Adaptive Reef 6 Switch Toggle Box Owner's Manual

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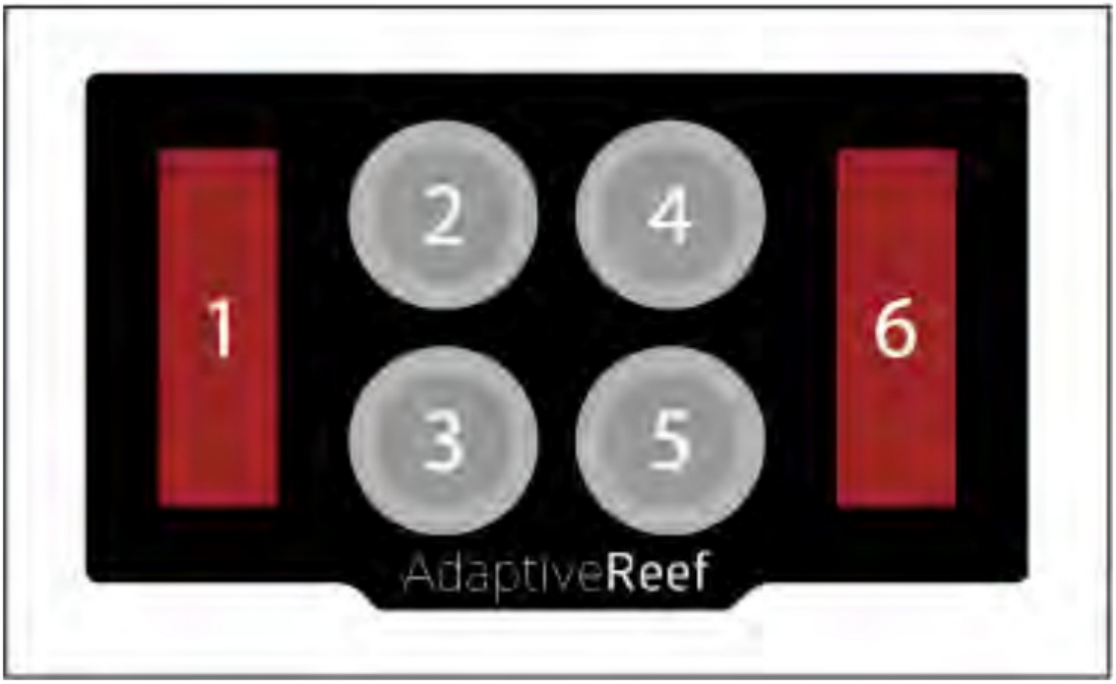
Description Diagram

A few steps of programming (telling the Apex how you want it to respond to the button) and you will be on your way.

Below is a diagram of the default switch numbering for a Toggle Box, 1-6.



All information that applies to programming the Neptune Systems tm breakout box also applies to programming the toggle box. For example, see pg. 108 in their comprehensive Apex guide.

For the momentary buttons (Switch 2,3,4,5) the primary use is to start a timed program that will return to normal operation automatically after a user selected period of time. Here are some examples of what you might consider programming into your Apex.

- **Feed Mode:** To shut off your pumps (or set smart pumps to a designated program) for a user-selected amount of time. Typically, users will turn off or reduce powerhead spread, turn off the return pump and protein skimmer during a feed hold. This prevents food from being sucked into your filtration and allows fish and corals to eat without the food being blown away. Typical duration is about 15 – 20 minutes which gives the fish plenty of time to consume the food in your display tank.
- **Photo Mode:** To turn on/off or change the light spectrum for a user-selected amount of time. If you have “smart” lighting that is controlled via your Apex, you can designate a specific spectrum that compliments photography. Some users also like to shut off their pumps as well to make it easier to capture corals and fish without a lot of fast movement. Many hobbyists will reduce the BLUE color to be more WHITE when taking photos. This results in a far truer to life color and a better-quality photo.
- **Lighting Override or Party Mode:** Activating your lighting for a user selected amount of time whilst outside the normal schedule in order to show off your tank to friends or put the system in a “Party Mode”. Some clever ideas would be turning the tank to change different colors and add either effects. You might also consider a very heavy blue/actinic color to make your corals glow. Making the light a solid red color will make night-time viewing easier without disturbing the animals inside your tank.

