



SnapNrack™

PV MOUNTING SYSTEM
GROUND MOUNT



Blue Pacific Solar



CODE COMPLIANT
INSTALLATION
MANUAL | 2013

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1. Introduction

1.1 Overview of the Ground Mount System

The SnapNrack Series 200 Ground Mount System, is a low profile, visually appealing, photovoltaic (PV) module installation system. This innovative suite of racking components simplifies the process of installing solar modules and shortens install times, which lowers installation costs.



SnapNrack systems, when installed in accordance with this manual, will be structurally adequate for the specific installation site and will meet the 2009 International Building Code, as well as local building codes.


The SnapNrack installation system is a set of engineered components that can be assembled into a wide variety of PV mounting structures. It is designed to be installed by qualified solar installation technicians. With SnapNrack you will be able to solve virtually any PV module mounting challenge.

1.2 Overview of this Manual

This manual describes the installation procedures for ground mounting with the use of 1.5-inch Schedule 40 and Schedule 80 steel pipe for photovoltaic (PV) arrays.

Review this entire manual before installing the SnapNrack system.

Throughout this manual you will see highlighted notes which will provide you with different types of information:

 **NOTICE** – indicates important information to help with the installation or to avoid potential damage to the structure or components.


 **CAUTION** – indicates a potential for property damage, personal injury, or death.

For questions call the SnapNrack technical support team. Find contact information at www.snapnrack.com. This manual is available in PDF form at www.snapnrack.com

1.3 Your Responsibility as Installer

Comply with all applicable local or national building codes, including any that may supersede this manual.

- Make sure that the SnapNrack components and other products are appropriate for the particular installation and the installation environment.
- Use only SnapNrack supplied parts for the rail system.
- Ensure safe installation of all electrical aspects of the PV array.

 **If it is raining, or if you anticipate any potentially dangerous conditions, do not proceed with the installation.**

1.4 Support

For help with your installation, contact the nearest SnapNrack engineering support office. You can find contact information for SnapNrack support by visiting www.snapnrack.com and clicking on Contact Us.

2. Prepare for the Installation

2.1 Introduction

The SnapNrack system is designed to be installed with a minimum number of footings resulting in a significant labor savings over traditional installation methods. The system integrates with ordinary 1-1/2 inch Schedule 40 or Schedule 80 galvanized pipes. This ground mount solution includes everything needed to install modules on pipe with vertical posts up to 8 feet from grade. You will only need the pipe, pipe fittings, concrete and the basic construction skills to complete the installation. This fully engineered system utilizes industrial-grade SnapNrack support rails and module clamps.

2.2 Identify SnapNrack components

Make sure you have all the necessary SnapNrack system components (see photos) needed to complete the installation.



Pipe Clamp Assembly Components



Ground Rail and Channel Nut



Top Mount End Clamp Assembly



Mid Clamp Assembly



Universal End Clamp

2.3 Obtain installer supplied tools and materials

Make sure you have all the necessary additional hardware components, tools, and other material that are needed to complete the installation.

These should include:

- Post hole digger
- Power Auger or Back Hoe for power assisted excavation for concrete
- Wheelbarrow and shovel
- String line
- Line level or builder's level
- Framing square
- Tape measure
- Pipe cutter
- 2 pipe wrenches
- Mallet or large hammer
- Drill
- Felt-tip marking pen
- Half-inch box/open end wrench
- 3/8-inch ratchet wrench with half-inch socket and torque wrench
- Tools for attaching grounding hardware
- Reciprocating saw or chop saw with a nonferrous metal blade for trimming the rails
- Metal file for finishing trimmed rails



Kee Klamp Double Swivel



Kee Klamp Single Swivel



Kee Klamp Tee

2.4 Survey the site

Measure the installation area and develop an accurate drawing identifying any obstacles such as buildings, ditches and trees.

If plans are available, check to make sure that the plans match the layout.

Review the shading pattern across the installation area from nearby structures, trees, etc. It is wise to perform a shade analysis prior to the design as part of a standard site analysis.

Identify any restricted access areas as required by the local jurisdiction usually referred to as offsets from other structures.

✘ BEFORE YOU DIG ANY HOLES, contact all utilities in the area to locate any underground lines, pipes, and wiring.

Determine the design wind speed and specific conditions for the site and reference the Rail Span Calculation table in section 7 to determine the maximum allowable rail span and footing spacing for this site.

If you are unsure about the local design wind speed, consult with the local building jurisdiction.

2.5 Lay out system on the ground

Using the information collected in the site survey, complete a system layout showing array location and distances from key features. Include any information necessary for the permitting process.

The following definitions are used to describe array layout designs:

- **Module length**—the measurement along the longer side of the module frame
- **Module width**—the measurement along the shorter side of the module frame
- **Module thickness**—the measurement of the thickness of the module

Typically, most ground-mounted arrays are installed in a landscape configuration, with the long side of the PV modules horizontal and the rails running up the slope. This is different from roof mount installations which typically are in a portrait configuration with the long side of the module running up slope and the rails running horizontally.

When laying out the array, be sure to leave space for the module clamps on the rails.

Module mid clamps (see photo on page 4) are installed between modules in a row and

require a half inch of space between the modules.

Standard module end clamps (see photo on page 4) require 1.5 inches of extra rail to extend past the end of the module frame. If you are using universal end clamps (see photo on page 4) the rail can be trimmed flush with the module frame. The space between rows of modules is not critical, but it is a good practice to leave a small gap (1/8 inch) between rows of modules to be installed so that the modules are not in contact with each other.

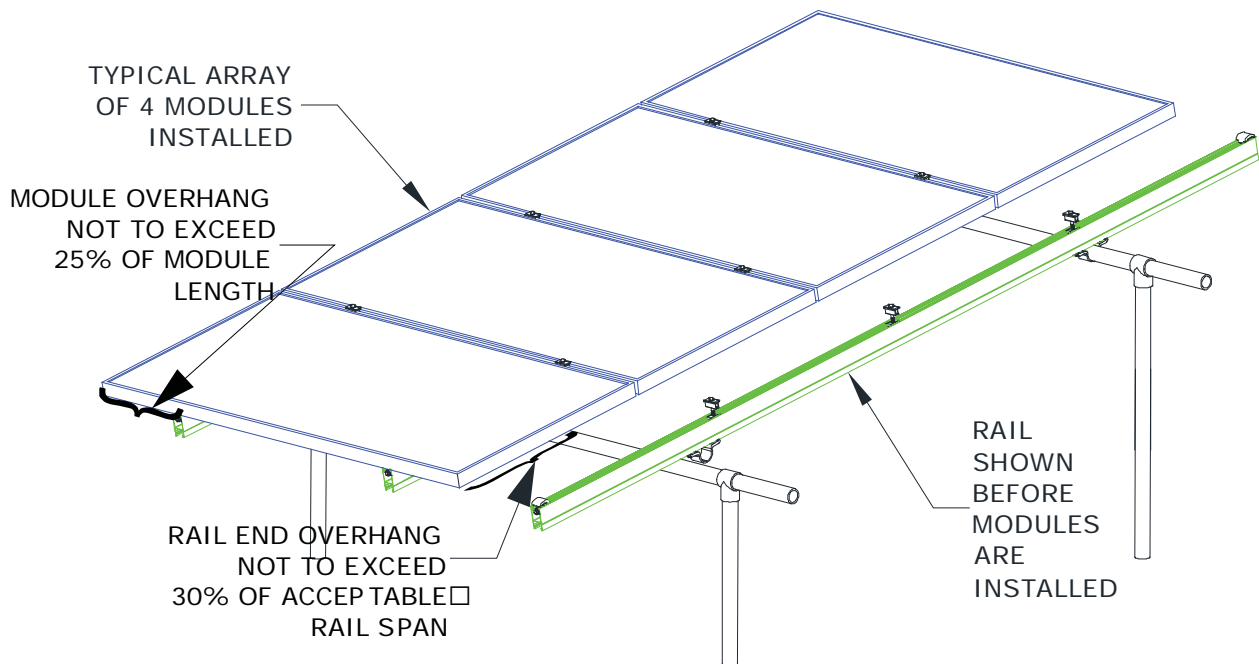
Layout rails so that module frame ends do

