

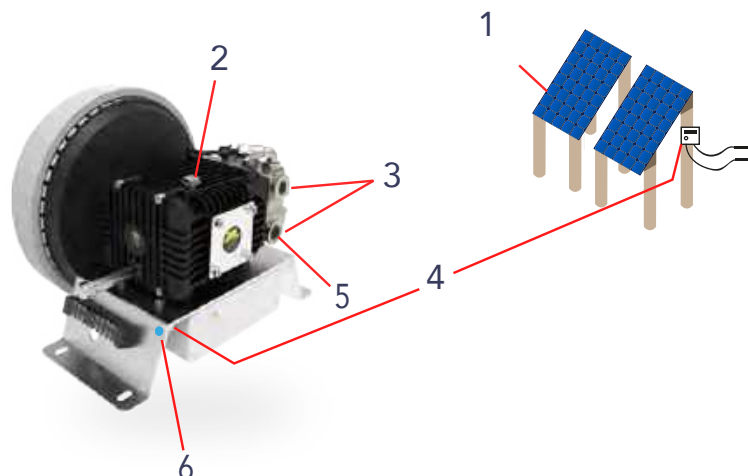
Quick Start Guide

1. Measure your head (vertical height to tank) and pipe length. Then you can purchase the correct length, size and pressure rating of pipe required.
2. Check that the pressure rating of your pipe, at the maximum summer temperature, is more than the head you are pumping to.
3. Make sure your tank is large enough to buffer the demand due to changing sunlight conditions. A tank 2-3 times larger than your peak daily demand is normally large enough.
4. Fit a ball cock inside your tank, so the React pump can stop pumping when it is full.
5. Measure your suction lift, keep your React pump as low as possible for reliable operation and <3m where possible. The lower the better.
6. Position your React pump above maximum normal flood level, and ensure it can be removed quickly in the event of an extreme flood event. Make sure your React pump is insured for extreme flood events.
7. Document the date when frosts commence, to remind yourself when you need to disconnect your pump and move it dry/warm storage for winter.
8. If you need to use the React pump at times of the year when freezing temperatures occur then you need to ensure that you protect it from freezing.
9. Measure the dry summer flow in your water resource. Is this sufficient to meet your needs?
10. The dirtier your water resource is, the more frequently you will need to clean your intake filter. Fitting a larger intake filter is also an option. River water that includes pumice or other sharp abrasive material must be adequately filtered.

Commissioning

1. Check polarity and voltage from solar panels before connecting to the React pump. This is to ensure that no wiring error has been made. You will need a voltmeter to do this.
2. Fill with SAE 15W40 oil to the top edge of level glass.
3. Connect both pipes. Pre-fill the suction line.
4. Turn on the React pump at both the PV Array DC Isolator Switch and the React pump ignition switch.
5. Check for water flow once operating, you should see water moving through the clear suction line.

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Youtube @reactpump



6. Once the pipe to your tank is full, and water is flowing into your tank, press the blue pressure set button.
7. Once tank is full check to make sure your React pump turns off and waits for 30 minutes.
8. Document your installation with pictures, video, pipe ID, pipe length, head, date installed, React pump serial number, date for next oil check etc,.
9. Complete product registration to extend your warranty from 12 months to 24 months.
reactpump.com/warranty

Link to product
registration

Monthly Maintenance

1. Clean your intake filter (more often for dirty water resources).
2. Top up oil level if required.
3. Look for oil and water leaks.
4. Check for mice/rat infestations.
5. Document your check by making a short video or using a log book to prove you have cared for your React pump over its life. This is a requirement for your warranty.
6. For yearly maintenance please refer to the user manual.

LED Indicators

Green solid – pump is running.

Green blinking – pump waiting, there is insufficient solar power to start pumping.

Blue solid (for 2s) – pressure limit successfully set.

Blue blinking – pump waiting, the pressure sensor has been activated. The pump will try to start again in 30 minutes.

Clear (no light) – either:
ignition switch is off
DC switch is off
float sensor has been activated
it is night time

Red solid – for about 2 seconds Voc/MPPT check in progress, this is done every 10 minutes.

Red blinking - memory error, please reset the pressure limit.

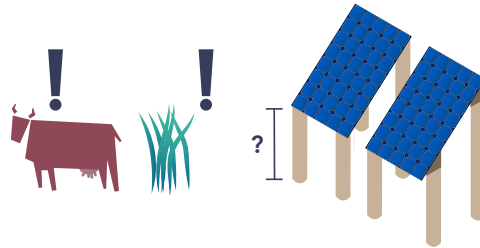
Solar PV Guide

User Manual
reactpump.com/user-manual

1. Check there is nothing shading your panels. If one corner of one panel is in shade this will affect the output of both panels.



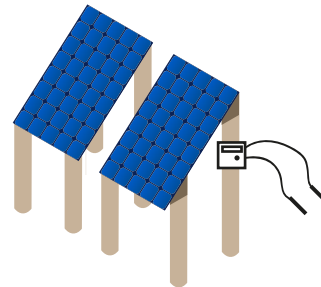
2. Make sure PV panels are protected from stock and high enough to avoid shading from tall grass.



