Cerebra Prima Package

Cerebra Prima Package consist of; **_Cerebra 5.5" Touch Screen Controller_**, **Multi-Bar** and **Temperature Sensor**. Following items and accessories are included in the package:

1. Cerebra Controller
   - ❖ AC/DC Power Supply
   - ❖ Cerebra Mounting Brackets
2. Cerebra Multi-Bar
   - ❖ Power Bar Mounting Brackets
3. Smart-Temp Sensor
4. 75Ω BNC Terminator
5. USB A-B Cable
6. Black Stylus
7. Cloud Registration-Code Card

Cerebra Controller:

- 5.5" Full Color TFT
- ARM Cortex A8 - 800 MHz
- 512 Mbyte DDR2 RAM
- 4 GB MicroSD Card, up to 32GB
- USB Communication
- Wi-Fi
- LAN
- 6 * USB (One occupied by Wi-Fi Dongle)
- Audio Port
- Android Powered

Cerebra Multi-Bar:

- 6 Relay Controlled Sockets
   - ❖ High Quality Relays – 80A Inrush Compliant / 5000V Isolation Energy-Control Port
   - ❖ Fused, monitored/controlled individually via HAL Sensors
   - ❖ 16A Power Rating
   - ❖ Status LED Indicators
   - ❖ Predefined Emergency Power State
- 2 * PH Probe Ports
- 1 * Redox Probe Port
- 1 * Conductivity Probe Port
- 1 * Dissolved Oxygen Port
- 1* PAR Sensor Port
- 2 * Optical Or Mechanical Level Sensor Port
- 2 * 1-10V Channels
- 6' (1.8m) Power cord

Vertex Smart-Temp Sensor:

- Visual Range Alarm. Onboard LEDs will blink in Red (Out of range) or Green (Within range) for quick reference.
- USB Based Smart sensor.
- 6' (1.8m) Cable

Concept:

- **Complete Package**
  Prima Package offers a complete base that allows monitor and control of most important parameters, level control, PAR Control … The user can decide to interface more devices if needed. No more Oxygen Module, PAR Module…

- **Android**
  Creating an open source environment allows for much faster culmination of ideas, APPs and future technologies by involving the Expert user to develop new APPs while the novice enjoys the familiarity of Smart-Phone like interface of Cerebra. For most users that have used a smart phone before, most admin tasks are very similar to that of your current phone. This eliminates the need to read HUNDREDS & HUNDREDS of pages of different Manuals or research online for hours to find the right code for any given function.

- **USB**
  Although USB connectors have been utilized in some aquarium Controllers, they are not used for communication. Cerebra is a True USB Based device allowing for many off the shelf products to be utilized with no hassle such as; WIFI Dongles, Mouse and Key Board, USB Hubs. The ability to communicate via USB eliminates the need for any Expansion Port to utilize more power bars, sensors, simply use a USB Hub.

- **Intuitive Interface**
  The interface has been designed to create the smart Phone environment and reduce the required learning curvature by a great deal. There are either rules (In Rule wizards) for each specific function or a new rule can be easily created. Ultimately the users can write customized APPs for any given specific function, achieving complex tasks via a few clicks.

- **Touch Screen**
  A 5.5" Touchscreen Interface makes programming easier at location. Due to high possibility of being touched by wet hands, a resistive Touch panel is utilized to avoid wet-locking the display. An Interface on site to do quick changes and alteration to system parameters… is rather necessary for any reefer.

- **Cloud**
  Cerebra cloud will be a heavily user affected platforms where popular requests can lead to implementation of most features. Unlike many other devices that suffer from low computing capacity and have to constantly modify code to accommodate for space for new features, Cerebra has a rather "Yes, can do!" attitude! Together we will set new standards. Some of the Cerebra Cloud features are:

  - Remote Access via Unique username and password
  - Display and control of the parameters
  - Display and control of Sockets/Devices
  - Email Alerts
  - SMS Alerts

  - User Profile /Profile Sharing: In essence each user has its own unique profile with backed up historical data. Different users can decide to connect and share data and system detail provided both party agrees to such exchange of information.

