



6400-88 Expanded Temperature Control Kit

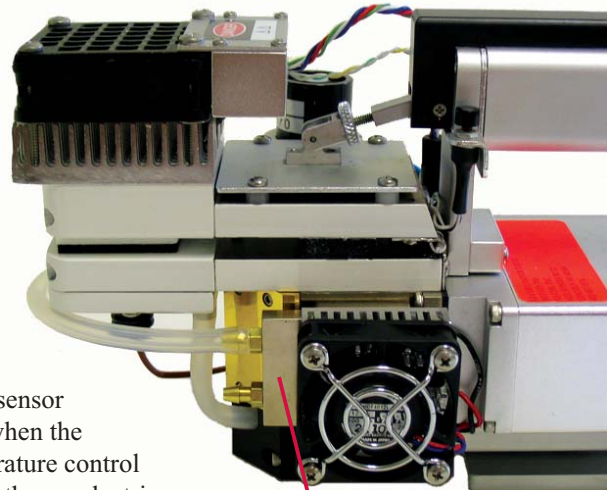


LI-6400 Portable Photosynthesis System

The 6400-88 Expanded Temperature Control Kit is a new accessory for the LI-6400 Portable Photosynthesis System that is used to increase the range of temperature control of the LI-6400 sensor head block.

- Will not affect normal operation, so can be left in place after installation
- Expands the temperature control range of the chamber block
- Easy installation

The nominal temperature control range of the LI-6400 sensor head block is ± 6 °C from the ambient air temperature when the sensor head is exposed to full sun. The range of temperature control can be further increased if the heat dissipation from the thermoelectric (peltier) coolers is assisted by water jackets inserted between the coolers and the finned heatsinks.



Water Jacket

The 6400-88 Expanded Temperature Control Kit contains two water jackets through which water is circulated to aid in heat dispersion from the peltier coolers. With the kit installed, and no water flowing through the water jackets, the LI-6400 has the same temperature response as the normal chamber block (± 6 °C from ambient). At 23 °C ambient temperature, with water at 0 °C circulating through the water jackets, the chamber block temperature of the LI-6400 sensor head can be reduced to less than 9 °C. The Expanded Temperature Control Kit leaves the peltier coolers as the primary control mechanism for the LI-6400 sensor head. There are no programming changes required to use the kit. The water jackets' sole function is to remove heat dissipated by the peltier coolers more efficiently than the fans alone, providing a wider temperature control range without changing the normal operation of the LI-6400. Once installed, the water jackets can be left on the sensor head permanently; there is no need to remove the water jackets once they are installed.

