

QDX-4300

Document Control

Border Guards
Illegal Immigration

Airlines
Inadmissible
passengers

Banks
Counterfeit currency
& securities

Social Security
Identification
documents

Document Examiners
Forensic
investigation

Police
Criminal
investigation

Insurance
Fraudulent claims



QDX-4300

Document



▲ The normally invisible retroreflective images in security laminates are easily seen with the Coaxial light source.

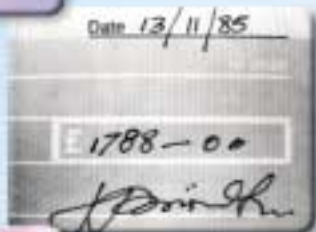


▲ ▼ Infrared fluorescence highlights an alteration to a passport

▲ Ultraviolet light can verify hidden security safeguards in currency.



▲ Chemical erasure revealed by Ultraviolet light



▲ ▼ An addition to this cheque revealed by infrared examination.

▲ Photographic substitution is readily revealed by the Oblique light



◀ Ultraviolet light can reveal hidden security safeguards such as the paper fibres and printed designs.

- *High resolution colour camera*
- *Simple lamp controls*
- *4x Zoom*
- *Six light sources*
- *Auto iris*
- *Choice of colour monitor*
- *Cost effective*



The new colour QDX-4300 fraud detector is an effective and efficient tool for detecting fraud or criminal activity is suspected. The QDX-4300 is very user friendly and features a high resolution colour monitor for the easy investigation of documents. With six integral light sources, security safeguards may be easily detected.

When used in front line situations such as in airports or on board ships, the QDX-4300 can stop inadmissible passengers who may be using fraudulent travel documents. The QDX-4300 can be extensively deployed to cover many entry and exit points.

Counterfeit identity documents of all types are often used to obtain credit facilities and other transactions. With the QDX-4300 such documents may be easily detected. The QDX-4300 requires minimum training for the user.

The QDX-4300 is a useful workhorse for private Questioned Document Investigators in producing evidence for criminal and civil legal proceedings.

QDX-4300 Specification

Light Sources

Operation: The QDX-4300 has six light sources controlled by a rotary switch and a push button switch. After a light source is selected with the rotary switch the light may then be switched on and off using the push button switch. Turning the rotary switch to select another light source automatically switches off the current light if on.

Reflectance: Two 5-watt quartz halogen lamps mounted behind diffusing windows give even illumination over the whole of the working area. An additional bank of three white LED lamps provide excellent colour balance. Together these two lamps are used with the camera filters for the examination of documents where additions and alterations are suspected.

Fluorescence: A single 75 watt dichroic reflector lamps for infrared fluorescence examination. Light from this lamp is filtered by heat and IR cut filters to block any infrared emission. Like the reflectance lamps this light source is used to look for additions and alterations to documents.

Ultraviolet: A single compact 9 watt tube producing intense 365nm (long wave) light for the examination of invisible fluorescent safeguards, paper quality and chemical erasures.

Transmission: A 5-watt quartz halogen lamp mounted behind a diffusing screen below the working area for the examination of transmissive security features such as watermarks, security strips and perfect resolution printing.

Oblique: A 20-watt dichroic reflector lamp mounted at the rear of the working area to produce a parallel beam for the examination of dry embossing stamps, indented writing and mechanical erasures.

Coaxial: A 5-watt dichroic reflector lamp mounted to produce a beam of light which is coaxial with the optical path of the camera. In this way Retroreflective security feature such as the 3M Confirm TM laminate may be verified. Damage and attempts to remove this laminate are readily seen with this light source.

Imaging System

Camera A high quality colour and infrared camera mounted behind a mechanical filter wheel. 752(H) x 582(V) - 437,664 pixels PAL (NTSC available by special order). Electronic iris, wavelength range 400nm to 1100nm, digital 4x zoom. 1-volt p-p output via a BNC rear panel connector.

Monitor: A 230mm (9 inch) high resolution colour monitor. Screen parameters controlled from a simple on screen menu. Dual video in and out sockets on the rear panel for connection to the QDX-4300 or to other video peripherals.

Filters: Five long pass and one band pass filter mounted on a manually operated filter wheel.

Filter 1 VISible:	400-700nm band pass
Filter 2 BLUE:	420nm long pass
Filter 3 YELLOW:	540nm long pass
Filter 4 RED:	600nm long pass
Filter 5 IR1:	720nm long pass
Filter 6 IR2:	790nm long pass

Lens: A fixed focal length (16mm) F1.4 with a front panel focus control. Image size 43(H) x 35(V). Focus achievable up to 70mm from the base of the working area.

Zoom: A 4x digital zoom for further magnification of the document under examination. Controlled by two front panel push button switches.

Screen: A black acrylic screen covers the front of the working area to exclude ambient light when examining weak infrared fluorescent inks. The screen may be easily removed for more rapid document examination.

Controls & Connectors

Front Panel: Focus, Lamp Select, Lamp on/off, Zoom +, Zoom -, Filter Select, Power on/off.

Rear Panel: Video out: 75 ohm BNC socket
DC in: two pin terminal connector (red +ve, black -ve)
AC in: IEC standard panel mounted plug.

Power: 110/220/230/240 volts ac 50/60Hz (factory set) or 12 volts dc at 7 amps ,(TFT LCD monitor option required for DC operation). Fuseholder rear panel mounted.

Mechanical: Footprint: 310mm (depth) x 410mm (width)
Height: 300mm (excluding monitor)
Weight: 12Kg (excluding monitor)

Options

Two alternative monitors are offered with the QDX-4300 system for different applications:

1. A 260mm (10.4 inch) TFT LCD monitor for use where space is limited or when dc power only is available.
2. A 355mm (14 inch) monitor for examiners who require a larger screen than the standard monitor.

Monochrome

A lower cost monochrome (black and white) system is offered for budget users. This system has most of the features of the colour system, but has a monochrome camera and monitor. This system will discover most alterations and additions to documents because these are usually seen in the near infrared, where colour is lost.

Monochrome Specification

Differences in the monochrome specification to that of the colour system are:

Camera: Interline CCD, electronic iris, 500(h) x 582(v) pixels.

Monitor: 230mm (9 inch), contrast and brightness controls. Weight 4.5Kg. 220x228x259mm

Filters: Four filters mounted on a manually operated filter wheel.

Filter 1 VISible:	400-700nm band pass
Filter 2 RED:	600nm long pass
Filter 3 IR1:	720nm long pass
Filter 4 IR2:	790nm long pass

Controls & Connectors: Front Panel: Focus, Lamp Select, Lamp on/off, Filter Select. Power on/off. No zoom function

Power: 110/220/230/240 volts ac 50/60Hz (factory set) or 12 volts dc at 7 amps,(TFT LCD monitor option required for DC operation). Fuseholder rear panel mounted.

Ordering codes

Basic colour system:	QDX-4300Co
Colour system with TFT LCD monitor:	QDX-4300Co/LCD
Colour system with 355mm monitor:	QDX-4300Co/355
Monochrome system:	QDX-4300Mo
Monochrome system with TFT LCD monitor:	QDX-4300Mo/LCD

ACO Electronics Limited

Unit 3, Manor Farm Business Park, Wendy, Royston, Hertfordshire SG8 0HW United Kingdom

Tel: +44 (0) 1223 208 222 Fax: +44 (0) 1223 208 150

www.acoelectronics.com sales@acoelectronics.com

