

		GroundLock - 6 panel frame	created	JM
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Tech. Bulletin	Rev. Nr. 1.0		valid from	22.02.2012

INTRODUCTION

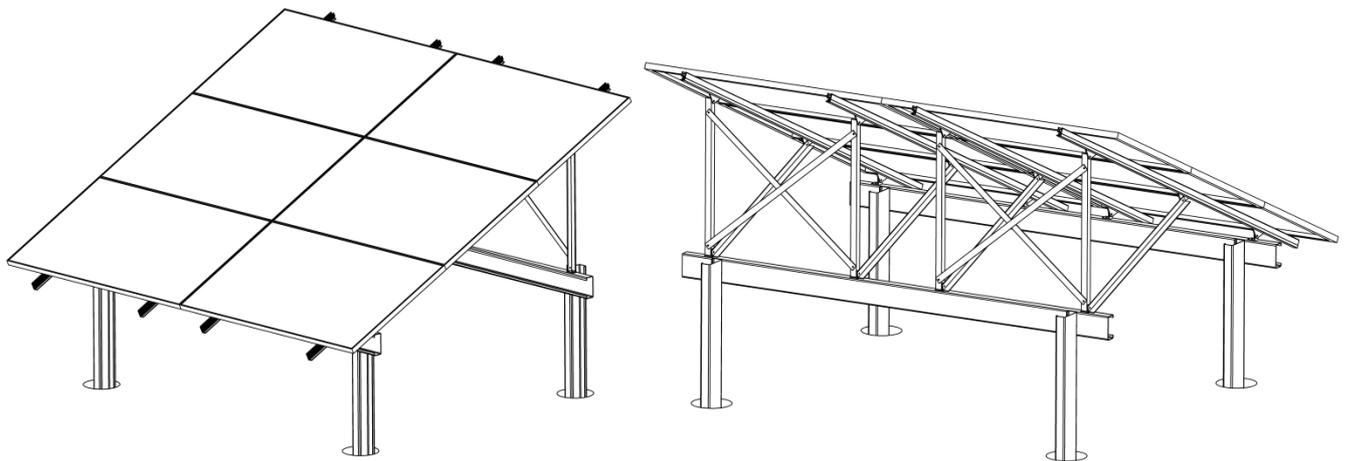
The following supplement should be used in conjunction with Version 1 (August 2011) of the GroundLock installation manual. It aims to clarify any alternate assembly procedures associated with the installation of the 6-panel GroundLock frame over that of the 12-panel variant.

The majority of the 6-panel frame is identical in construction to that of the 12-panel frame. The only difference is that the galvanised steel sub frame is shorter in length. The aluminium upper frame is identical in design and assembly.

COMPLETED INSTALLATION

GroundLock can compensate for up to a 300 mm slope at the installation site by adjusting the length of the posts. Extensive bracing and triangulation produces a robust and stiff structure.

The images shown below illustrate a frame with an inclination angle of 25 degrees. The assembly procedure is the same for models with other angles of inclination. The maximum angle of inclination is 40 degrees.



PARTS LIST – 25 DEGREE FRAME

CAD Number	Part Name / Sales Code	Part Description	Qty.
1000001C00	SLR3.2	SunLock Railing - 3200mm	4
1000033C00	SLMC004	Mid Clamp 50	8
1000031C00	SLECO38	End Clamp	8
1000010C00	Rail joiner	SunLock rail joiner - 150mm	12
1000084C00	GroundMount - Horizontal base frame	152 x 64 x 19.5 x 2.4 galvanised channel - 3000mm	2
1000085C00	GroundMount - Rear post long	152 x 64 x 19.5 x 2.4 galvanised channel - 2100mm	2
1000086C00	GroundMount - Front/Rear posts - short	152 x 64 x 19.5 x 2.4 galvanised channel - 1800mm	2
1000088C00	GroundMount - Rear cross bracing	40 x 3 flat aluminium - 1350mm	4
1000089C00	GroundMount - Rail mounting bracket	160 x 80 x 6 aluminium plate (triangle)	12
1000090C00	GroundMount - Vertical upright	40 x 40 x 6 aluminium angle - 1000mm	4
1000091C00	GroundMount - Base frame mounting feet	50 x 50 x 6 aluminium angle - 40mm	8
1000092C00	GroundMount - Railing cross brace	40 x 40 x 3 aluminium angle - 1250mm	4
-	N46MG0800N2	M8 nut - galvanised	22
-	NNYM40800N2	M8 nyloc nut - SS 304	32
-	WSPMG08MFW2	M8 spring washer - galvanised	22
-	301M8ST	M8 tooth lock washer - SS 304	24
-	B46MG080251	M8 x 25 HH bolt - galvanised	22
-	SSCM4080252	M8 x 25 SHCS - SS 304	56
-	WFRI408H0W2	FLT WASHER 5/16X1X16G - SS 304	36
-	SLELBT	EarthLock bonding terminal assembly	2
-	SLELW01	EarthLock washer	8
-	B46MG121001	M12 x 100 HH bolt - galvanised	4
-	N46MG1200N2	M12 nut - galvanised	8

Prior to installing the GroundLock frame, ensure that all parts are included by cross checking with the supplied list.

If any parts are missing from the list contact

Apollo Energy on:

1300 855 484
sunlock@apolloenergy.com.au

INSTALLATION

The 6 panel GroundLock frame consists of a lower steel frame and an upper aluminium frame. The steel frame is held in concrete footings.

