Relay Expansion Manual

ReefAngel
Relay Expansion Module

ReefAngel

ReefAngel
monitor your reef tank anytime, anywhere

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.
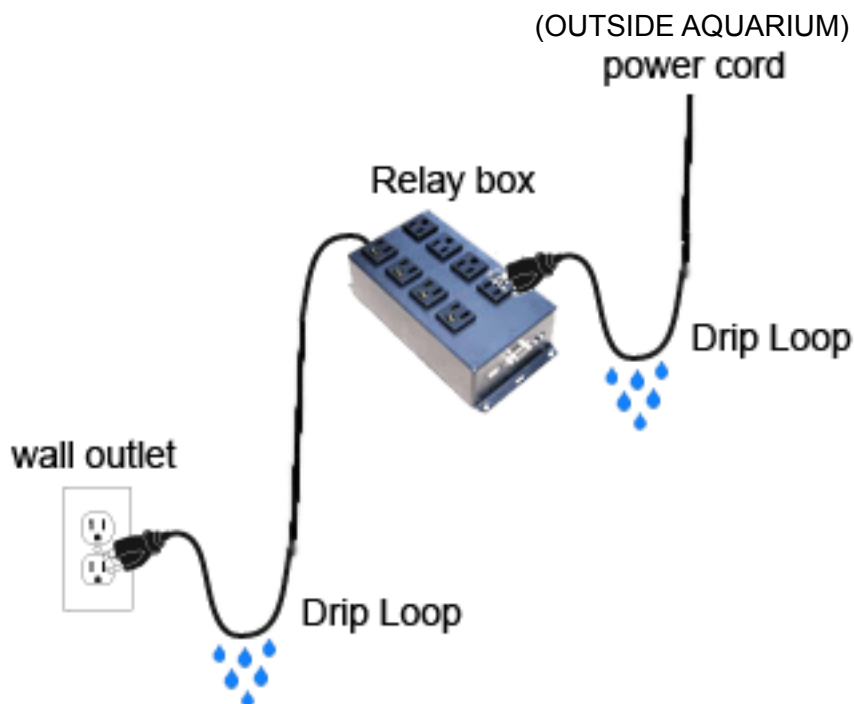Special care should always be taken when operating any aquarium equipment.
If the plug or receptacle gets wet, NEVER unplug it from the outlet. Always use the fuse or circuit breaker that supplies power to the device. Disconnect it and then examine for water presence.

• 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

Relay Expansion Module Unit

Contents:

• Relay Expansion Module
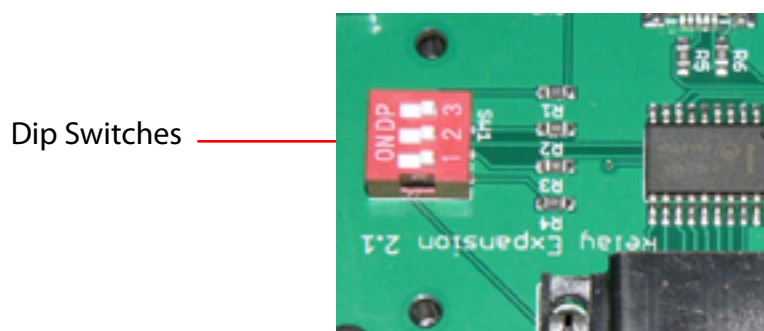• Relay Box
• AC Power cord
• Communication cable

Relay Expansion Module

Getting Started

Setting up your Reef Angel Relay Expansion Module

1. Before you start using your Relay Expansion Module, you will need to set it up first.

2. Open the enclosure and locate the dip switches.

Dip Switches —————

3. According to the Table 1 below, set the switches so that you have a unique ID for each of your Relay Expansion Modules and Power Control Expansion Modules. Up to 8 Relay and/or Power Control Expansion modules can be simultaneously connected, but each needs to have a unique ID.