not overhang mounting rails by more than 25% of total module frame length.

Verify that mounting rail spans are in accordance with the Rail Span Calculations table in the section 7 at the back of this manual.

Verify that rail ends do not overhang by a distance greater than 30% of the acceptable rail span specified in the same table.

Submit array plans to local permitting jurisdiction and proceed with the layout only when all permits for the project have been granted by the authority having jurisdiction.



Location of rail ends and module overhang (Landscape Orientation)

3. Install pipe frame

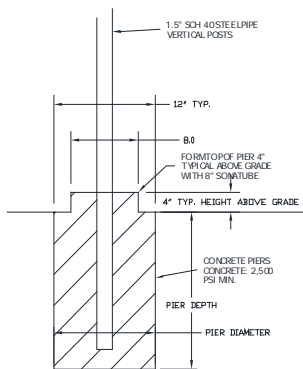
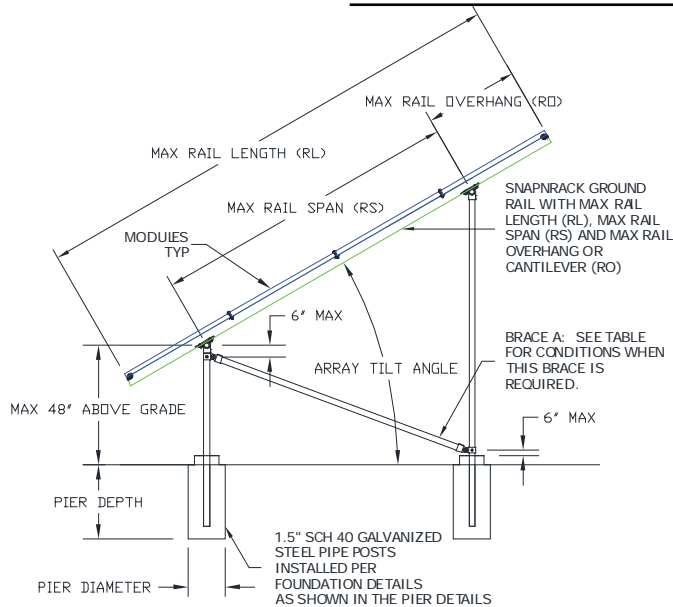
3.1 Excavation of the footings

Excavate core footings – 12 inches in diameter and typically 36 to 60 inches deep. See engineering design tables in Section 7 of this manual for recommended pier depth.

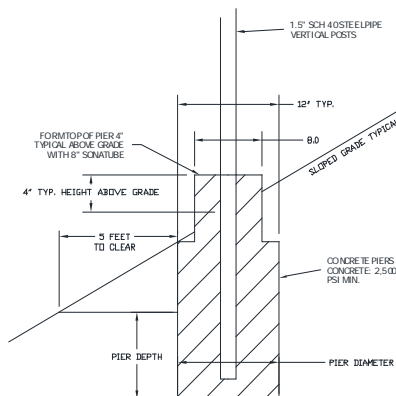
Footing size may vary depending on job-specific conditions. All conditions should be reviewed by customer’s site engineer.

✓ To speed up installation, it is recommended to use a 12-inch power auger to dig the footings.

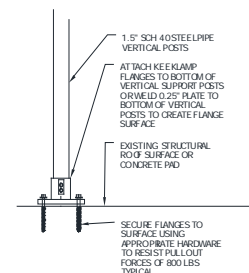
✗ Before you dig any holes, make certain all utilities in the area have been clearly marked including underground lines, pipes, and wiring.



STANDARD PIER DETAIL



STANDARD PIER DETAIL ON SLOPED GRADE



FLANGE MOUNT DETAIL

3.2 Excavation of Grade Beams

A grade beam may be used in place of the pier foundations. Grade beam shall be a minimum of 12" wide, 18" deep and shall run the width of the array a minimum of 12" beyond each vertical post. (2) #4 Bars Shall be used at BOTH the top and bottom of the grade beam, one on each side of the vertical pipe. These shall have a minimum of 3" clear of concrete cover and shall conform to the attached specifications. Concrete shall conform to the attached concrete specifications. Using the Grade Beam option at locations with a design wind speed of 120 MPH or higher require a site specific analysis.

3.3 Install pipe and set concrete

Determine the proper angle for the module array and calculate the length of the vertical posts. Do not exceed 8 feet of vertical post length from grade for rear post. Supports vertical pipes at the proper height and angle until the concrete piers (or grade beams) are set. Use a string line to insure alignment of posts.

Pour concrete into the footings. Tamp the concrete to ensure contact with the vertical pipe support. Remove the support bracing after the concrete sets. Concrete requires 28 days to reach full strength or rated PSI. Engineering Tables in this Manual require a 2,500 PSI rating on the fully cured concrete.



Digging holes with power auger



Install vertical pipes in concrete footings



Check pipe frame levels

3.4 Bracing Options

There are two bracing options for SnapNrack Series 200 Ground Mount System. See figures on next page for illustration of these options.

- Standard Install - Using Braces A, C and D
- Braced Option - Using Braces A, E and F

The Engineering Tables in Section 7 of this Manual list site conditions that determine the necessary bracing.



