AM 300

Portable leaf area meter

Non-destructive measurements of whole leaf area and areas of leaf disease

- **Unique image display**
- **High resolution**
- **Battery portable**
- **Non-destructive**
- **Fast and simple operation**
- **Integral data and image storage**
- **Download image to a PC**

ADC BioScientific is established as one of the world's leading developers and manufacturers of leaf area meters that are easy to use, accurate and reliable in harsh field conditions. We are now pleased to introduce our third generation of Portable Leaf Area Meters; the AM300.

The AM300 utilises the latest in scanner and electronics technology to set new standards in resolution, versatility and extended portability.

Truly field portable

The ADC AM300 Portable Leaf Area Meter is a compact, user friendly, field portable instrument for the accurate non-destructive measurement of leaf area and associated parameters.

The AM300 consists of a high resolution scanner and scanboard with integral data and image storage. A multi-position carrying handle is provided for ease of use and increased portability. Measurements of leaves can be made on the scanboard plate or on an independent plain surface.

The AM300 features the latest in high speed scanner sensor technology, enabling measurements to be made faster and easier than ever. There is no need to precisely position leaves on the scan surface.

Utilising the latest in low power consumption electronics means that over 3,000 measurements can be made between recharging of the batteries.

Image download to a PC

The large scrolling display screen offers a real time image display of the scanned leaf together with measured leaf area parameters. By viewing this image, the user can be assured that an accurate and complete measurement of the leaf has been made. Measurements may be presented in mm, cm or inches.

The display orientation facility allows the AM300 to be used in either the vertical or horizontal plane. Operation is by user friendly, menu driven software.

The AM300 is the first portable area meter that displays, stores and downloads the leaf image to a PC. Images are easily downloaded, in either bmp or tif formats, to commercially available image analysis programs.

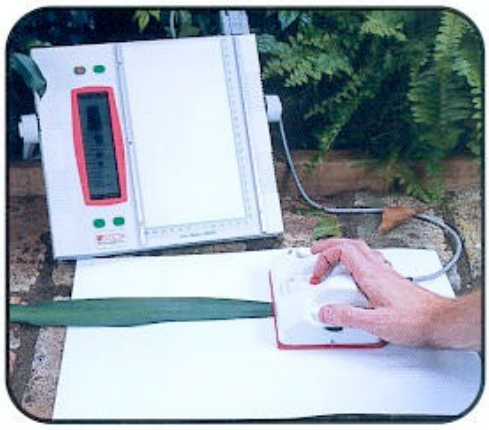
Measurement of diseased leaf area

The highly versatile AM300 has been especially developed to enable diseased leaf area determinations to be made on intact plants in the field. Once again the image display provides the user with assurance that only the diseased tissue is being measured.

Long leaves are easily measured, non-destructively, on an independent scan surface. The image screen will scroll to display and save the whole of the leaf area.

Large leaves, which are wider than the width of the scanner, may also be measured, non-destructively, on an independent scan surface. The use of a scan board twice the width of the scanner will allow measurements to be made and then automatically accumulated to present a total leaf area with the leaf still intact.

The enhanced resolution (0.065mm^2) of the AM300 allows even the smallest leaves, including arabidopsis, to be accurately measured. The AM300 can also be used for root and rhizomorph area determinations.



Integral data storage

Measurements, together with leaf images, may be automatically recorded on the large internal memory, capable of storing over 2,000 sets of data in a number of data files. Time and date of measurements are also automatically stored by the AM300.

The AM300 will measure area, accumulated area, average area, maximum width, maximum length and perimeter.

Internal battery back-up gives increased security to stored data.

Measurements and scanned images can be reviewed on the display, transferred to a printer or downloaded to a personal computer. The AM300 is supplied complete with an interface cable.

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Technical Specification

Measured parameters:	Leaf area, length, width, perimeter, average area and accumulated area
Units of measurement:	User selectable: mm, cm, inches
Scanner:	Contact image sensor array with integral LED lamp
Maximum measurement width:	100mm
Precision / repeatability:	1% Linear, +/- 2% Area, +/- 5% Perimeter
Resolution:	0.065mm^2
Memory:	256K bytes RAM, 2,000 data sets
Display:	64 x 240 pixel graphic LCD
Battery:	Nickel metal hydride 1.2Ah
Battery charger:	Built in fast charger; can use supplied mains adapter or 12V car battery. Indicators for charge status.
Computer interface:	RS232C with baud rates from 300 to 57600, xon/xoff or CTS handshake.
Printer interface:	Centronics™ parallel or RS232
Dimensions:	275mm x 250mm x 30mm
Weight:	1.8Kg