ID	DIP Switch 1	DIP Switch 2	DIP Switch 3
1	Off	Off	Off
2	On	Off	Off
3	Off	On	Off
4	On	On	Off
5	Off	Off	On
6	On	Off	On
7	Off	On	On
8	On	On	On

Table 1

4. Close the enclosure.

Relay Expansion Module
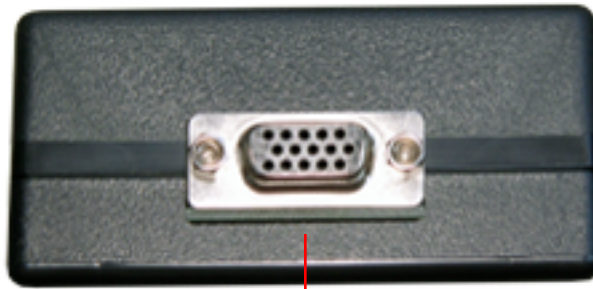
Getting Started

Connecting your Reef Angel Relay Expansion Module

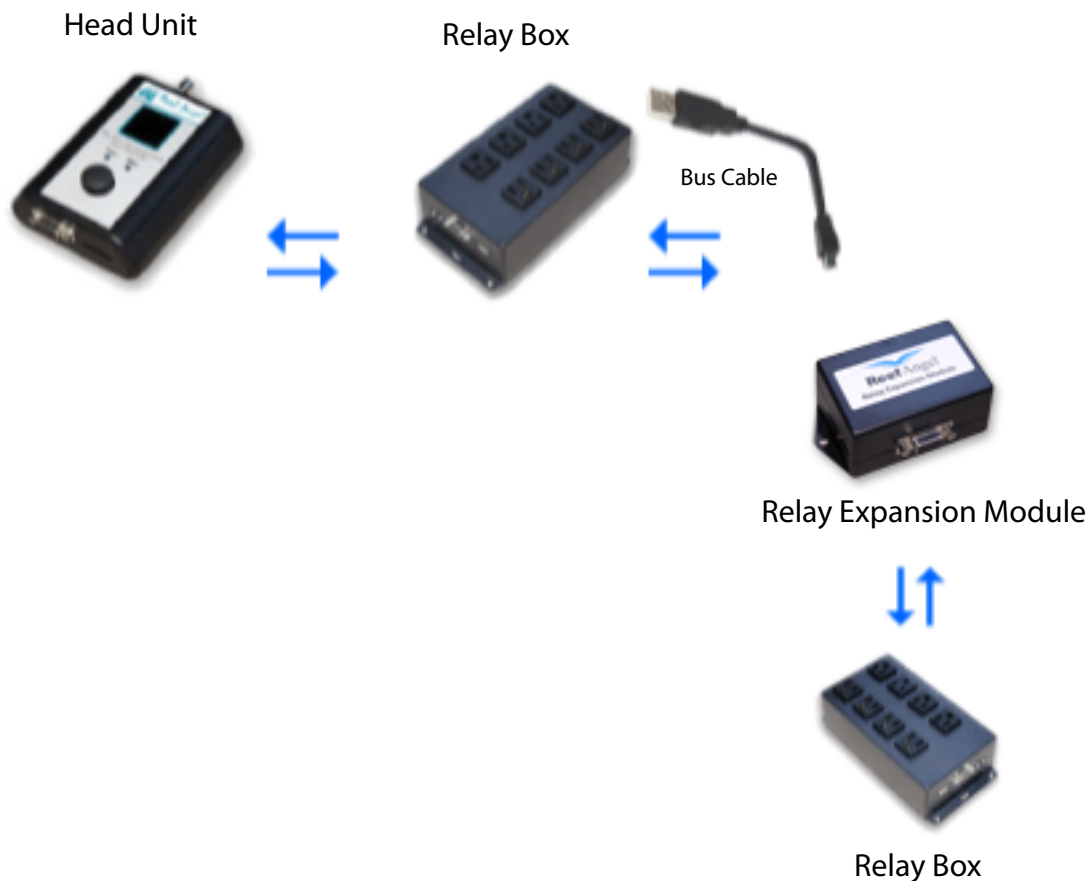DC Connector (not used)　　　　Bus Port　　　　　Power LED