- *__Heart-Beat Function__*, Cerebra transmit a complete status list every…..minutes. This heart beat contains all data to be backed up to cloud server. If the connection to server or power is lost the Cloud Server will generate an email and SMS to alert the system administrator of such event. Along with the Alert the last reported status of system data such as Temperature, PH… will be provided

Control & Features:

To name a few; Vertex Cerebra can monitor and control the following elements and parameters:

- Advanced Multilateral Rules
- Timer Programs
- Power Monitoring of each Socket
- PH
- ORP
- Conductivity
- Temperature
- Dissolved Oxygen
- PAR
- Fluid level –Optical

- Fluid Level –Mechanical
- Fluid Level – Mechanical Dual Point
- 1-10V devices such as LED, Pumps…
- Water Leak Detection
- Stray Voltage Detection
- Remote Cloud Access
- Email Alert
- SMS Alert
- Device Failure Alert
- Graphing

Customization:

Visual / Personal:

- Icon Sizes can be modified
- Flash-Alert Icon
- APP Position Modification within DeskTop
- Desk Top Designation

- Device Designation
- Icon Choices

Functional:

- Customized Multilateral rules possibilities
- Feed-Stop control of all sockets

- Vertex Button; Program Custom Functions
- Open Source – Custom APPs

Vertex Cerebra, available Probes, Modules & Accessories:

Power Bars:

1. Multi-Bar – USB:

   - ❖ 6 * Controlled Sockets
   - ❖ 2 * PH Ports
   - ❖ 1 * Redox Port
   - ❖ 1 * Conductivity Port

   - ❖ 1 * Dissolved Oxygen Port
   - ❖ 2 * 1-10V Channels
   - ❖ 2 * Level Ports (Mechanical or Optical)
   - ❖ 1 * PAR Port (Can be used as 3rd Level Port)

2. Power-Bar – USB:
   - ❖ 6 * Controlled Sockets

Probes:

1. Vertex Single Junction PH Probe - BNC / Made in Germany - *120 Fresh Guarantee* **
2. Vertex Double Junction PH Probe - BNC / Made in Germany - *120 Fresh Guarantee* **
3. Vertex ORP Probe - BNC / Made in Germany - *120 Fresh Guarantee* **
4. Vertex Conductivity Probe - BNC / Made in Germany - *120 Fresh Guarantee* **
5. Vertex Oxygen Probe - BNC / Made in Germany - *120 Fresh Guarantee* **
6. Vertex PAR Sensor - MINI DIN / Made in USA
7. Vertex Mechanical Level Sensor - MINI DIN / Made in Taiwan
8. Vertex Dual point Mechanical Level Sensor - MINI DIN / Made in Taiwan
9. Vertex Optical Level Sensor - MINI DIN / Made in Taiwan
10. Vertex Smart-Temp Probe – USB / Designed & Manufactured fully In-House.

*** 120-Fresh Guarantee: The Marked items are produced in Germany in small batches and are guarantee to ship no later than 120 days from the production date. EXW Huntington Beach Facility.*

Detectors:

1. Leak Detector – USB
2. Stray Voltage Detector -USB

Modules:

1. I/O Modules – USB:
   - ❖ 4 * Mini-DIN Ports
   - ❖ 4 * INPUT/OUTPUT
   - ❖ 4 * Tunze Pumps via "Min DIN to DIN" Cable
   - ❖ 4 * "Toggle" or "Push Button Switch"
   - ❖ 4 * Optical, Mechanical or Multipoint Mechanical Level Sensors

2. Vertex 0-10V Terminal –RJ11 (on Multi-Bar)
   - ❖ 1 * RJ 45 Connector – 2 Channels
   - ❖ 2 * DIN Ports – 1 Channel per Port

3. Vertex 0-10V Module – USB
   - ❖ Control Speed Variable Pump/LED Lights
   - ❖ Can control up to 4 Channels
   - ❖ 4 * DIN Connectors
        Each on a separate Channel
   - ❖ 2* RJ45 Connectors
        Each Connector 2 Channels

4. Vertex Toggle Switch – Mini DIN
5. Vertex Push-Button Switch – Mini DIN

Accessories:

1. Vertex PH Buffer 7 Calibration Fluid
2. Vertex PH Buffer 10 Calibration Fluid
3. Vertex ORP Calibration Fluid
4. Vertex Conductivity Calibration Fluid