG15VC.20(II) TSM-DEG19C.20; TSM-xxxDD14A(II) TSM-xxxDE14A(II) TSMxxx-DE15V TSMxxx-DEG15VC TSMxxx-DEG19 TSM-xxx PA05.08 TSM-xxxPD14 TSM-xxxPE14A
VSUN	VSUNxxx-60M VSUNxxx-72MH VSUNxxx-72PH
Yingli	YLxxxC-30b YLxxxP-29b

Manufacture	Module Model / Series
ZNShine	ZXM6- NHLDD144 ZXM6-60 ZXM6-72 ZXP6-72

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