



User Manual V1

English



FOCUSTRONIC
SETTING NEW STANDARDS



Water Stability through True Integration and Automation

Table of Contents

Introduction

Basic Philosophy	3
What's in the box	3
Specification	4
Feature Highlights	4

Registration 4

Setup Procedures

Safety Precautions	4
Placement	5
Establish Wifi Connection	5

App - Features

Settings	6
Powertronic / Socket / Schedule	6
Automation with Mastertronic/Alkatronic Test Results	7
LED Status / Manual On / Manual Off	8
FAQ	8

Introduction

Thank you for choosing the Powertronic for your reef system. Powertronic is a specialized WiFi controlled power socket to work with the Focustronic product range. It allows simple and straight forward control, based on tested parameters.

Basic Philosophy

Reefing today is so different than in the past, especially when we are referring to reefing automation. In the past, reef automation is very limited because users do not have the live data of tested parameters to trigger the needed actions. With our automatic tester range such as Alkatronic and Mastertronic, we can get over 10 parameters in real time! Each parameter can trigger more than 1 action such as an extra doses via Dosetronic, or triggering power on or off for a socket on the Powertronic. This allows real time automated actions without user interaction on day-to-day activities while keeping the needed parameters in check. With the Focustronic All in One app, the setup cannot be easier! Below is an example of what can be done.

Case 1:

- Mastertronic measures the dKH and is over the high reference level and the system is running a calcium reactor. The user has set a rule that when dKH is over 8.5 dKH, the socket 1 on the Powertronic will be switched off. This is the feed pump of the calcium reactor. When the dKH falls back within range, the socket will be switch back on.

Case 2:

- One of the features of the Powertronic is to set a schedule based on time of day with 30min intervals. Based on the above case of a calcium reactor setup, there will be a daily swing of dKH during the 24 hours because the reactor output is kept at a constant while the dKH uptake by the corals may vary during lights on and off period. During the night, the Powertronic can reduce the swing by having an on/off schedule to reduce the night swing.

Case 3:

- Nutrients play a big role in reef keeping and a protein skimmer is the most common way for exporting excess nutrients. Similar to the above cases, the skimmer can be set with a schedule and also be powered off for a set period of time (i.e. 1 hour) when NO3 or PO4 is reading too LOW. This allows nutrients to build up again and reduce the corals being starved which is likely to cause bleaching or STN.

What's in the box

- Powertronic x 1
- Quick Setup Guide x 1

Specification

- Input: 110-240VAC
- Output (Sockets): 16A
- Output (USB): 2.1A
- Radio Frequency: WiFi 2.4GHz

Feature Highlights:

- Wifi controllable sockets
- 24 hour scheduls with 30 mintues intervals
- Automation based on real time live data from Alkatronic and/or Mastertronic
- Intuitive app (Focustronic All in One)

Registration

Visit our website (<https://focustronic.com/product-registration/>) and register your product within 30 days of the purchased date [sales invoice].

Safety Precautions

- Do not handle or install the device if/when your hands are wet.
- The unit is not designed to be used in water.
- Apply caution when installing over your aquarium and do not allow water to get onto or inside the unit.
- Unit must be placed in dry and well ventilated areas. Do not place in area where water may splash on it.
- Follow the installation instruction carefully. If in any doubt, contact official support before proceeding.
- To reduce risk of electric shock or fire, do not expose this device to water, moisture, dripping or splashing.

Placement

Powertronic must be placed in dry and well ventilated areas. Do not attempt to put it near water souce where splashing may occur.

Setup Procedures

Establish WiFi Connection

Download the “Focustronic All in One”

App (AIO App) from App Store (iOS)

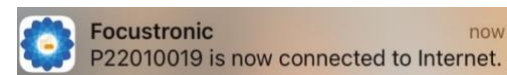
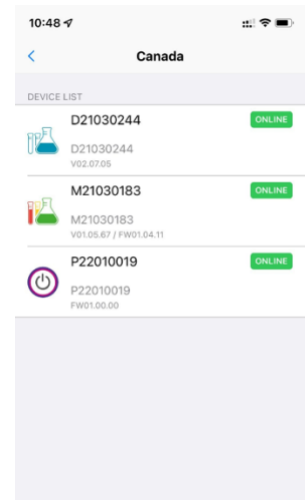


Play Store (Android).



