

SPECTRAL EVOLUTION

Technical Note : User Replaceable Fiber Optic Cables

Delivering light from the sample to a spectrometer or spectroradiometer can require an external fiber optic cable. Some field instruments use a permanent fiber optic. This has two distinct disadvantages.

First, if you need to extend the fiber optic cable for your field research, you will need to use a fiber optic jumper cable. A jumper cable used to extend overall length can result in substantial loss of signal—perhaps as high as 50%.

Second, if you have an accident in the field and your fiber optic cable is damaged, you will have to send it back to the manufacturer for repair and replacement.

To accommodate different fiber optic needs and potential field replacement, Spectral Evolution has designed its field portable spectroradiometers, such as the PSR+, with user-replaceable fiber optic cables and connections.

Our specially designed interchangeable fiber optic design allows for simple and fast precision alignment of our fiber optics. In addition, our rugged full photodiode array optical design eliminates all moving components and internal fibers to increase data collection speed and deliver the highest resolution and signal to noise sensitivity of any available field spectroradiometer.

With our field interchangeable fiber optics, a user won't need to send an instrument back to replace a damaged fiber optic or to use a different length. The user can simply install a different fiber optic in minutes and resume field research and spectra collection.

Our approach to flexibility includes a range of direct attach and fiber mount options to meet different applications, measurement types, and target sizes. Direct attach lenses include 4, 8, or 14° lenses. Fiber mount lens options include 1, 2, 3, 4, 5, 8, and 10° lenses.



In addition to user-replaceable fiber optic cables, Spectral Evolution provides the ultimate in versatility for changing lenses to match application use and target size. Whether the lenses are direct attach or fiber mount, the user can quickly and easily unscrew a lens and swap in a different one.



Spectral Evolution spectroradiometers like the PSR+ are designed specifically for field use in remote sensing and geological remote sensing applications. Interchangeable fiber optic cables and a range of lens options are part of the innovative design.



Fiber mount lenses can be used with our unique pistol for convenience and comfort in field research. The ergonomic design makes it ideal for field scans.

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