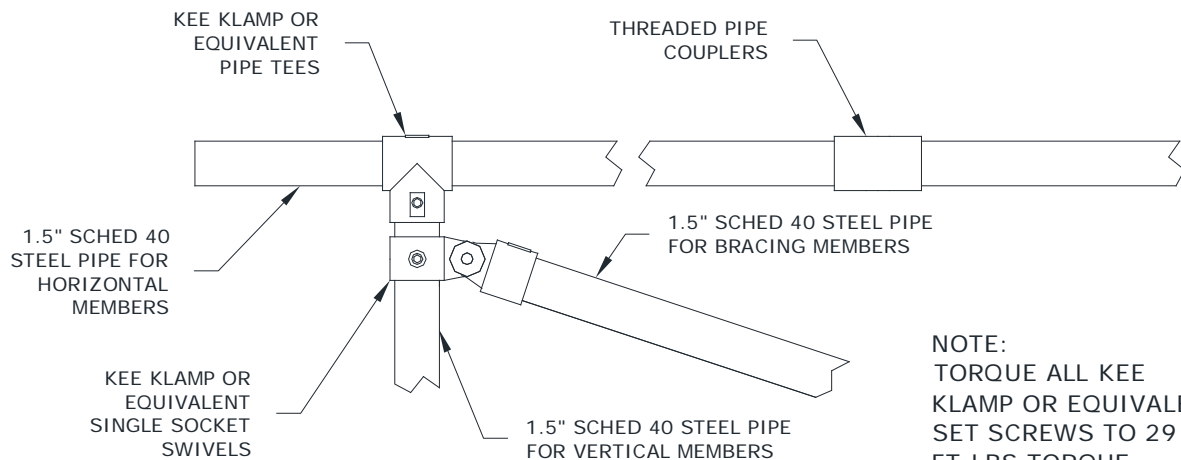
Tee installed

3.5 Pipe couplers and fittings

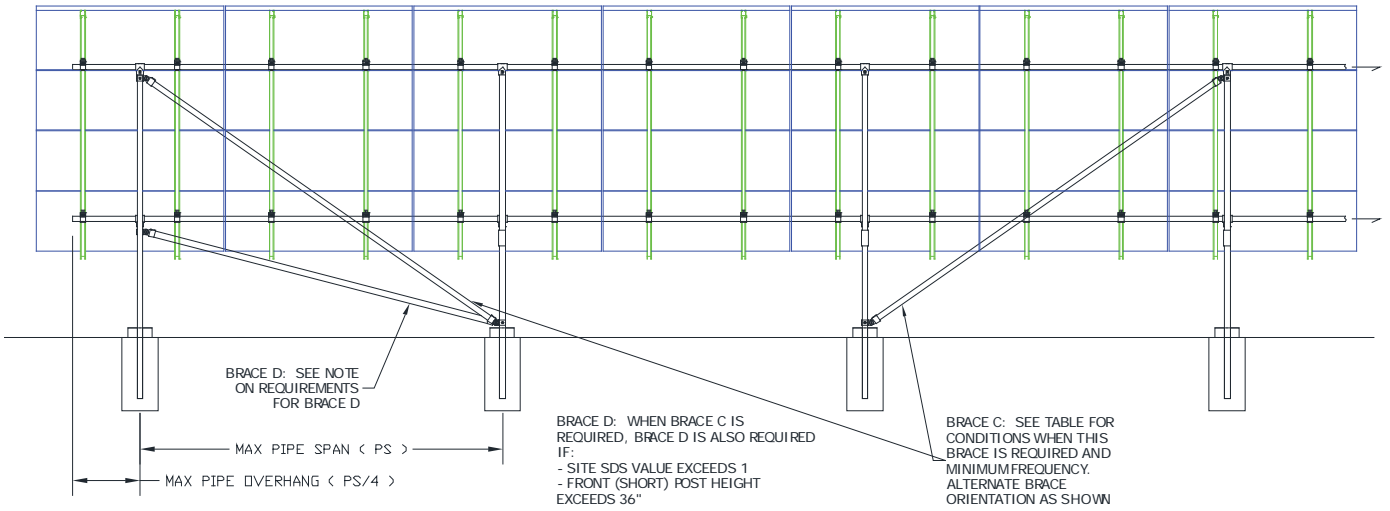
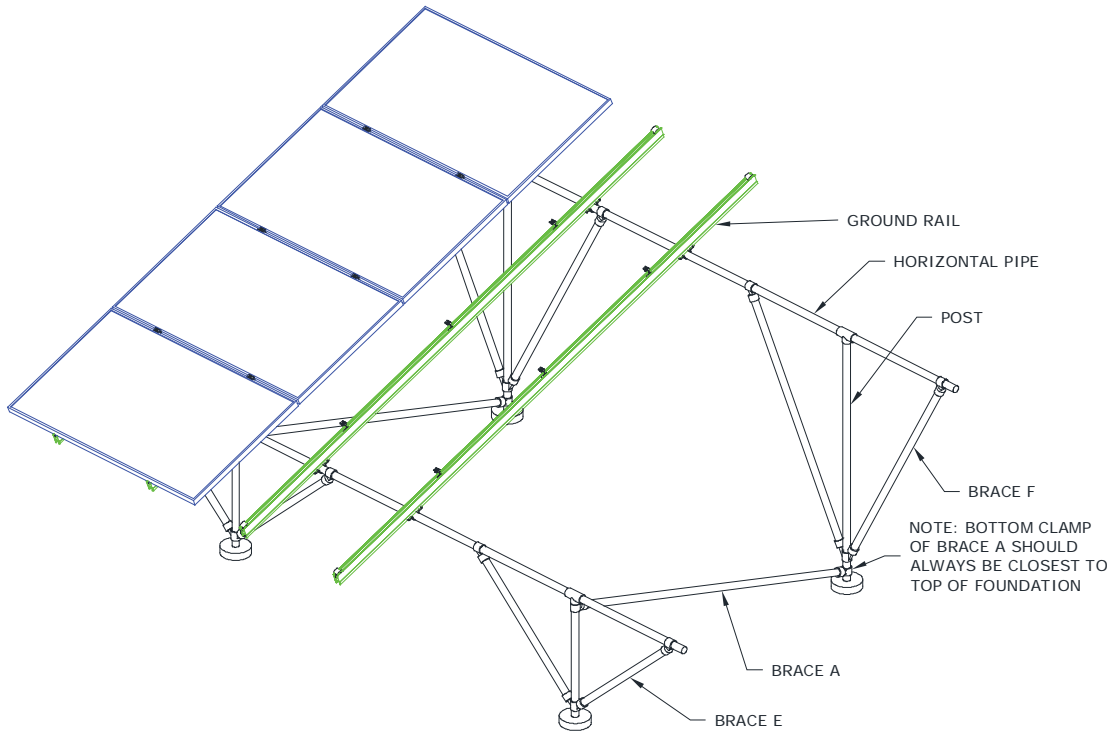
Vertical posts can now be assembled and rest on the support bracing. Using two pipe wrenches and 3/16-inch hex wrench, the pipe and support legs can be assembled. Align the end of the channel using a string line. Tighten all the pipe connections and cross brace hardware and re-check alignment of the vertical pipe supports. The pipe should be assembled with Kee Klamp style pipe couplers or equivalent. The couplers and connectors should be installed to the manufacturer's specifications.



