



ORP Expansion Manual

V1.0.1

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Important Safety Instructions



PLEASE READ AND FOLLOW ALL SAFETY INSTRUCTIONS BEFORE PROCEEDING

DANGER

Discontinue use if any signs of water are present in any electronic/electrical device.

WARNING – To avoid injury to yourself and others, safety precautions should always be observed.

DANGER – Never attempt to service any electronic /electrical equipment before unplugging the device from the outlet. Risk of electrical shock if care is not taken. Special care should always be taken when operating any aquarium equipment. If the plug or receptacle gets wet, **NEVER** unplug it from the outlet. Always use the fuse or circuit breaker that supplies power to the device. Disconnect it and then examine for water presence.

- If device shows any sign of abnormal appearance, discontinue use.
- Never operate the device if plugs or cords are damaged, torn, ripped or malfunctioning.
- A “drip loop” should be arranged and position your aquarium stand and tank to the side of the power receptacle to avoid the device or power receptacle from getting wet. Please refer to Figure 1 below.

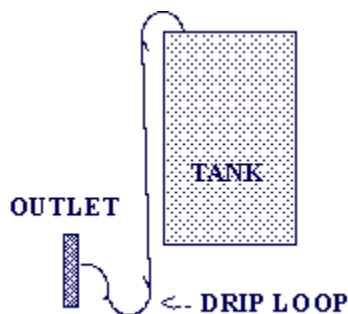


Figure 1

ORP Expansion Module Unit



Contents:

- ORP Expansion Module
- ORP Probe
- 12VDC Power Supply
- Expansion Bus cable

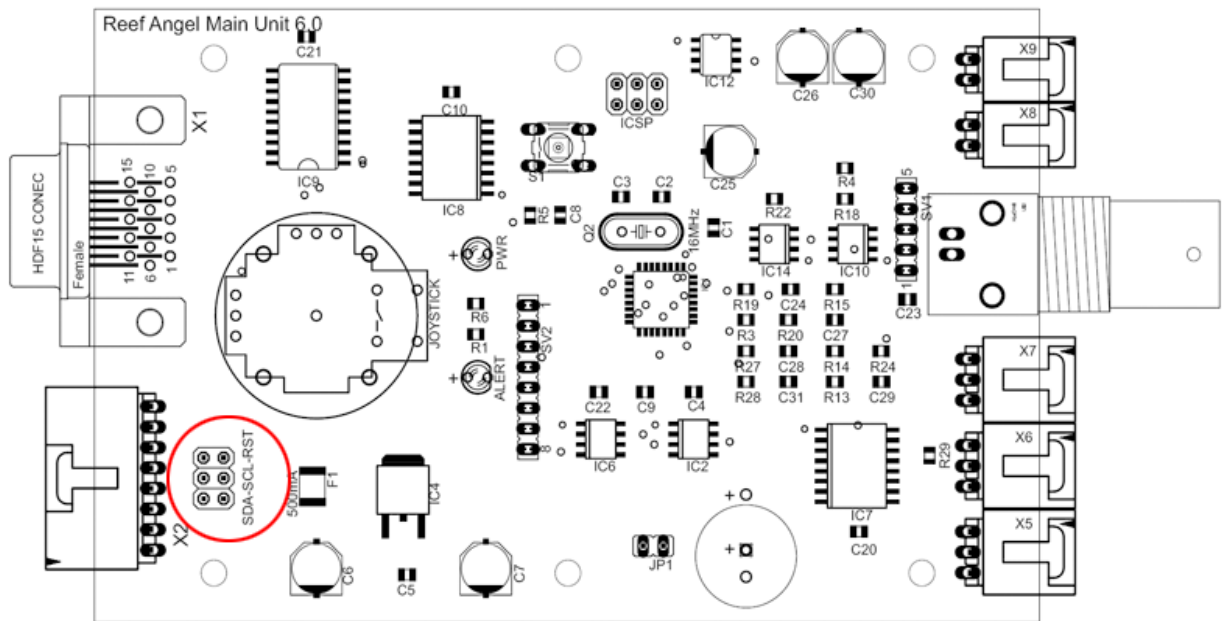
Getting Started

Connecting your Reef Angel ORP Expansion Module

1. 12VDC is required by the ORP Expansion Module to ensure proper functionality. Use the 12VDC power supply and plug it into the DC connector on the side of the module.
2. Plug the probe in the probe connector.
3. Use the communication cable to connect the ORP Expansion module into your Reef Angel System.

