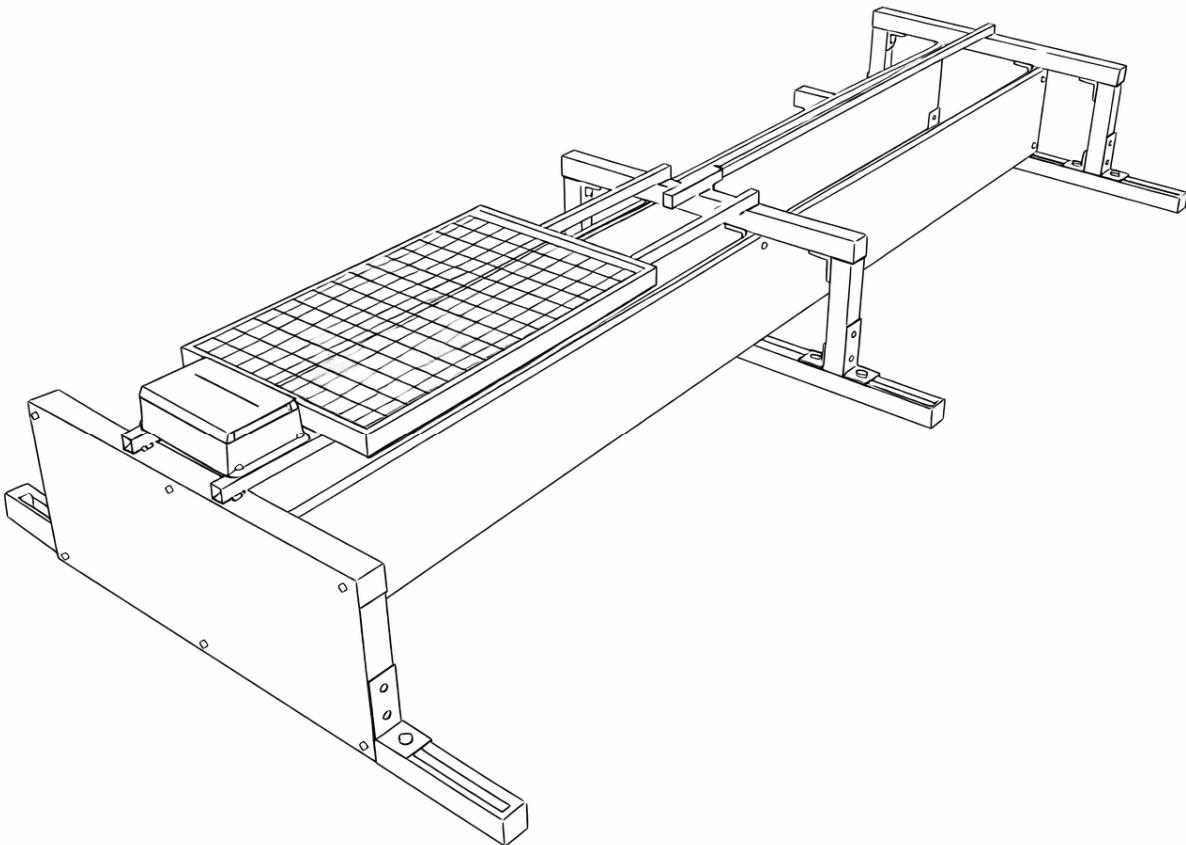


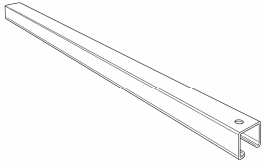


Water Monitoring System Assembly Instructions

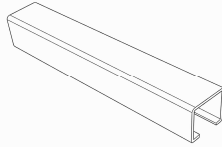


Unpacking the Box

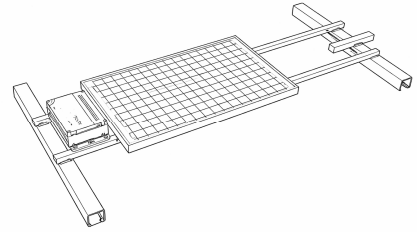
Please ensure that the following items have arrived with your Water Monitoring System kit.



