

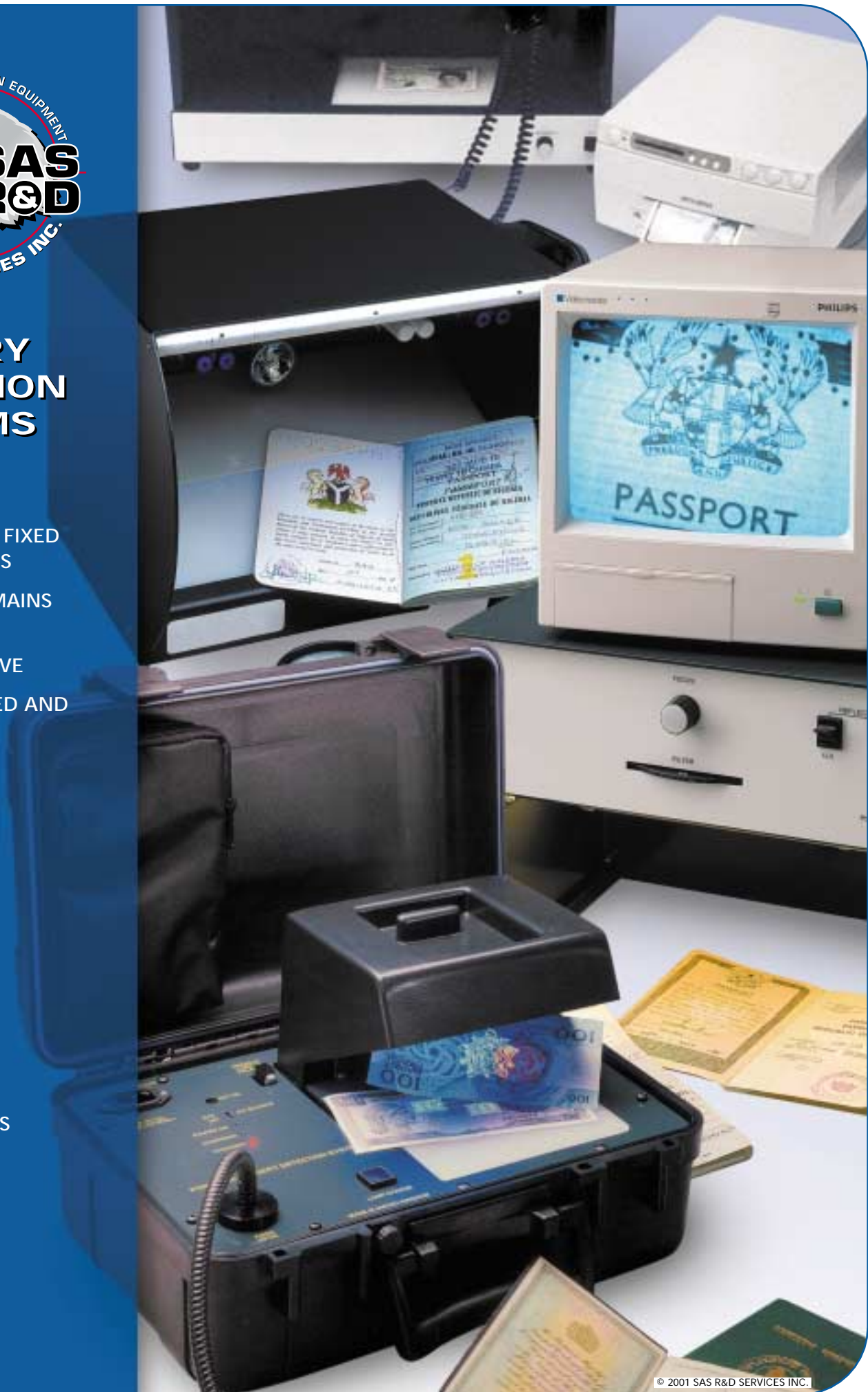


FORGERY DETECTION SYSTEMS

- PORTABLE OR FIXED INSTALLATIONS
- BATTERY OR MAINS POWERED
- COST EFFECTIVE
- RAPID, RUGGED AND EASY TO USE

APPLICATIONS

- IMMIGRATIONS
- CUSTOMS
- POLICE
- BANKS



FD-13 PORTABLE FORGERY DETECTION SYSTEM

A unique system for the examination of all types of suspect documents.