For the covered toggle switch button (Switch 1 and 6), the primary use is to have a direct action that will not end until the switch is turned back on. Here are some examples of what you might consider programming into your Apex.

- **Emergency Cutoff:** The user can use the toggle switch to shut off all pumps, or additional devices, in the event of an emergency such as a water leakage, insufficient top-off, equipment failure, stray voltage, etc. An

excellent benefit to this toggle switch is that ANYONE with access to the button can do it. If the primary aquarist is not home, whomever is taking care of the aquarium can easily flip the switch. The toggle switch is covered which means it requires two motions in order to activate making it more difficult to be accidentally used.

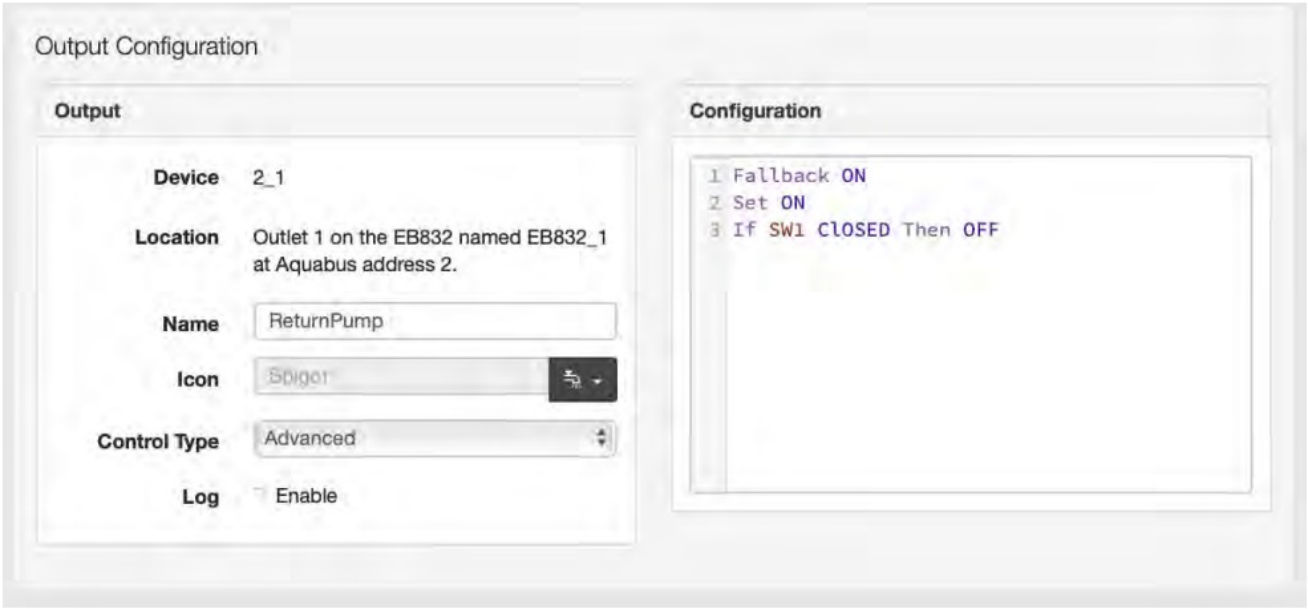
- **Water-change Mode:** The user can use the toggle to shut off certain pumps for a water change or other maintenance routine and the equipment will stay off until the toggle is returned back to an open state. This means you can perform your maintenance without worrying about a timer that will return power to the equipment after a set period of time.

