



# AM350

## Portable Leaf Area Meter

The world's premier portable leaf area meter now with enhanced features and specifications

- Real time image display
- High resolution
- Battery portable
- Non-destructive
- Fast and simple operation
- Integral data and image storage
- USB download of image and data



### Measured parameters

Area  
Accumulated area  
Mean area  
Diseased leaf area  
Length  
Width  
Perimeter  
Ratio  
Shape factor

Including the measurement of wide leaves and long leaves

### ADC: leaders in field leaf area analysis

ADC BioScientific is established as a world leader in the development and manufacture of leaf area meters that are easy to use, accurate and reliable even in harsh field conditions. We are now delighted to introduce our fourth generation of portable leaf area meters; the AM350.

The AM350 utilises the latest in scanner and data handling technology to set new standards in resolution, versatility and extended portability.



### Truly field portable

The ADC AM350 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 AM350 consists of a high resolution scanner and scanboard with integral data and image storage. A multi positional 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 latest in high speed scanner sensor technology enables measurements to be made faster and easier than ever, whilst utilising the full width of the scanner. There is no need to precisely position leaves on the scan surface.

Utilising "state of the art" low power consumption components means that over 3,000 measurements can be made between recharging of the batteries.

## Real time image display

The large scrolling display screen offers a real time image of the scanned leaf; together with the 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 or cm.

The AM350 is the only 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.

The display orientation facility allows the AM350 to be used in either the vertical or horizontal plane. Operation is by user-friendly, menu driven software.

## Measurement of diseased leaf area and large leaves

The highly versatile AM350 has been specially developed to enable diseased leaf area determinations to be made on intact plants in the field. The user can set the AM350 to only measure diseased tissue or areas of discolouration on a leaf. Once again the image display provides the user with assurance that only the diseased tissue is being measured.

Large leaves are easily measured, non-destructively, on an independent scan surface. For long leaves the image screen will scroll to display and save the whole of the leaf area. A scan board twice the width of the scanner can be used for measuring leaves wider than the width of the scanner. Two measurements are made which are automatically accumulated to present a total leaf area with the leaf still intact.

The high resolution (0.065mm<sup>2</sup>) AM350 will accurately measure even the smallest leaves, including Arabidopsis. The AM350 can also be used for root and rhizomorph area determinations.

## Integral data/image storage and USB download

The AM350 measures an extended range of parameters including: area, accumulated area, mean area, maximum width, maximum length, perimeter, ratio and shape factor.

Measurement data, 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 AM350.

The scanned images and the measurement data can be reviewed on the display and downloaded via USB to a PC. The AM350 is supplied complete with a USB cable, a padded carrying bag and a 2 year warranty.



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### Technical Specification

|                                     |  |
|-------------------------------------|--|
| <b>Measured parameters:</b>         | Leaf area, maximum length, maximum width, perimeter, mean area, accumulated area, ratio and shape factor |
| <b>Units of measurement:</b>        | User selectable: mm or cm  |
| <b>Scanner:</b>                     | Contact image sensor array with integral LED lamp  |
| <b>Scanning speed:</b>              | Up to 20mm/sec   |
| <b>Maximum measurement width:</b>   | 103mm  |
| <b>Precision/repeatability:</b>     | +/-1% Linear, +/- 2% Area, +/- 5% Perimeter  |
| <b>Resolution:</b>                  | 0.065mm <sup>2</sup>   |
| <b>Memory:</b>                      | 256K bytes RAM (Approx. 2,000 data sets)   |
| <b>Display:</b>                     | 64 x 240 pixel graphic LCD   |
| <b>Battery:</b>                     | Nickel metal hydride 1.2Ah Internal battery back up  |
| <b>Computer interface:</b>          | Mini-B USB connection and RS232  |
| <b>Battery charger:</b>             | Built in fast charger; can use supplied mains adapter or 12V car battery. Indicators for charge status   |
| <b>Scans between charges:</b>       | Typically 3,000 from fully charged battery   |
| <b>Operating temperature range:</b> | 0°C - 45°C   |
| <b>Dimensions:</b>                  | 275mm x 250mm x 30mm   |
| <b>Weight:</b>                      | 1.8kg  |