FEATURES

- Rugged Construction
- Flexible Fibre Optic
- Lightweight
- Four Light Sources
- Waterproof
- Built In Battery Charger
- Charging Indicators
- Mains/Battery Operation
- External DC Operation
- Electronic Lamp Switching
- 3.5x Magnifier
- Rechargeable Battery
- Choice of Rechargeable Batteries

The FD-13 is a versatile yet compact portable forgery detection system, for the examination of all types of suspect documents where mains power may not be available.

The system is particularly useful for officials and immigration officers who need to examine travel documents at aircraft steps, airport departure gates or on board ships and trains. Other applications are with mobile border patrols, immigration operational units and scene of crime officers.

A large unobstructed working area allows quick and easy examination using the four integral light sources:

- A diffuse white light for visual examination in low light conditions
- Two black light lamps provide a strong ultraviolet source for examination of bleaching, alterations and fluorescent security features.
 - A transmissive source for inspection of watermarks and internal threads.
- An intense fibre optic illuminator for examination of indented writing and for transmission through photographs.

Operation is from a choice of three power sources – an internal battery, a wide range of a.c. power supplies and an external d.c. power sources, such as an automobile battery.

Designed for durability, the FD-13 is housed in a rugged case, injection moulded from tough ABS plastic, and "O" ring sealed for protection against water, dust and other contaminants.

SPECIFICATIONS

LIGHT SOURCES

Ultraviolet

Two 4 watt, 5.9 inches (150 mm), 365nm long wave lamps housed in a stainless steel reflector for maximum illumination.

Overhead Visible

Single 4 watt, 5.9 inches (150 mm), cool white lamp mounted between UV lamps.

Transmissive

Two 4 watt, 5.9 inches (150 mm), cool white lamps mounted behind a white diffusing plastic window.

Fibre Optic Source

A 9 watt, high intensity quartz halogen lamp with internal prefocused optics giving maximum coupling efficiency with the fibre optic.

Fibre Optic

5 mm Active area, 39.37 inches (1000 mm), flexible glass fibre light pipe. Click-fit connection to light source. Stored in tool storage wallet when not used.

MECHANICAL

Rugged ABS plastic case with soft feel handle. Completely waterproof when closed.

13.97 x 9.84 x 6.30 inches (355 x 250 160 mm)

Weight 11.46 lbs. (5.20 Kg) with battery 1.2 Ah FD-13/1.2

Weight 15.98 lbs. (7.25 Kg) with battery 7.0 Ah FD-13/7.0

Internal wallet for tool storage, zip closure.

6.88 x 4.52 x 1.378 inches (175 x 115 x 35 mm)

Magnifier 75 mm diameter, 3.5x magnification

ELECTRICAL

Internal Battery

Option of two battery sizes. Standard 1.2Ah or Extended Life 7.0 Ah. 1.2 Ah gives 1 hour constant use (operational use 4 hours). 7.0 Ah gives 6 hours constant use (operational use 24 hours).

[Constant use is the time to discharge a fully charged battery with one light source on continually. Operational use is the estimated time to discharge a fully charged battery using the FD-13 in an intermittent mode as it would be used in field operation.]

Mains Power

90 to 260 volts a.c. at 47 to 63Hz. The battery recharges automatically when connected to mains in both power switch positions. Automatic override to mains power operation when mains power connected.

External D.C.

10 to 14 volts D.C. via a 3.5 mm jack socket. Custom leads available for connection to vehicle power systems.

