Sollega Install Manual – Recommendations / Cheat Sheet / Guidelines for using plan set

Forward:

Every crew functions differently, and ultimately, no two projects are alike. The following is a guideline for project installation based on our experience and customer feedback. If questions arise during installation, instructions are unclear or more help is needed, we are always available via phone or email at 415.648.1299 or at info@sollega.com to offer assistance. We greatly treasure your feedback on every installation so we can continue to improve our product and our process.

Before beginning installation of the FastRack system, please make sure that all applicable crew has copies of, or access to:

The Sollega provided Ballast/Anchor layout (pg. S1.0)

Sollega detail pages S2.0 and S3.0, which depict all pertinent assembly connections

A copy of the most current Sollega FastRack 510 installation manual for the project specific tilt angle.

The project manager should have hard copies of these documents available, but pdf copies can be provided as well by request at the contact information mentioned above.

The Installation Process

For most projects, high precision staging is not necessary. The Sollega FastRack 510 Ballasted / Anchored hybrid racking system is intended to be a “build as you go” system. This is achieved by introducing reference tabs into the mounting system that helps to align modules and keep them square with the array as you build out the system.

1. Sollega Recommends starting from the South end of an array from a corner closest to the roof edge by snapping one line in the E-W direction and another in the N-S direction with the required setbacks as per code and indicated on the layout. The first row and column will ensure that the remaining array will be positioned correctly by use of the reference tabs on the modules.

2. It is best to divide tasks up among the crew:
    a. One or two people (depending on how many crew members you have) to lay out the FastRacks and put the mounting hardware on loosely. (Pull Clamps, End Clamps, serrated flange nuts, cage nuts).
    Notes for this role: FastRacks on the far East and West ends of rows DO NOT need the cage nut that is used for the grounding mid clamps. This is also true for either the FastRacks on the furthest North or furthest South of the array, depending on which tilt angle the FastRacks are set for. For a 10° tilted system, the Northernmost FastRacks will NOT need cagenuts for the grounding clamp. For a 5° tilted system, the Southernmost FastRacks will NOT need cage nuts for the grounding clamp. The serrated flange nuts are best applied either by hand or a low speed drill in order to avoid galling or seizing of the fasteners. It should also be noted that the FastRacks at the ends of the rows get pushed underneath the modules, so the E-W spacing at the ends of rows of the FastRacks will be smaller than FastRacks throughout the rest of the array.
    b. One or two people carrying and securing modules (Torque settings will be listed below for quick reference)
    c. One person to install grounding mid clamps and manage module connections / wiring.
    d. One or two people carrying and placing ballast block.

3. Start by Laying out the first two rows of buckets (task group A). The first row of modules will lay between these FastRack rows). For this first row, it is helpful to put at least some of the ballast in the FastRacks since it will make laying the first row of modules a bit easier. NOTE: It is also best at this stage to note the location of any anchors in the system design as they will require a piece of rail that spans between buckets and a fastener connection that needs to be inserted from underneath the FastRack (see detail 4B on page S3.0). Put the fastener assembly in before any ballast or modules are attached. The rail can be place in loosely, since it is easily accessible later in the installation once the anchors are installed. This can be done by task group A.

4. Once the FastRacks with the hardware are in place, the modules can be installed, aligned, and fastened down (task group B). The reference tabs on the FastRacks allow for the modules to be pushed up against the first row of racking. Then the next row of FastRacks can be pushed up against the modules. There is a reference spacer near the grounding mid-clamp point that will help with the alignment and E-W spacing and is designed to be the same width as the grounding mid-clamp. Once the modules are aligned, the pull clamp can be pulled back to secure the module frame lip and the fastener can be tightened down.

5. While the modules are being installed down the row, another crew member (task group C) can follow behind by a module or two and install the bonding mid-clamp and will have the easiest access at this point to connect module leads or secure them closely to be connected later. This will vary depending on the project specific stringing and wiring preferences

6. Now is the best time to lay the ballast (task group D) since the next row of modules are not in place and there will be ample room to transport the block. This is also a good time for group D to make sure that group A has installed any of the necessary hardware for anchors as it will be much more difficult to do later.
    a. OPTIONAL: Depending on the installer / roofer arrangement, this is also the most opportune time to allow a roofer to install the anchors if one is available during the installation process, as it leaves the roofer with the most working room and accessibility. This can still easily be done later but accessibility will be more limited.

7. As group B has worked its way down the row, Group A can begin laying the next row of FastRacks and attaching the hardware for the modules and anchors.

8. This cycle (Step 4-7) will repeat until the entire array is complete.

9. Wind screens only go on the northern most exposed rows and the fastener assembly is easily accessible after the entire array is complete.

Quick Reference information

Required Tools: ½" Driver, Torque Wrench, Power Drill or Impact Driver

Required Torque: All connections require 5 ft-lb of torque.

Rows must be bonded North-South via a traditional grounding lug attached to the module frame and an appropriately gauged copper wire. The windscreen rows are to be bonded this way as well.