Customer Warranty Manual

Series 6

Rev 4.0

PD-5-106-06

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Customer Warranty Manual – Table of Contents

The First Solar Customer Warranty Manual (PD-5-106-06) provides a high level summary of First Solar's warranty processes and general guidance on visual and mechanical imperfections which are recommended to be installed. First Solar will update this document as needed from time to time as product or process requirements deem necessary.

Contained in this document are the following topics:

- Module and Pallet Terminology
- Warranty Claims Process Overview
- Delivery and Unloading
- Field Assessment Picture Guide
- Document Appendix – Supporting Documents

This document provides only general guidance and does neither create, establish, modify or extend any module product specification nor the applicable First Solar warranty terms and conditions. Please carefully read the documents mentioned in the document appendix for more comprehensive information.

Please note that if the claimed defect is denied, First Solar will charge reasonable costs and expenses associated with the claim in accordance with the applicable warranty terms and conditions.

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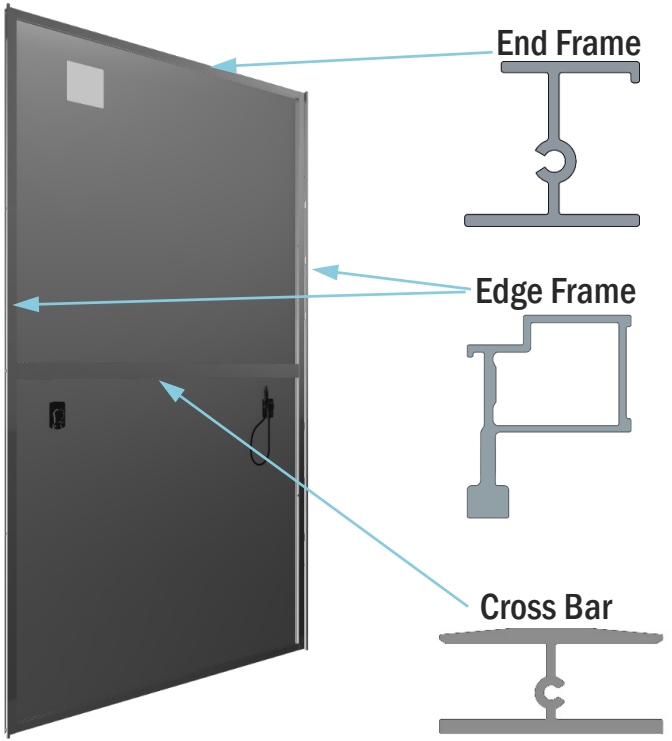
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Module Terminology Definitions

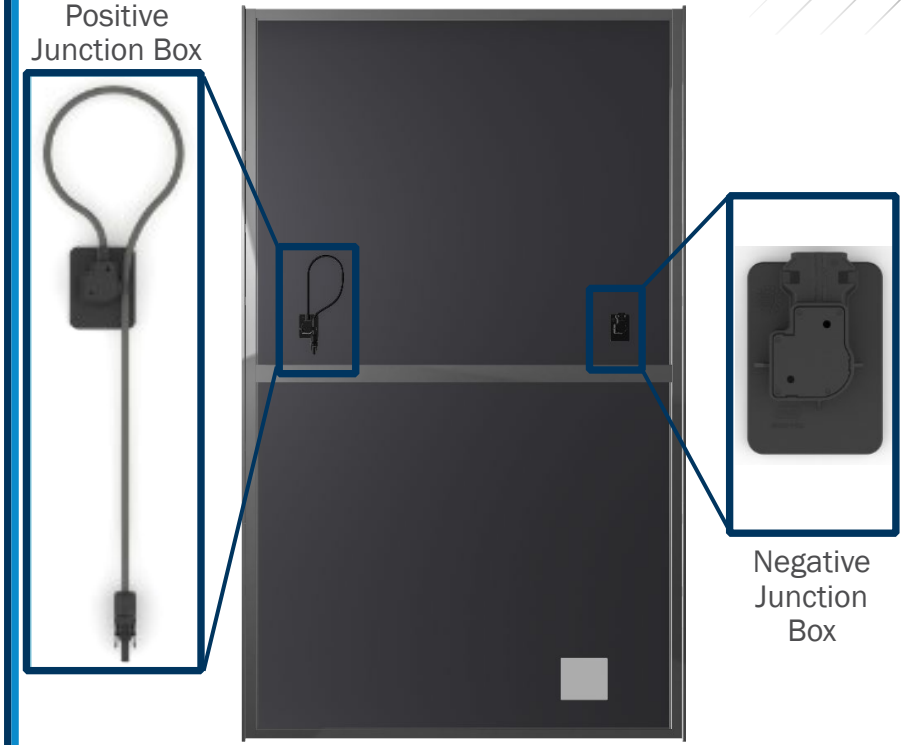
Module Terminology – Series 6

Series 6 Frame



Weight 34.5kg

Series 6 Interconnect



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Module Terminology – Series 6 Plus Exterior