Setup

Programming Guide for the Toggle Switch (Switch 1 and 6) Functions:

The left toggle switch (Switch 1) will have a default name of SW.
It will read as “Closed” when you open the cover and flip it up.
To have it shut off a device, add **“If SW1 closed then Off”** to the device’s advanced programming.

Below is how that would look on an outlet, for example the return pump. If the toggle switch is activated (“Closed”), the return pump will turn off. You can add this line to as many devices as you want, typically people will add this to all the pumps in their system.



For example, when you want to do a water-change or there is an emergency such as water leaking/return blowing bubbles, the toggle switch can be activated to shut off the equipment.

The toggle switch closes when it is activated, so you can use it to control any device you like, including activating specific profiles for pumps and lighting. “If SW1 closed then off” would be a standard statement to place on any outlet to have it shut off when the toggle is closed.

Programming Guide for the Momentary Switch (Switch 2,3,4,5) Functions :

As stated before, momentary buttons are used to activate timed functions such as a feed mode, lighting profile, etc.

To summarize: the momentary button turns on a virtual outlet, and then a defer statement sets how long the virtual

program will run. Individual outlets are set to respond to the virtual program.

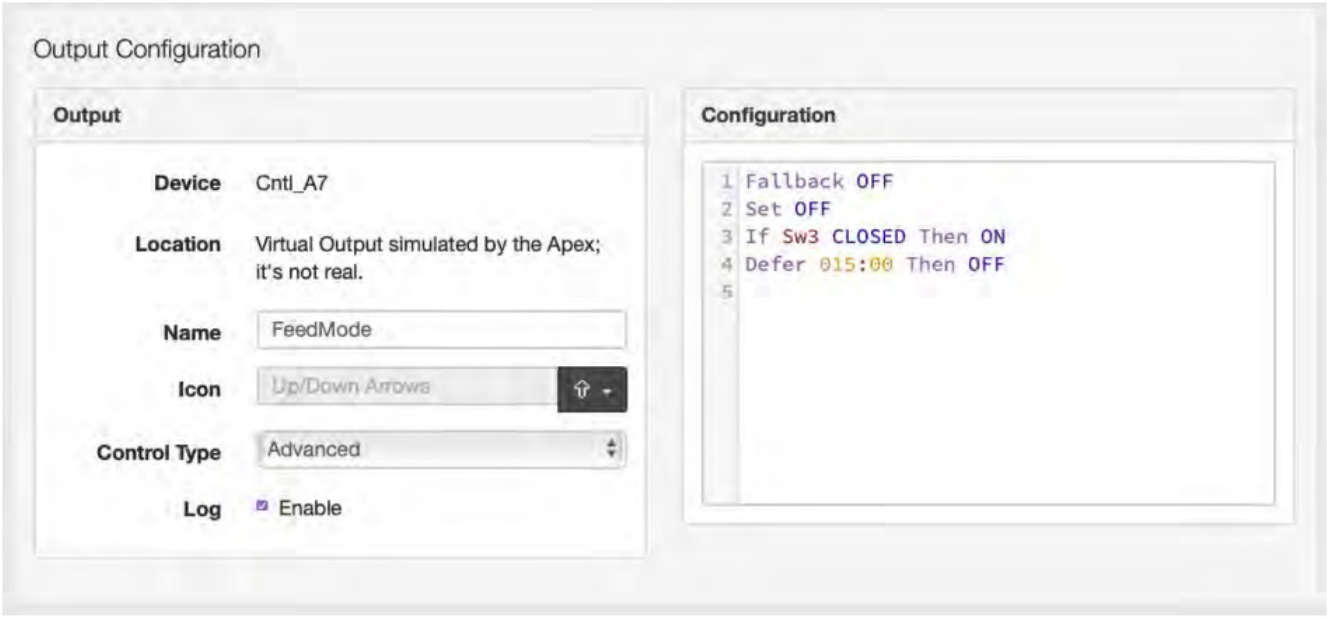
Firstly, create a virtual outlet in the “outlet” area of your Apex Fusion.

In this example I will add a virtual outlet that I name **“Feed Mode”**.

