

### Congratulations on purchasing the ePump solar pumping solution.

Please follow the easy step by step assembly instructions below.

We also have an assembly video which can be viewed via our website - [epumpnz.com](http://epumpnz.com)

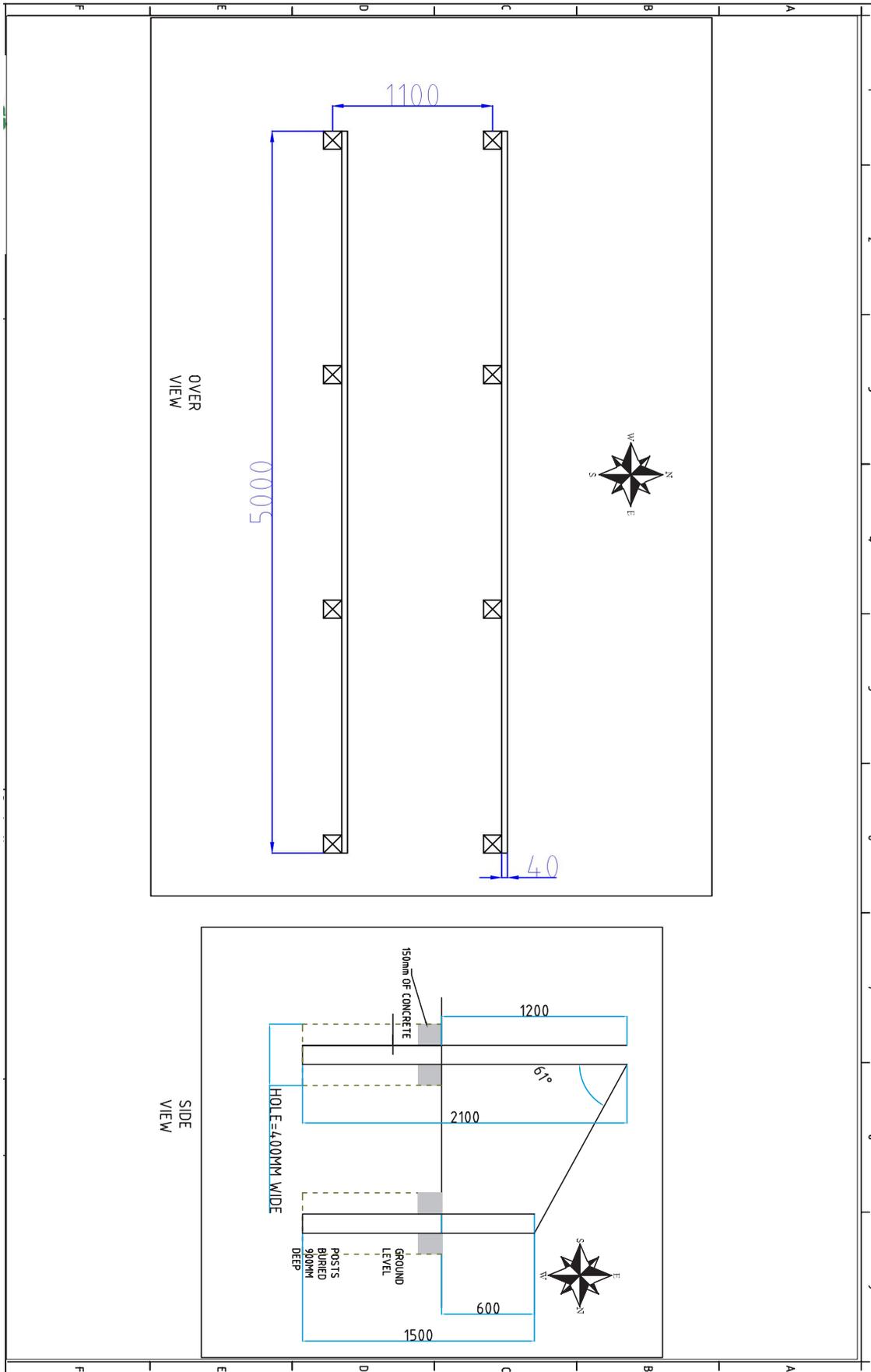
#### Assembly equipment supplied

		Required	Supplied
2100mm posts 125mm x 125mm H5 treated piles	5.00	✓	
1500mm posts 125mm x 125mm H5 treated piles	5.00	✓	
150 x 50 H3 timber 6 mtr length	2.00	✓	
Solar panels 300 watt 36 Volt	6.00		✓
2.1 metre Aluminum rail	6.00		✓
Bugle screw 14g x 100mm long (attaches 6x2 to posts plus rails mounts to 6x2)	50.00		✓
Rail mounts (rail feet)	12.00		✓
Interclamps GPTL-IC-F50 (Centre panel fastener)	10.00		✓
End clamps GPTL-EC-F40 (End panel fastener)	4.00		✓
Accessory pack Bugle bit, pkt cable ties, cable mounts, oil	4.00		✓
10 mtr lead (positive female female) between isolator and pump	1.00		✓
10 mtr lead (negative male male) between isolator and pump	1.00		✓
Isolating switch c/w pre plugged loom (plugs directly to panels in parallel)	1.00		✓
Aluminum rail joiner	4.00		✓