Series 6 Plus Exterior Frame



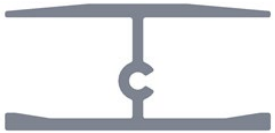
End Frame



Edge Frame



Cross Bar

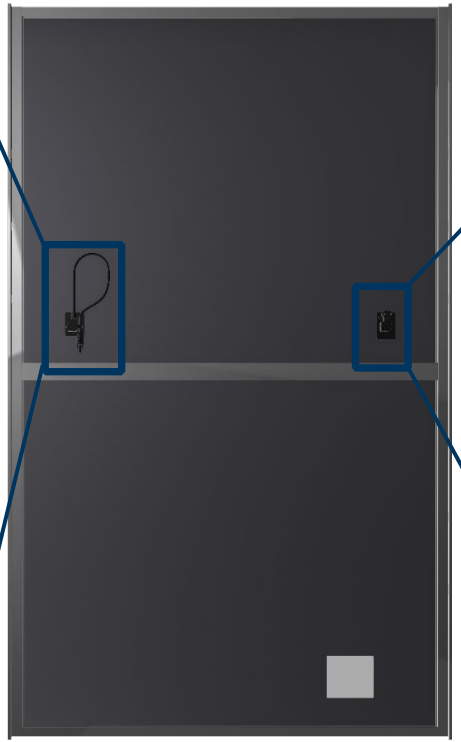


Weight 34.9kg

Series 6 Plus Exterior Interconnect

Positive Junction Box





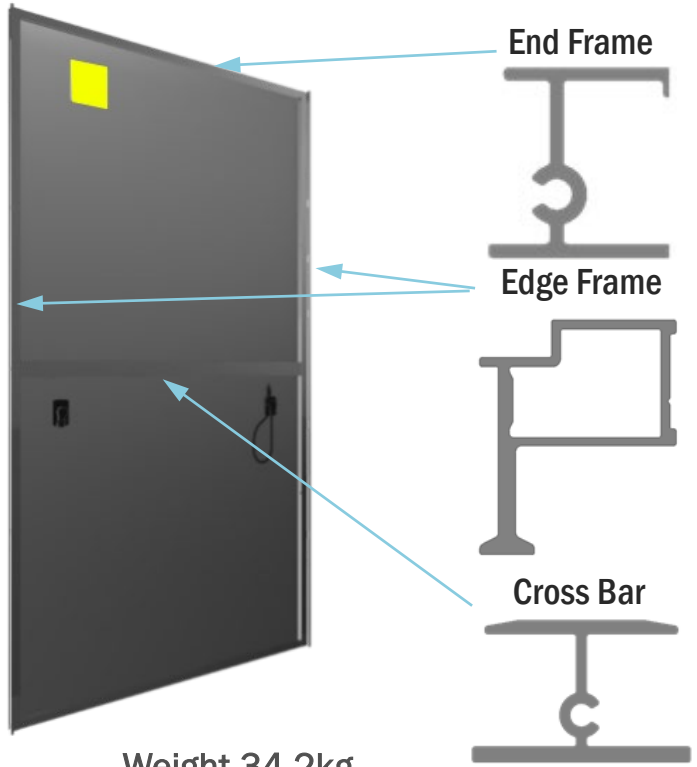


Negative Junction Box

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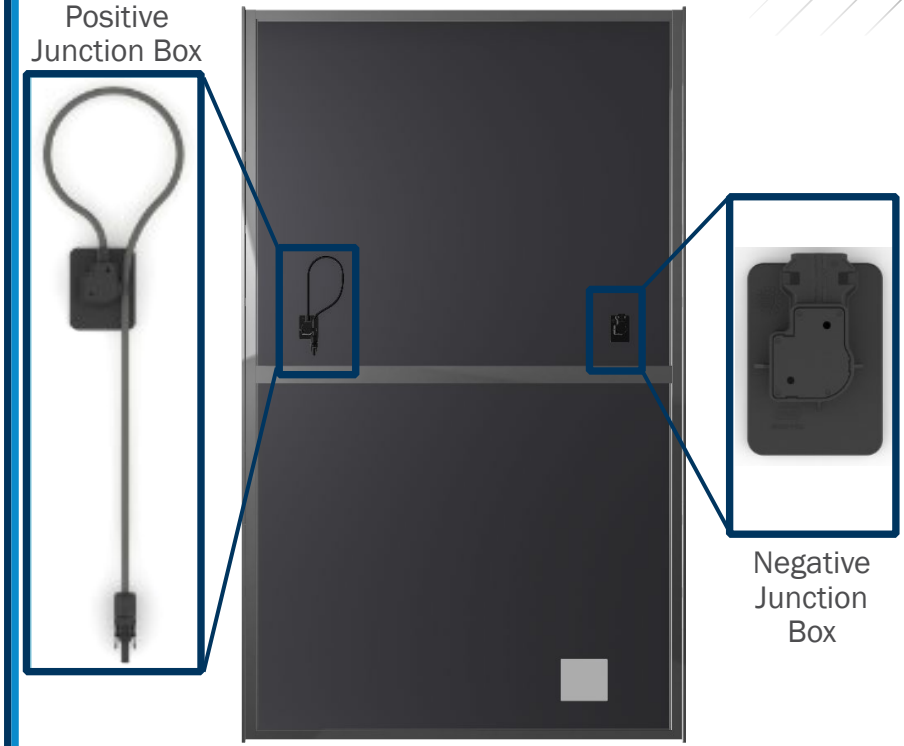
Module Terminology – Series 6 Plus Interior

