Quick Start Manual

Water Level Expansion Manual

ReefAngel

monitor your reef tank anytime, anywhere

V 1.1.0

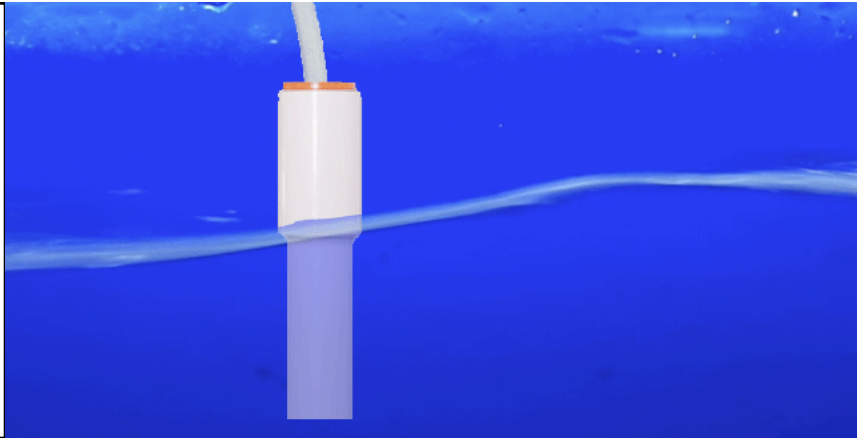**Important Safety Instructions**

PLEASE READ AND FOLLOW ALL SAFETY INSTRUCTIONS BEFORE PROCEEDING

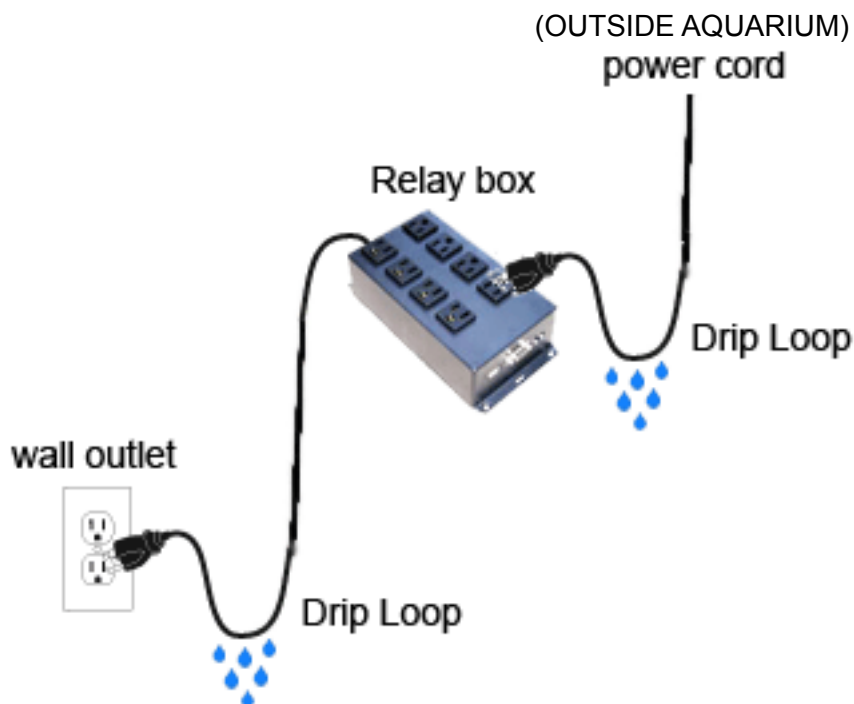DANGER Discontinue use if any signs of water are present in any electronic/electrical device.

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.

NOTE: A "drip loop" should be arranged and position your aquarium stand and tank to the side of the aquarium to avoid the device or power receptacle from getting wet power receptacle. Please refer to Figure 1 below.