Set the virtual outlet to be off (“Set OFF”), and then to turn on when the lower left button is pressed (“If SW3 closed then ON”). Then, write a defer statement, in the format “Defer 15:00 Then OFF” (The numbers refer to the amount of time the outlet will be off in minutes).

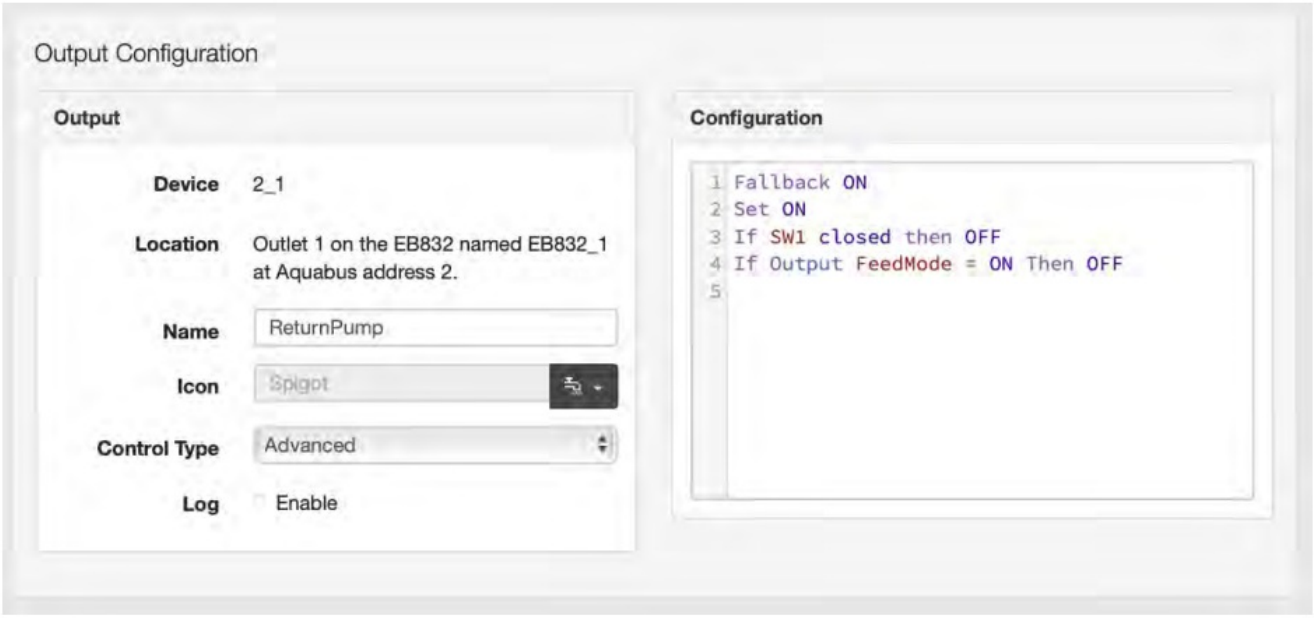
Now, this outlet will turn ON when the button is pressed and wait for the designated amount of time before turning off again.

This virtual outlet is called “Feed Mode” and will run for 15 minutes after being triggered by the button.



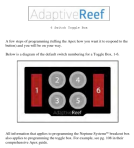
Next, on any device you want to be off during Feed Mode, add “If outlet Feed Mode = ON then OFF”. You can also use this to designate a specific lighting profile, pump profiles, etc.

This is my return pump again – with both a previously mentioned switch program based on the left toggle “SW1” as well as the virtual program, “Feed Mode”.



From there, you can do anything. Creating program based off of a switch being closed is quite easy now that you have the general idea! There are endless possibilities, and for advanced use, the Official Neptune Systems Apex Community Group is an excellent resource!

Documents / Resources

	Adaptive Reef 6 Switch Toggle Box [pdf] Owner's Manual 6 Switch Toggle Box, 6 Switch Box, Toggle Box, Box