Series 6 Plus Interior Frame



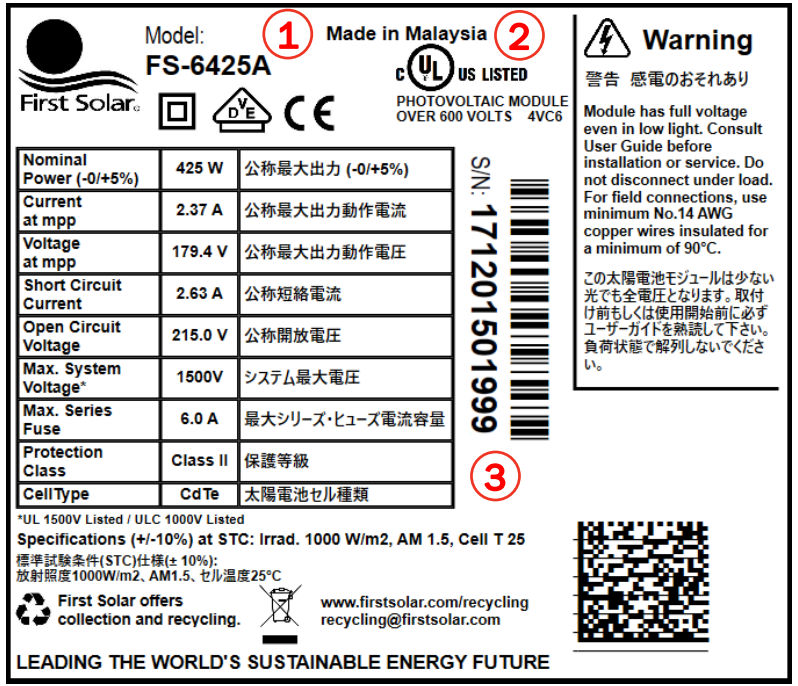
Weight 34.2kg

Series 6 Plus Interior Interconnect



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Module Terminology – Example Label and Barcodes Series 6



Product Label

1. Model Number
2. Manufacturing Location
3. Serial Number

Serial ID/DPM barcode Identification



Year/Month/Date Serial Number

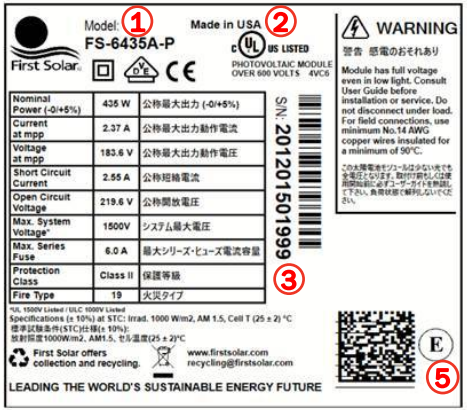


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Module Terminology – Example Label and Barcodes Series 6 Plus

Product Label: Series 6 Plus (Exterior)



Product Label: Series 6 Plus (Interior)



Product Label

1. Model Number
2. Manufacturing Location
3. Serial Number
4. I = Interior Module
5. E = Exterior Module

Serial ID/DPM barcode Identification



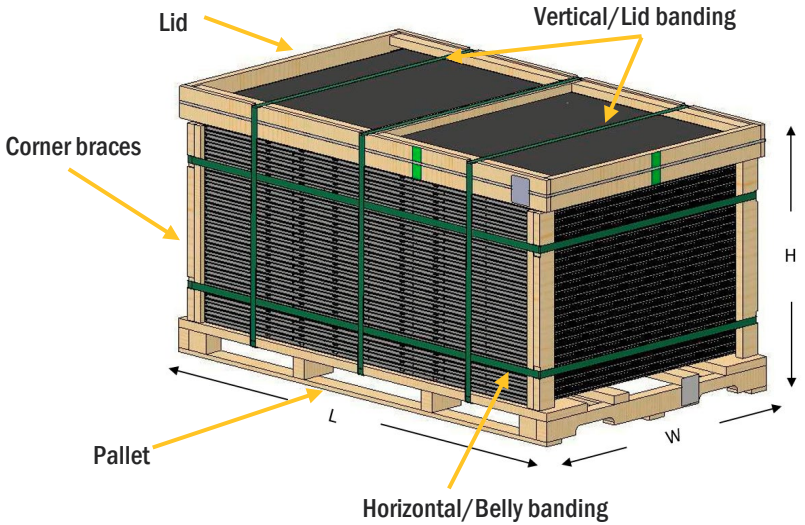
Year/Month/Date Serial Number



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Pallet Terminology



Model Type Pack Differentiation – Series 6 Plus White (Exterior) and Yellow (Interior)