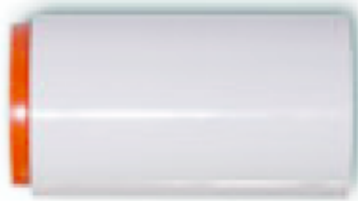**Figure 1**

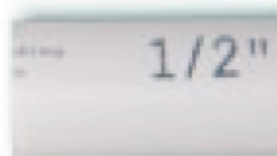# Water Level Expansion Module Unit

Contents:

• Water Level Expansion Module
• 3 feet vinyl tubing 1/4" OD
• 1/2" PVC Pipe
• Expansion Bus Cable

3 feet 1/4" Vinyl Tube

1/2" PVC Adaptor   1/2" PVC Pipe

Water Level Expansion Module Unit

Getting Started

Connecting your Reef Angel Water Level Expansion Module

1. Insert the 1/2" PVC pipe into the 1/2" PVC adapter. Make sure it is air tight using PVC cement.

2. Using one end of the vinyl tubing, insert approximately 1/2" of tubing inside 1/4" orifice of the PVC adapter.

3. Using the other end of the vinyl tubing, insert it into the Water Level Expansion Module tubing adapter.
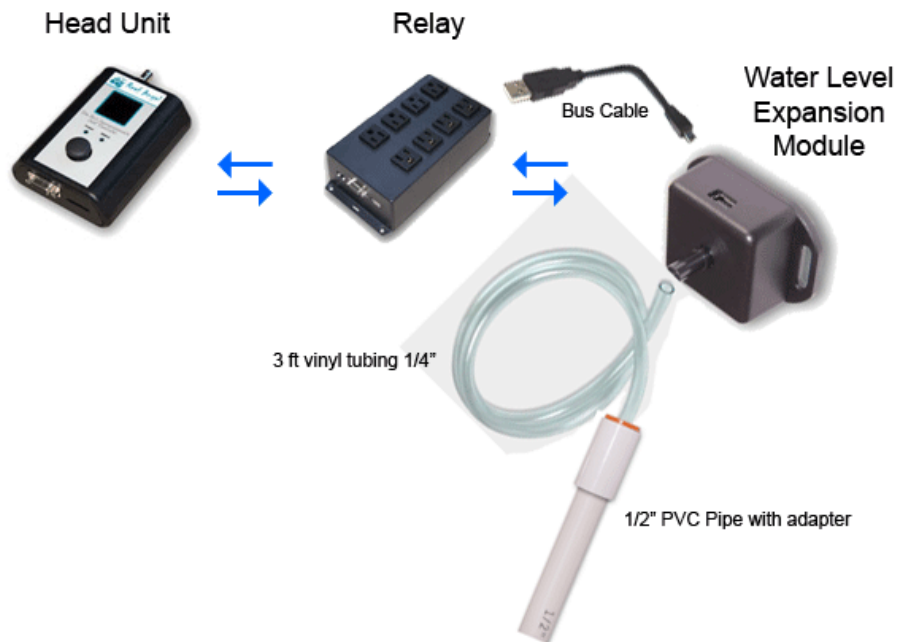
4. Use the expansion bus cable to connect the Water Level Expansion module into the Reef Angel System. Please refer to Figure 3 below.

