

## INSTRUCTIONAL MANUAL

### CAT. DFP Series NIGHTSEA® DFP™ Dual Fluorescent Protein Excitation Flashlight



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## An introduction



The NIGHTSEA DFP™ Series Dual Fluorescent Protein Excitation Flashlight is a dual color light source that allows the viewing of transgenic organisms expressing GFP, fluorescein, Lucifer yellow, YFP, Venus, and more. The light uses LEDs and interference filters in order to initiate intense excitation. With the filter glasses, the light is effective for screening juveniles to determine if they are expressing the fluorescent protein or not, to view the progress of the experiments, and for photography.

## Operation

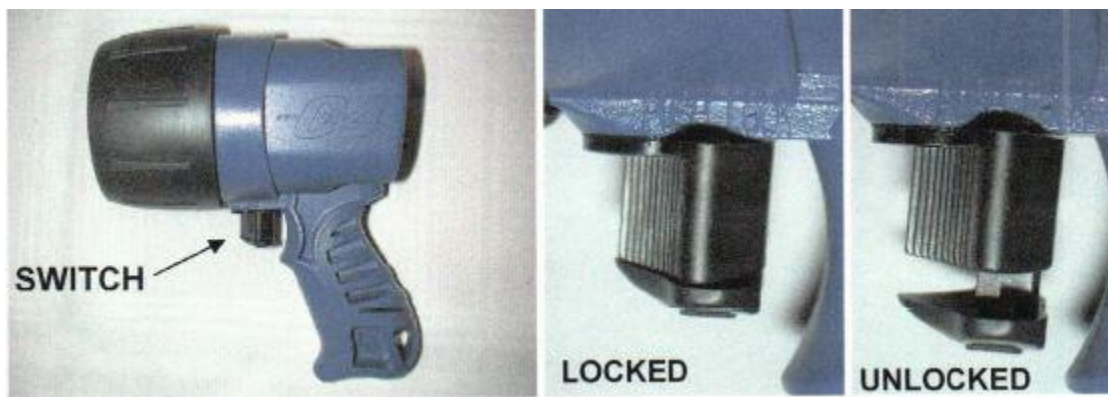


The three-position locking switch can be found in the front of the handle. The three positions are:

(Left) **ROYAL BLUE LIGHT**

(Center) **OFF**

(Right) **CYAN LIGHT**



1. Unlock the switch by pulling the lock down from the end of the switch.
2. Rotate the switch to the left or right, depending on the light color you desire.
3. Turn off the light by rotating the switch back to the center position.
4. To prevent accidental actuation, push the lock back into the switch.

The DFP™ is supplied with:

- Two (2) pairs of filter glasses – One (1) yellow and one (1) orange

Use the yellow glasses with the royal blue excitation and the orange glasses with the cyan excitation. The filter glasses are matched to the spectra of the light sources to reject the reflected excitation light and transmit the fluorescence with high contrast.

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## Battery replacement

The DFP™ uses four (4) C cell alkaline batteries. On a single set of batteries, you should have several hours of run time. When the light grows dim and no fluorescence can be seen, replace the batteries.

To replace the batteries:

1. Unscrew the front bezel.
2. Remove the lamp assembly.
3. Remove the old batteries.
4. Insert the new batteries.



When inserting the batteries, make sure that the battery contact base is in the proper orientation in the housing. The contacts must be facing up, with the support springs down. Molded into the contact base is “ALIGN HERE”.

5. Insert with the arrow pointing toward the side of the housing the “ALIGN HERE” sticker.

The lamp will not operate if the contact base and batteries are inserted incorrectly.

The DFP™ is shipped with the batteries for you to insert. Whenever packing the light for shipment, we recommend removing the batteries.

## Lamp assembly replacement

1. Line up the slot at the top with the projections in the housing.
2. Line up the switch opening and the switch actuator.
3. Screw the front bezel down all the way.

## Troubleshooting

In the case that the light completely fails to operate:

1. Insert a new set of batteries.
2. Check that the battery contact base is in the correct orientation.
3. If the above steps do not resolve the problem, contact us.
4. If return for repair is needed, contact Electron Microscopy Sciences. You will receive a Return Authorization number.

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## Warranty and return policy



NIGHTSEA warrants this product to be free from defects in workmanship and materials under normal use for as long as you own this product.

This warranty does not cover:

- Batteries
- Deterioration due to normal wear
- Damage due to misuse

NIGHTSEA will repair or replace parts that are defective in workmanship or materials.

After three (3) unsuccessful attempts to repair this product, you have the right to elect replacement of the product or a refund of the purchase price less allowance for use of the product.

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For any questions or for ordering  
information, please contact Customer  
Service at 1-800-523-5874.

*Thank you for choosing  
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