Swivel installed



NOTE:
TORQUE ALL KEE KLAMP OR EQUIVALENT SET SCREWS TO 29 FT-LBS TORQUE



4. Install rails

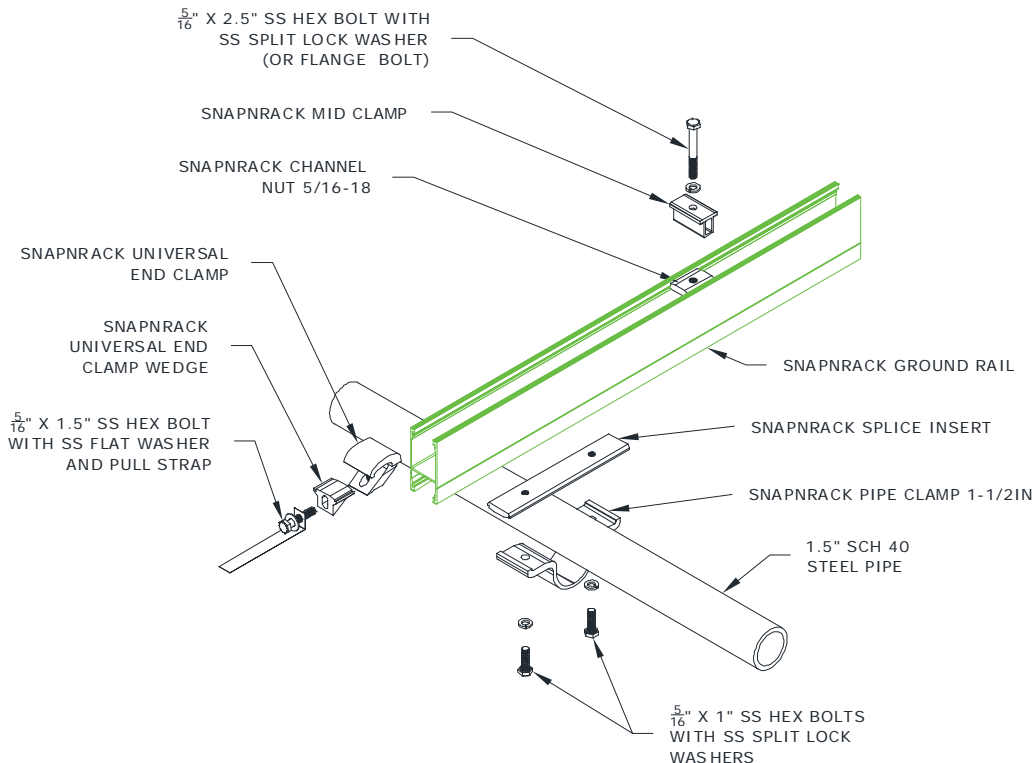
4.1 Attach pipe clamps

Snap in SnapNrack pipe-to-rail clamp insert and attach rails to pipe frame as shown in the detail diagram.

Inserts are designed to snap in and out of rail channels. This enables you to quickly assemble systems without having to slide inserts from the end of the rail.



✘ Always cut rails to the required length. Never use a rail splice to join two shorter rails in a ground mount installation.



Detail of pipe-to-rail connection

5. Install modules on rails

5.1 Prepare clamping hardware

Preassemble module clamping hardware. Each standard end clamp assembly and mid clamp consists of a module clamp, a channel nut, and a 5/16-inch bolt and split lock washer.

The end clamp size and bolt length are specific to the thickness of the module if you are using the standard end clamp. Make sure you have the right size of each of these components for the modules being installed.

To speed the installation, measure out the location of mid-clamps and end clamps on rails with a tape measure.

Snap in clamps on all the rails so the clamps will be ready when you place the modules.

5.2 Set first module

Place the first module, taking care to line the module up to the rails.

✓ **The rest of the installation will go more smoothly if you take the time to get the first module lined up properly.**

Tighten the two end clamps on the first module and snap in the next two clamps, which will typically be mid clamps, to prepare to receive the next module.



Aligning first row of modules



First row of modules installed



Three rows of modules installed

Place all the bottom modules first and align them with a string line or laser. We recommend you leave a 1/8-inch gap between the rows of modules to allow for thermal expansion and to help dissipate heat. Proceed to the next row and work your way up.

When you place the last module in the row, secure it with end clamps to finish the row and repeat the process for the next row of modules.

5.3 Connect wiring

Connect module leads and train the wires into the rail channels as the modules are being installed. This will ensure a clean electrical installation with no dangling wires. Use module lead clips as necessary to insure that module leads are secured to module frames until they drop into the rail channel. You can also use the SnapNrack channel cover to help retain wires.

5.4 Connect grounding

Install grounding hardware per PV module manufacturer’s specifications and NEC code requirements.

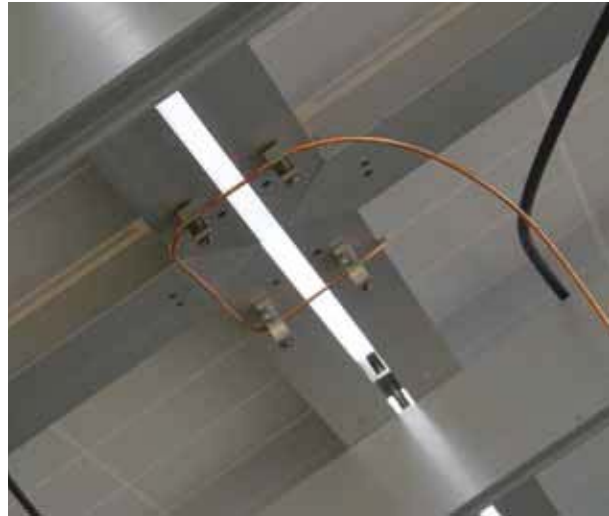
It is often convenient to install grounding hardware as modules are being installed but this will vary with the type of PV modules used.

The Wiley Electronics WEEB is an acceptable grounding method. The SnapNrack rail

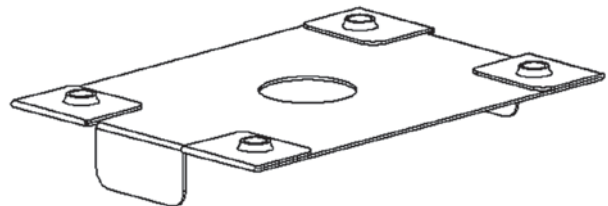
requires the WEEB-PMC washer, only on the mid clamps.

5.5 Trim rails

If you are using standard end clamps, trim rail ends to leave about 1.5 inches of extra rail



Grounding with lay-in style lugs



WEEB PMC grounding washer



WEEB on mid clamp

extending past the end of the module frame. If you are using universal end clamps, the rail can be trimmed flush with the module frame.

File off any sharp edges from the rail ends with a hand file and clean up metal shavings. Install the rubber rail end covers.

-
- ✔ Careful array layout planning will enable you to cut rails to the correct length before they are installed and eliminate the need for trimming.
-



Check all bolts

6. Final check

6.1 Structural inspection

Grab module frames and gently push up and down in various locations around the array to ensure that nothing moves.

6.2 Check all fasteners

Check all bolts with the torque wrench to ensure that all 5/16-inch hardware is tightened to correct torque:

- Silver Hardware - 10-16 ft-lbs.
- Black Hardware - 7-9 ft-lbs.

6.3 Check wires

Check under the array to ensure all wires are attached properly with module clips along the module frames and trained into the cable channels in the rails and that all channel covering is snug.

