Ultraviolet Lamps

An innovative range of ultraviolet lamps for criminology, document examination and forensic investigation + magnifiers + forgery detection tools

**Features**
- Tough and robust
- High quality construction
- High output lamps
- Designed for the professional
- Battery or mains power
- Rechargeable versions

**Applications**
- Border Control - passport examination
- Banking - counterfeit currency & cheque fraud
- Police - scene of crime
- Social Security - identification documents
- Airlines - inadmissable passengers
- Criminology - document examination

www.acoelectronics.com
Desk Lamps

UV-1140

Twin lamp ultraviolet document viewer

A compact Ultraviolet Document Viewer fitted with two 4 watt linear longwave UV tubes. A stainless steel reflector maximises the UV light on the document under investigation and the shrouded construction blocks overhead ambient light. The reflector is cut away at the rear to allow large documents to be examined without turning. Applications include identity and travel document verification at banks and airports.

Size: 220mm (width) x 180mm (depth) x 125mm (height)
Weight: 2.0Kg
Power: 230 or 240 volts ac, 50/60Hz
Lamps: 2 x 4 watt UV tubes (re-order code: UVA-400)

UV-1140B

Twin lamp ultraviolet document viewer

A battery and mains powered version of the UV-1140 with integral rechargeable nickel metal-hydride batteries. A built in charger charges the battery when connected to the mains supply, even when the lamps are on, and an overnight charge will give over 2 hours of continuous use. As with the other lamps in the UV-1140 series, a stainless steel reflector maximises the UV light on the document under investigation and the shrouded construction blocks overhead ambient lighting. The reflector is cut away at the rear to allow large documents to be examined without turning.

Size: 230mm (width) x 205mm (depth) x 125mm (height, excluding handle)
Weight: 3.5Kg
Power: 110, 230 or 240 volts ac, 50/60Hz
Lamps: 2 x 4 watt UV tubes (re-order code UVA-400)
Batteries: 4 x Ni-MH D cells, 7000mAh

UV-1140C

Single lamp ultraviolet document viewer

Similar to the UV-1140 but this Ultraviolet Document Viewer is fitted with a single compact longwave UV tube, which gives approximately 5 times more UV illumination than linear tubes. The UV-1140C also has a stainless steel reflector to maximise the UV light on the document and a shrouded design for excluding overhead ambient light. The reflector is cut away at the rear to allow large documents to be examined without turning, and an eye protection window prevents the UV lamp being viewed directly. Applications include identity and travel document checking at banks and airports and the forensic examination of documents for erasures and solvent staining.

Size: 220mm (width) x 180mm (depth) x 125mm (height)
Weight: 2.0Kg
Power: 115, 230 or 240 volts ac, 50/60Hz
Lamps: 1 x 9 watt compact UV tube (re-order code: UVA-900)

UV-1140B Carrying Case

A robust case for transporting the UV-1140B for use in field operations. Padded for maximum protection the case also has additional compartments for mains cables and forgery detection tools.

Size: 220mm (width) x 180mm (depth) x 125mm (height)
Weight: 1.8Kg
Power: 12 volts DC at 1 amp, 2.1mm input jack plug
Lamps: 1 x 9 watt compact UV tube (re-order code UVA-900S)
Leads Supplied:
  - 2 metre 2.1mm female jack to cigarette lighter plug
  - 2 metre 2.1mm female jack to battery clips

Options:
Mains power supply:
  - Input 100 to 240 volts ac
  - Output 12 volt dc at 1 amp with fixed 2.1mm female jack
Carrying Case:
  - Robust thermoplastic carrying case with padded interior

For further details on the ACO Electronics product range visit our website www.acoelectronics.co.uk
### Desk Lamps

#### UV-1140CW

**Wall Mounted Document Viewer**

With the same specification as the UV-1140C, but with flanges for mounting on a wall, the UV-1140CW has been designed for situations where it is not possible to use a desk mounted document viewer. These maybe at entrance gates or doors of prisons or other security establishments where a rapid check of passes or stamps is required. Likewise the UV-1140CW may be used in nightclubs and entertainment parks where re-entry stamps need to be quickly checked.