Specification	Series 6 (26 pack)	Series 6 (27 pack)	Series 6 Plus Exterior	Series 6 Plus Interior
Pack Dimensions (L x W x H)	2200 x 1300 x 1150mm	2200 x 1300 x 1164mm	2197 x 1311 x 1163mm	2197 x 1311 x 1123mm
	(87 x 51 x 45in)	(87 x 51 x 45.8in)	(86.5 x 51.6 x 45.8in)	(86.5 x 51.6 x 44.2in)
Approximate Pack Weight	1051 kg (2312 lbs)	1032 kg (2275 lbs)	1024 kg (2258 lbs)	1074 kg (2367 lbs)
Modules per Pack	26 modules	27 modules	27 modules	29 modules

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Warranty Claims Process

Warranty Process Overview

CLAIM → VALIDATION → INSPECTION → REMEDIATION → CLAIM CLOSURE



First Solar offers a fast and simple 5 step process for all warranty claims, just contact:

TechnicalSupport.NA@FirstSolar.com for inquiries in **Americas**

TechnicalSupport.EMEA@FirstSolar.com for inquiries in **EMEA**

TechnicalSupport.APAC@FirstSolar.com for inquiries in **APAC**

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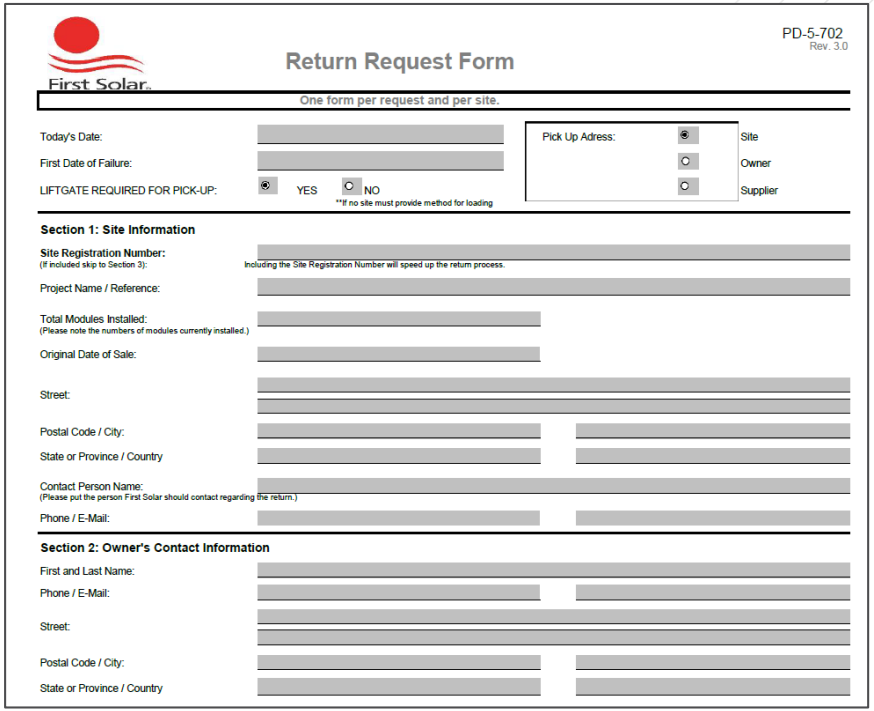
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Return Request Form (RRF)

- RRF form needs to be completed by the customer and submitted via E-Mail

Required information:

- Serial Numbers
- Site Registration Number
  (site must be registered prior to RRF)
- Document indicating the date of sale



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PD-5-702
Rev. 3.0

Return Request Form

One form per request and per site.