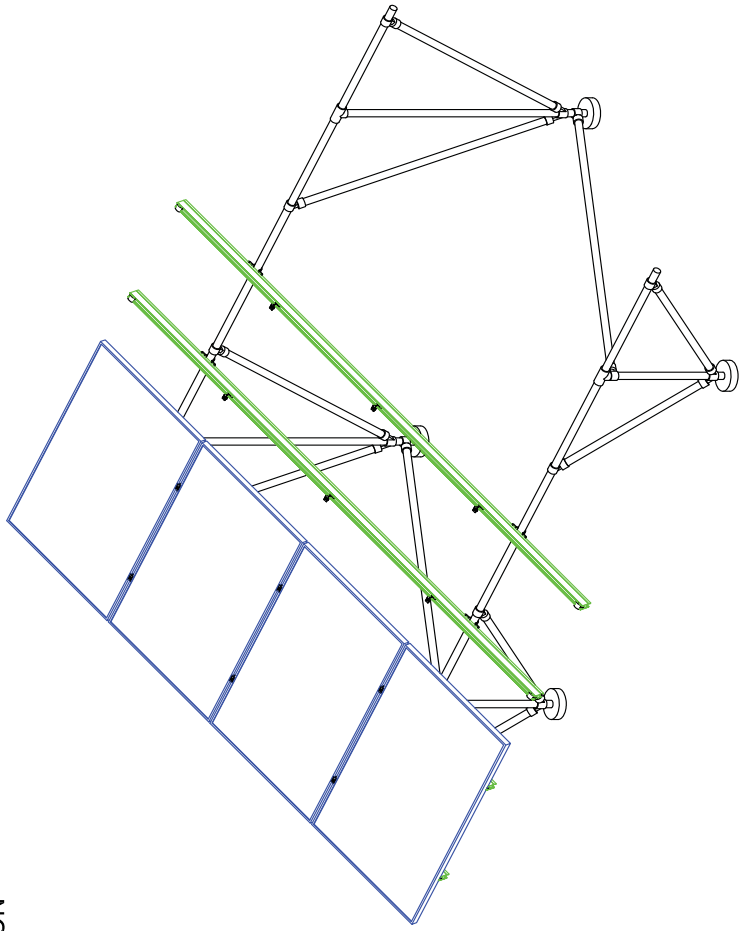



Check under the array for loose wires.

-
- ✔ It is a good practice to look for areas where the PV wires or cables could potentially get damaged due to contact with the module frames, rails or other sharp metal objects. This is a common cause for ground fault in PV installations.
-

REVISION:

S350 D00 2012 SERIES 200 DRAWING SET COVER
 S350 D01 2012 SERIES 200 OVERVIEW
 S350 D02 2012 SERIES 200 SYSTEM DETAILS
 S350 D03 2012 SERIES 200 PIER DETAILS
 S350 D04 2012 SERIES 200 GRADE BEAM OPTION
 S350 D05 2012 SERIES 200 BRACED OPTION



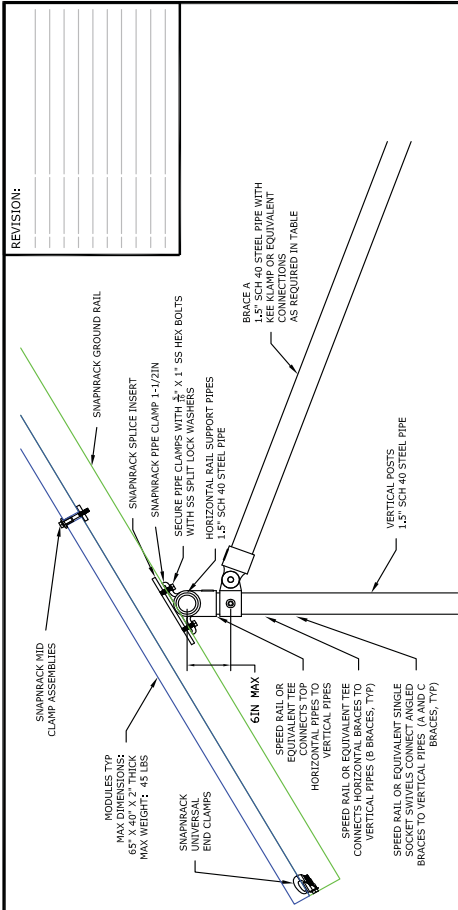
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	DRAFTER	G. MCPHEETERS	DATE	S200 D00	F				

STANDARD CONCRETE PIER CONFIGURATION

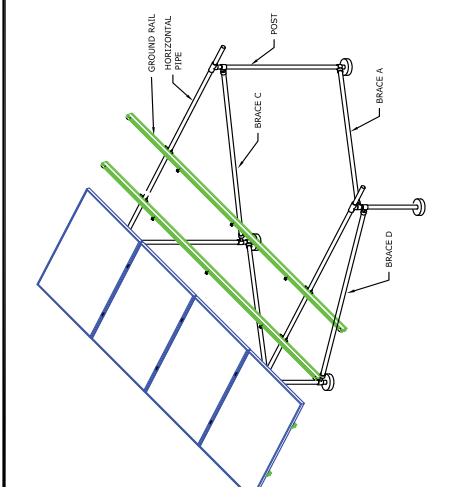
SEE ENGINEERING TABLES FOR PIER DEPTHS AND SPAN LIMITATIONS.

UNLESS OTHERWISE SPECIFIED IN ENGINEERING DOCS, THE FOLLOWING VALUES APPLY:

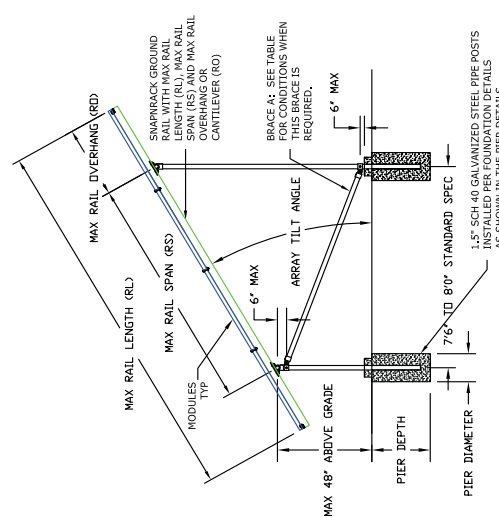
- MAX RL: 162"
- MAX RS: 114"
- MAX RO: 32"



