



NEPTUNE
SYSTEMS

Because it's all about
control.

APEX

EnergyBar 832 User Guide



IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS



WARNING – To guard against injury, basic safety precautions should be observed, including the following:

- **DANGER** – To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt repairs by yourself; return the EnergyBar 832 to Neptune Systems or an authorized service facility for service, or discard the EnergyBar 832:
 - If the EnergyBar 832 falls into the water, DON'T reach for it! First unplug it and then retrieve it.
 - If electrical components of the EnergyBar 832 get wet, unplug the EnergyBar 832 immediately. Carefully examine the EnergyBar 832 after installation. It should not be plugged in if there is water on parts not intended to be wet.
- Do not operate any EnergyBar 832 if it has a damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.
- Always unplug an EnergyBar 832 from an outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
- Do not use an EnergyBar 832 for other than intended use. The use of attachments not recommended or sold by Neptune Systems may cause an unsafe condition.
- Do not install or store the EnergyBar 832 where it will be exposed to the weather or to temperatures below freezing.
- Close supervision is necessary when this or any appliance is used by or near children.
- Read and observe all the important notices on the EnergyBar 832.

SAVE THESE INSTRUCTIONS

INTRODUCTION

Congratulations on your purchase of the Apex EnergyBar 832!

The EnergyBar 832 allows the Apex system to control up to eight 120VAC items such as lights, pumps, fans, heaters, a chiller, and other aquarium equipment, as well as provides 24-volt DC power to compatible Neptune Systems Apex accessories and expansion modules.

The EnergyBar 832 is intended for indoor use only in North America and other locations which have 120VAC 60Hz electricity.

A Neptune Systems Apex controller is required to utilize the EnergyBar 832 (EB832); it cannot function as a standalone power strip.



Note that the EnergyBar 832 is for use only with the Apex controller; it is not backward-compatible with Apex Classic and Apex Jr controller models.

ENERGYBAR 832 FEATURES AND SPECIFICATIONS

- (8) relay-switched programmable 120VAC outlets for controlling power to pumps, lighting, heaters, a chiller, and other aquarium equipment
- Heavy-duty power grounded cord, 6 feet in length
- Each 120VAC outlet has a rated load capacity of 7 Amps
- (3) 1LINK ports for connection of Neptune Systems peripherals such as the D \bar{O} S Dosing and Metering System and WAV powerheads
- (2) DC24 outlets providing switched 24VDC power (up to 30 watts each) to Neptune Systems 24VDC accessories.
- Status LEDs for AC outlets and DC24 ACC outlets
- 3-port AquaBus hub for Apex system interconnection
- Per-outlet monitoring of Amps and watts on the (8) AC outlets
- Voltage monitoring
- Per-outlet overcurrent warnings through the Apex system and via flashing of the AC outlet status LEDs
- 15 Amp circuit breaker for overcurrent protection
- Active electrical current monitoring and logging through the Apex

- Fallback fail-safe setting. If communication failure occurs between the Apex and the EnergyBar 8, each outlet can be configured to revert to a user-configurable default setting
- High reliability direct wired connection to the Apex System through the AquaBus

IMPORTANT USAGE INFORMATION

WARNING – DO NOT EXCEED ELECTRICAL RATINGS:



- The maximum load rating of each individual AC outlet is **7 amps**; do not exceed this.
- The total current/power draw for all active outlets **must** not exceed **15 amps** or **1500 watts, whichever is less**.
- The combined total maximum load on the (2) DC24 outputs and the (3) 1LINK ports must not exceed **100 watts**.



WARNING: The Energy Bar 832 contains no fuses or other user-serviceable parts. Do not attempt to perform any repairs or modifications to the Energy Bar 832. If the power cord is damaged, it must be replaced by Neptune Systems, its service agent or similarly qualified persons in order to avoid a hazard.