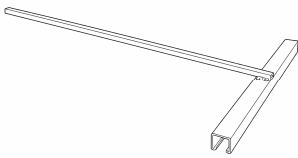
3 x 900mm Channel



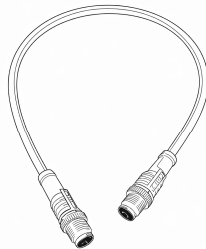
6 x 210mm Channel Struts



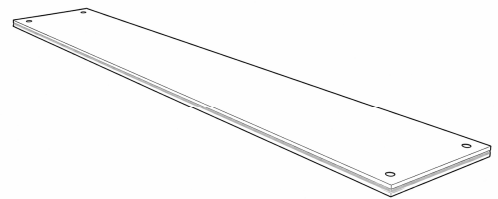
1 x Steel frame with solar panel and
Feeder Reader box mounted



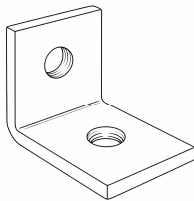
1 x 600mm T-shaped end frame



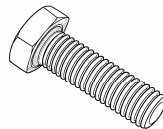
2 x Cables



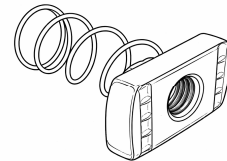
2 x 2.4m Feeder Reader panels



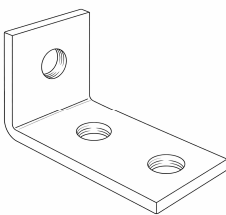
22 x 2-hole Short Angle
Brackets



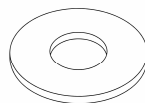
40 x M10x30 Hex Bolts



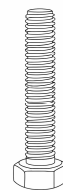
40 x M10 Channel Spring Nuts



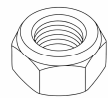
6 x 3-hole Long Angle
Brackets



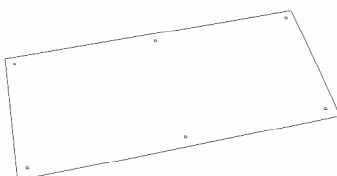
40 x M10 Flat Washers



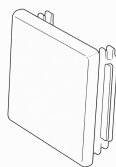
10 x M8x40 Hex Bolts



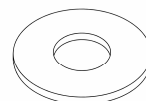
10 x M8 Nyloc Nuts



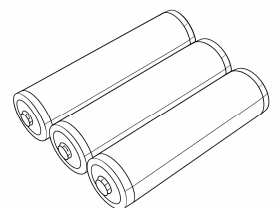
1 x End Shield



12 x Channel End
Caps



20 x M8 Flat Washers

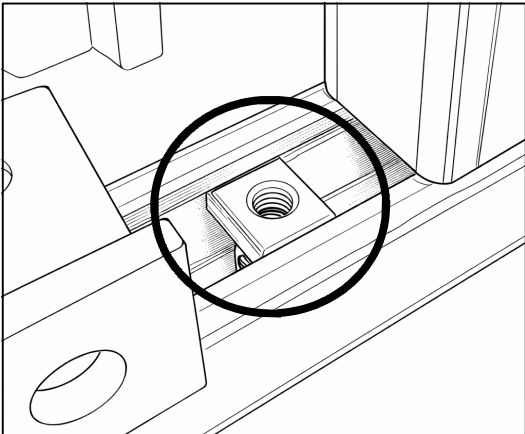


3 x 18650 Li-ion Batteries

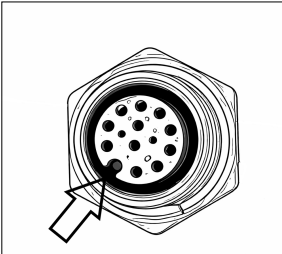
Assembly Instructions

1. Without removing the protective packaging from the solar panel or Feeder Reader box, place the steel frame upside down on the ground/floor. A piece of carpet or blanket can help protect against scratches.
2. On each end of the 600mm frame struts, place a 210mm channel strut and attach using the 2-hole Short Angle Brackets with the M10 hex bolts, washers and spring nuts. Do not tighten at this stage.
NOTE: To insert spring nuts, push them into the channel and rotate them 90° clock-wise to 'grab' onto the sides of the channel. The spring nuts rotate only one direction once inside the frame.
3. Repeat Step 2 with the T-shaped end frame.
4. Attach the 2-hole Short Angle Brackets with the M8 bolts, washers and Nyloc nuts onto the five holes in each of the Feeder Reader panels. The brackets should be on the same side as the Feeder Reader panel connectors.
5. Lay the three 900mm channel struts on the ground approximately 1.2 metres apart with the channel opening facing upwards.
6. Temporarily lay the Feeder Reader panels side-by-side in the middle of the 900mm channels with the connectors facing upwards and at the same end.
