

ProtoCOL 2 Accessories

To extend the capability of ProtoCOL 2 to work with larger samples and fluorescent samples, a number of bolt-on accessories are available.

Alternatively each accessory can be connected to a separate laptop or desktop PC and controlled using a stand-alone version of ProtoCOL 2 software.

ProcScan

ProtoCOL 2 can easily accommodate plates of up to 100 x 100mm. When larger plates are used, simply add the ProcScan scanner which can work with plates of up to 300 x 300mm. Images of these plates are scanned directly into the ProtoCOL 2.

Large format plates such as SRD with large grid arrays can easily be scanned and imaged with ProcScan. Images are then analysed using the standard ProtoCOL 2 software.

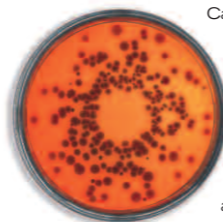


Scan area	Up to 310 x 437mm
Scanner	Colour
Resolution	Up to 2400 dpi
Speed	30 x 30cm in less than 1 minute
Connectivity	USB 2.0

ProcMacro

ProtoCOL 2 can work with circular plates up to 100mm diameter. For plates of up to 150mm, the ProcMacro is used in conjunction with the ProtoCOL 2 to capture images.

ProcMacro uses a high resolution external colour camera. The assembly has both transmitted light and overhead illumination so that any type of plate can be viewed and an image captured using optimum lighting conditions.

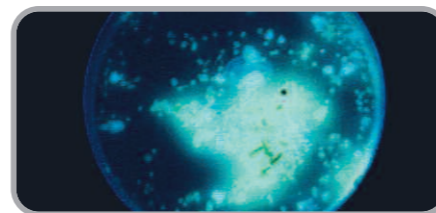


Camera exposure and image capture is controlled by the ProtoCOL 2 software. Once images are captured the ProtoCOL 2 software can then perform the analysis/count.

ProcUV

Automated fluorescent colony measuring system

- Accurately counts colonies on plates illuminated by UV or white light
- Confirms colony counts of bacteria that fluoresce
- Counts fluorescent E.coli, Pseudomonas sp or GFP expressing colonies
- Safety cut off door switch prevents accidental UV light exposure
- Easy to connect camera to dedicated PC, or run as external camera from ProtoCOL 2
- Gold standard ProtoCOL 2 colony counting software
- Accurate counts of any fluorescing colonies
- Rapid confirmation of pathogenic or recombinant bacteria saves time and expense of performing biochemical tests



Features	Benefits
Fully automated	Saves time counting colonies illuminated by UV or white light
Colour camera	Accurate colour differentiation
One button image capture	Simple to set up with little training
Universal darkroom	Flexibility to accommodate large or small plates
Automatic door lock	Safely prevents accidental UV exposure
Filter drawer with optional interchangeable filters	Easy to upgrade for different fluorescent applications
Simple to connect to PC via FireWire	Rapid, secure image/data transfer

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Synbiosis Product Guide

Colony counting and inhibition zone measurement made simple

SYNBIOSIS
A DIVISION OF THE SYNOPTICS GROUP

ProtoCOL 2

Multi-application colony counting and inhibition zone measurement system



ProtoCOL 2 is available in two formats; **Count** for automatic colony counting and **Zone** for automatic zone measuring.

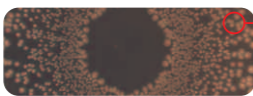
- Ergonomic design for comfortable use and ease of access
- Sensitive touch screen for rapid input and intuitive control
- Unique lighting (patent pending) configuration for exceptional illumination of all sample types
- Fully automatic reading for time savings of over 80% when compared to any manual method
- Highly reproducible and consistent results
- Extensive results and data output facilities
- Meets the most demanding requirements for 21 CFR Part 11, GLP and QA
- Full audit trail and user permissions log

ProtoCOL 2 Count applications

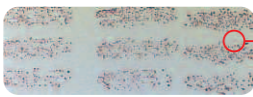
ProtoCOL 2 Count is the perfect system for multiple applications, including food, water, dairy, beverages, hygiene, clinical microbiology, environmental monitoring, toxicology, pharmaceuticals and fungal contamination.