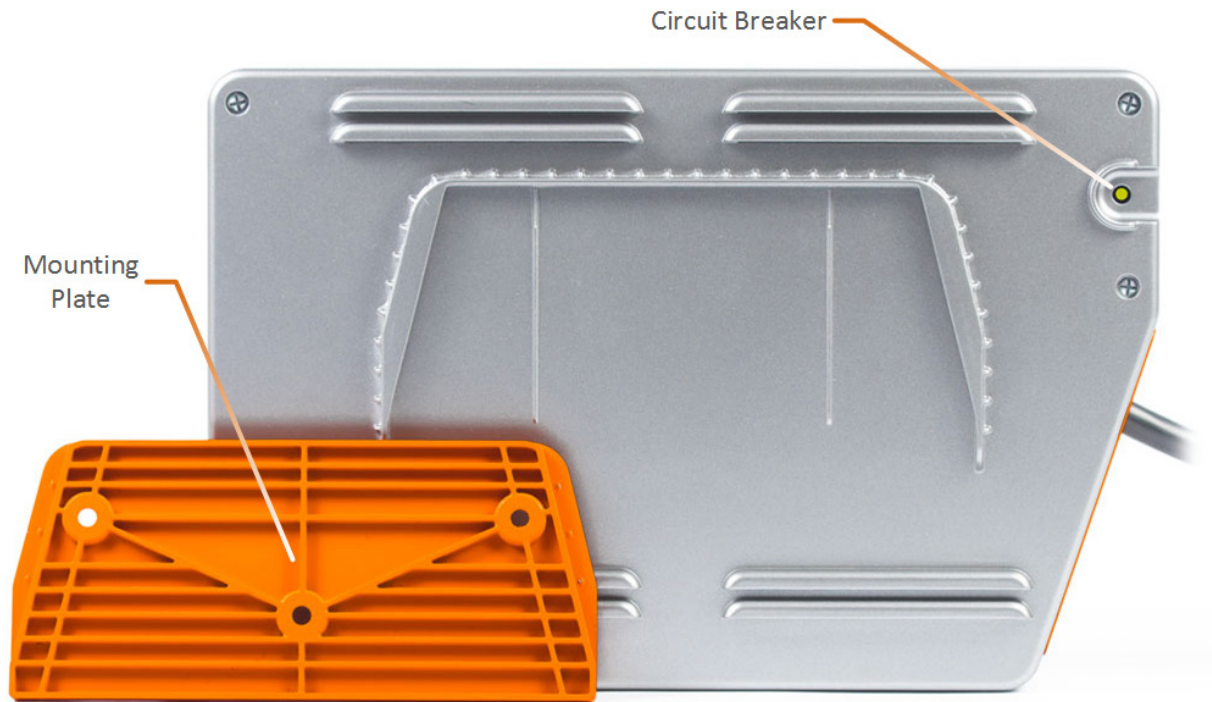
The EnergyBar 832 is intended for indoor use only.

The EnergyBar 832 is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

GET TO KNOW YOUR ENERGYBAR 832



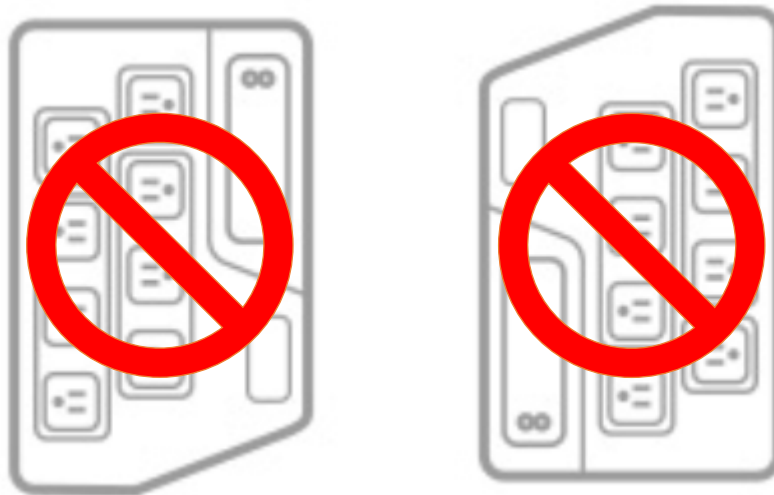


PHYSICAL INSTALLATION

The EnergyBar 832 must be securely mounted in an indoor location free from moisture. The EB832 uses an innovative mounting system which provides safe secure mounting yet allows easy removal of the EB832 from the mounting plate. The EB832 must be mounted on a vertical surface such as a wall, an upright mounting board, or the side or back of your aquarium stand. Use the included screws to mount the EB832 mounting plate, then slip the EB832 over the mounting plate and press downward to firmly seat the EB832 on the mounting plate. If mounting on drywall, use drywall anchors (screws and anchors not included). A printable mounting template is available [HERE](#). The mounting template contains additional mounting guidelines.

- Be sure to utilize drip loops on all power cords and AquaBus cables plugged in to the EnergyBar 832.
- Leave at least 1" of clearance to the right side of the EB832 to allow for proper ventilation.
- The EB832 should not be mounted directly above an open vessel containing water such as an aquarium or sump.

- The EnergyBar 832 should be grounded to minimize the possibility of electric shock. It is equipped with an electric cord having an equipment grounding conductor and a grounding type plug. The plug must be plugged into an outlet that is installed and grounded in accordance with all appropriate codes and ordinances.
- The EB832 must be mounted in a horizontal and upright orientation as shown:



After mounting, plug the EnergyBar 832 power cord into a grounded receptacle supplied electrical power by a 15 ampere or 20 ampere branch circuit which is protected by a Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD).



WARNING: Water damage will void the warranty! Mount the EnergyBar in a location safe from any form of moisture exposure – drips, splashes, etc.