Today's Date:
First Date of Failure:
LIFTGATE REQUIRED FOR PICK-UP: YES NO
**If no site must provide method for loading

Pick Up Adress: Site / Owner / Supplier

Section 1: Site Information

Site Registration Number:
(If included skip to Section 3):
Including the Site Registration Number will speed up the return process.
Project Name / Reference:
Total Modules Installed:
(Please note the numbers of modules currently installed.)
Original Date of Sale:
Street:
Postal Code / City:
State or Province / Country
Contact Person Name:
(Please put the person First Solar should contact regarding the return.)
Phone / E-Mail:

Section 2: Owner's Contact Information

First and Last Name:
Phone / E-Mail:
Street:
Postal Code / City:
State or Province / Country

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Customer Return Codes

Customer Return Codes are required on the Return Request Form (RRF) to explain why the modules are being returned:

	Description	Standard Warranty	First Solar Fast Track	Package With
A	Glass or Frame Damage Detected Upon Arrival	✓	✓	A,C
B	Handling & Installation Damage (occurs during moving, handling, or installation)			B,E
C	Intrinsic Field Failure After Installation (Glass or Frame Breakage, Cracks, Defective Wires, etc.)	✓	✓	A,C
D	Low Power or No Power Module	✓		D
E	Defect Due to External Causes/General Recycling Request			B,E

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Physical Return Process Overview

First Solar will issue a Return Material Authorization (RMA) and shipping label



Pallets prepared in accordance with First Solar guidelines



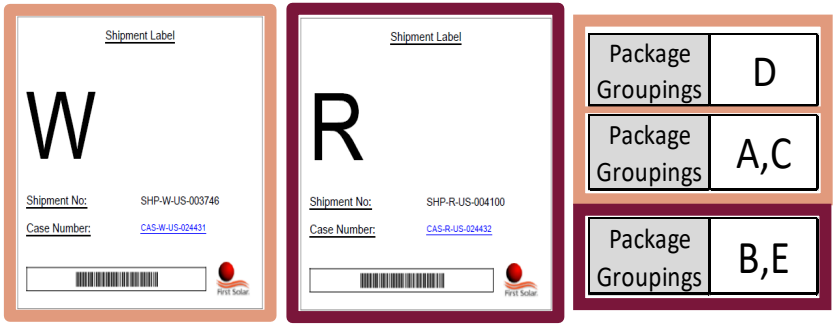
Delivery to a First Solar Warranty Inspection Center



First Solar will investigate modules and send out Return Material Report (RMR)



- A shipping label **MUST** be affixed to all pallets being returned.
- Modules **MUST** be separated by Return Code and packaged in groups shown.



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Fast Track Process Overview

Take pictures in accordance with First Solar guidelines



Upload pictures in accordance with First Solar guidelines



First Solar will investigate modules



First Solar send out Return Material Report (RMR) *



** Disposal/Recycling of all defective modules is the responsibility of the customer when applying the Fast Track process.*

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WARRANTY RETURN MATERIAL REPORT (RMR)

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RMR - Return Material Report

Case Number: CAS-W-US-00000000

Report Summary	
Total Count of Modules Inspected	21
Total Count of Modules with Warranty = yes	14
Total Count of Modules with Warranty = No	7
Total Count of Modules with Warranty = no ("No failure")	1
Total Count of Modules with Warranty = no ("Damaged")	6
Total Count of Modules/Photos not Received*	0
Volume for replacement on RMR (in kWp)	6.105000

*Photos not received or not sufficient for visual inspection.

Warranty = yes		14 Modules
Row Number	Case Serial Number	Base Model
1	200104621016	FS-6435A SOLAR MODULE 435W EVO2 J
2	200126622119	FS-6435A Solar Module 435W EVO2 J
3	200210630999	FS-6435A SOLAR MODULE 435W EVO2 J
4	200128643548	FS-6435A Solar Module 435W EVO2 J
5	200228631132	FS-6435A SOLAR MODULE 435W EVO2 J
6	200312640334	FS-6435A SOLAR MODULE 435W EVO2 J
7	200119620730	FS-6435A Solar Module 435W EVO2 J
8	200228621111	FS-6435A SOLAR MODULE 435W EVO2 J
9	200307660269	FS-6430A SOLAR MODULE 430W EVO2 J
10	200119632782	FS-6435A Solar Module 435W EVO2 J
11	200227621552	FS-6440A SOLAR MODULE 440W EVO2 J
12	200107632950	FS-6440A SOLAR MODULE 440W EVO2 J
13	200225621345	FS-6440A SOLAR MODULE 440W EVO2 J
14	200225621472	FS-6440A SOLAR MODULE 440W EVO2 J

Total Count of Modules with Warranty = No(Damaged)		6 Modules
Row Number	Case Serial Number	Description
1	191130642607	Customer Handling
2	200115622184	Customer Handling
3	200128640811	Customer Handling
4	200213631598	Customer Handling
5	200221630751	Customer Handling
6	200308621294	Customer Handling

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Delivery And Unloading

Pack Handling and Storage

On-Site Delivery:

- Use special care if pallets appear shifted
- Forks must be fully engaged and should not extend past the pallet.
- For forks longer than 130 cm (51 in.), a jig to limit the exposed length of forks is recommended.
- Do not transport stacked packs around project site
- Transport individual packs at less than a 15 degree tilt angle