Adding your Water Level Expansion Module directly on your Reef Angel Relay Box

1. Plug the bus cable to the bus port of the Water Level 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. Please refer to Figure 3 below.
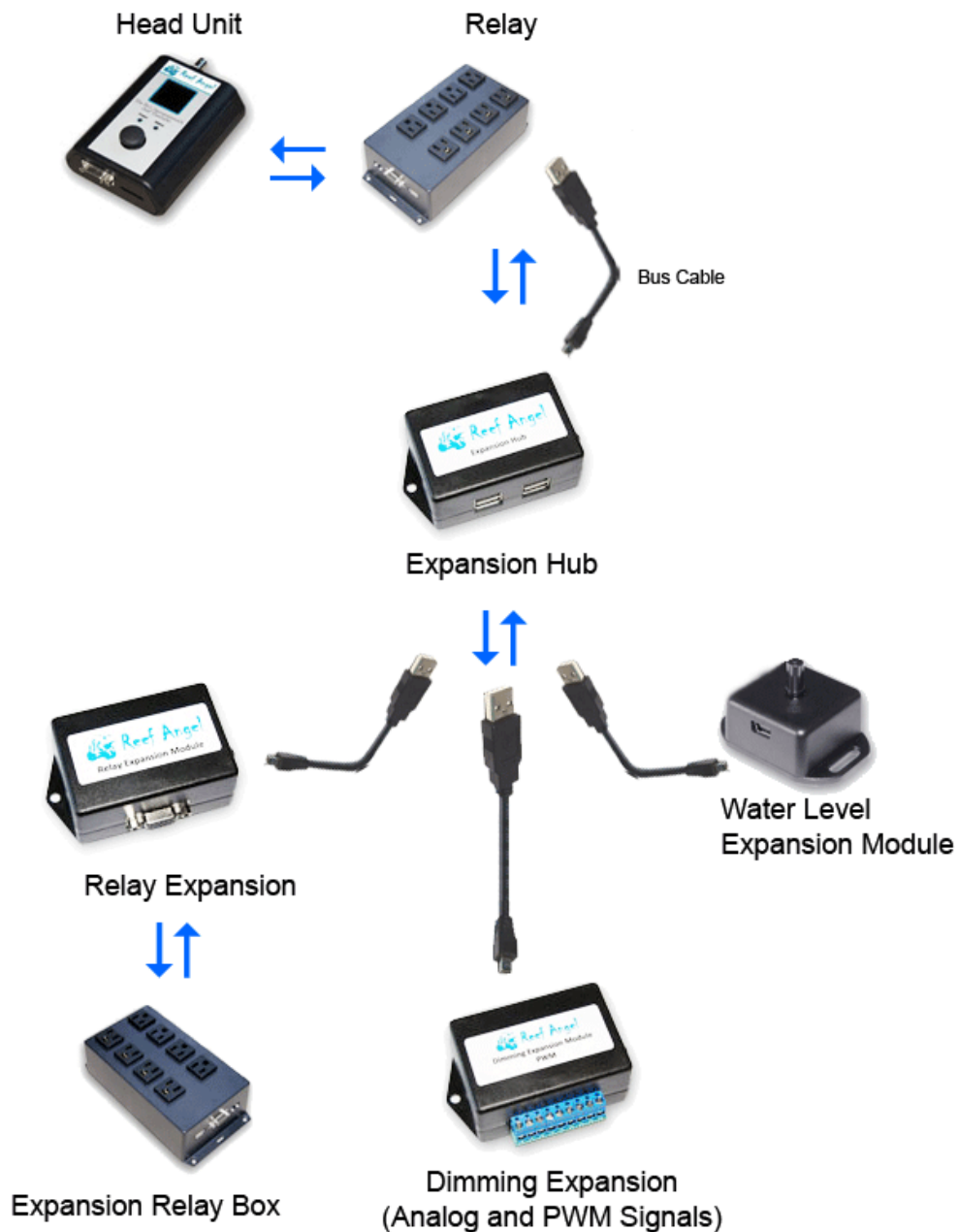
Figure 3

Head Unit   Relay

Water Level
Expansion
Module

Bus Cable

3 ft vinyl tubing 1/4"

1/2" PVC Pipe with adapter

Adding your Water Level Expansion Module with other Reef Angel Devices.

3. If your are connecting more than one expansion module, you will need an expansion hub, which offers 8 additional usb ports to connect more expansion modules. Please refer to Figure 4 below.