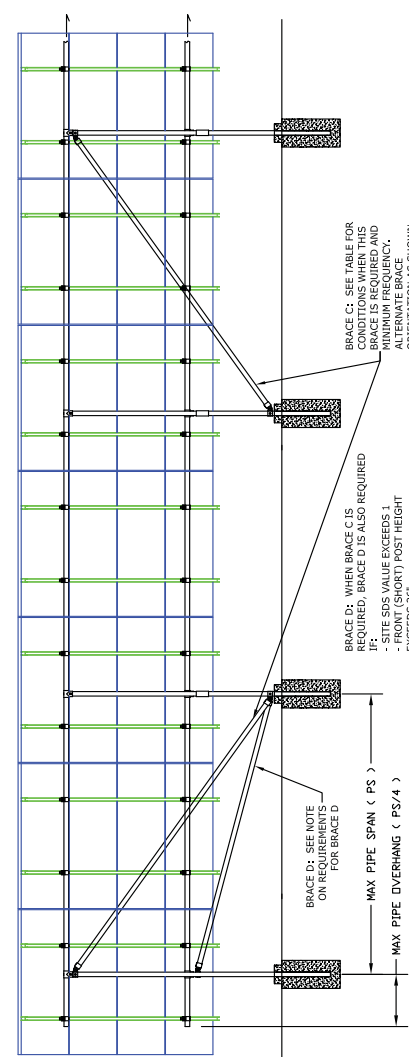
DETAILED VIEW OF PIPE TO RAIL AND BRACING INTERFACE



ISO VIEW OF RACKING ASSEMBLY



ARRAY SIDE VIEW



ARRAY BACK VIEW

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PART # S200 D01

SERIES 200 OVERVIEW

REV F

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NOTE:
 TORQUE $\frac{5}{16}$ " SS SILVER HEX BOLTS TO 10-16 FT-LBS
 TORQUE $\frac{3}{8}$ " SS BLACK HEX BOLTS TO 7-9 FT-LBS

MODULES WITH MOUNTING HARDWARE: 78" X 40" X 2" THICK MAX WEIGHT: 60 LBS

MODULE MOUNTING HARDWARE: SNAPRACK UNIVERSAL END CLAMP WITH $\frac{3}{8}$ " STAINLESS HARDWARE USING WEDGE CLAMP

FOR MODULES WITHOUT AN ADJUSTABLE TOP MOUNT END CLAMP

MODULE MOUNTING HARDWARE MID CLAMP (FOR MIDDLE OF ROW) STAINLESS HARDWARE INTO CHANNEL NOT IN RAIL

SAPRACK GROUND RAIL: SECURE BOLTS WITH $\frac{3}{8}$ " X 1" SS HEX BOLTS WITH SS SPLIT LOCK WASHERS TO TOPS OF HORIZONTAL MOUNTING PIPES

SAPRACK PIPE CLAMP 1-1/2 IN: SECURE PIPE CLAMS WITH $\frac{3}{8}$ " X 1" SS HEX BOLTS WITH SS SPLIT LOCK WASHERS

HORIZONTAL RAIL SUPPORT PIPES: 1.5" SCH 40 (MIN) STEEL PIPE

MODULE AND RAIL ATTACHMENT DETAILS

ISO VIEW OF RACKING ASSEMBLY

TYPICAL ARRAY OF 4 MODULES INSTALLED

RAIL SHOWN BEFORE MODULES ARE INSTALLED

DETAIL A: PIPE TO RAIL CONNECTION

MODULE MID CLAMP ASSEMBLIES

MODULE END CLAMP ASSEMBLIES

SNAPRACK GROUND RAIL

SNAPRACK SPICE INSERT

SNAPRACK PIPE CLAMP 1-1/2 IN

1.5" SCHEDULE 40 (MIN) STEEL PIPE

$\frac{3}{8}$ " X 1.5" SS HEX BOLT WITH SS FLAT WASHER

SNAPRACK UNIVERSAL END CLAMP

SNAPRACK UNIVERSAL END CLAMP WEDGE WITH PULL STRAP

$\frac{3}{8}$ " X 2.75" (TYP) SS HEX BOLT WITH SS SPLIT LOCK WASHER (OR FLANGE BOLT)

SNAPRACK MID CLAMP

SNAPRACK CHANNEL NUT 5/16-18

SNAPRACK PIPE CLAMP 1-1/2 IN

1.5" SCHEDULE 40 (MIN) STEEL PIPE

$\frac{3}{8}$ " X 1" SS HEX BOLTS WITH SS SPLIT LOCK WASHERS

PIPE FITTING DETAILS

DETAIL A: PIPE TO RAIL CONNECTION

THREADED PIPE COUPLERS

1.5" SCH 40 (MIN) STEEL PIPE FOR BRACING MEMBERS

SNAPRACK PIPE CLAMP 1-1/2 IN

1.5" SCH 40 (MIN) STEEL SINGLE SOCKET SWIVELS

SPEED RAIL OR EQUIVALENT PIPE TEES

1.5" SCH 40 (MIN) STEEL SINGLE SOCKET SWIVELS

SNAPRACK PIPE CLAMP 1-1/2 IN

NOTE:
 TORQUE ALL SPEED RAIL OR EQUIVALENT SET SCREWS TO MANUFACTURERS TORQUE REQUIREMENTS

PIPE FITTING DETAILS

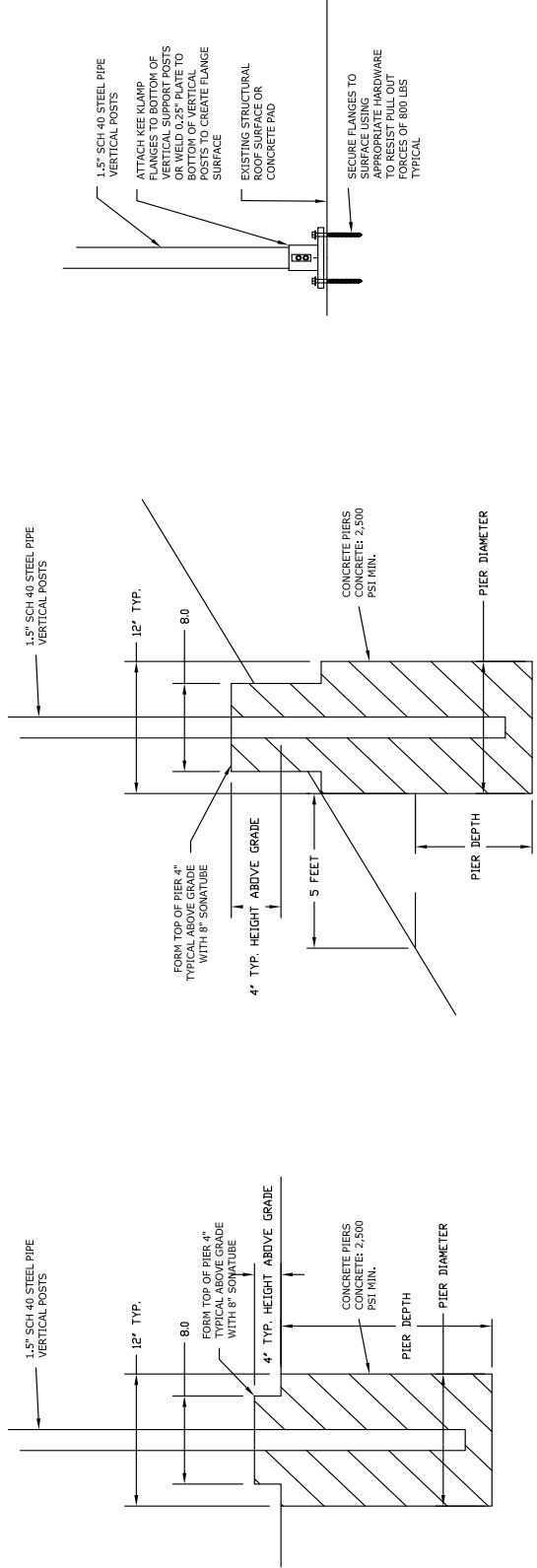
DETAIL A: PIPE TO RAIL CONNECTION EXPLODED

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 DRAFTER: G. MCPHEETERS

PART #	S200 D02	DNS	120111	REV	F
SERIES 200 SYSTEM DETAILS					

REVISIONS:



NOTE:
 FLANGE MOUNTS ARE A VIABLE OPTION FOR INSTALLATION OF GROUND MOUNT SYSTEMS ON CONCRETE PADS OR VARIOUS TYPES OF ROOF TOP STRUCTURES, BUT ARE NOT SPECIFIED IN DETAIL IN THE STANDARD ENGINEERING REVIEW FOR 2010.

