



ACO Electronics Limited
Leading the way in forgery detection



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 - inadmissible passengers
- Criminology - document examination

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-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-1140CD

Under shelf ultraviolet document viewer

Where space is at a premium at Immigration Control points, the UV-1140CD can be fitted under a shelf, thus freeing up desk space. Fitted with the same compact longwave UV tube as the UV-1140C, the UV-1140CD also has a powerful LED light for the checking of transmissive security features and for highlighting indented writing. The UV-1140CD has two parts, a housing which is screwed to the underside of a desk or shelf and the lamp unit which can be removed from the housing for quick and easy lamp change. The LED light is fitted with a collimating lens system to produce a powerful narrow beam with its' position adjustable to suit individual users. An eye protection window prevents the user viewing the UV lamp directly and a flat magnifier is mounted on this window for close-up inspection.

Size: 235mm (width) x 150mm (depth, excluding LED spout) x 65mm (height)
Weight: 2.0Kg
Lamps: 1 x 9 watt UV tube (UVA-900) + 1 x high efficiency 1 watt white LED
Power: 110/230/240 volts ac, 50Hz

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

Desk Lamps



UV-1140CDC

Transportable Document Viewer

A DC version of the UV-1140C for use in vehicles or in remote areas where mains power is not available. The UV-1140CDC is identical to the UV-1140C except that it is powered from a 12 volt DC source, such as a battery or vehicle cigarette lighter socket and has a carrying handle. As with the UV-1140C a stainless steel reflector maximises the UV light on the document and the shrouded design excludes 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 remote border crossings or during field operations.

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



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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Desk Lamps



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)



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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Desk Lamps



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:	2 x 6 watt linear UV Longwave tubes (re-order code UVA-600) 1 x 9 watt compact Cool White Lamp (re-order code WL-900)



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-Tracer 2000

Powerful long-range 365nm LED UV Search flashlight

A class leader, the UV-Tracer 2000 produces an intense low divergence beam for all modes of ultraviolet inspection. With a beam intensity and quality comparable to much more expensive systems, the UV-Tracer 2000 can be used for the long-distance detection of security trace markings (SelectaDNA, Smartwater), for forensic searches at scenes of crime and for many other applications where a narrow pure UV beam is needed. The UV-Tracer 2000 is also a convenient lightweight tool for leak detection with a workable range that allows use at long distance from the component under inspection.

For convenience the UV-Tracer 2000 has an in-built battery charger so may be recharged from any suitable type A USB outlet, in car or mains powered, but is also supplied with a spare battery for continuing use on prolonged operations.

Supplied in a military standard MOLLE pouch, the UV-Tracer 2000 comes with 2 pieces of Li-Ion type 18650 battery, a single unit battery charger with mains wall outlet, all connecting cables, and a belt holster.

UV Beam

- Long distance super uniform beam with no dark spot
- Peak wavelength 365nm
- Very High intensity 72,000 μ W/cm² at 15cm > 30,000 μ W/cm² at 38cm from front window
- Nichia (Japan) LED source
- Special blocking window stops all visible emission
- 20,000 hours expected lifetime

Electrical

- Power source 1 x Li-Ion battery, type 18650, 2600mAh
- Input voltage 3.0-4.5 volts
- Symmetrical USB type C charging port eliminates wrong insertion
- Run time 3 hours
- Integral charger with multicolour indication of charge status
- Tail on/off switch with soft cap

Mechanical

- Hard anodised black aircraft grade aluminium body,
- Weight 194 grams excluding battery
- 9cm length x 2.6cm diameter (body) x 4.0cm diameter (head)
- Waterproof to IPX-7
- Tested to 1.5metre drop height
- Supplied with military grade black nylon MOLLE belt pouch

In the box

- UV-Tracer 2000 UV LED Flashlight
- 2 x Li-Ion type 18650 rechargeable batteries
- Single 18650 battery charger
- Double Socket USB mains charging outlet
- 2 x USB Type A to Type C charging cables
- MOLLE black pouch
- Belt Holster



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.

Size:	96mm (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

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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 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.

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-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



UV-666

Best Value Flashlight

The lowest cost of our ultraviolet flashlights and with a powerful 3 watt single LED light source the UV-666 is exceptional value for money. The UV-666 will highlight most UV security safeguards on passports and currency even in bright ambient illumination, and can be carried in a pocket or on a belt using the optional holster.

Size:	142mm (length) x 36mm (diameter)
Weight:	127 grams without batteries
Material:	High grade aluminium
Lanyard:	No
Batteries:	3 x AAA size (not supplied)
LED:	Single 3 watt
Wavelength:	365-370nm
Accessories:	Belt holster

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Portable Lamps



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.

Size:	135mm (length) x 33mm 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 307 volt, 2400mAh (included)
LED:	Single 1 watt
Wavelength:	365nm
Accessories:	Belt holster (included)
Charger:	100 – 240 volt input 2 pin plug (included)



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
Lamps:	1 x 9 watt UV tube (re-order code UVA-900)



UV-500

Low cost hand held UV lamp

A convenient hand-held 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) 1 x 5.5 volt, 0.3 amp white lamp (re-order code WL-55)

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Portable Lamps



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)

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

Eye Protection



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.

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

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Magnifiers + Forgery Detection Tools



HML-2000

Hand-held 10X Magnifier with LED illumination

The HML-2000 is a 10X illuminated magnifier with a two-part lens system, giving distortion free quality magnification. Useful for document examination in subdued ambient lighting, the HML-2000 has measuring scales in mm and inches and an adjustable support for hands-free use. Supplied with a robust carrying case as standard.

Magnification:	10x
Size:	Length 183mm, diameter of lens assembly 58-43mm Body diameter 20mm
Lens:	Two element acrylic 25mm diameter
Illumination:	Three white LEDs around the lens assembly
Switch:	Push on -push off on side of body
Batteries:	Two AA size (not supplied)



SLR-9000

Hand-held 10X Magnifier with LED illumination

The SLR-9000 is a 10X illuminated loupe with a high-quality lens system for close-up examination of travel documents. A robust metal construction ensures that the SLR-9000 will survive rough usage in a front-line environment. Supplied with a soft carrying case with a belt loop.

Magnification:	10x
Size:	59 x 62 x 46 (height) mm
Lens:	Two element acrylic 25mm diameter
Illumination:	Three white LEDs evenly spaced around the lens assembly
Switch:	Slide switch on top of body
Batteries:	4 x AG7 Button Cells (supplied fitted)



DM-75

A high quality 4X Magnifier with 3 levels of LED illumination.

Ideal for travel document examination at immigration control points.

Magnification:	4X
Lens:	2 element 65mm diameter
Size:	Length 140mm, width 105mm, height 43mm
Weight:	230 grams including batteries
Illumination:	6 x LEDs equally spaced around the examination area
Switch:	4 position slider switch – OFF and 3 levels of illumination intensity
Batteries:	3 x AAA size (not supplied)

For further details on the ACO Electronics product range visit our website
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Magnifiers + Forgery Detection Tools



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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Magnifiers + Forgery Detection Tools



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



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.

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Magnifiers + 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)

Custody Lights

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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