7. Flip the solar panel frame over and place the frame with its vertical channels centrally on top of the three 900mm channel struts and straddling the Feeder Reader panels. Ensure the connectors on the panels are located at the same end as the solar panel and Feeder Reader box.
8. Insert the long length T-shaped end frame tube into the short central tube on the frame.
9. Attach the 210mm vertical channels to the 900mm channel struts at a distance of 150mm from each of the ends of the 900mm channel struts using the 2-hole Short Angle Brackets with the M10 hex bolts, washers and spring nuts. Do not tighten.
10. Stand the Feeder Reader panels on their edge and attach to the channels at top and bottom with the M10 bolts, washers and spring nuts. Ensure the connectors on the panels are facing each other.
11. Tighten all bolts so the frame is reasonably stable.
12. Remove protective packaging from the solar panel and Feeder Reader box.
13. Removing the protective cap on the Feeder Reader panel connectors, attach the cables between the Feeder Reader panels and the connectors in the bottom of the Feeder Reader box. **WARNING: ALL** cables must be carefully aligned as they are keyed. To connect them, align the key and push firmly **WITHOUT** rotation. Then rotate the silver nut until tight. Push inwards again and retighten, repeat until the cables do not push in any further. Hand tighten only.
14. Using a Philips head screwdriver, remove lid from the Feeder Reader box and insert the 3 batteries provided, ensuring correct polarity. Replace lid and tighten screws.
15. Attach the cable from the solar panel into the connector in the bottom of the Feeder Reader box. Hand tighten only.
16. Align the end shield to the frame and clamp with G-clamps or similar. Using a drill with suitable driver bit, screw the shield at the predrilled locations to the frame using the supplied 10x16mm hex head screws. This prevents animals from chewing the cables.
17. Push end caps firmly into the ends of the channels.
18. Position the whole assembly onto the water trough, moving the Feeder Reader panels if needed to allow approximately 150—200mm of stock access to water.
19. Place the 3-hole Long Angle Brackets on the outer edges of the water trough ensuring a snug fit. Attach using the M10 hex bolts, washers and spring nuts.
20. If needed, use star pickets to ensure stability of the entire assembly.

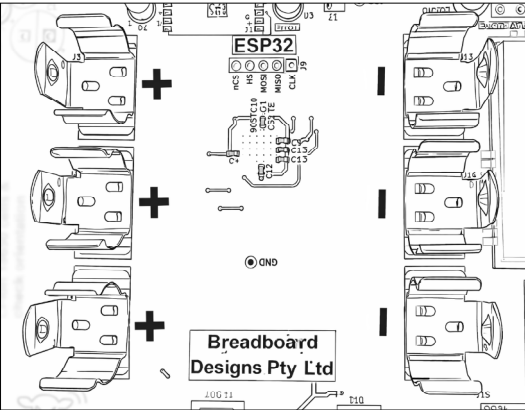
Useful Diagrams



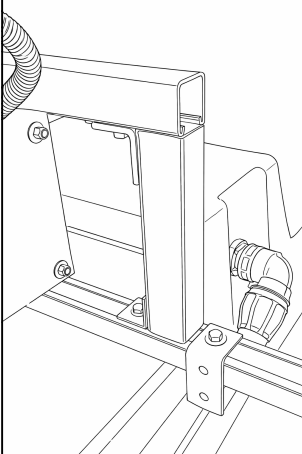
Step 2: Spring nut captured inside channel.



