

Eight Ways to Power a Manta in the Lab or Field



March 2019

Eureka offers eight different ways to power your Manta; choose the one (or more) that best fits your operation. Note that most of the power options can be used with a Manta's Underwater Cable or Data Cable.

For your convenience, the Manta has a green LED whose blinking tells you that the Manta is receiving adequate operating power. With any of the power options explained below, the absence of the blinking, green LED means that your power supply is not adequate to operate the Manta. Check your cable connections, charge or change your batteries, etc. to fix the problem.

1) Using Power from a Bluetooth Auxiliary Battery

The Eureka Bluetooth Battery connects your Manta to various Android and Apple smart phones and tablets. Not only does this save you the cost of expensive, fixed-purpose data displays (which are so yesterday), but it frees up one hand since you don't have to hold onto the Manta cable. Here's how it works:

- a) Attach one end of your Cable to your Manta and the other end to the Bluetooth Battery.



- b) Turn on the Bluetooth Battery with the On/Off switch; you'll see a red LED that blinks until the Bluetooth Battery pairs with your Bluetooth device.
- c) Turn your Bluetooth device on, and make sure Bluetooth is activated (see your display device's manual, or ask a teenager).
- d) Launch the Manta Control Software on your display device; that makes your device look for the Bluetooth Battery.
- e) Once the Bluetooth Battery and your Bluetooth device have found each other ("paired"), the red LED will turn solid and you'll see scrolling data.

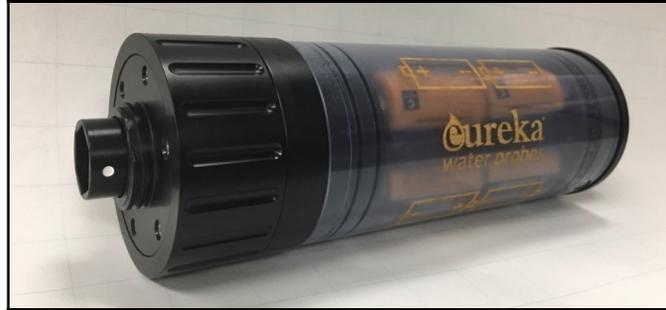
2) Internal Battery Packs

Most Manta models can be ordered with Internal Battery Packs that accommodate, depending on the diameter of the Manta, an array of AA-, C-, or D-cell batteries. The Internal Battery Pack is a handy way to power Mantas in long-term logging deployments.



3) External Battery Packs

Most Manta models can be fitted with easily-detachable External Battery Packs that accommodate, depending on the diameter of the Manta, an array of AA-, C-, or D-cell batteries. The External Battery Pack is a handy way to power Mantas in long-term logging deployments, but can be removed for easy manual Manta operation.



4) Using Power from Eureka's Amphibian Field Display

If you insist on an old-school Data Display, Eureka offers a durable, versatile field PC called the Amphibian2. Attach an Underwater Cable to your Manta. Or, you can use a Data Cable for work in the lab. Here's how it works:

- a) Attach one end of your Cable to your Manta and the other end to the Amphibian2.

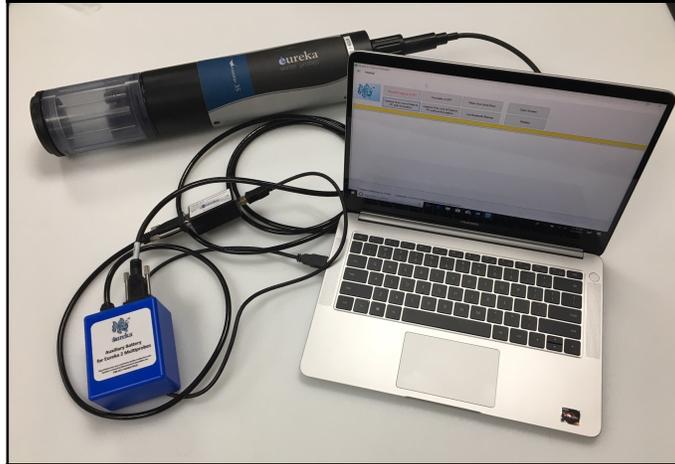


- a) Turn the Amphibian on and wait for the Start menu to appear. Touch Amp 2.2.7 to launch the Manta control software.
- b) When you see the rolling-data display, your Manta and Amphibian are ready to go.