If this is your first Focustronic product, make sure you create an account via the AIO app before proceeding. This allows the unit to be linked to your account so you can view and edit the settings.

1. Download the Focustronic All in One app
2. Open the app and create an account
3. Close the app (don't logout)
4. Power on the unit
5. On your phone/tablet, go to wifi settings and you will be able to locate the Powertronic SSID (ie: P2201XXXX)
6. **Connect** to the SSID (P2201XXXX) and enter the password (**ptpassword**)
7. Open the AIO app (you will see the FT logo and spinning wheel and will load for 60 seconds Approx)
8. Enter your router's SSID and Password and press SAVE (see notes)
9. Close the app (again)
10. Powertronic will now do an internal reboot and you will get an notification once it is connected to the internet.



After you get the online notification (see pic), you can now proceed with Setting up the Powertronic. The new device will be shown in the “Default” tank (under View & device list) and you can transfer it to a another tank if you want to. (Press on the Powertronic in devicelist and “move to another tank”

Note: *You can have more than 1 Powertronic per tank and each Powertronic can carry its own settings. The Powertronic also does not appear on the cloud interface list of units*

Notes:

- Router must have a separate 2.4ghz channel (separate SSID's for 2.4 & 5G)
- SSID and Password must be alpha-numeric ONLY. Symbols may not be accepted.

App - Features

Settings

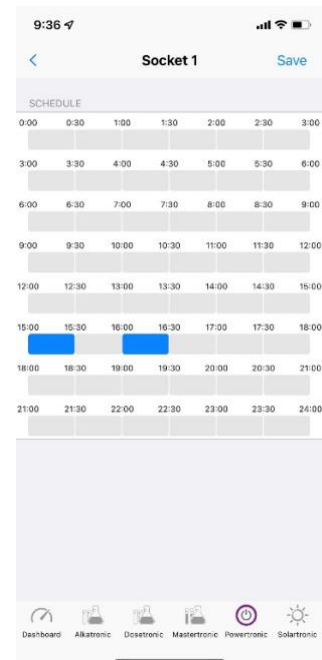
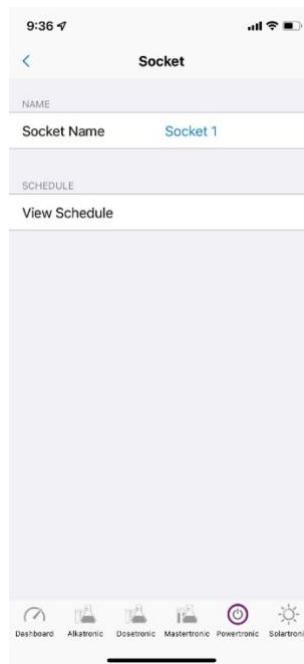
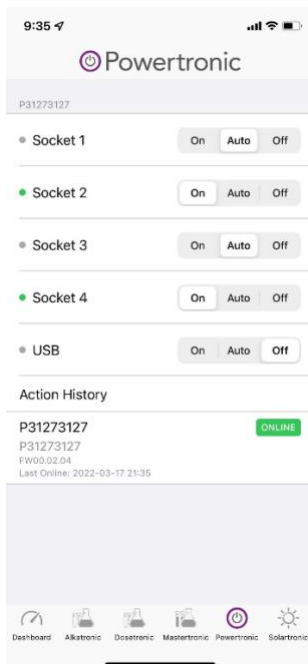
ON – when the socket is manually set to ON, it will be on continuously, disregarding any settings or rules.

Off – when the socket is manually set to OFF, it will be off continuously any settings or rules.

Auto – in this setting, the unit is working based on the defined schedule (24 hours) and will also accept rules that is set from Alkatronic and/or Mastertronic.