- **Size:** 220mm (width) x 160mm (depth) x 105mm (height)
- **Mounting Flange projection:** 10mm each side, with 3.5mm diameter mounting hole
- **Weight:** 2.0Kg
- **Power:** 115, 230 or 240 volts ac, 50/60Hz
- **Lamps:** 1 x 9 watt compact UV tube (re-order code UVA-900)

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#### UV-1160

**Larger ultraviolet document viewer**

A larger twin lamp Ultraviolet Document Viewer fitted with two 6 watt linear tubes. A stainless steel reflector maximises the UV light projected onto the document under investigation and the shrouded construction blocks overhead ambient lighting. The reflector is cut away at the rear to allow large documents to be examined without turning. Applications include identity and travel document checking at banks and airports and the forensic examination of documents for erasures and solvent staining.

- **Size:** 306mm (width) x 180mm (depth) x 125 (height)
- **Weight:** 2.5Kg
- **Power:** 230 or 240 volts ac 50Hz, (110 volt ac version available to special order)
- **Lamps:** 2 x 6 watt UV tubes (re-order code UVA-600)

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#### UV-1160C

**Larger ultraviolet document viewer**

Similar to the UV-1160, but fitted with two 9 watt compact lamps, giving the most intense UV light output of all our Document Viewers. Applications are in areas of high ambient lighting for the checking of security safeguards on larger documents. An eye protection window prevents the UV lamp being viewed directly.

The UV-1160C is one of the best sellers in our range, with many UK banks, such as the RBS, Lloyds and Halifax preferring this model.

- **Size:** 306mm (width) x 180mm (depth) x 125 (height)
- **Weight:** 2.5Kg
- **Power:** 115, 230 or 240 volts ac 50Hz
- **Lamps:** 2 x 9 watt UV tubes (re-order code UVA-900)

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#### Detectadoc-L

**Dual Function Document Viewer**

A dual function mains powered Document Examination System for verifying the authenticity of security documents such as passports, identity cards, currency and driving licences. The units incorporates two 6 watt, Ultraviolet 365nm lamps mounted on a stainless steel reflector and a single 9 watt white lamp mounted behind a diffusing window for the examination of transmissive security features.

The lamps are switched independently by individual switches on the right side of the unit, thus allowing both lamps to be on at the same time or either lamp to be on alone.

- **Size:** 265mm (width) x 170mm (depth) x 145mm (height)
- **Weight:** 2.5Kg
- **Power:** 115, 230 or 240 volts ac, 50Hz
- **Switches:** Two miniature rocker switches control power to each lamp circuit
- **Lamps:** 1 x 9 watt compact UV Longwave tube (re-order code UVA-900) + 1 x 9 watt compact Cool White Lamp (re-order code WL-900)

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#### Detectadoc-C

**Dual Function Document Viewer**

A dual function Document Examination System which is identical to the Detectadoc-L, but is fitted with a single Longwave compact ultraviolet lamp for identifying UV security safeguards and a single 9 watt white lamp mounted behind a diffusing window for the examination of transmissive security features.

- **Size:** 265mm (width) x 170mm (depth) x 145mm (height)
- **Weight:** 2.5Kg
- **Power:** 115, 230 or 240 volts ac, 50/60Hz
- **Switches:** Two miniature rocker switches control power to each lamp circuit
- **Lamps:** 1 x 9 watt compact UV Longwave tube (re-order code UVA-900) + 1 x 9 watt compact Cool White Lamp (re-order code WL-900)
**Portable Lamps**

**UV-Illuminator**

*Very robust battery powered portable lamp*

A robust battery powered portable UV lamp with two 4 watt linear tubes housed in an attractive extruded aluminium housing. Powered by the internal NiCad rechargeable battery, the UV-Illuminator will give over two hours of continuous usage on full charge. A charging power supply is supplied as standard, but the UV-Illuminator can be charged from a variety of DC sources including a vehicle lighter socket. Applications include crime scene work, checking of security marks on property, checking security documents and identifying forensic marking solutions.