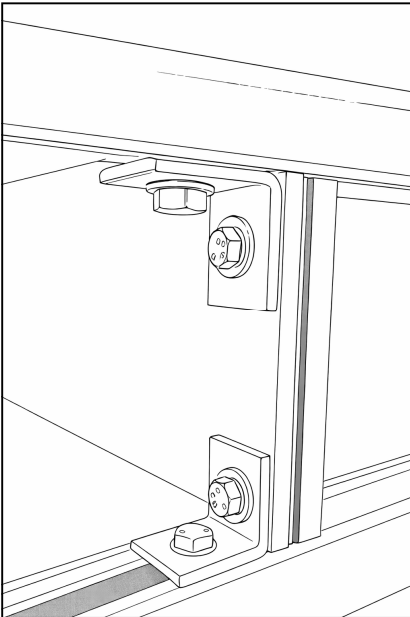
Step 13: Be mindful of the keyed connectors.



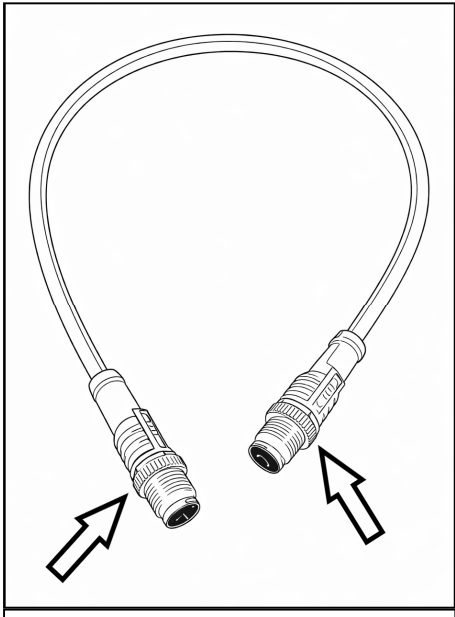
Step 14: Insert the three batteries ensuring correct polarity.



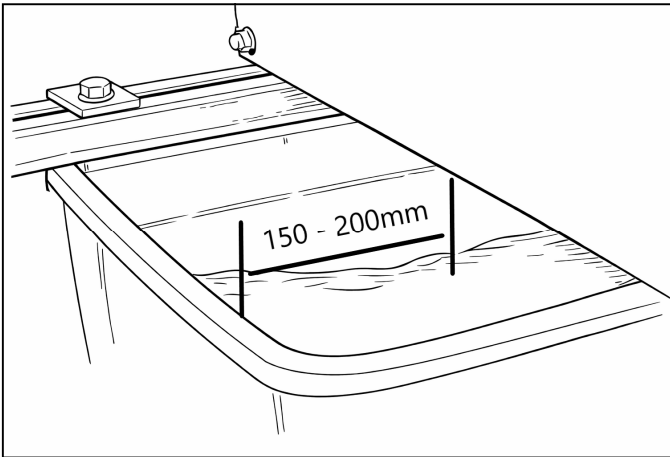
Step 17: Water trough system in place on trough. 3-hole Long Angle Brackets are pushed up against outside of trough to hold system in place.



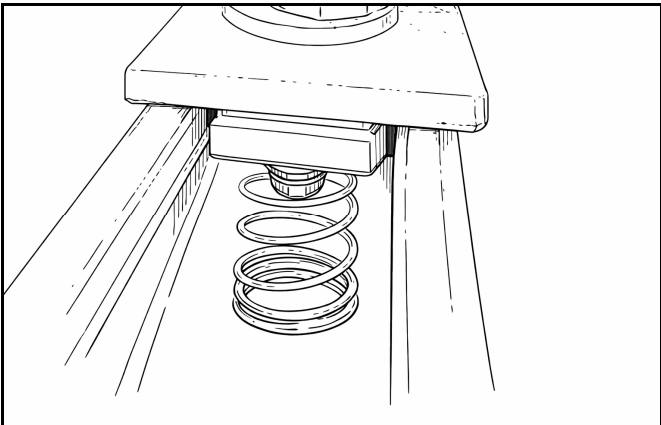
Step 10: Feeder Reader Panel attached to frame.



Step 13: The arrows point to the silver 'nuts' which are the only part to rotate on the cabling.



Step 16: Position Feeder Reader panels to give stock access to 150—200mm of water on each side of the system.



To adjust Feeder Reader panels, loosen the M10 vertical bolts and slide the panel with a finger inside the channel strut to ensure the spring nuts stay square in the channel.