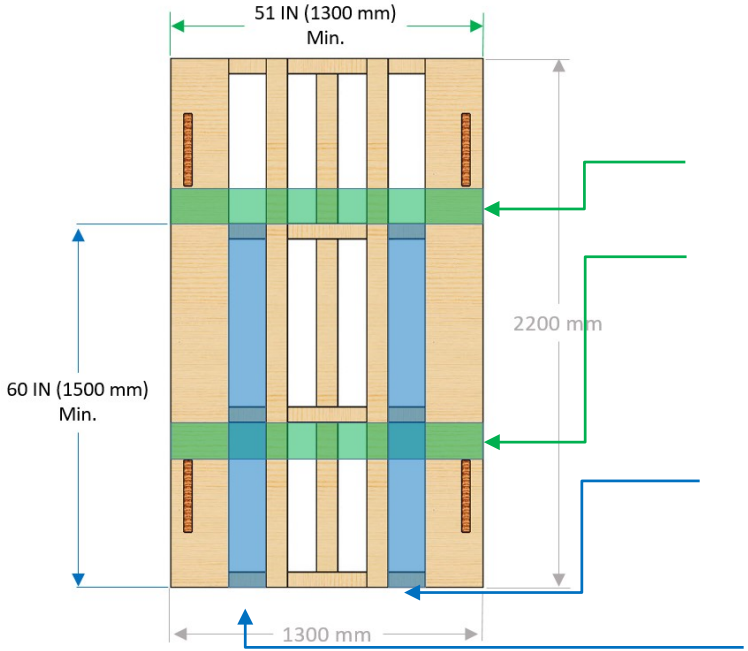
On-Site Storage:

- Make sure pallets are stored on flat, level ground
- Packs may only be stacked if they are complete and remain in the original banding.
- Fully intact and banded packs may be stacked vertically up to two high for 3 weeks on site or extended periods in a warehouse.
- Packs should not be exposed to standing water higher than half the height of the pallet.

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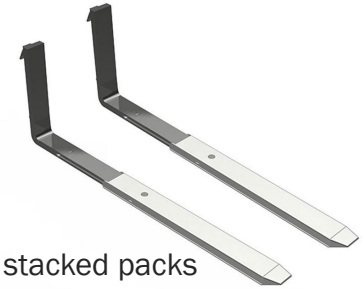
Unloading – Forklift Engagement



Long side engagement: Forklifts must engage pallet a minimum of 130 cm (51 in.)



Short side engagement: Forklifts must engage pallet a minimum of 150 cm (60 in.)

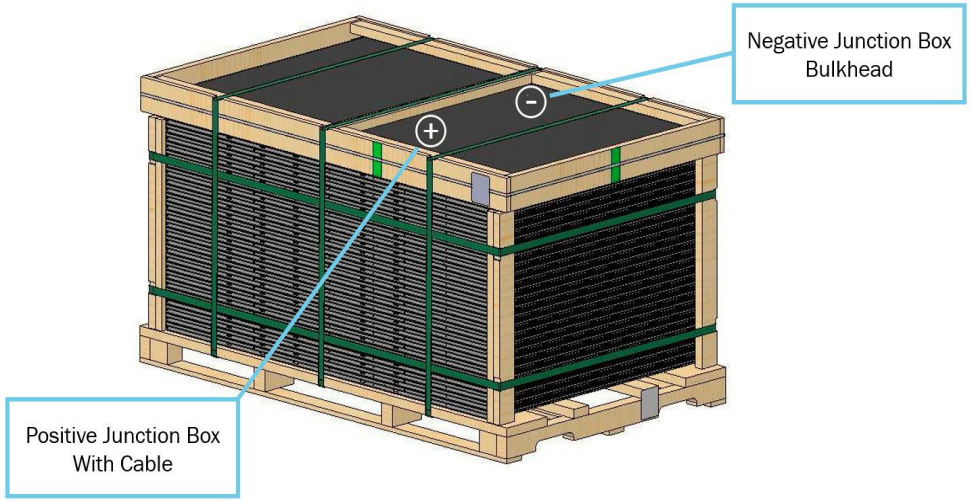


- Do not unload or lift stacked packs from the short side

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Unloading – Forklift Engagement



Green lid stripe indicates the positive side of the module on the pack



Forks must be fully engaged and should not extend past the pallet.