- **Size:** 255mm (length) x 70mm (depth) x 90mm (height)
- **Weight:** 1.45kg
- **Power:** 9 to 18 volts dc @ 500mA
- **Charger:** 12 volts dc @ 1.25 Amps
- **Charging time:** 14 hours
- **Lamps:** 2 x 4 watt UV tubes (re-order code UVA-400)
- **Battery:** NiCad 4 x D cell stick, 4Ah capacity

**UV-Illuminator II**

*Mains powered version of the UV-Illuminator*

The mains powered version of the UV-Illuminator, but using a single compact 9 watt UV tube. This compact lamp version has a higher UV light output than the UV-Illuminator and is therefore particularly suitable for work in areas of high ambient lighting. Supplied with 5 metres of mains cable as standard for an extended operational area.

- **Size:** 255mm (length) x 70mm (depth) x 90mm (height)
- **Weight:** 1.2kg
- **Power:** 115, 230 or 240 volts ac 50/60Hz
- **Chargers:** 91 grams without batteries
- **Lamps:** 1 x 4 watt UV tube (re-order code UVA-400)
- **Battery:** NiCad 4 x D cell stick, 4Ah capacity

**UV-500**

*Low cost handheld UV lamp*

A convenient handheld 4 watt UV lamp with a white torch. The UV-500 is very useful for field checks of documents, identifying marked property and for checking the authenticity of currency. In addition to the normal checks of security safeguards with the UV lamp, the white torch light can be used to check transmissive security safeguards such as watermarks and security threads.

- **Size:** 160mm (length) x 56mm (depth) x 24mm (width)
- **Weight:** 91 grams without batteries
- **Batteries:** 4 x AA size (not supplied)
- **Lamps:** 1 x 4 watt UV tube (re-order code UVA-400)
- **Battery:** 1 x 5.5 volt, 0.3 amp white lamp (re-order code WL-55)

**UV-300**

*Pocket fraud detector*

A pocket size UV lamp which is useful for checking currency, marked property and documents. The small size of the UV-300 makes it very convenient to carry in a handbag or coat pocket.

- **Size:** 85mm (length) x 65mm (depth) x 20mm (width)
- **Weight:** 45 grams without batteries
- **Batteries:** 2 x AA size (not supplied)

**UV-140**

*UV LED flashlight with 14x LEDs*

A UV LED flashlight for the easy checking of security safeguards on currency and for identifying forensic marking solutions in the field. The small size and light weight make the UV-140 very convenient for carrying in purse or on a belt with the optional holster, and the 14 UV LEDs produce a powerful beam which allows identification under high ambient lighting conditions.

- **Size:** 123mm (length) x 35mm (front diameter) x 28mm (body diameter)
- **Weight:** 81 grams without batteries
- **Batteries:** 3 x AAA size (not supplied)
- **LEDs:** 14 at 365-370nm
- **Accessories:** Belt holster

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Portable Lamps

**UV-060 Pen Style UV Flashlight**

A convenient slim ultraviolet flashlight with a powerful 1 watt single LED light source. About the size of a pen and with a handy clip, the UV-060 can be conveniently carried in a shirt or coat pocket ready for use. The intense UV beam will highlight most UV security safeguards on passports and currency even in bright ambient illumination.