Switches

1. External or internal D.C. source selector. Switching to external position isolates the internal battery.
2. Lamp change. Push button switch for sequential switching of lamps. Sequence: Off – Overhead white – Ultraviolet – Transmissive – Fibre Optic – Off

ORDERING INFORMATION

FD-13 with internal 1.2Ah battery

FD-13/1.2

FD-13 with internal 7.0Ah battery

FD-13/7.0



TC-900 QUESTIONED DOCUMENT EXAMINATION SYSTEM



The new TC-900 Questioned Document Examination System utilises the latest dual colour /monochrome technology for the detailed examination of all types of suspect documents. Fraudulent practices such as additions, alterations, obscurations and erasures to documents may be easily exposed using a variety of non-destructive optical techniques, which include Infrared Reflectance and Fluorescence.

An essential tool for Immigration Control, Fraud Investigation and the Forensic laboratory. The TC-900 is a most cost-effective system for combating the increasing problem of document crime.

STANDARD FEATURES

- Low light Colour Camera
- High power Ultraviolet
- Infrared Illumination
- Motorised Lens Control
- 16 Camera Filters
- Oblique Illumination
- Coaxial Illumination Option
- 5 sets of Lamp Filters

SPECIFICATIONS

LIGHT SOURCES

Ultraviolet

Two 9 watt compact lamps. 365nm Long wave illumination

Infrared/Visible

Two 10 watt tungsten halogen lamps housed in diffuser housings give a very even illumination of the working area.

Infrared Fluorescence

Two 75 watt Tungsten Halogen reflector lamps with heat and IR blocking filters, producing an intense blue/green illumination. A set of filters supplied as standard for modification of the illumination wavelength.

IR Source

Three High intensity Infrared LEDs. Almost monochromatic at 880nm.

Oblique

IR Pen. Two high power IRLEDs mounted in a convenient hand held probe. A forward looking IRLED is used for oblique/glancing illumination, whilst an additional device is used for transmission studies.

External Fluorescence

A single 20 watt tungsten halogen reflector lamp mounted in a handy hand held housing with a push button switch. With integral heat and IR blocking filters, the BG-630B may be used to contribute additional light power to the internal IR Fluorescence source or may be used as a visible oblique light.

Transmissive

Two linear 30 watt incandescent lamps mounted behind a diffusing window below the working area. Intensity of the lamps is adjustable,

MONITOR

A 14 inch (35 cm) High resolution colour monitor with menu control of all functions. Video connections for relaying the image to other devices such as printers or computers.

CAMERA

Ultra Super high sensitivity near infrared imager, with both colour and monochrome capability. 1/3 inch interline CCD with 752(H) x 582 (V) resolution.

Minimum illumination 0.005 lux at F0.75.

Auto iris operation. 400 to 1100 nm range.

VIDEO OUTPUT

BNC female socket for connection to monitor or video accessories. 1 volt p-p @ 75 ohm.

LENS SYSTEM

10:1 motorised zoom lens system with additional high quality close-up lens. Motor control of zoom, fine focus and iris. An additional focus control compensates for focus changes with filter wavelength.

Magnification on 14 inch monitor: 21X

Image sizes: 5.11 x 3.93 x 0.39 inches (130(H) x 100(V) to 13(H) x 10(V)mm

CAMERA FILTERS

Two filter slides with one bandpass and 15 longpass 22 mm filters. Filter slide one FS/1: 400-700, 475, 515, 570, 610, 645, 665, 695nm

Filter slide two FS/2: 630, 715, 735, 760, 780, 830, 850, 930, 1000nm

IR FLUORESCENCE FILTERS

Five sets of lowpass and longpass filters for modification of the IR fluorescence excitation wavelength. The filters are installed in filter slide FS/3 and positioned under the IR Fluorescence lamps.

All the filters and slides are supplied housed in a padded plastic case.

MECHANICAL

Size: 22.83 (width) x 15.94 (depth) x 13.38 (height) inches (580 x 405 x 340 mm)

Document capacity: 20.66 inches (525 mm) wide with unrestricted length.

POWER

240/220/110 volts a.c 50/60 Hz. (To be specified when ordering)

ACCESSORIES

VIDEO PRINTERS

Various video printers are available.

SPARES KIT (SK-630B)

A 1st line spares kit for the TC-900 containing spare lamps, filters and fuses. (A detailed parts list is available)

FORENSPIX ANALYSIS SYSTEM

A sophisticated PC based measurement and image enhancement system. Among the many features available are image comparison, image overlay, contrast enhancement and image archiving. A separate data sheet is available.