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Field Assessment Picture Guide

Glass Damage







** Warranty eligibility pending First Solar inspection.*

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Frame Hardware – Missing or Loose

Hardware Not Attached



Hardware Missing



Cross Bar Missing



** Warranty eligibility pending First Solar inspection.*

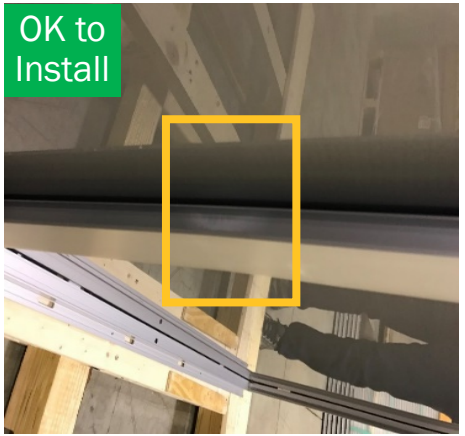
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Frame Damage – Dents and Scratches







** Warranty eligibility pending First Solar inspection.*

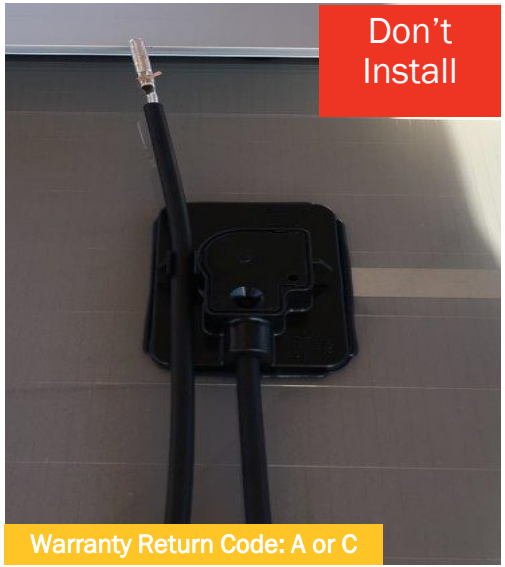
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Junction Box or Wire Concerns

Missing Cap



Missing Connector

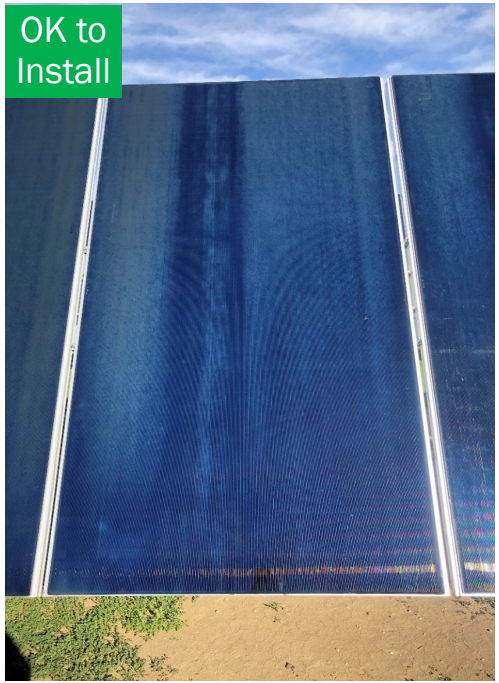


** Warranty eligibility pending First Solar inspection.*

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ARC Blemishes





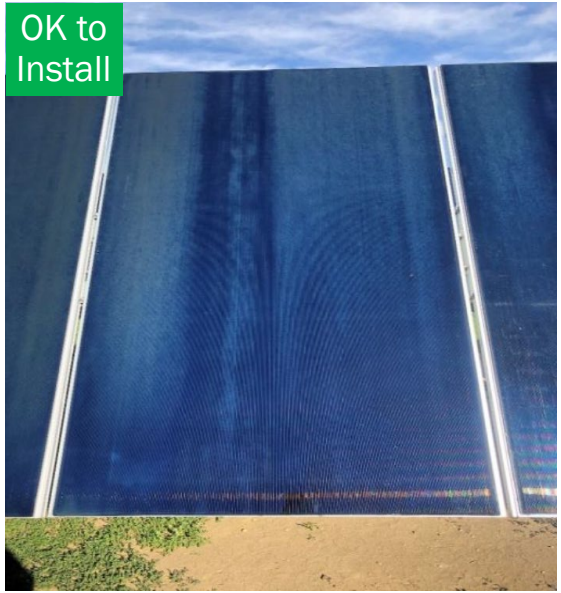


** Visual imperfections, no performance impact, not warranty eligible.*

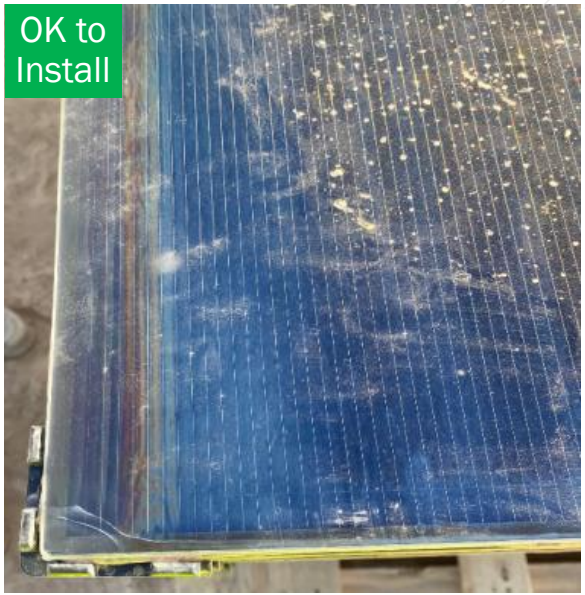
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Visual Variations







