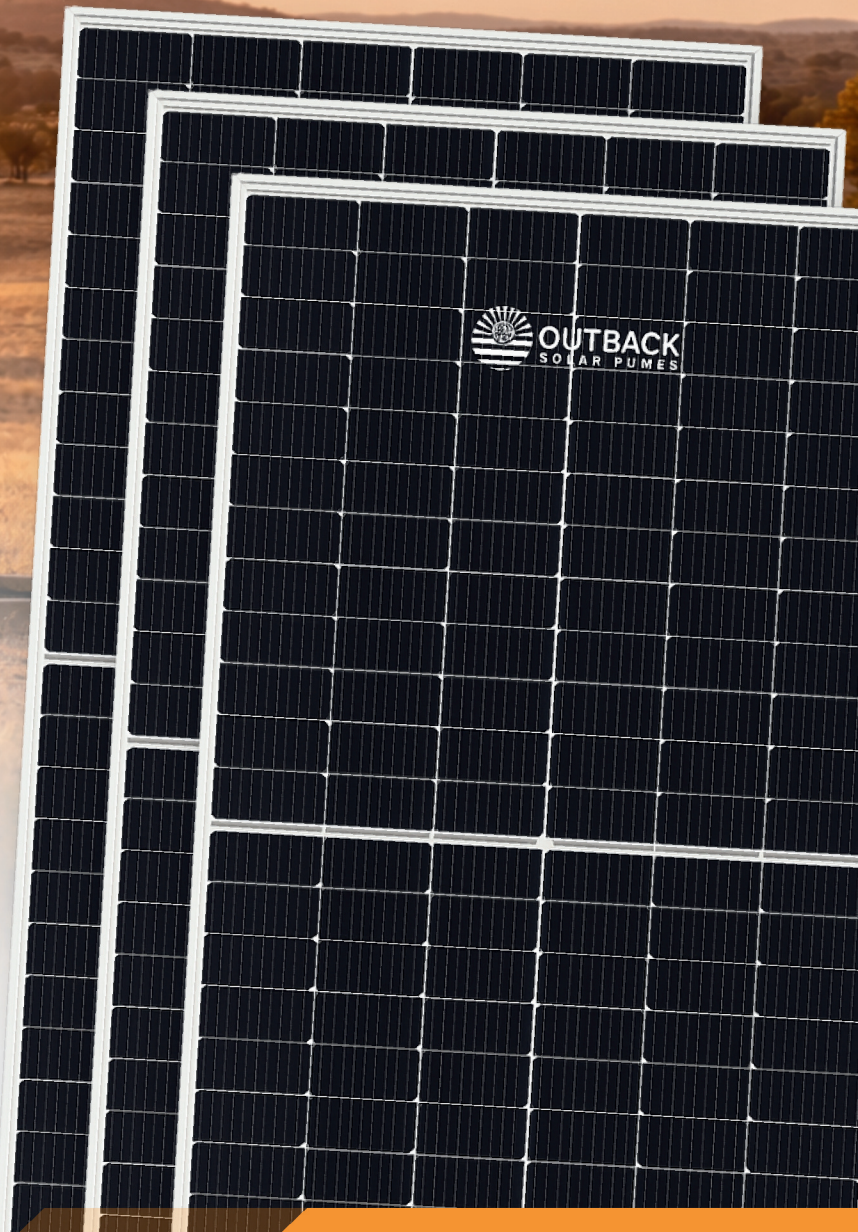


QUICK START INSTALLATION GUIDE

DC SOLAR SUBMERSIBLE BORE PUMP KITS

EDITION 2026



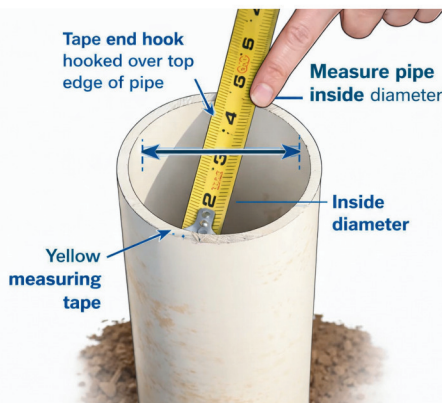
Quick Start Installation Guide

DC SOLAR SUBMERSIBLE BORE PUMP KITS

This Quick Start Guide provides the essential tips & tricks to correctly install and commission your Outback Solar Pump system. For full details, troubleshooting, and advanced guidance, refer to the full Installation & Operation Manual.