Powertronic / Socket / Schedule

On this page, you will have an overview of the current status of all the sockets and USB outputs. By tapping the socket name, you will enter the settings menu of the selected socket. The socket name can be changed to match what is being plugged into it for easy reference. When viewing the schedule, you can select the time slots for switching on/off with 30 minutes interval. In the below picture, the socket 1 will turn on during 15:00-15:30 and 16:00-16:30 while all other time slots are in the off state.



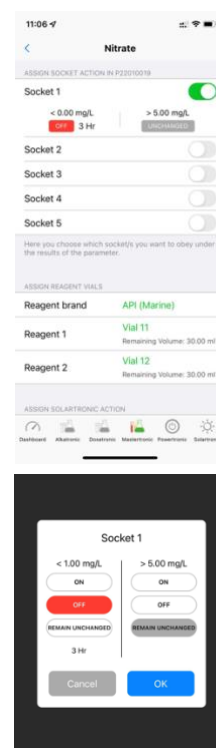
Automation with Mastertronic/Alkatronic Test Results

One of the main features for the Powertronic is the ability to set automation rules based on the test results of Mastertronic and/or Alkatronic. In the below example, the socket 1 will be turned on/off based on the Nitrate result from Mastertronic. In order for the Powertronic to know which Mastertronic to follow, all is needed is to make sure both devices (Powertronic and Mastertronic) are in the same tank within the app. You can also check the settings in Mastertronic showing the correct SN of the Powertronic.

Case Study (Socket 1 is running a protien skimmer)

- The socket 1 will be following the schedule which is already set within the Powertronic page
- The condition is that when NO₃ is lower than 1.00 mg/L, the socket will be turned OFF for 3 hours. This will reduce the risk of starving the corals with too low nutrients and allow nutrients to build up during the period.
- When NO₃ is above 5.00 mg/L, the socket will remain unchanged and follow the preset schedule in the schedule page

User can set more than 1 parameter to each socket but the condition of the socket will be based on the last triggered action. This feature allows the user to control more than 1 parameter for that equipment and in the above case, the protein skimmer.



Other Case Study applications for your Powertronic

There are a lot of different cases that you can use the Powertronic's amazing ability's for. This is based on direct test results from either the Mastertronic or Alkatronic individual results to adjust instantly other pieces of equipment on your tank. This is true automation based on test results. E.G

- *Calcium Reactor feed or effluent Pump*
- *Kalkwasser Reactor feed pump*
- *Phosphate Reactor feed pump*
- *3rd party Doses*
- *Refugium lights*
- *Algae Reactors lights*
- *Algae Scrubber lights*
- *Carborne Reactor feed pump*
- *Sulphur Reactor feed pump*
- *Fish feeder*

LED Status / Manual On / Manual Off

There is a LED status indicator on the manual button on the Powertronic. User can trigger an ALL ON or ALL OFF command by pushing the button. On the third press, the sockets will follow back the schedule settings.

- Manual All OFF (**Blinking Blue** / **Red**)
- Manual All ON (**Solid Blue** / **Red**)
- Schedule Settings, Wifi Connected (**Solid Blue**)
- Wifi not connected (**Blinking Red**)
- AP Mode for phone direct wifi connection (**Blinking Blue**)

FAQ

Q1: what state will the sockets be after a reboot?

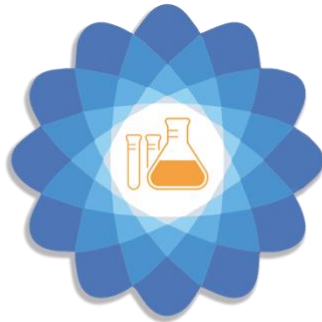
A1: if the unit is in schedule settings (solid blue), it would resume the previous state.

Q2: Which socket is #1? (indicated with a red dot in below pictures)

A2: For the longer Powertronics (UK and Europe plugs), it is the socket farthest one from the LED status light.

A2: For the rectangular Powertronics (USA and Australia), it is the socket below the LED status light.





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Alkatronic



Dosetronic



Mastertronic



Solartronic



Powertronic



Filtertronic