3. Confirm PV panels meet the required specifications:

$V_{oc} < 40V$ and $V_{mpp} > 30V$

4. Check polarity and voltage from solar panels before connecting to the React pump. This is to ensure that no wiring error has been made. You will need a voltmeter to do this.



Follow QR code below to video
or find us on Youtube @reactpump

Slocable Connectors

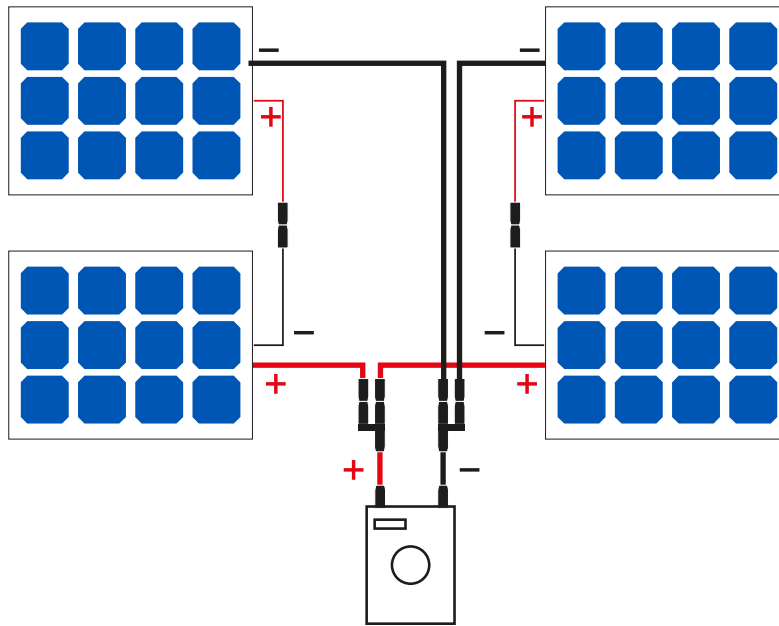
Important



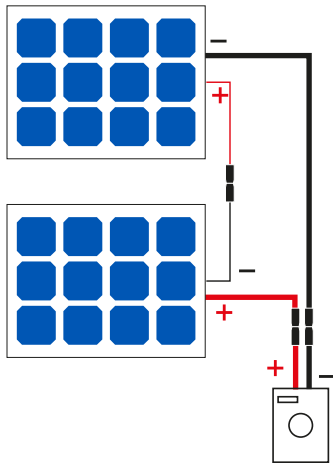
1. After crimping wire end into the connector barrel give it a pull. It should not move.
2. When inserting connector barrel into the connector push it in until you hear and feel it click.
3. When connecting a male and female connector ensure they are fully connected

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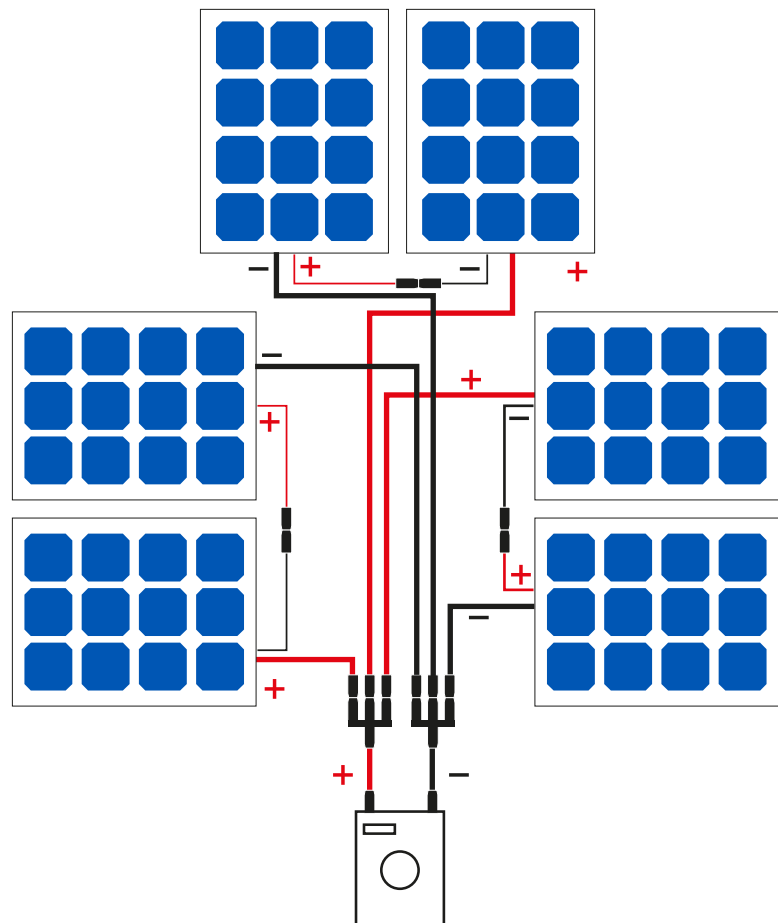
How to wire four pv panels:



How to wire two pv panels:



How to wire six pv panels:



Note: We recommend that you apply red marker tape to all positive wires.