

foster+freeman

# VSC<sup>®</sup> 400

Video Spectral Comparator

Compact  
High-Resolution  
Document Imaging



**EXAMINE**

All Questioned Documents

**DETECT**

Alterations & Counterfeits

**REVEAL**

Covert Security Features

foster+freeman

VSC<sup>®</sup>

# 400

Compact  
High-Resolution  
Document Imaging

Since the introduction of the original VSC system in 1979, Foster + Freeman have been recognised as world leaders in the design and manufacture of high specification systems for the forensic examination of questioned documents.

The current range of VSC systems includes the VSC6000/HS, the compact but powerful VSC400 and the modular range of VSC40/HD instruments.

The range is supplemented by the VSC-QC1, a fast 'touch screen' system for the verification of passports and ID cards.

## A mid-range system for checking the integrity of Passports, Visas and Identity cards

The VSC 400 is a colour and infrared digital imaging system designed for the verification of passports, visas and ID cards and for the general examination of suspect or questioned documents.

Multi-spectral examinations of documents are made under UV, visible and near IR illumination with live on-screen images provided by a scientific grade high resolution imaging system with motorized zoom and high magnification.

Operated via a desktop PC or laptop computer, the VSC400 provides document examiners with extensive facilities for examining security features used to protect travel documents such as passports and visas, banknotes, certificates of authenticity and many other security documents.

Use the VSC400 to examine...

UV activated fluorescent features under short, medium and long wave UV

Tampering and photo-substitution under high magnification

Anti-Stokes security features using intense IR lighting

Retro-reflective laminates with coaxial lighting

Embossed stamps and indentations under oblique lighting

Holograms and Kinegrams using sequential multi-angled lighting

Suspected alterations by displaying variations in the infrared absorption and fluorescent properties of inks

Find out more at [fosterfreeman.com](http://fosterfreeman.com)



Effective on all types of passports and ID cards, VSC technology is in use by immigration authorities, government agencies and forensic laboratories worldwide

## Passports and ID Cards

Examine and verify all forms of national passport and ID cards using multi-spectral illumination for the visualisation of latent security features, embedded data decoders to read bio-metric e-passport data, MRZ data and Invisible Personal Information (IPI).

By installing the optional Security Documents reference database, live images can be checked against a regularly updated worldwide collection of over 1,100 passports.

## Banknotes

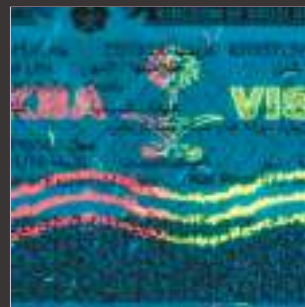
Modern banknotes are produced with advanced document security features as well as basic measures such as watermarks.

The VSC400 is suitable for the examination of all covert features including anti-Stokes inks and planchettes.

By installing the optional Banknotes reference database, questioned banknotes can be checked against a regularly updated worldwide collection of over 4,500 banknotes, a sure way of detecting counterfeits.

## Breeder Documents

The use of inks that are identical in colour but chemically different are often revealed by differences in their infrared absorption or fluorescent characteristics. Such anomalies can be revealed using the VSC400s range of light sources.



### Multi-spectral Illumination

A wide range of illumination for the examination of all security & travel documents from short wave UV to infrared including incident, oblique and transmitted light plus high intensity lamps for generating weakly fluorescent features.



### Automated Examinations

Select up to 186 illumination and filter settings to be automatically processed by the VSC with results displayed as thumbnails and stored with the examination settings.



### High Resolution Imaging

The VSC400 is fitted with a 3.3 million pixel CCD firewire colour camera that provides exceptional image quality. For applications that require a greater image resolution, the system can be upgraded to a 5MP camera.



### Embedded Data Decoders

The VSC400 automatically detects and decodes MRZ data and 1D & 2D barcodes. An optional software module decodes Invisible Personal Information (IPI) embedded within an image.



### Sequential Imaging

OVD images including holograms and Kinegrams, common on banknotes and security documents, can be viewed as a sequential image using programmed multi-angled lighting. The sequence can be recorded and stored as a video file.



### Up to x116 Magnification

On-screen magnification of x1.6 to x58 (with optional 2x digital zoom to x116) on the standard 24" monitor affords the examiner a detailed view of a document for the detection of tampering and photo-substitution.



# Optional Accessories

## Document and banknote databases

Two reference databases showing the security features in passports, ID cards, and banknotes.

### Security Documents database

Information and images of over 1,100 passports, ID cards and Driving Licences from 197 countries

Archive database VSC/DB/ARCHIVE  
Annual subscription VSC/DB/KDATA

### Banknotes database

Information and images of over 4,500 banknotes from 184 countries

Archive database VSC/DB/ARCHIVE/C  
Annual subscription VSC/DB/KDATA/C



## Microscope Options

A range of high magnification imaging systems providing input into the VSC400 via a high resolution video camera. *For full details & specifications see 'VSC Microscopes' datasheet*

### High resolution video camera VSC400/CAMFW

3.3MP CCD camera mounts on any suitable microscope to provide an alternative image input.



### DVM Microscope V6/DVM

The Foster + Freeman Digital Video Microscope with UV and white light LEDs can be used as a standalone system providing up to x2290 magnification for the examination of taggants.



### Leica Microscopes

M205C VSC/LEICA/M205C/SYS

M80 VSC/LEICA/M80/SYS

S6 D VSC/LEICA/S6D/SYS



### Nikon Microscopes

SMZ25 VSC/NIKON/SMZ25/SYS

SMZ18 VSC/NIKON/SMZ18/SYS

SMZ745 VSC/NIKON/745T/SYS



## Examination Accessories

### Quartz Glass Holding Plate

V6/QPLATE

200 X 200mm quartz glass plate to hold documents flat during examination.

### Magnetic Security Feature Imager

V6/MSFI

Magnetic ink profiler with USB connection.

### Document Support Weight

VSC400/LPW

Non-marking document weights

### Polarised Light Viewer

VSC/POLARISAFE

UV polarised light viewer for VSC400

### X-Y Translation stage

V40/400/TRANS

Manually adjustable XY stage for accurate positioning of documents.

### Uninterruptable Power Supply

V4P/BAT

An emergency power supply to prevent data loss should AC power fail.

### Invisible Information Decoders

VSC400/IPI

Software to display embedded IPI and ICI on passports and ID cards. Uses Scrambled Indicia Technology supplied under licence from Graphic Security System Corp.

### E-Passport and ID Card Readers

Two stand-alone readers that can operate independently of the VSC.

#### Reader Option 1

VSC/EREADER1/A

- OCR 601 OCR MRZ, RFID and CARD reader
- Standalone or VSC integrated

#### Reader Option 2

VSC/EREADER2

- 24-bit multi-document reading and imaging
- Multiple wavelength illumination
- OCR data capture software

#### Reader Option 3

VSC/EREADER3

- RFID and CARD reader with CCID
- USB connection to PC



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