5) Using Power from Eureka's Auxiliary Battery

If your Manta has a large number of sensors, or if your Cable is too long, your PC's USB port may not be able to supply enough power to your Manta. This is easily remedied with Eureka's Auxiliary Battery; here's how it works.

- a) Attach one end of your Cable to your Manta and the other end to the Auxiliary Battery.
- b) Connect the Auxiliary Battery to the USB Adapter and the USB Adapter to a USB port on your PC.



c) Launch your Manta Control Software as usual.

6) Using Power from a PC USB Port

You can power your Manta from the USB port on your PC or laptop connection to your Data Display. This is especially helpful in the lab during calibration, etc. Here's how it works:

- a) Load the Manta Control Software and the device driver for the USB Adapter onto your PC per the instruction manual or Quick-Start Guide included with your Manta.
- b) Connect your Cable to your Manta, the other end of the Cable to the USB Adapter, and the USB Adapter to a USB port on your PC.

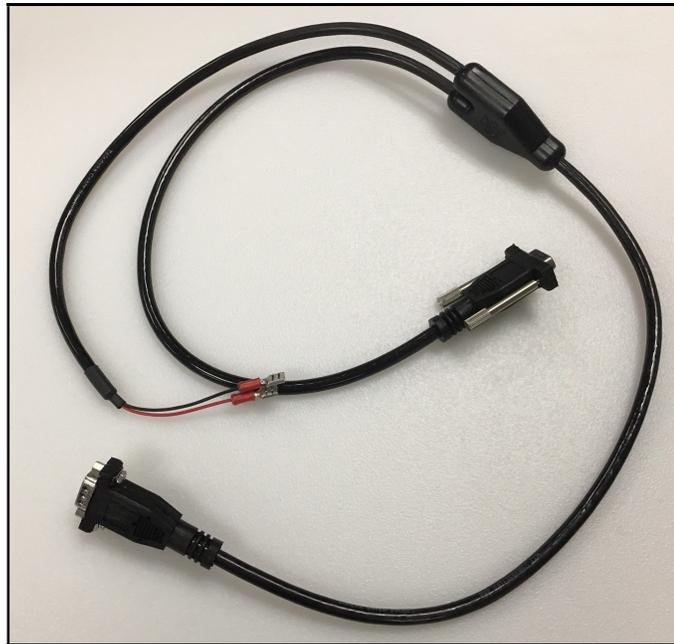


c) Launch your Manta Control Software as usual.

7) Using Power from Your Own Battery or Other Power Source

In some instances, you may wish to power the Manta with an alternate source of power - for instance with a solar-backed battery in telemetry applications – with the Optional Battery Cable. Here's how it works:

- a) Attach a Cable to your Manta.
- b) Attach the other end of the Cable to the Optional Battery Cable – it can only fit one way.
- c) Connect the leads from the Optional Battery Connector to your battery or other power source providing between 9 and 15 VDC, using the red wire for positive and the black wire for ground.
- d) If you are using a PC or laptop for your display device, connect the remaining connector on the Optional Battery Cable to Eureka's USB Adapter Cable and then to a USB port on your PC.
- e) Launch your Manta Control Software as usual.



- f) If you are using an Amphibian for your display device, connect the last connector on the Optional Battery Cable to the Amphibian. Turn the Amphibian on and wait for the Start menu to appear. Touch Amp 2.2.7 to launch the Manta control software.

Note: Do not connect your Optional Battery Cable to any power source that is connected to a high-voltage power source (such as a 110 VAC power plug on the wall). It's very dangerous to play with water and high voltage.

8) Using Power from the USB Adapter Power Connection

If your Manta has a large number of sensors, or if your Cable is too long, your PC's USB port may not be able to supply enough power to your Manta. This is easily remedied with a power supply connected to Eureka's USB Adapter; here's how it works.

- a) Attach one end of your Cable to your Manta and the other end to the USB Adapter.
- b) Connect the USB Adapter to a USB port on your PC.
- c) Connect a power source providing between 9 and 15 VDC (such as a wall wart).
- d) Launch your Manta Control Software as usual.



Note: Do not connect your USB Adapter to any power source greater than 15 VDC unless that power source is protected by a ground-fault interrupter (GFI). GFI's are inexpensive and a necessary safety precaution.

Problems? No problem. E-mail us at support@waterprobes.com or call 512-302-4333, Ext 1111.

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