

ELVO Solar Panel Mount Installation Guide

Introduction

The **ELVO Solar Panel Mount** is a durable and easy to install mounting system. The version 1.0 is designed to only be used with the 60 watt Solar Panel supplied by ELVO.

Principle of Operation

- Solar Panels should ideally face North (in the Southern Hemisphere), with some tolerance for Nor-East or Nor-West if that is a better option due to physical constraints. More East favours morning while more West favours afternoon peak operation.
- The vertical orientation should be approx the latitude of the installation. E.g. Auckland is Lat 37° so the panel should be approx 37° relative to the horizon. To favour winter operation add approx 10° to the latitude. The ELVO-mount version 1.0 has options for 35°, 45° and 55° if the main back plate is mounted vertically. So if the installation is in Auckland and more power should be gathered in Winter then $37° + 10° = 47°$, the 45° is the nearest option

Note:

Wellington is approx 41° Lat

Dunedin is approx 45° Lat

Parts Supplied

6x Coach Bolts

M6 x 16mm



6x Wing Nuts

M6



2x Washers

M6



8x Hex Screws

M6



8x Star Washers

M6



8x Nut

M6



6x Self Tapper screw 4g x 40mm



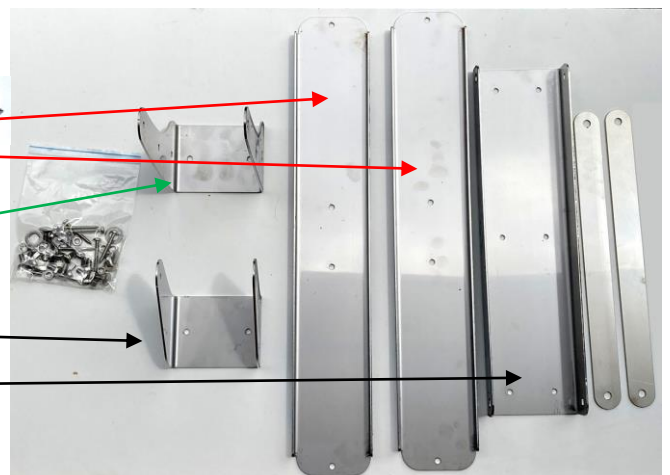
2x Panel Plates

2x Arms

1x Lower Flange

1x Upper Flange

1x Back Plate



Tools Required

1. Hand screwdriver or power screwdriver POZI # 2
2. Two off 10mm spanners or adjustable spanners etc.

Installation Method

Pre-assembly:

1. Attach 1x Panel Plate on to Upper Flange using:
 - a. 2x M6 Hex Screws
 - b. 2x M6 Nut
 - c. 2x M6 Star Washer
2. Attach 1x Panel Plate on to Lower Flange
 - a. 2x M6 Hex Screws
 - b. 2x M6 Nut
 - c. 2x M6 Star Washer
3. Attach the 2 assembled plates to the solar panel.
Aligning with the holes on the solar panel
Note: Make sure the angled arms are the same as the image!
 - a. 4x M6 Hex Screws
 - b. 4x M6 Nut
 - c. 4x M6 Star Washer

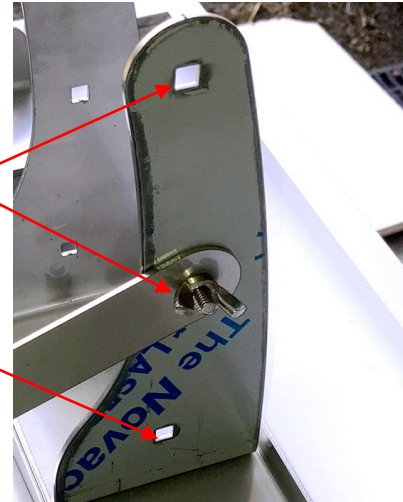


- d. Attach screws loosely as illustrated
- e. When all are in place, tighten



4. Attach the 2 Arms to the Lower Flange
 - a. Secure loosely with 2 xM6 Coach Bolts and M6 Wingnuts with the Wingnuts to the outside.
 - b. The example image is in the 45° position

35°
55°



The Mount Pre-Assembly is complete

Mount to the post:

1. Screw Back Plate to post or other suitable structure with
 - a. 6 off 4g x 40mm screws
 - b. Make sure the plate is straight / level
2. Attach Solar Panel assembly to Back Plate with:
 - c. 4x M6 Coach Bolts
 - d. 4x M6 Wingnuts
 - e. 2x M6 Washers

Note: Coach Bolts fit into square recesses on back plate
3. Attach the 2 Arms to the Back Plate with the arms on the outside of the Backplate using Coach Bolts and Wingnuts with the Wingnuts on the outside.
4. Place backplate inside tongs of upper flange
5. Use washers for the upper flange connection with the wingnuts on the inside



2. Make sure all fasteners are tight and secure

Installation is complete