



# 9964-091 Dark Adapting Clip Kit

Product Bulletin and Instructions for use with the 6400-40 Leaf Chamber Fluorometer

## LI-6400/6400XT Portable Photosynthesis System

### General Description

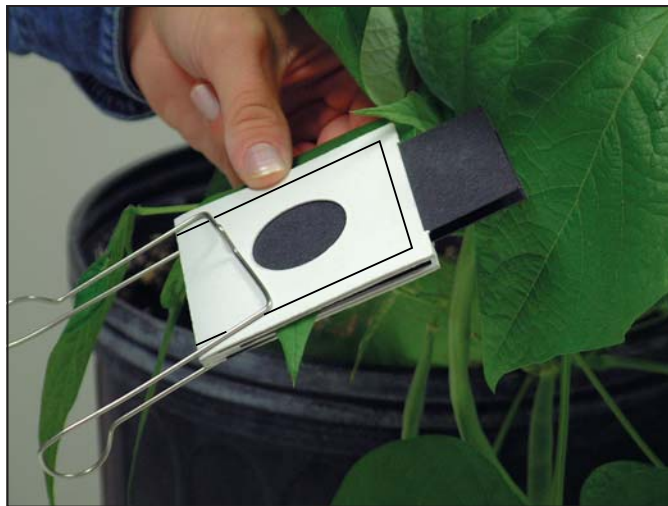
The Dark Adapting Clip is an accessory for the 6400-40 Leaf Chamber Fluorometer that allows you to dark-adapt leaf samples. Each Clip consists of two “shutters”, and a spring that secures the shutters over the leaf. The Dark Adapting Clip (with the shutters in the closed position) is attached to the leaf. After the leaf is fully dark-adapted, the Clip is secured in the Leaf Chamber Fluorometer, the shutters are opened, and the measurement is taken.

### General Usage Guidelines

- Most leaves require at least 20 minutes to fully dark-adapt; some may require a much longer time.
- The shutters are made of paper that has a water-resistant coating, but are *not* waterproof. If placing on wet leaves, gently blot them dry before using the shutters.
- The shutters are designed to be pulled out while clamped on the leaf, but it may be difficult to slide them closed again while on the leaf.

### Using the Dark Adapting Clip

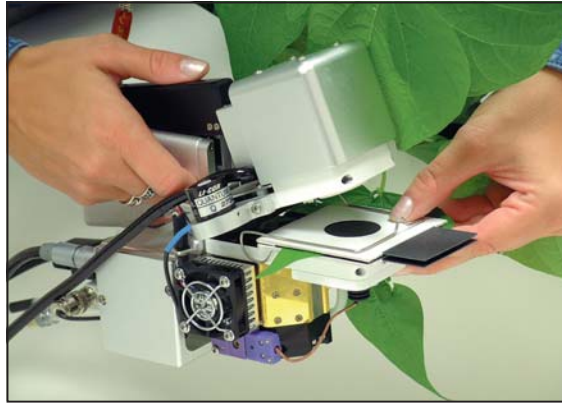
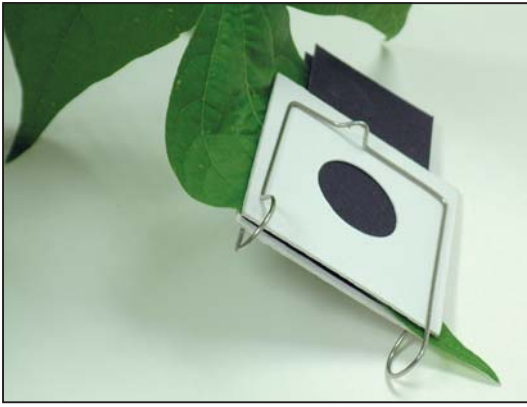
1. Place the leaf between two shutters; the black velour on the shutters faces toward the leaf.
2. Slide the metal spring over the two shutters. There is a guideline printed on the shutter for spring placement (Figure 1).