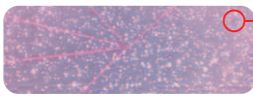
Colony counting
Automatically counts pour plates with single or multi-coloured colonies. Can also discriminate based on size and shape



Spiral plates
ProtoCOL 2 can count spiral plates by counting colony sectors or the whole plate



OPKA (Opsonophagocytic - killing assay)
OPKA is a useful test for measuring antibody function and is a good surrogate assay for immune protection



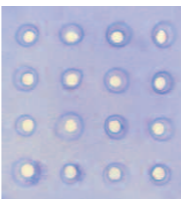
Ames assay
Reverse mutation assay is used to test whether samples are mutagenic and are therefore more likely to be carcinogenic



Multi-sector air plates
Multi-sector plates are often used for environmental monitoring, specifically air sampling

ProtoCOL 2 Zone applications

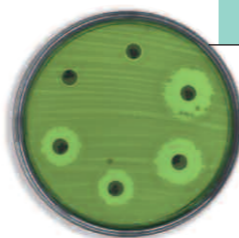
ProtoCOL 2 Zone is ideally suited to the demanding applications of zone measuring. Every antibiotic manufacturer is required to demonstrate that the potency of their finished products meets the required specifications. One of the most common but time consuming methods is based on inhibition zones. Manual measurements are often unreproducible and cannot meet the majority of published standards for accuracy and repeatability.



ProtoCOL 2 Zone is ideal for:

Inhibition zones - for the automatic sizing of zones surrounding disks or multiport inoculations. The size of each zone is accurately measured and results calculated. The SRD assay is a simple yet powerful technique that is used in many laboratories. ProtoCOL 2 Zone can measure the reaction zones of SRD plates in a fraction of the time taken by manual methods.

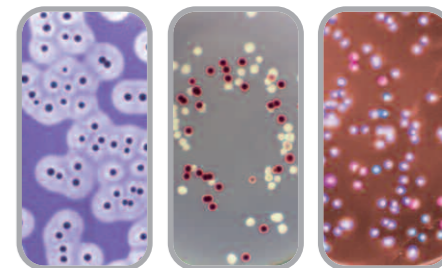
Antibiotic susceptibility testing (AST) - AST is used to determine whether a bacterium is sensitive or resistant to a specific antibiotic. ProtoCOL 2 Zone can be configured to measure these zones quickly and accurately whatever disk format is used. Results can be exported in Excel format or automatically uploaded to a calculations module for statistical analysis.



Features	Benefits
Built-in processor, hard disk and DVD	No need to use a separate PC - saving both cost and space
High resolution camera	Can read colonies as small as 43 microns
Unique LED lighting system (patent pending)	The best high contrast lighting - better than fluorescence or halogen types - for reflection free images and improved contrast leading to better detection
Touch screen monitor	Enables rapid data input at the touch of a fingertip
Counts coloured colonies	Many ISO standard methods are now using chromogenic media
Sliding doors	Eliminates ambient light
New software and algorithms integrated SQL database	Enhanced results and ease of use
	Data access and sharing by multiple users simultaneously Greater data security and easier back-up Customisable reports and queries Easy LIMS connectivity

aCOLyte

Affordable colony counter



- Cost-effective, entry level, automated colony counter
- Counts colonies on pour, spread or spiral plates
- Saves time by storing individual settings for different plate batches
- Exports data and images to Excel
- Saves data in specific batches
- Creates image libraries
- Ensures review of colony counts
- Allows manual editing of counted plates
- Flexible Click 'n' Count or Super Count counting options
- Compatible with Petrifilm via specific Petrifilm holder and filter
- Provides plate section counting option

Features	Benefits
Automates colony counting	Saves time and improves accuracy
Icon based user interface	Simple to set up with little training
Records date and time	Full GLP compliance
Automatic data transfer to Excel	Improves accuracy by eliminating re-keying errors
Professional report generation	Easy to prepare documents