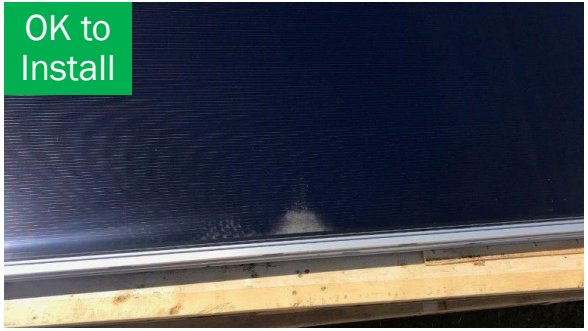
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TCO Haze/Film Blemishes

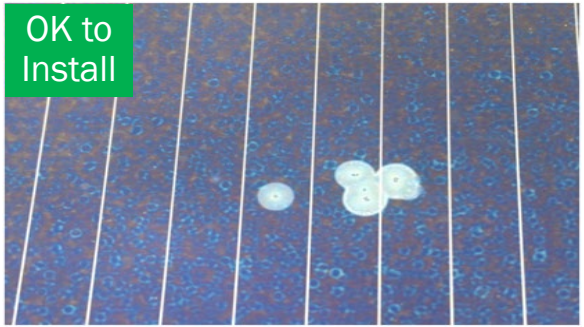
TCO Haze





Film Blemishes





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Uneven Soiling



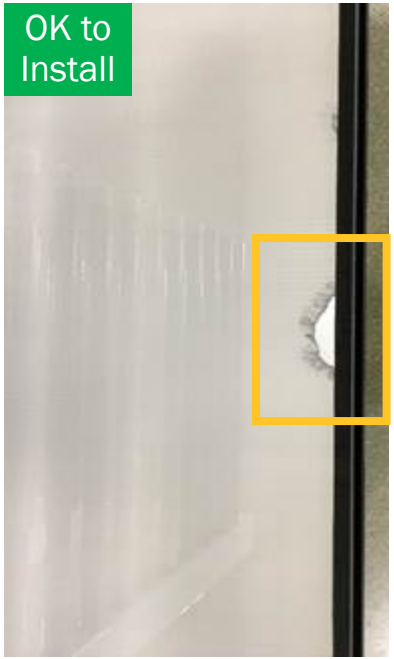
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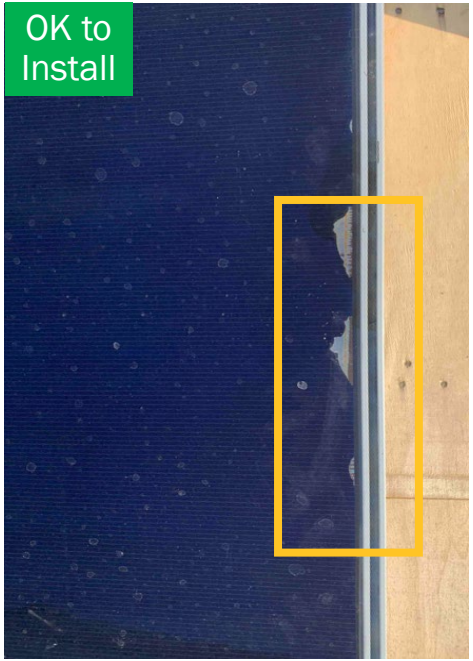
Acid Splash

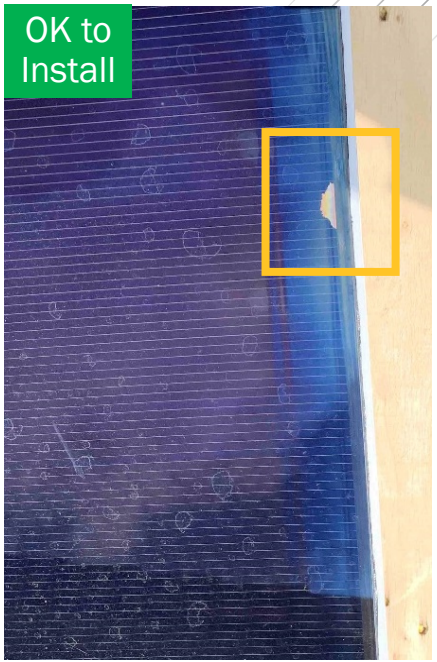
Film Side





Sunny Side





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Guide Document Appendix – Supporting Documents

Supporting Documents

- Series 6 User Guide – PD-5-200-06
- Module Pack Handling & Storage – PD-5-801-06
- Return Packaging Guideline – C0-5-204-06
- Fast Track Module Scan Work Instructions – PD-5-204
- Warranty Terms and Conditions – PD-5-102

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