1. What's Included

- DC solar pump
- MPPT solar pump controller
- Solar panels (quantity varies by model)
- Pump cable, connectors & check valve
- Safety rope
- Optional: pressure switch (N/O) or tank float switch

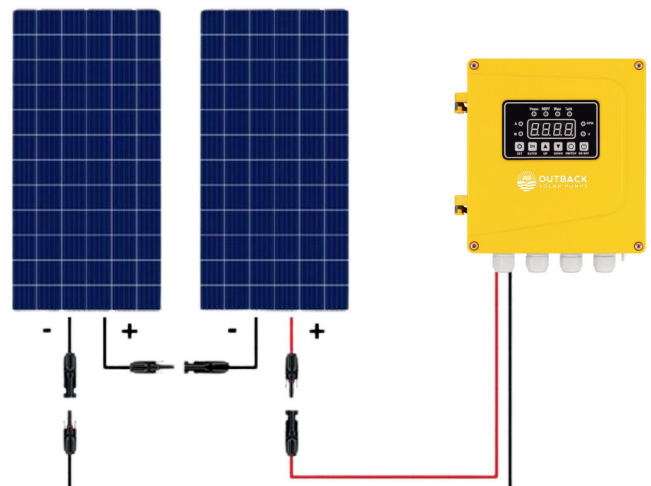
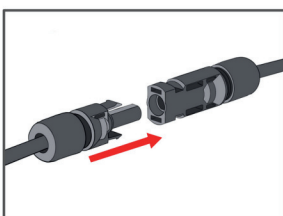


2. Before You Start (Critical Checks)

- Minimum bore diameter: 3"
- Confirm bore depth and static water level
- Confirm application (tank fill, livestock etc)
- Confirm Total Dynamic Head (TDH)
- Select correct pump model for head & flow

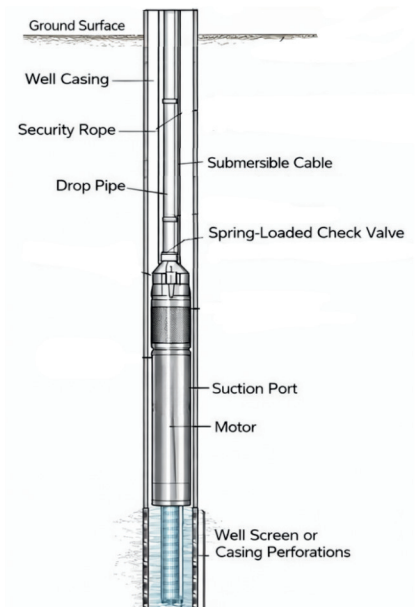
3. Solar Panel Wiring (Series Only)

- Panels MUST be wired in SERIES to achieve the correct voltage. Parallel wiring is not supported.
- Voltage adds in series
- Use identical panels
- Do not exceed controller Voc limits



6. Pump Installation in Bore

- Attach outlet fitting and safety rope
- Lower pump slowly into bore
- Maintain 1–2 m clearance from bore bottom
- Never suspend pump by electrical cable
- Never suspend pump by poly pipe
- Use at least minimum 32mm (1 1/4") Poly Pipe
- Leave a little slack in the safety cable and electrical cable as poly pipe can stretch up to 1%
- Install the check valve on the discharge of the pump with the arrow facing away from the pump
- Ensure thread seal tape is used on all threaded fittings
- Be mindful of water quality as mineralised water will deteriorate the pump and reduce overall lifespan



5. Controller Installation

- Mount controller in shade where possible
- Allow ventilation – do not enclose
- Install vertically on a solid surface
- Protect from rain and livestock
- Ensure only a float switch **or** pressure switch is used
- On AC/DC compatible controllers use 240v only
- Consider using a DC isolator to safely switch off the controller if required



6. Pressure Switch & Float Switch Wiring

Outback Solar Pump controllers support both pressure switches (normally open) and tank float switches for automatic pump control. Only one control device should be used at a time. Either option can be purchased separately from our online store.

6.1 Pressure Switch (Normally Open)

A normally open (N/O) pressure switch is commonly used for pressure systems supplying tanks or pipework.

- Connect pressure switch wires to COM and TH terminals on the controller
- When pressure drops, the switch closes and allows the pump to run
- When target pressure is reached, the switch opens and stops the pump
- Ensure a check valve and pressure tank is used to prevent frequent pump cycling

6.2 Tank Float Switch (30m Cable)

A float switch is used for filling tanks and preventing overflow automatically when connected to the MPPT controller.

- Mount float switch inside the tank at the desired full level
- Connect float switch wires to COM and TH terminals on the controller
- When tank is not full, the float switch closes and pump runs
- When tank reaches full level, the float switch opens and stops the pump

Note: Do not connect both a pressure switch and float switch at the same time unless a changeover relay or approved control logic is used.

7. First Power-Up & Commissioning

- 1 Cover solar panels before making final connections
- 2 Double-check all wiring (PV, pump, pressure/float switch)
- 3 Power ON the controller
- 4 Uncover solar panels
- 5 Allow time for air purge and system stabilisation
- 6 Confirm water delivery and automatic stop/start operation

8. Common Mistakes to Avoid

- Incorrect panel wiring (parallel instead of series)
- Using a normally closed (N/C) pressure switch
- Operating pump at maximum head continuously
- Allowing pump to rest on bore bottom
- Shading solar panels