**Specifications:**
- **Size:** 120mm (length) x 15mm diameter
- **Weight:** 30 grams without batteries
- **Material:** High grade aluminium
- **Batteries:** 2 x AAA size (not supplied)
- **LED:** Single 1 watt
- **Wavelength:** 365nm

**UV-010 Robust UV Flashlight**

A powerful ultraviolet flashlight with the convenience of a rechargeable battery. Manufactured from aircraft grade aluminium with a hard anodised finish the UV-010 will withstand much rough handling. The UV-010 is waterproof and comes with spare ‘O’ ring seals and switch cover to maintain the sealing integrity through its lifetime.

The UV-010 package includes the rechargeable battery, battery charger, sealing kit and belt holster.

**Specifications:**
- **Size:** 135mm (length) x 23mm head diameter x 26mm body diameter
- **Weight:** 120 grams without battery
- **Material:** Aircraft grade aluminium with hard anodised finish
- **Lanyard:** Yes
- **Batteries:** 1 x 18650 3.7 volt, 2400mAh (included)
- **LED:** Single 1 watt
- **Wavelength:** 365nm
- **Accessories:** Belt holster (included)
- **Charger:** 100 – 240 volt input 2 pin plug (included)

**UV-566 Pocket UV Flashlight**

The smallest of our ultraviolet flashlights, but still with a powerful 1 watt single LED light source. Small enough to be carried in a pocket, the UV-566 can be also be carried on a belt using the optional holster. Like our other UV flashlights, the intense UV beam of the UV-566 will highlight most UV security safeguards on passports and currency even in bright ambient illumination.

**Specifications:**
- **Size:** 95mm (length) x 21mm diameter
- **Weight:** 50 grams without batteries
- **Material:** High grade aluminium
- **Lanyard:** Yes
- **Batteries:** 1 x AA size (not supplied)
- **LED:** Single 1 watt
- **Wavelength:** 365nm
- **Accessories:** Belt holster

**UV Blocking Spectacles**

A pair of eyeprotection spectacles for use when using UV lamps for extended periods or for when working close to the UV source. The goggles will prevent possible eye strain when usage exceeds the recommended safe periods or distances.

**For further details on the ACO Electronics product range visit our website www.acoelectronics.co.uk**

**Spare Lamps**

- **UVA-400** 4 watt 150mm black light blue
- **UVA-600** 6 watt 220mm black light blue
- **UVA-900** 9 watt compact black light blue
- **UVA-900S** 9 watt compact black light blue modified
- **UVA-1800** 18 watt 600mm black light blue
- **UVA-3600** 36 watt 1215mm black light blue
- **WL-400** 4 watt 150mm cool white lamp
- **WL-600** 6 watt 220mm cool white lamp
- **WL-900** 9 watt compact cool white lamp
- **WL-25** 2.5 volt, 0.27 amp prefocussed bulb for MS-30 and Retroviewer
- **WL-55** 5.5 volt, 0.3 amp prefocussed bulb for UV-500

Note: Image is representative of the design only. Actual design may change.
Magnifiers

Stand Loupe
For the close up inspection of suspect documents suspect

A useful stand magnifier for the close up inspection of suspect documents. A removable graduated reticule allows the checking of the size of printed features and typeface sizes.

Size: 45mm (height) x 50mm (diameter)
Weight: 42 grams
Magnification: 10X

Eye Loupe
Useful for hands-free examination of documents

A jewellers eye loupe useful for hands-free examination of details on documents. It can be particularly helpful when the edges of passport pages require examination where photograph substitution by page slitting is suspected.

Size: 28mm (height) x 40mm (diameter)
Weight: 6 grams
Magnification: 7.5X

FD-50
A large linen tester with magnification of 3.5X

A large linen tester with magnification of 3.5X which folds so that it can be easily carried in a pocket or handbag. The FD-50 has a high quality glass lens for distortion free magnification and engraved scales in inches and millimetres for the measurement of document features.

