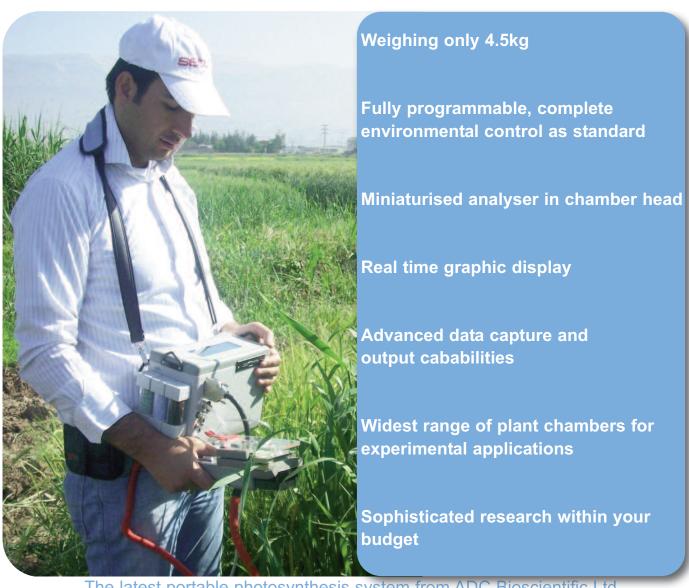


LCpro-SD



The Intelligent Portable Photosynthesis System



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 (CO₂, PAR, temperature, H₂O).



Technical Specification

Measurement range and technique:

0-3000ppm, 1ppm resolution

Infrared gas analysis; differential open system, auto zero, automatic atmospheric pressure and temperature compensation

H₂O: 0-75mbar, 0.1mbar resolution

Two laser-trimmed, fast response water

vapour sensors

0-3000µmols m⁻² sec⁻¹ Silicon photocell PAR:

Chamber Temperature:

-5°C to 50°C Precision thermistor +/- 0.2°C accuracy

-5°C to 50°C Self positioning microchip Direct Leaf Temperature:

thermistor/Energy balance/manually positioned thermistor

Flow rate to leaf chamber: 100 to 500ml min⁻¹

Automatic Environmental Control:

Programming: Internal LC*pro-SD* menu drive software. Automatic and independent control of

environmental conditions within the leaf chamber. For automatic response curves, sequential control levels and dwell times

Up to 2000ppm ${\rm CO_2}$, by integral elevated ${\rm CO_2}$ supply system

H₂O: Above and below ambient (dependent on

ambient conditions), by on-board selfindicating conditioning chemicals

Temperature:

Micro-peltier element. Broad chamber typically +/- 14°C from ambient. Other chambers with temperature control better

than +/- 10°C from ambient

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

Warm up time: 5 minutes @ 20°C

> Display: 240 x 64 dot matrix super twist graphic

Removable SD cards typically store 16 million sets of data on a 1GB card. Recorded Data:

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