TC-813 PORTABLE INFRARED EXAMINATION SYSTEM

FEATURES

- Competitive Cost
- DC and AC Operation
- Rugged Construction
- Auto Iris Camera
- Simple Controls
- High Performance
- High Resolution Monitor
- Easily Transportable
- Carrying Case
- Vehicle Installation

The TC-813 has been designed to meet the demand for a low cost portable infrared Questioned document Examination system for the authentication of travel documents at border crossings, immigration control desks and in mobile police operations. Further uses are at scenes of crime, in banks, at check-in desks or in any situation where the authenticity of documents may be in doubt.

Using the non-destructive techniques of infrared absorption and luminescence, the TC-813 is a powerful tool for the detection of fraudulent documents of all kinds. With counterfeiting and forgery continuing to be a major criminal activity, the TC-813 will prove invaluable to many regulatory authorities.

Available with an optional carrying case which allows complete portability and remote field operation, the TC-813 may now be used in roadside operations when installed in vehicles using the mounting kit.

SYSTEM SPECIFICATIONS

LIGHT SOURCES

Blue/Green

A 75 watt dichroic reflector lamp with head and IR cut-off filters provides an intense cool beam for infrared luminescence excitation.

Visible/IR

Two 5 watt tungsten-halogen lamps behind diffusing windows give very even illumination for infrared reflection studies.

Ultraviolet

A new 9 watt compact long wave (365nm) black light lamp for visible luminescence and for highlighting chemical and mechanical erasures.

Oblique Light

A glancing light source for highlighting of dry stamps and mechanical erasures. The lamp is mounted on the rear panel of the unit and is independently switched.

Transmissive Light

A 9 watt compact white lamp mounted behind a diffusing window for the examination of watermarks, metallic threads and perfect resolution features in documents

IMAGING SYSTEM

Camera

An interline CCD (1/3") electronic iris camera, 500(h) x 582(v) pixels. CCIR standard 1 volt pp video output may be interfaced to a video printer for permanent records or linked to a PC for archiving.

Monitor

An external 9" (230 mm) (diagonal) high resolution monitor. May be positioned on either side of the optical unit. May be bolted to the optical unit with the vehicle kit (VK-430). Contrast and brightness controls. Weight 9.92 lbs. (4.5 Kg), 8.66 x 8.97 x 10.19 inches (220 x 228 x 259 mm).

Filters

Visible IR cut off, Red 600nm, IR1 720nm, IR2 790nm. Mounted on a manual filter wheel with filter selection engraved on wheel.



Lens

A fixed focal length (16 mm), F1.4 with a front panel fine focus adjustment control, Image size 1.69 x 1.37 (43 x 35 mm). Focus achievable up to 2.75 inches (70 mm) from the base.

Power

110/220/230/240 volts a.c. (to be specified at time of ordering) or 12 volts d.c. at 6.5 amps max.

Mechanical

Footprint 13.38 x 9.84 inches (340 x 250 mm). Height 10.24 inches (260 mm). Weight (ex monitor) 11.02 lbs. (5 Kg).

ACCESSORIES

Carrying Case

A robust case for transporting the system, including the monitor. The strong rigid construction, with foam padding gives complete protection during transit, even as aircraft hold baggage.

Vehicle Kit

A customized vehicle mounting kit with brackets and leads for installing the system in customer's choice of vehicle.

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RDC-8 RAPID DOCUMENT CONTROL AT THE FRONTLINE

The RDC-8 is a robust, cost effective instrument for the examination of all types of documents where speed and efficiency are the first priority.

SPECIFICATIONS

ROBUST – designed to withstand rough handling by professionals.

RAPID – verification of all document types in a few minutes.

PORTABLE – light and easily transported for operational use.

EFFICIENT – proficient document examination with brief training.

MODEST COST – the lowest cost system available anywhere.

