



Setup, Use and Care Guide

Underwater Lighting Systems

Gates Underwater Products, Inc

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Your Gates housing comes ready to accept fully integrated lighting systems from Green Force, NiteRider or Underwater Kinetics. This guide addresses mounting the light systems to the housing. The operation instructions are found in the manufacturer's manual which accompanies this document.

Arms and base mount

Each lighting system comes with a light arm and base mount. The arm base is usually attached to the top of the handle grips. On the FX1/Z1 housing they can optionally be secured to the accessory rails, as shown in the photos that follow.

Flex arms consist of locking, movable links that provide a flexible arm for easy and infinite re-positioning of the light beam. Links can be removed or added as desired. This allows easy attachment of the arm to your housing.

- ✓ **Install the flex arm base.** To install the flex arm base simply thread the base into the top of the handle grips, and tighten with a 3/16 hex wrench. Screw them in until fully seated, and tighten them snugly. Do not over tighten.
- ✓ **Attach the light arms.** With one hand firmly on the handle of the housing, grasp the light arm at the end that will attach to the housing. The light arm will mate to the link you just installed in the previous step. ***Firmly press them together*** until they “snap” and lock together. You may need to apply some effort, but they will lock securely.
- ✓ **To remove the light arms**, grasp the handle of your Gates housing and the light in the same way you did to assemble them. ***DO NOT PULL the links apart.*** Rather, ***bend the light arm sideways*** until the arm and mounting link separate.

Flex arm base secured to a handle grip. Note the flex arm base requires a washer under the screw head.



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Rigid arms such as those from Ultralight Control Systems utilize a mount ball base for attaching arms.

- ✓ **Install the mount ball base.** If attaching to the handle grips, simply thread the mount ball into the top of the grip until it seats fully. Use a wrench to tighten securely.
- ✓ **Attach the light arms and clamps.** The light arms then are secured by simply loosening the clamps sufficiently to allow them to fit over the mount ball. Tighten securely. You will find an optimum 'tightness' that still allows movement of the arms to new positions.



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Battery mounting

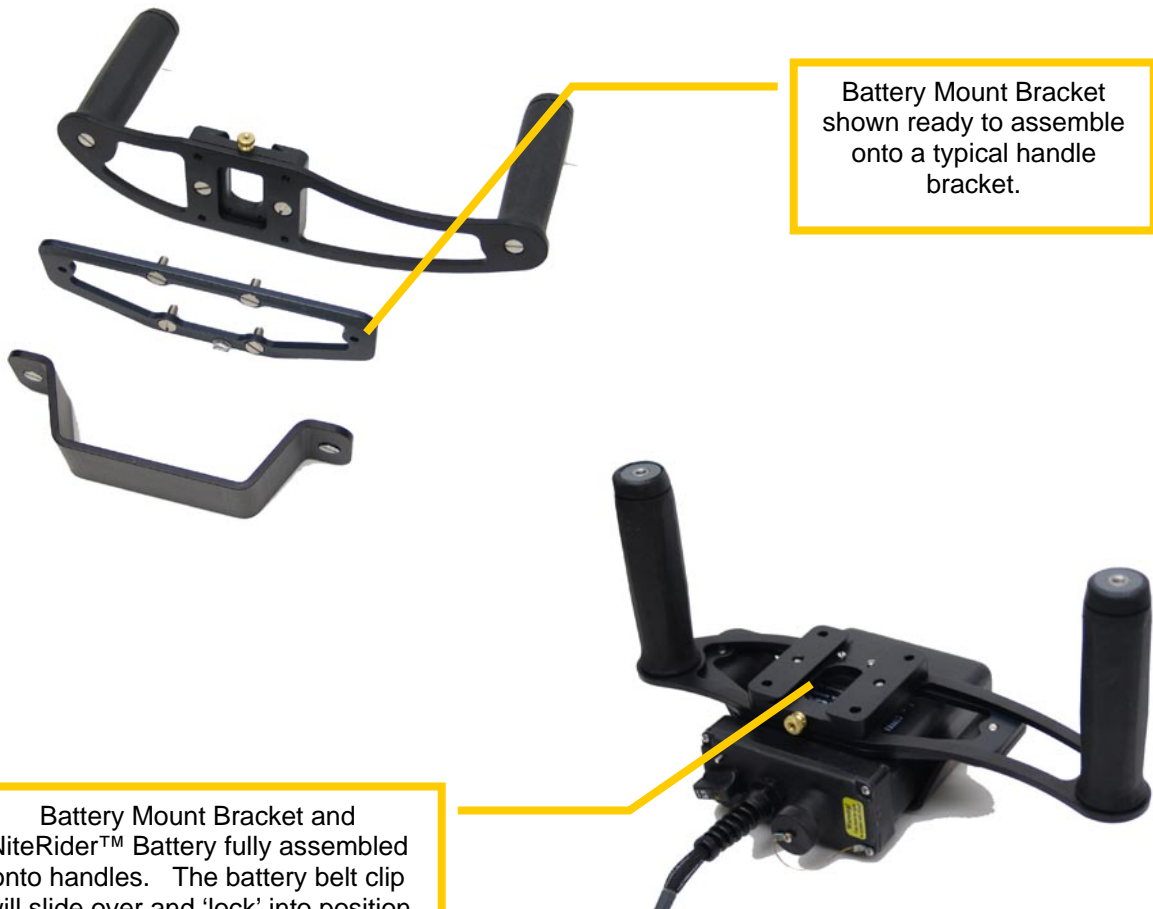
Green Force and NiteRider batteries secure to the bottom of your Gates housing. Underwater Kinetics lights are self contained with batteries and bulbs in the same shell and so do not require a separate battery mounted to the bottom of the housing.

