

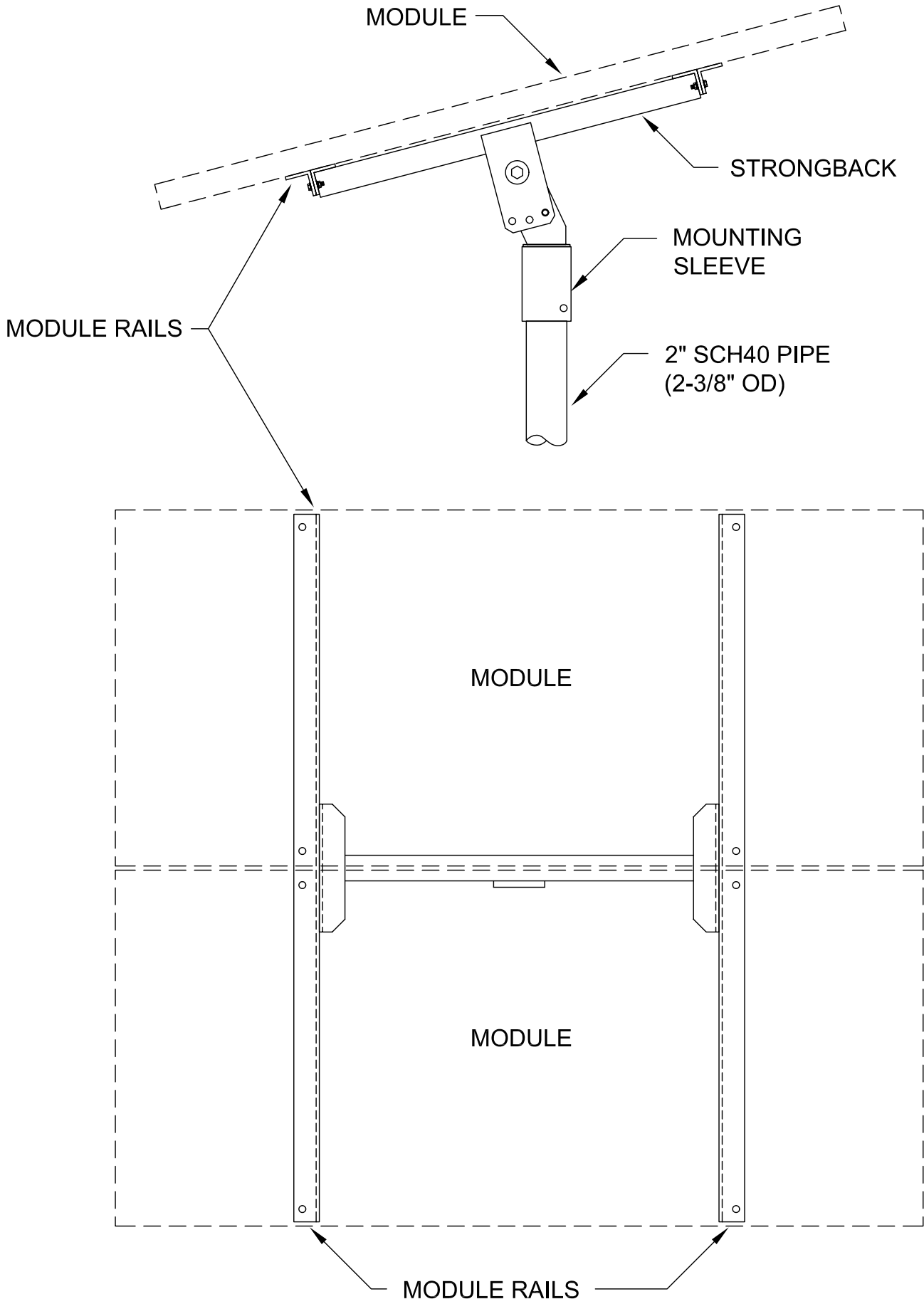
**SERIES 15-2 TOP-OF-POLE MOUNT
INSTALLATION INSTRUCTIONS**

Designed to hold up to 15 Sq. Ft. of solar modules
and to mount on a 2" SCH 40 Pole



SERIES 15-2 Rack

TPM1/TPM2



First a word on our product:

The Series 15-2 does not denote the specific number of modules to be mounted but rather the overall size of the array. The Series 15-2 is designed to hold up 15 square feet of modules and the rack mounts on a 2" Schedule 40 steel pole. The drawing on the front page depicts a two-module rack with two modules, each with dimensions of 21"x 47", for a total area of approximately 13.7 square feet. However, like any Series that we manufacture, there are several Models that fall within each Series. For example, the model TPM2-SM55 holds two Shell SM55, 55 watt modules on the Series 15-2 structure design.

