



# BWC Photo Eye Operation and Maintenance

Models Affected: BWC-2 and BWC-3 Models

**Tech Tip**  
**TT-970**

## Subject:

The Battery Wash Cabinet (BWC) wash cycle starts by inserting a battery into the cabinet. As it reaches the back of the cabinet, a photo eye is activated, the door closes and the wash cycle begins. If the photo eye does not activate properly, or activates prematurely, damage to the battery or cabinet could occur.

## Description:

The photo eye has three indicator lights to identify its operational status. Current models have an amber light indicating power to the photo eye, a red light indicating proper alignment with the reflector, and a green light indicating output. On some older units the light layout may differ. The BWC utilizes the photo eye in "light-on" mode, meaning the output is on when the sensor is seeing light returning from the reflector. Therefore when the photo eye is operating correctly and no battery is in the wash cabinet, all three indicator lights should be illuminated. If one or more of the lights are not on under these conditions, the issue should be investigated and addressed to ensure proper operation of the cabinet. If the photo eye is not receiving a proper signal from the reflector, the wash cabinet believes a battery is fully loaded into the cabinet. Starting the system in this state could result in the door closing immediately to begin the wash cycle, possibly lowering onto the battery being loaded, which could result in damage to the battery and/or cabinet door.



*Top view of current photo eye used on BWC units*

## Recommendation:

- If none of the photo eye indicator lights are illuminated, the photo eye is not getting power. Inspect wiring for loose connections, broken wires, etc. and repair as required.
- If there is not a battery in the cabinet and only the amber or power light is on, the photo eye is not receiving a signal from the reflector. The photo eye may be out of alignment, and should be adjusted. It is also possible for the inside of the photo eye window as well as the reflector to be covered by water spray during the wash cycle. Depending on water quality and the amount of water reaching the window and reflector, this could result in a thin film restricting or distorting the light beam from the photo eye so that it is not received back from the reflector. Cleaning the window and reflector with a clean cloth will resolve the issue.
- If the amber (power) and green (output) lights are illuminated but the red (alignment) light is not, the photo eye is receiving a weak signal. In this state the photo eye may perform normally but for best operation check alignment and window/reflector cleanliness and address accordingly as stated above to maximize the signal received.

## Repair:

If the photo eye window and reflector require frequent cleaning, BHS offers a Photo Eye Blow Off Kit which positions an air nozzle directly above the photo eye window. During the blow off cycle as the battery is being unloaded, air is directed to the photo eye window to blow off any accumulated water. Contact BHS Tech Support at the number listed below or your local dealer for additional information.

**For more information call: 1.877.BHS.4YOU**  
**(Outside the U.S. +1 314 890 0953)**

