The SmartFlux® 2 System

The SmartFlux® 2 System is the on-site processing and GPS synchronization component of a LI-COR eddy covariance system. It provides fully processed flux results in real time using raw data from a LI-COR gas analyzer and a variety of sonic anemometer and data logger models. The SmartFlux 2 System also provides digital data acquisition from the sonic anemometer.

At the heart of the SmartFlux 2 System is EddyPro® Software, the eddy covariance data processing software used by more than 3000 scientists worldwide. Running on a microcomputer inside the SmartFlux 2 module, EddyPro Software seamlessly processes raw data, biometeorological (biomet) data, and metadata.

SmartFlux 2 provides:

- Fully processed eddy covariance fluxes—sensible heat, latent heat, evapotranspiration, CO₂, H₂O, and CH₄—along with raw data, biomet data, metadata, and diagnostics (including sonic anemometer diagnostics) logged to a USB drive
- Advanced, site-specific raw data processing (*in situ* spectral correction, planar fit, etc.)
- Precise time alignment of sonic anemometer and gas analyzer data streams as well as GPS/PTP to prevent clock drift and keep all instrument clocks in sync
- Easy access to the USB drive with mounting at the base of the tower
- Pass-through power to the sonic anemometer
- Digital data acquisition from the sonic anemometer
System Integration

The SmartFlux 2 System is included with the purchase of an LI-7500RS or LI-7200RS gas analyzer, but it can also be purchased as an upgrade to an existing eddy covariance flux system. The SmartFlux 2 System integrates with multiple sonic anemometers and processes biomet data from a variety of loggers. Mounting options include the LI-COR Biomet Enclosure, a LI-COR Systems Enclosure, or another similar enclosure.

Monitor with FluxSuite™ Software

With FluxSuite™ Software, you can view real-time final fluxes (processed by SmartFlux 2) on your smartphone, tablet, or computer. FluxSuite™ Software is a secure web service that shows final flux results, status information, and e-mail alerts from your eddy covariance site(s). This allows you to quickly recognize and respond to any system performance issues.