Components:

- 1ea. Strongback
- 1ea. Mounting Sleeve with Pivot Bolt
- 2ea. Module Rails
- 1 lot rack assembly hardware
 - 4 - 3/8" x 1" Bolts
 - 4 - 3/8" Lock Washers
 - 8 - 3/8" Flat Washers
 - 4 - 3/8" Nuts
- 1 lot 1/4" module mounting hardware
 - 4 Bolts, Lock Washers, and Nuts per solar module
 - 8 Flat Washers per solar module

INSTALLATION INSTRUCTIONS

1. You will need a piece of 2" SCH40 steel pipe (2-3/8" OD) for a mounting pole. This piece of pipe should be approximately 8 feet long. Dig a hole 10"-12" in diameter and about 36" deep. Place the pole into the hole and pour concrete around it. Fill the hole to the top. Brace the pole plumb and let the concrete set up.
2. Place the **Strongback/Mounting Sleeve** assembly on the pole.
3. Bolt the **Module Rails** to the plates that are welded to the ends of the Strongback using the 3/8"x1" bolts, 3/8" flat washers, lock washers and nuts.
4. Mount the modules to the rack using the 1/4" hardware. Make sure all rack and module bolts are tight. Point the rack South and tighten the two set screws in the Mounting Sleeve to secure the rack to the pole.
5. This rack has 6 elevation angle set points. They are: 5, 15, 25, 35, 45, and 55 degrees. When you adjust the rack you should loosen the 1/2" pivot bolt before removing the 5/16" lock bolt. Make sure all bolts are tight after re-positioning the rack.

POWER-FAB PV HARDWARE
Direct Power and Water Corp.
4000-B Vassar Drive NE
Albuquerque, NM 87107
800-260-3792 fax 505-889-3548
info@power-fab.com

The following table provides “rule-of-thumb” guidelines for an average installation. Soil type varies widely from one region to another. The actual depth and diameter of the hole and the amount of concrete used is very dependent on soil type. Installations in loose, sandy soil will require a larger, deeper hole with more concrete than an installation in hard, rocky soil. The amount of pole sticking out of the ground and the wind speeds in your area also play an important role in determining the depth and diameter of the hole. If in doubt, we recommend that you consult a civil engineer in your area that is familiar with local soil conditions.

MODULE AREA	POLE SIZE (STEEL PIPE)	LENGTH IN GROUND	HEIGHT * ABOVE GROUND	HOLE DIAMETER
15 SQ. FT.	2" SCH40 (2-3/8" OD)	30"-36"	48"-72"	8"-12"
20 SQ. FT.	2.5" SCH40 (2-7/8" OD)	34"-40"	48"-72"	10"-14"
28 SQ. FT.	3" SCH40 (3-1/2" OD)	36"-42"	48"-72"	12"-16"
35 SQ. FT.	3" SCH40 (3-1/2" OD)	38"-44"	60"-72"	12"-16"
60 SQ. FT.	4" SCH40 (4-1/2" OD)	42"-48"	60"-72"	16"-24"
90 SQ. FT.	6" SCH40 (6-5/8" OD)	48"-60"	60"-84"	24"-30"
120 SQ. FT.	6" SCH40 (6-5/8" OD)	48"-72"	72"-84"	24"-30"
160 SQ. FT.	8" SCH40 (8-5/8" OD)	60"-78"	84"-102"	30"-36"
180 SQ. FT.	8" SCH40 (8-5/8" OD)	60"-78"	84"-102"	30"-36"
225 SQ. FT.	8" SCH80 (8-5/8" OD)	72"-84"	96"-120"	36"
260 SQ. FT.	8" SCH80 (8-5/8" OD)	72"-84"	96"-120"	36"

* If you need a taller pole for snow clearance or to clear nearby obstructions you will need to have more pole in the ground. For each extra foot that you add above ground you will need approximately 6" in the ground in concrete.

If you have to go more than 2ft-3ft higher than what is shown in the table you may need a larger diameter pole. Please consult the factory.

General Procedure: When your hole is ready place the piece of pipe in it so that it is resting on the bottom of the hole - it is a good idea to fill the bottom 2"-4" of the hole with rocks. Brace the pole plumb and pour concrete around it. Fill the hole to ground level, add a little extra concrete and use a trowel to form a mound around the pole so that the concrete slopes down away from the pole. Allow the concrete to set up for at least 24 hours before installing your rack.

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Albuquerque, NM 87107

Ph: 800-260-3792 Fax: 505-889-3548

POWER-FAB PV HARDWARE
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The original consumer purchaser must retain original purchase receipt for proof of purchase as a condition precedent to warranty coverage. To receive in-warranty service, the defective product must be received no later than one (1) week after the end of the warranty period. The product must be accompanied by proof of purchase and Return Authorization (RA) number issued by DP&WC. For an RA number contact Direct Power & Water Corporation, 4000-B Vassar Dr NE, Albuquerque, New Mexico 87107 (505) 889-3585. Purchasers must prepay all delivery costs or shipping charges to return any defective DP&WC product under this warranty policy.

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