	DESIGNER G. MCPHEETERS	PART # S200 D03	REV F
	DRAFTER G. MCPHEETERS	DNS 120111	SCALE DATE

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GRADE BEAM FOUNDATION CONFIGURATION

SEE ENGINEERING TABLES FOR SPAN LIMITATIONS.

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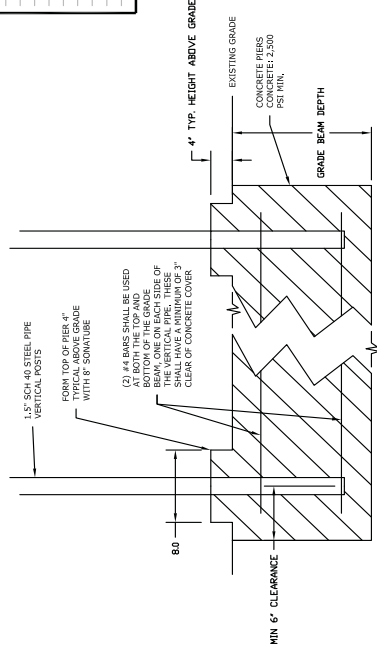
- MAX RL: 162"
- MAX RS: 114"
- MAX RO: 32"

- MIN GBW: 12"
- MIN GBD: 18"

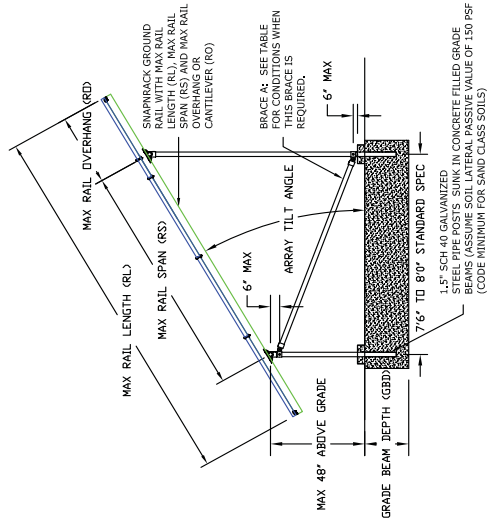
GRADE BEAM FOUNDATIONS SHOULD ONLY BE USED IN FLAT GROUND CONDITIONS (GROUND SLOPE LESS THAN 5 DEGREES TYPICAL)

COMPATIBLE WITH ALL BRACING OPTIONS

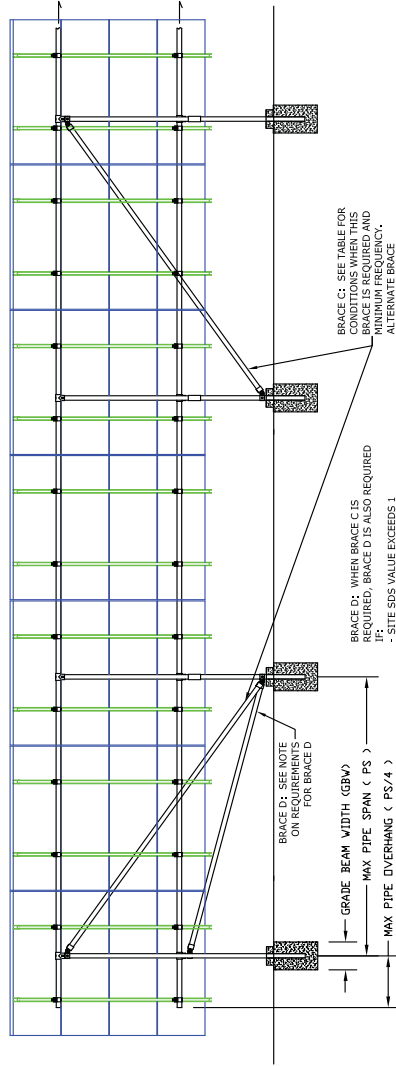
REVISION:



GRADE BEAM FOUNDATION DETAIL



ARRAY SIDE VIEW



ARRAY BACK VIEW

SnapRack
PV Mounting System

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PART # S200 D04

SERIES 200 GRADE BEAM OPTION

REV F

BRACING OPTION FOR HIGH LOAD OR LONGER SPAN APPLICATIONS

SEE ENGINEERING TABLES FOR PIER DEPTHS AND SPAN LIMITATIONS.

COMPATIBLE WITH ALL PIER OPTIONS INCLUDING STANDARD PIERS AND GRADE BEAMS

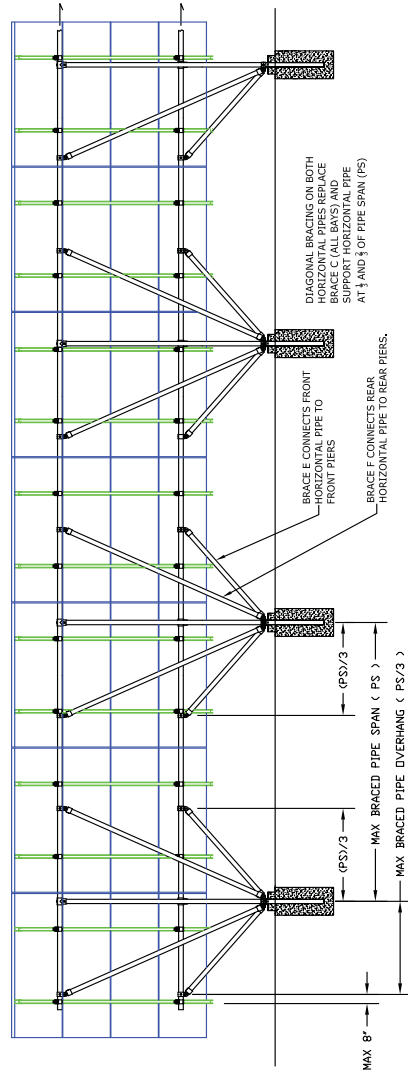
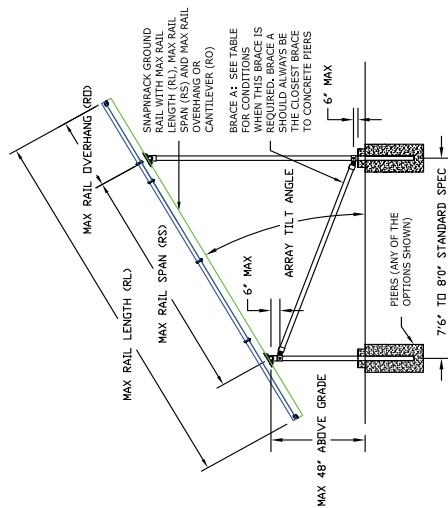
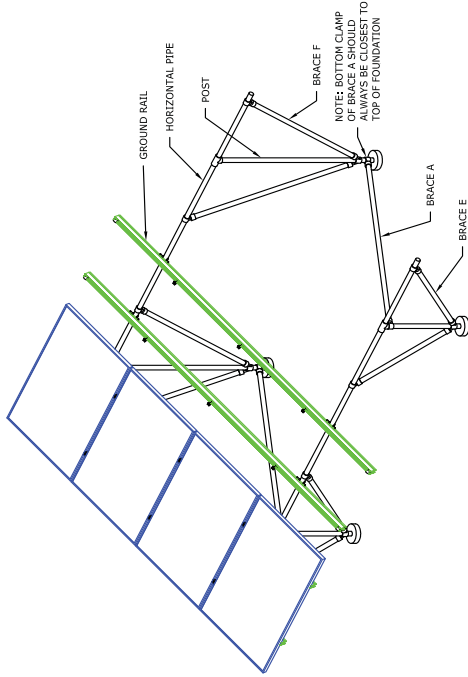
UNLESS OTHERWISE SPECIFIED IN ENGINEERING DOCS, THE FOLLOWING VALUES APPLY:

