# Little River Research & Design

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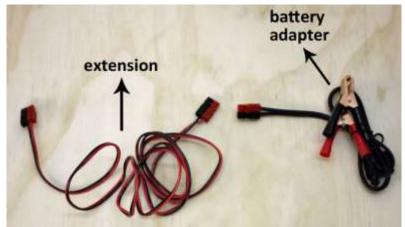
## Emriver Battery Adapter Instructions for Use

### **Battery Information**

You may power the Emriver Em2 and Em3 geomodels with a deep-cycle 12-volt battery. A sealed deep-cycle battery with a rating of about 32 amp-hours will power the pump for several hours on a full charge. Large marine batteries (such as those used for trolling motors) are not necessary. The pump uses 0.5-2.75 amps, depending on the flow setting.

## **Using the Battery Adapter**

- Connect the black and red connectors attached to the flow controller to the matching black and red connectors on the battery adapter.
  - The Emriver Battery Adapter comes with an extension that runs between the controller and the battery adapter.
  - To use the extension, plug one end into the black and red connectors on the controller, and the other end of the extension into the black and red Emriver system connectors on the battery adapter.
- Attach the alligator clips to the battery terminals. Connect the negative (black) clip to the negative terminal, and the positive (red) clip to the positive battery terminal. Battery terminals may be color-coded or use a (+) to indicate positive and (-) for negative. You can damage the controller if you connect these in reverse.



The Emriver Battery Adapter comes with an extension cord to go between the Emriver controller and the battery adapter.

You may plug the Emriver system connectors on the battery adapter directly into the black and red Emriver system connectors on the controller, or you may plug one end of the battery adapter extension into the controller.





To use the extension, plug one end into the black and red connectors on the Emriver controller, and the other end into the Emriver system connectors on the battery adapter.

You may also plug the Emriver system connectors on the battery adapter directly into the controller without using the extension.



Emriver system connectors on the battery adapter plug directly into the Emriver controller.



Attach the alligator clips on the battery adapter to the terminals on the battery. Connect the negative (black) clip to the negative terminal, and the positive (red) clip to the positive battery terminal. Be careful not to switch the positive and negative!

**Note**: The battery adapter is fused. The fuse can be checked visually or with a continuity tester if you suspect they are blown. **Do not bypass the fuses!** 

#### WARNING

Be sure you understand how to handle any battery you use.

- Lead-acid batteries produce hydrogen when being charged and can explode.
- Lead-acid batteries must be maintained and kept charged or they will degrade over time.
- Your battery should be in a suitable box to prevent its contacts from shorting on conductive objects, such as the aluminum parts of the box and its supports.