AQUABUS CONNECTORS

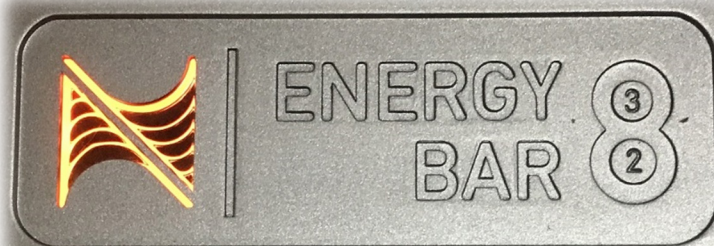
The EnergyBar 832 communicates with and provides power to the Apex base and Apex accessory modules through the AquaBus connectors. The EnergyBar 832 has three connectors which may be utilized to connect the EnergyBar to the Apex base unit and to connect to other AquaBus accessories. There are no limitations on the order AquaBus accessories can be connected or to which AquaBus ports accessories must be connected. The total length of all AquaBus cables should be limited to 200 feet. Refer to the Apex Started Guide for more information.



WARNING: NEVER plug standard USB devices into any AquaBus connector or connect AquaBus accessories into computer USB ports. Damage to the AquaBus accessory and/or USB device may result.

ENERGYBAR 832 STATUS LED PANEL

The Neptune System logo on the face of the EB832 is a LED panel which indicates the status of the EnergyBar 832.



There are four possible states of the LED panel:

| | |
|--------------------------------|---|
| Not Lit | The EnergyBar 832 has no AC input power or AquaBus power from other EnergyBars |
| Solid Orange | The EnergyBar 832 is operating normally and is communicating with the Apex base unit |
| Flashing Orange (rapid) | The EnergyBar 832 is in bootloader mode and is attempting to communicate with an Apex base unit |
| Blinking Orange (slow) | The EnergyBar 832 is in Fallback mode |

ENERGYBAR 832 OUTLET STATUS LEDS



LEDs numbered **1** through **8** indicate the state of the corresponding 120VAC outlet.

| | |
|--------------------------------|--|
| Not Lit | The AC outlet is OFF |
| Solid Orange | The AC outlet is ON |
| Flashing Orange (rapid) | The AC outlet is ON and the load on that outlet exceeds 7 Amps; this indicates an overcurrent condition which must be addressed immediately. |

The LEDs labeled **A** and **B** indicate the state of the corresponding DC24/ACC output.

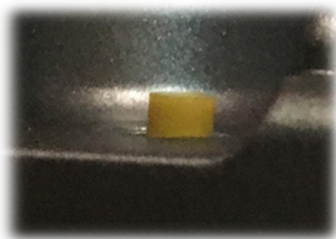
| | |
|---------------------|----------------------------|
| Not Lit | The DC24/ACC output is OFF |
| Solid Orange | The DC24/ACC output is ON |

ENERGYBAR 832 CIRCUIT BREAKER

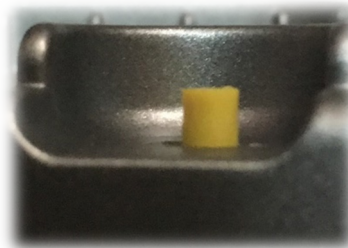
The 15 Amp circuit breaker is located inside the EnergyBar 832; a yellow status/reset button is visible on the rear of the EB832.



The yellow button will normally protrude from the back of the EB832 case by approximately 1.5-2mm. If the circuit breaker has been tripped, the yellow button will extend farther out, approximately 3mm. This may be seen in the images below.



Normal



Tripped

To reset a tripped circuit breaker, press the yellow button inward. Before resetting the breaker, identify and resolve the cause of the overload condition which resulted in the circuit breaker being tripped.

ADDITIONAL INFORMATION

Programming your Apex system and managing and monitoring the EB832 is beyond the scope of this guide. Please refer to these sources of information about programming EB832 outlets, monitoring of voltage, amps, and watts, and other EB832 usage via the Apex user interfaces:

[Apex Get Started Guide](#)

[Apex Documentation](#)

For details about using the DC24 outlets, please refer to the [DC24 FAQ on the Neptune Systems Community Forum](#).

NEPTUNE SYSTEMS LIMITED WARRANTY

Neptune Systems warrants this product to be free from defects in material and workmanship for a period of 1 year from the date of purchase. If repair or adjustment is necessary and has not been the result of abuse, Neptune Systems warrants this product to be free from defects in material and workmanship for a period of 1 year from the date of purchase. If repair or adjustment is necessary and has not been the result of abuse, misuse, or accidental damage, within the 1-year period, please return the product with proof of purchase, and correction of the defect will be made without charge.

For your protection, items being returned must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Neptune Systems will not be responsible for damage resulting from careless or insufficient packaging. Before returning please obtain a return authorization (RMA) number from Neptune Systems. Returned merchandise will not be accepted without a RMA number. To obtain assistance with your Neptune Systems product, contact Neptune Systems technical support by phone or via the [Technical Support Contact Web Page](https://www.neptunesystems.com) at <https://www.neptunesystems.com>.

Except for the warranty set forth above, Neptune Systems is not responsible for any damages including, but not limited to, consequential damage occurring out of or relating to the delivery, use or performance of Neptune Systems' products. Buyer's remedies for breach of warranty shall be limited to repair, or replacement and full or partial adjustment to purchase price.

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EnergyBar 832 User Guide v1.5



The symbols to the right mean that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