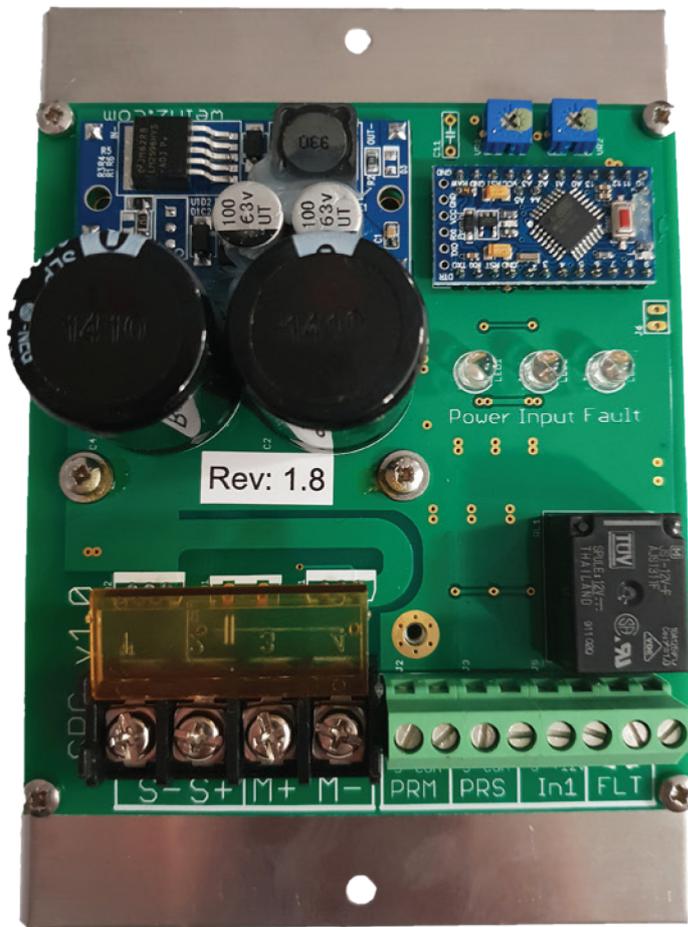
- Install your 125mm x 125mm H5 Fence posts as per the layout in the diagram 2100mm and 1500mm these posts need to be 900mm in the ground and the earth rammed. Secure with concrete at the top for high wind areas.
- Bugle screw 6x2 rail to north face of posts (2 screws per post).
- Install mounting brackets onto the top and bottom 6x2 timber rail, make sure the hook is tipping all the way down to the front, bugle screw to timber rail.
- Now you have all rails with mounting brackets installed.
- Loosely slide the ali rail onto the mounting brackets, keep the clips loose but tight enough for them to stay on.
- Do this with all 6 ali rails and leave loose.
- Slide an aluminum joiner over the ali rail and then slide the next one into that (easier to tip the ali rail to the top and slide these on). Tighten the bolts on the joiner once all are on.
- Now you can go around and tighten all of the mounting bracket clips to the ali rail. Make sure the ali rails are equal distance past each post at each end, top and bottom.
- Now all ali rails are fixed, this should have firmed everything up. You can now lift on each solar panel. Check the back to make sure the cables are at the top end of the panel.
- Secure panels with the middle and end clips. Slot the clips into the ali rail and slip over the panel, then tighten.
- The end clips are different - these slide in from the end and slip over the panel, tighten this up and repeat for top and bottom of each panel.
- Once all panels are on your ready to connect the power.
- Connect up both positives and both negatives from a pair of panels, Repeat for the other 4 panels, this is all connected to the pre-made wiring loom cable tie cable to the ali rail to keep tidy.
- Fix the isolator to the post at the end closest to the pumps position connect the pre made 10mtr leads between the isolator and the pump (connect to plugs on pump).
- Fill pump with oil and then prime pump.
- CAUTION - On each initial start up (when isolator has been turned off) the pump will run straight away, make sure the pump is clear of people.
- Once operational the pump has a pressure time philosophy, it pumps the entire system up to pressure then sleeps for 10 minutes, this process is repeated throughout the day.
- To reset the system turn the isolator off for 1 minute the turn on, the pump will start immediately.
- The pressure switches are pre set to the pumps maximum head (specific to each model) the restart pressure differential is 1 bar. So this is preset, if you would like to customize these please call the supplier for further instructions.



Enjoy your ePump



### SOLAR PUMP CONTROLLER



#### LED STATUS

##### POWER (GREEN):

- **SOLID**  
- Power OK
- **FLASHING**  
- Low voltage

##### INPUT (ORANGE):

- **SOLID**  
- Pump at pressure
- **FLASHING**  
- Loss of prime

##### FAULT (RED):

- **FLASHING**  
- High current fault

#### HOW THE PUMP WORKS:

- Turn the pump on at the isolator the pump will start immediately and run for 60 seconds (This initial start bypasses the loss of prime switch) the green LED will be static showing that there is sufficient power, the orange LED will be flashing once over the loss of prime set pressure is achieved the orange light will go out.
- When pumping under normal conditions only the green LED will be showing, it will be static.
- When the Epump has shut off at high pressure setpoint (Tank is full, ballcock is shut) Both LED lights Green and Orange will be on static. The pump will check the pressure every 10 minutes and only start if required.
- If the Epump has started / run for one minute and hasn't reached the low pressure setpoint the Orange light will flash the pump is not primed correctly, prime the pump, cycle the power and the process will start over.
- Float switch (Optional extra if requested for additional suction protection)
- Wire the float switch in series with the high-pressure switch, if whilst pumping the float switch changes state (runs out of water) the pump turns off, both LED lights flash Green and Orange. The pump will wait 10 minutes then try again, this process will continue until the float changes state.

#### CONNECTIONS

**S-**  
**S+** - Solar panels

**M+**  
**M-** - Electric motor

**PRM** - Loss of prime switch  
(Optional)

**PRS** - Operate pressure switch

**In1** - Not for use

**FLT** - Not for use