MAX RL: 162"

MAX RS: 114"

MAX RO: 32"

REVISION:



ARRAY SIDE VIEW

ARRAY BACK VIEW

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DRAFTER G. MCPHEETERS

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DNS 120111

PART # S200 D05

SERIES 200 BRACED OPTION

REV F

SnapNrack™

10 year Limited Product Warranty and 5 year Limited Finish Warranty

Limited Warranties: SnapNrack, Inc., (“SnapNrack”) warrants to the original end-user of the Product (“Purchaser”) at the original installation site (“Site”) that the SnapNrack™ PV module mounting system (the “Product”) shall be free from defects in materials and workmanship for a period of **ten (10) years** (the “Limited Product Warranty”), and the Product’s anodized finish shall be free from visible peeling, cracking or chalking under normal atmospheric conditions for a period of **five (5) years** (the “Limited Finish Warranty”) (collectively, the “Limited Warranties”). The Limited Warranties shall commence on the earlier of (a) the date the installation of the Product as part of the original solar electric system (the “System”) is complete, or (b) thirty (30) days after SnapNrack ships the Product to the authorized distributor or retailer. If, within the warranty period the Product is determined by SnapNrack to be defective, based on reasonable evidence of a defect provided by Purchaser, SnapNrack will, at its sole option, (a) repair the Product or replace it with an equivalent product, or (b) take back the Product and refund the purchase price to the Purchaser.

Conditions, Limitations and Exclusions: SnapNrack is not responsible for, and Purchaser hereby agrees to bear, the costs of any on-site labor and any costs associated with the installation, removal, reinstallation, shipping or transportation of the Product or any components thereof for replacement or service. (Note: the foregoing may not be applicable to consumer sales in certain jurisdictions.) SnapNrack may, at its sole discretion, use new, remanufactured or refurbished parts or products when repairing or replacing your Product under this warranty. Any exchanged or replaced parts or products will become the property of SnapNrack. This warranty is extended only to the original end-user purchaser and is not transferable, provided that as long as the System has not been physically moved or altered, any subsequent owner of the System shall have the same Limited Warranty rights as the original Purchaser.

The Limited Warranties do not apply to Products installed (a) outside the U.S.A. or Canada, or (b) in corrosive atmospheric conditions, including, but not limited to chemical fumes, salt spray, acidic rain or surface temperatures which exceed 200 degrees Fahrenheit. The Limited Warranties do not cover damage to the Product’s anodized finish caused by moisture, condensation, or other contamination resulting from improper storage, packing or handling. The Limited Warranties do not cover damage to the Product that occurs during shipment or prior to or during installation. The Limited Warranties shall be void if the Product is not installed in accordance with SnapNrack’s written installation instructions for the Product, or if the Product has been modified, repaired, or reworked in a manner not previously authorized by SnapNrack in writing, or if the Product is installed in an

environment for which it was not designed. As used herein, the term “chalking” refers to the powdery residue formed by the breakdown of the anodized finish, and excludes any foreign residue deposited on the finish by the surrounding atmosphere, including, but not limited to soot, dust, plaster, cement, etc. The Limited Finish Warranty is void if normal maintenance and cleaning practices are not followed by Purchaser as specified by AAMA 609 & 610-02 entitled “Cleaning and Maintenance for Architecturally Finished Aluminum,” a copy of which is available from SnapNrack or from www.aamanet.org.

SNAPNRACK MAKES NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THE LIMITED WARRANTIES MADE HEREIN. SNAPNRACK EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, TO THE FULLEST EXTENT PERMITTED BY LAW. TO THE EXTENT THAT ANY SUCH IMPLIED WARRANTIES CANNOT BE FULLY DISCLAIMED AS A MATTER OF LAW, THEY ARE LIMITED IN DURATION TO TEN (10) YEARS FROM THE DATE OF ORIGINAL PURCHASE.

TO THE FULLEST EXTENT PERMITTED BY LAW, SNAPNRACK DISCLAIMS ANY LIABILITY WHATSOEVER FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES ARISING FROM THE USE OF THE PRODUCT, OR FOR OTHER LOSS OR INJURY RESULTING FROM ANY CAUSE OF WHATSOEVER ARISING OUT OF OR RELATED TO THE PRODUCT, INCLUDING BUT NOT LIMITED TO DAMAGE OR INJURY TO PERSONS OR PROPERTY, DAMAGES FOR LOST SERVICES, COST OF SUBSTITUTE SERVICES, LOST PROFITS OR SAVINGS, AND EXPENSES ARISING OUT OF THIRD PARTY CLAIMS.

SNAPNRACK’S MAXIMUM LIABILITY UNDER ANY THEORY OF LIABILITY, WHETHER EXPRESS, IMPLIED OR STATUTORY, OR FOR ANY MANUFACTURING OR DESIGN DEFECTS, IS LIMITED TO THE ORIGINAL PURCHASE PRICE OF THE PRODUCT.

To the fullest extent permitted by law, Purchaser’s remedies for breach of warranty, or for manufacturing or design defects, shall be only as stated herein. SnapNrack’s Limited Warranty covers only the Product, and not related items such as PV modules, roof flashings and specialized clamps. Manufacturers of such related items typically provide written warranties of their own.

Warranty Procedure: Purchaser should contact the distributor or retailer where the Product was purchased, or if unable to do so, contact SnapNrack, Inc at: (805) 540-6999, info@snapnrack.com or SnapNrack, Inc., 775 Fiero Lane, Suite 200, San Luis Obispo, CA 93401.