

# Asahi Pentax Spotmeter Troubleshooting

I have found that the Asahi Pentax spotmeter has a less-than-optimal battery holder system that can cause intermittent operation. This has nothing to do with the regulator battery adapter you have purchased, but more with the fundamental design of the battery holders. If you experience intermittent light level readings, try some of these solutions.

## **Problem: The high intensity light reading fluctuates wildly or changes when the spotmeter is jiggled.**

*Cause #1:* The mercury battery compartment is attached through a spring-loaded hinge system, to allow access to the low intensity 9-Volt battery. The spring is a small leaf spring attached to the side of the mercury battery well compartment, and performs two jobs. The first is to conduct the negative side of the 1.35-Volt cell down into the spotmeter case. The second is to keep the hinge under spring tension. The hinge carries the positive side of the 1.35 volt cell into the spotmeter case. If the spring is not under compression when the battery compartment is closed, then not only can the negative side be intermittent, but the positive side may be intermittent through the relatively loose fitting hinge. When the battery well is lowered, but not pressed down to latch, the well cover should rest at an angle of about 20 degrees, requiring some slight pressure to seat the cover before latching it in place. If the cover flops down without requiring any pressure, then your spring has been compressed too far. Carefully bend it outward from the inside of the battery well to increase the closing compression strength. You can also put a small piece of stiff foam rubber underneath the spring to help prevent it from compressing too far.

*Cause #2:* At the bottom of the mercury battery well is the spring tip used to touch the cell's negative tip. If this spring is pushed down too far, then the mercury cell (or adapter and lithium cell) might not make a stable connection to the tip. Try carefully bending the spring tip upwards so it makes good contact with the cell or adapter. You may also consider putting a very small piece of stiff foam rubber underneath the tip spring to increase its tension on the battery or adapter tip.

## **Problem: The low intensity readings fluctuate.**

*Cause:* The nine-Volt battery is used for the low intensity readings. There is no spring or clip action when contacting the nine-Volt battery, and a bit of extra space between the bottom of the mercury battery well and the bottom of the nine-Volt battery can cause the battery to jiggle against the contacts, resulting in fluctuating readings. Insert a small piece of soft foam rubber between the bottom of the nine-Volt battery and the bottom of the mercury battery well when you close the battery latch. This will keep the nine-Volt cell in positive contact with its connectors.