The aluminium frame includes the SunLock rails. The PV modules are attached to the SunLock rails using standard SunLock mid-clamps and end-clamps.

Steel frame

The steel frame is constructed from cold formed galvanized c-sections (Lysaght 152 x 64 x 19.5 x 2.4 mm lipped CFS).

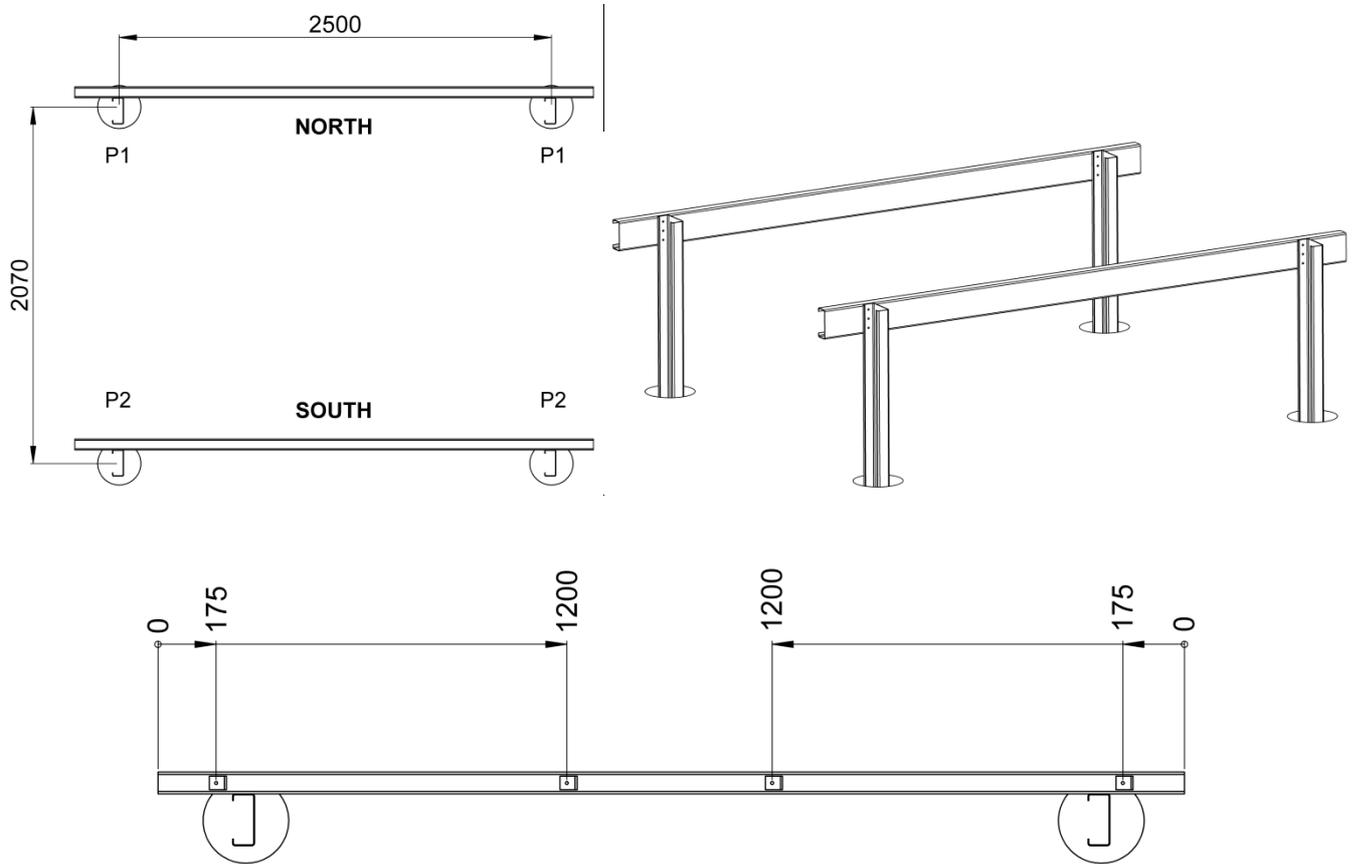
1. Mark out the location of the footings:
 - The posts are spaced at 2500 mm centres (East – West)
 - The back row is spaced at 2070 mm back to the front row (North – South)
2. Dig or bore the holes to the required depths as defined:
 - P1-300 mm diameter & 900 mm deep
 - P2-300 mm diameter & 1200 mm deep

Note that each post is supplied with an extra 300 mm – either the posts should be shortened to suit the terrain, or the footing should be made deeper.

3. Measure and cut each post to length, accounting for sloping terrain; the horizontal beams are 600 mm (minimum) above ground level.
4. Drill and insert the M12 anchor bolt into the base of each post. This bolt ensures that the post is anchored adequately in the concrete footing.
5. Concrete the posts in place with concrete of minimum strength 25 MPa, ensuring that the base of the post is a minimum of 100 mm from the bottom of the hole.



6. Drill and bolt the horizontal beams to the post. Bolt the horizontal beams to the posts using three M8 galvanised bolts, spring washers and nuts at every joint.



Aluminium frame

Assemble the upper aluminium frame as per the GroundLock installation manual.

FURTHER INFORMATION

For further information contact Apollo Energy on 1300 855 484 or sunlock@apolloenergy.com.au.