



LCpro-SD



The Intelligent Portable Photosynthesis System



Weighing only 4.5kg

Fully programmable, complete environmental control as standard

Miniaturised analyser in chamber head

Real time graphic display

Advanced data capture and output capabilities

Widest range of plant chambers for experimental applications

Sophisticated research within your budget

The latest portable photosynthesis system from ADC Bioscientific Ltd.

LCpro-SD is used worldwide for a great diversity of monitoring and research projects spanning; plant physiology, agronomy, genomics and soil respiration. A lightweight console with either broad, narrow or conifer configuration, interchangeable chamber additions and user friendly control of environmental variables (CO_2 , PAR, temperature, H_2O).



Technical Specification

Measurement range and technique:	
CO ₂ :	0-3000ppm, 1ppm resolution Infrared gas analysis; differential open system, auto zero, automatic atmospheric pressure and temperature compensation
H ₂ O:	0-75mbar, 0.1mbar resolution Two laser-trimmed, fast response water vapour sensors
PAR:	0-3000μmols m ⁻² sec ⁻¹ Silicon photocell
Chamber Temperature:	-5°C to 50°C Precision thermistor +/- 0.2°C accuracy
Direct Leaf Temperature:	-5°C to 50°C Self positioning microchip thermistor/Energy balance/manually positioned thermistor
Flow rate to leaf chamber:	100 to 500ml min ⁻¹
Automatic Environmental Control:	
Programming:	Internal LC <i>pro-SD</i> menu drive software. Automatic and independent control of environmental conditions within the leaf chamber. For automatic response curves, sequential control levels and dwell times may be set.
CO ₂ :	Up to 2000ppm CO ₂ , by integral elevated CO ₂ supply system
H ₂ O:	Above and below ambient (dependent on ambient conditions), by on-board self-indicating conditioning chemicals
Temperature:	Micro-peltier element. Broad chamber typically +/- 14°C from ambient. Other chambers with temperature control better than +/- 10°C from ambient.
PAR:	Up to 2000μmols m ⁻² sec ⁻¹ , (conifer up to 1500μmols m ⁻² sec ⁻¹) by high efficiency, low heat output, mixed red-blue LED array unit.
Warm up time:	5 minutes @ 20°C
Display:	240 x 64 dot matrix super twist graphic LCD
Recorded Data:	Removable SD cards typically store 16 million sets of data on a 1GB card.
Battery:	7.0Ah 12V lead acid battery Up to 16 hours between charges
Battery Charger:	Universal input voltage intelligent control
Electrical Outputs:	Mini-B
USB connection:	Function as a mass storage device
RS232 output:	9 Pin "D" type User-selectable rates of up to 230400 baud for computer or printer connection
Operating temperature range:	5°C to 45°C
Dimensions H X W X D:	
Console:	230 x 110 x 170mm
Plant Leaf Chamber:	300 x 80 x 75mm
Weight:	
Console:	4.5kg
Plant Leaf Chamber:	0.8kg