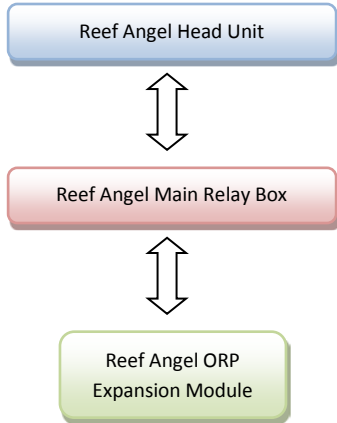
Setting up your Reef Angel Head Unit

1. Your Reef Angel Head unit needs to be setup to be able to communicate with any expansion modules.
2. You need to place the provided jumpers to the SDA and SCL pins.

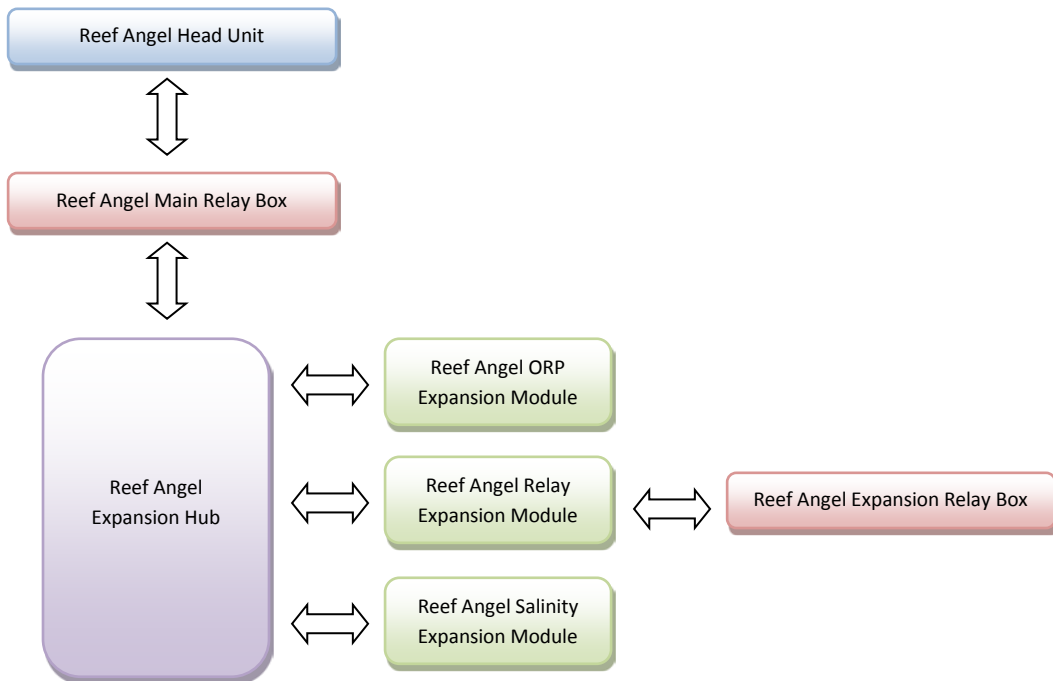


Adding your ORP Expansion Module to your Reef Angel system

1. Plug the blue bus cable to the bus port of the expansion module
2. If you are only using one expansion module you can plug the other end of the bus cable straight into the expansion port of the main relay box.



3. If you are connecting more than one expansion module, you will need an expansion hub, which offers 8 additional ports to connect expansion modules.



Calibrating your Reef Angel ORP Expansion Module

1. Using the joystick, navigate to "ORP Calibration".
2. The screen will show 0mV and the calibration number.
3. Connect the provided BNC terminator and press "Ok" button.
4. Disconnect the BNC terminator and connect the ORP probe.
5. Place the ORP probe into a standard solution of 470mV.
6. Let the probe stabilize and press the "Ok" button.

Testing your Reef Angel ORP Expansion Module

Uploading the test code

1. Start your Arduino software
2. Open the ORP Expansion test code by going to menu File->Sketchbook->Example Codes and selecting CustomMainScreen_ORP
3. Upload the code to your Reef Angel Controller.