Figure 4

Head Unit

Relay

Bus Cable

Expansion Hub

Relay Expansion

Water Level
Expansion Module

Expansion Relay Box

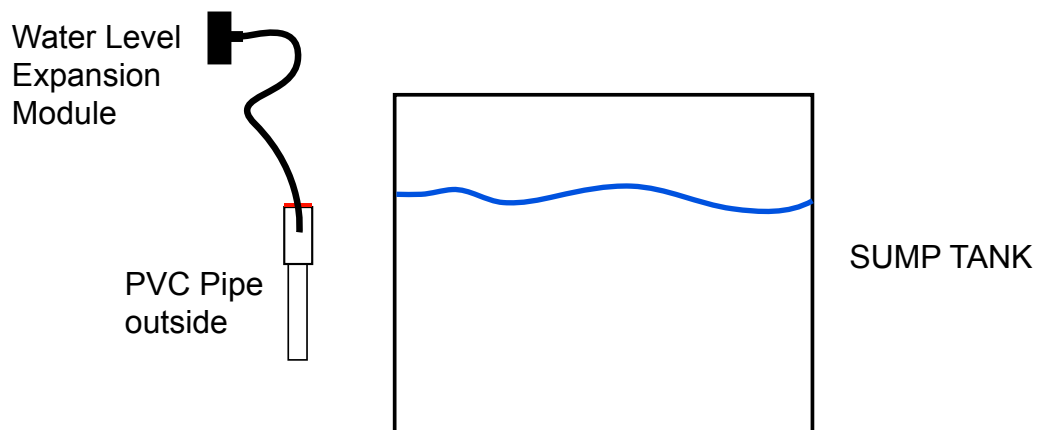Dimming Expansion
(Analog and PWM Signals)

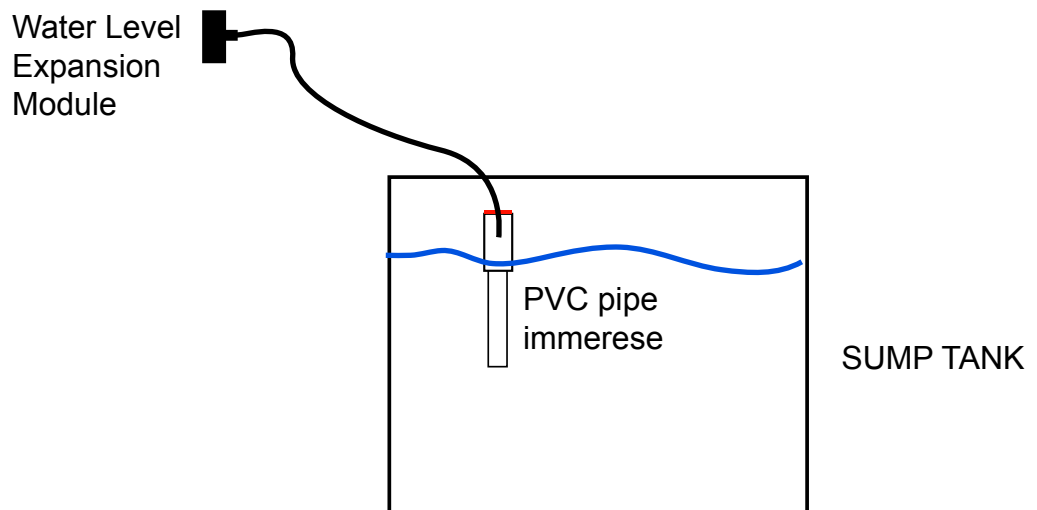**Preparing and uploding the code to the Reef Angel controller.**

1. Start your Arduino Software using your computer.

2. Open the Water Level Expansion test code by going to the
menu File -> Example Codes and selecting CustomMainScreen_WaterLevel.

3. Upload the code to your Reef Angel Controller.

Calibrating Your Reef Angel Water Level Expansion Module

1. Using the joystick, navigate to "Water Level Calibration"

2. Hold the pvc pipe outside of the water.

Water Level
Expansion
Module

PVC Pipe
outside

SUMP TANK

3. Let the reading stabilize and press the "OK" button.

4. Immerese the PVC pipe in water unit it reaches the PVC adapter.

Water Level
Expansion
Module

PVC pipe
immerese

SUMP TANK

5. Let the reading stabilize and press the "OK" button