Communication Port

1. Connect the communication cable between the Relay Expansion module and the Relay Box.

2. Connect the AC Power cord on the Relay Box and plug it into any available outlet in your wall.

3. Use the bus cable to connect the Relay Expansion Module in to the Reef Angel System.

Adding your Relay Expansion Module directly on your Reef Angel System

1. Plug the bus cable to the bus port of the Relay 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.
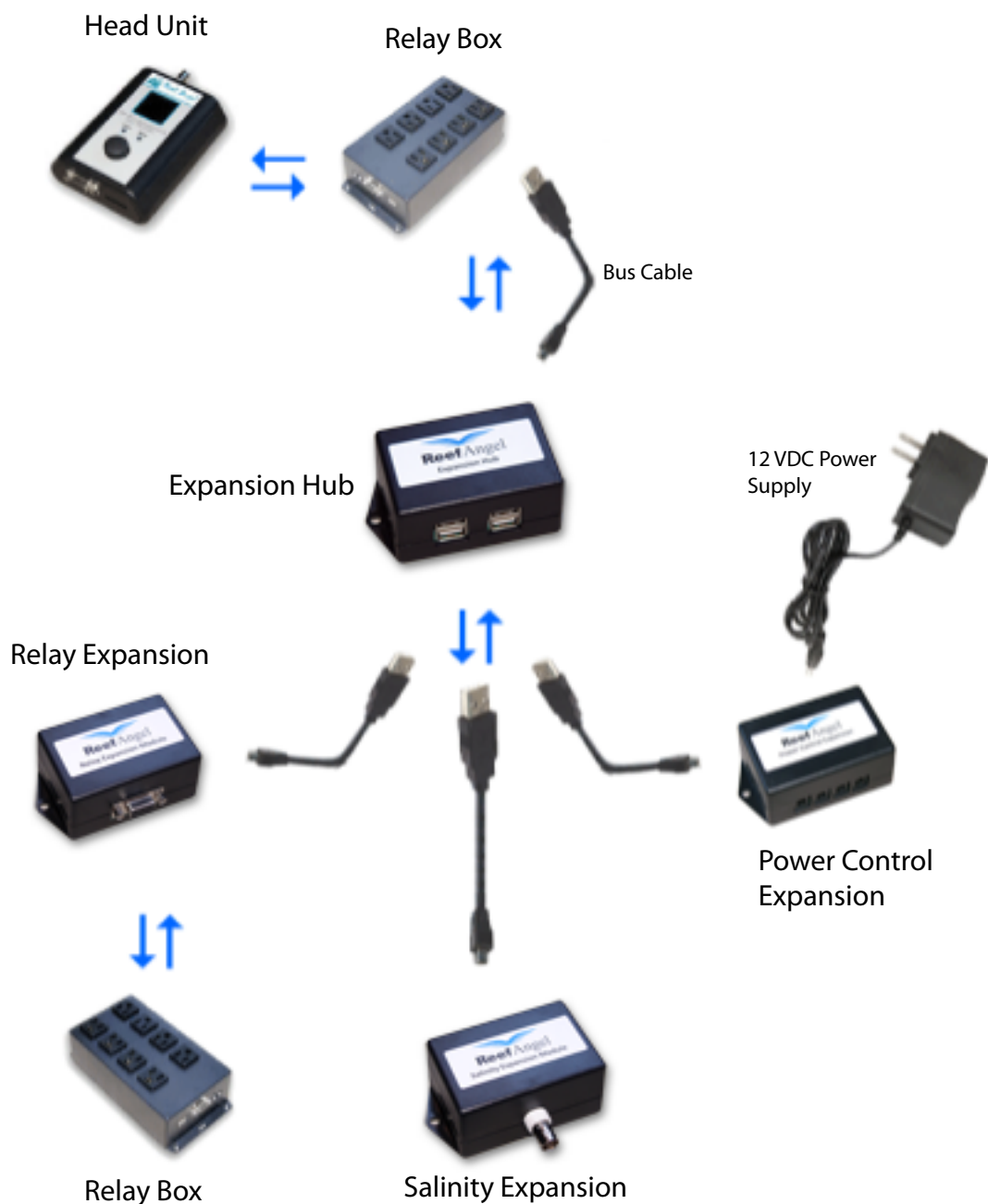
Figure 3

Head Unit
Relay Box

Bus Cable

Relay Expansion Module

Relay Box

Adding your Relay 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 10 additional usb ports to connect
more expansion modules. Please refer to Figure 4 below.

Figure 4

Head Unit

Relay Box

Bus Cable

Expansion Hub

12 VDC Power
Supply

Relay Expansion

Power Control
Expansion

Relay Box

Salinity Expansion

Preparing and uploding the code to the Reef Angel controller.

1. Start your Arduino Software using your computer.

2. Open the Power Control Expansion test code by going to the menu File -> Example Codes and selecting CustomMainScreen_RelayExpansion.

3. Upload the code to your Reef Angel Controller.