*Figure 1. Slide the metal spring over the shutters and align with the printed guide.*

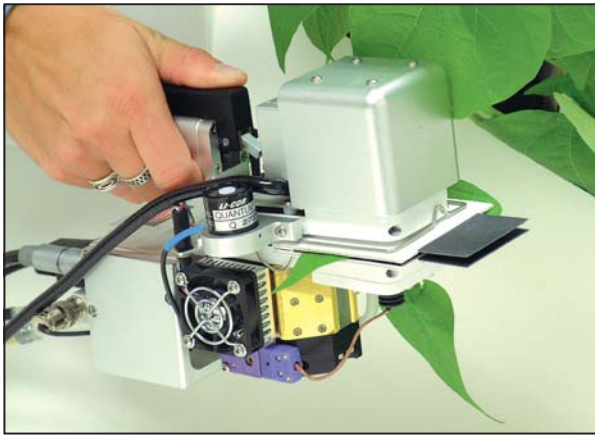
3. Allow time for the leaf to fully dark adapt. Open the fluorometer and place the clip between the upper and lower leaf chambers, as shown in Figure 2. When inserted correctly, the gaskets on the fluorometer will align inside the holes of the shutters.

(over)



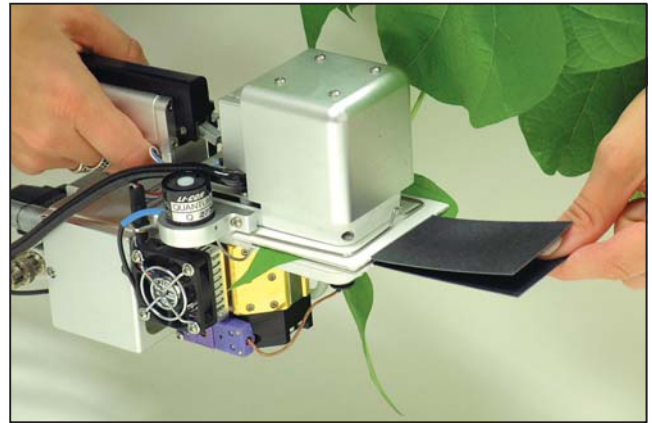
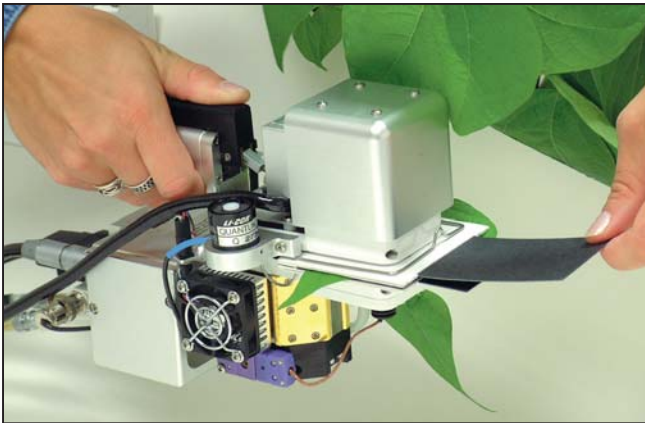
*Figure 2. Allow the leaf to dark-adapt, and then insert the clip between the upper and lower leaf chambers.*

4. Apply pressure to the sensor head handle (Figure 3) to hold the clip in place, but *do not lock the handle yet*. If you lock the sensor head handle, you will not be able to slide the shutters out.



*Figure 3. Apply pressure to the handle, but do not lock.*

5. Slide both shutters out to expose the leaf surfaces (Figure 4), and lock the sensor head handle. Make measurement(s).



*Figure 4. Slide the shutters out to make the measurement.*

## Ordering Information

**9964-091 Dark Adapting Clip Kit.** Kit includes 10 springs and 10 sets of shutters.  
**9964-092 Replacement Shutters.** Contains 10 sets of shutters.

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