NiteRider battery mount

There are two parts to the NiteRider battery mount.

- ✓ **A straight 'wing' shaped plate** that mounts directly to the bottom of the handle bracket with four ¼-20 pan head screws; and
- ✓ **A 'U' shaped bracket** that in turn mounts to the 'wing' shape bracket with two shorter ¼-20 pan head screws.

Refer to the photo illustration for proper mounting and installation of the battery. Note that the battery may also be carried on a weight belt or BC pocket if so desired.



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Green Force battery mount

The type of battery mount utilized depends on the size of batteries that came with the Green Force light system.

Flexi (FI) batteries

Flexi I batteries utilize two components:

- ✓ **A straight 'wing' shaped plate** that mounts directly to the bottom of the handle bracket with four ¼-20 pan head screws; and
- ✓ **A "C" clamp** that mounts to the wing plate.

Refer to the photo illustration for proper mounting and installation of the wing bracket and 'C' clamp. Once complete, the Flexi I batteries simply slide into the 'C' clamp, and are held in place by an o-ring on either side.

Flexi II (FII) or Flexi III (FIII) batteries

These batteries are also mounted with two components:

- ✓ **A flat 'bowtie' shaped plate** that mounts directly to the bottom of the handle bracket with four ¼-20 pan head screws; and
- ✓ **Four collars** into which the batteries may be inserted and secured with an o-ring on either side of a collar.

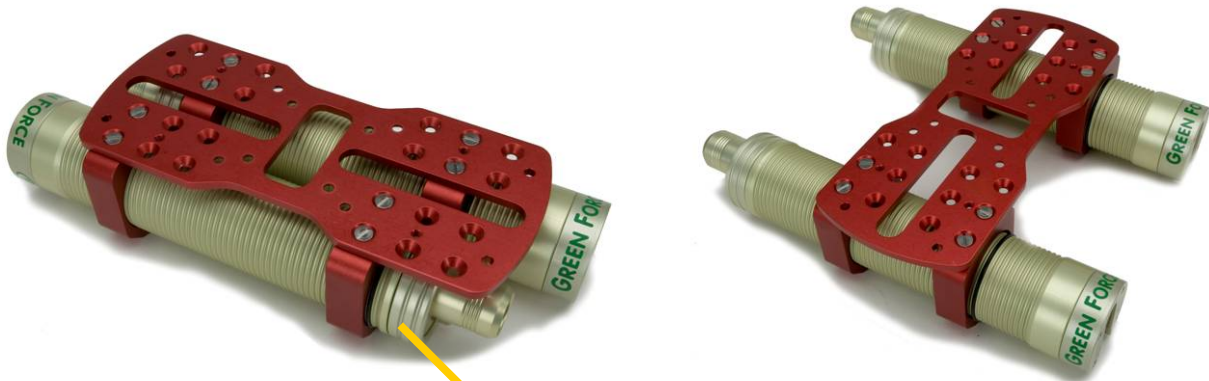
The FII and FIII batteries can be mounted in two ways, either pointing side to side or front to back. Refer to the photo for more detail.



FII Batteries may be mounted so the cables face the rear or off to each side. Note the o-rings on either side of a collar secure the battery in place.

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Fill Batteries may be mounted so the cables face the rear or off to each side. Note the o-rings on either side of a collar secure the battery in place.

Cable routing

Once you have the light heads and batteries installed the cables can be routed and connected to complete the setup. As shown in the photos the cables can hang freely, or be routed tightly up the handle and light arms for a close-fitting configuration.



Cable Routing is to your preference. They can be secured close to the housing or allowed to drape freely.

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Light System Care and Maintenance

Proper care of your system is outlined in the manufacturer's manual.

Customer Support

If you have any questions or require further assistance with your Gates housing, contact your dealer or Gates directly and we'll be happy to assist.

Email: Customer.svc@GatesHousings.com
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