Size unfolded: 55mm (width) x 80mm (length) x 80mm (height)
Size folded: 55mm (width) x 80mm (length) x 25mm (height)
Lens: 50mm glass
Magnification: 3.5X

FD-20
Small linen tester with a higher magnification than FD-50

A small linen tester with a higher magnification than the FD-50. Folds flat for easy transport and has engraved scales in inches and millimetres for the measurement of document features.

Size unfolded: 30mm (width) x 45mm (length) x 45mm (height)
Size folded: 30mm (width) x 45mm (length) x 14mm (height)
Lens: 21mm acrylic
Magnification: 6X

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HM-87A
Hand magnifying glass with an acrylic lens

A 75mm circular hand magnifying glass with an acrylic lens and two magnifying powers. The larger area has a magnification of 3X and a smaller 20mm area has a magnification of 6X.

HM-87G
Hand magnifying glass with a high quality glass lens

A 75mm circular hand magnifying glass with a high quality glass lens. Magnification is 3X.

HM-66
Pocket magnifier with sliding cover for lens protection

A handy pocket magnifier with a sliding cover for lens protection. The HM-66 has LED illumination for use in poorly lit areas which automatically switches on when the lens is uncovered.

Size: 110mm (length) x 50mm (width) x 19mm (height)
Weight: 78 grams including batteries
Illumination: White LED
Batteries: 3 x AAA size (not supplied)
Switch: Automatic on opening
Forgery Detection Tools

3M Retroviewer
Hand-held viewer for verifying security laminates

This is a hand-held viewer for verifying a security laminate called Confirm™ manufactured by the U.S.A. Company 3M. This laminate is found on many passports, identity cards and driving licences to deter tampering, such as photograph substitution and altering of personal details.

The Confirm™ laminate has an embedded hidden image which can only be seen with the special viewer, and any damage caused by photographic substitution or attempts to lift the laminate will be readily seen with the special viewer.

Batteries: 2 x AA size (normally supplied)
Size: 105mm (length) x 51mm (width) x 18mm (depth)
Weight: 24 grams excluding batteries
Lamp: 2.5 volt, 0.27amp (re-order code WL-25)

MS-30
Illuminated portable microscope

An illuminated portable microscope with 30X magnification and an additional pull-out 8X magnifying glass. The MS-30 is useful for verifying microprint or fine details on security documents. (Microprint is very small printing which appears to be a continuous line to the naked eye, and can only be read with a high powered magnifying device like the MS-30).

Batteries: 2 x AA size (not supplied)
Size: 20mm (width) x 45mm (depth) x 140mm (height)
Weight: 64 grams excluding batteries
Lamp: 2.5 volt, 0.27amp (re-order code WL-25)

Tweezers
A pair of No 7 size tweezers

A pair of No 7 size tweezers with sharp points for various tasks including the close examination of dry stamps and for checking the integrity of passport stitching.

Custody Lamps

UV-3600 / UV-7200

UV lights designed for use in police custody suites

Designed for installation in police custody suites, the UV-3600 and UV-7200 are a cost effective solution for the detection of Forensic Marking Solutions on criminal suspects. To enable installations in a variety of positions and to suite differing custody suite layouts the UV-3600 and UV-7200 may be mounted on walls, ceilings or with the optional brackets into corners.

Features on both units include:
> Security screws prevent unauthorised access to lamp
> 5mm impact resistant plastic window
> Gasket sealed against liquid splashes
> Recommended exposure data supplied
> No sharp edges
> All parts easily replaceable
> Low profile
> Easy installation

UV-3600

Size: 635mm (length) x 150mm (width) x 55mm (height)
Weight: 4 Kg
Lamps: 2 x 18 watt Blacklight Blue Longwave (re-order code UVA-1800)
Power: 230 volts ac 50Hz

UV-7200

Size: 1245mm (length) x 150mm (width) x 55mm (height)
Weight: 7 Kg
Lamps: 2 x 36 watt Blacklight Blue Longwave (re-order code UVA-3600)
Power: 230 volts ac 50Hz

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