The RDC-8 can be found in Airports and Seaports for the checking of travel documentation, in Banks for verifying identity documents, at Customs Posts for authenticating carnets and bill of lading and in Police Stations for a first examination of Questioned Documents. The unit may be installed in a variety of locations where rapid and accurate verification is required. The small size allows easy fitting to most Immigration and Customs Control Desks and it is unobtrusive in banking institutions where personal and financial documents need authenticating.

The unit contains all the necessary light sources to check most current document security safeguards and to highlight many modes of fraudulent alteration. Unique to the RDC-8 is an adjustable window which allows very easy examination of retroreflective features and at the same time affords eye protection against the UV lamps.

LIGHT SOURCES

Ultraviolet

Two 365nm 9 watt compact lamps

- Mounted above the working area these lamps give up to 5 times more UV output than similar linear lamps.
- For the examination of Fluorescent Security Safeguards, Solvent Staining, bleaching, paper quality and printed watermarks.

Overhead

One 9 watt compact white lamp

- Mounted centrally and giving even illumination over the entire working area.
- For general visual examination where room lighting may not be adequate.

Transmitted

• Two 9 watt compact white lamps mounted behind a sloping diffusing screen which forms the base of the work area.

- For the examination of watermarks, security strips and Perfect Resolution Features.

Retroreflective

• One 20 watt dichroic reflector halogen lamp mounted to give a parallel beam towards the partially reflective window.

- By adjusting the screen the retroreflective security feature may easily be seen on 3M Confirm™ Security Laminates.

Surface

• One 20 watt dichroic reflector halogen lamp mounted to give a parallel beam down on the work surface.

- For the highlighting of dry embossing stamps, erasures and indented writing.

Mechanical

Size: 11 (width) x 9.84 (depth) x 8.66 (height) inches (30 cm x 25 cm x 22 cm)

Weight: 9.36 lbs. (4.25 Kg) (Excluding Magnifier)

Electrical: 110/220/230/240 AC 50Hz (Specify when ordering) 100VA

Accessories

A 3x hand held magnifier is supplied with every instrument. This is housed in a storage wallet mounted on the side of the RDC-8. There is adequate room in the wallet for the storage of other useful items.

Handles can be fitted to suit customer requirements at no extra cost.



MINI-02 FORGERY DETECTION KIT



The MINI-02 is a handy kit for the detection of many types of fraudulent documents in Front Line areas such as at Airports, Borders, on board ships or for mobile patrols and boarding parties. Particularly suited for passport and identity card control, the FD-02 will be useful for airline security personnel and immigration officers who need to check for forged travel documents at departure gates or at airline steps where mains power is not available.

Resulting from the first-hand experience of immigration officers and border guards over many years, the FD-02 contains all the necessary tools for the detection of forgeries, alterations, erasures and for the checking of security safeguards.

All the tools are housed in a soft nylon bag and are protected from damage by deep cut-outs in a foam lining. The kit is available ready for use with all batteries fitted and with a full complement of spare lamps. A comprehensive easy to read manual enables the user to become rapidly familiar with the contents of the kit and how to carry out simple document checks as well as giving service guidance.

ULTRAVIOLET LAMP

A convenient hand-held 4 watt ultraviolet source with an additional white ultraviolet lamp light for checking indented writing, raised paper fibres caused by mechanical erasures and for checking transmissive security features such as watermarks, security threads and perfect resolution. The ultraviolet light is one of the most widely accepted light sources for document examination. UV can visualize invisible security safeguards, check paper quality and highlight chemical erasures.

Replacement order code: UV-500
Mechanical: 5.94 (length) x 2.04 (depth) x .78 (width) inches (152 x 52 x 20 mm)
Weight: 3.06 oz (87 gms) (without batteries)
Batteries: 4 x AA size

RETROVIEWER

A hand-held viewer for checking the 3M Confirm™ security laminate. The Confirm™ laminate is used on many passports and identity cards primarily to discourage the substitution of the holder's photograph, but it also protects biographical details on the document. The Confirm™ laminate has an embedded hidden image which may only be seen with the special retroviewer.

Any damage caused by photograph substitution or attempts to lift the laminate is readily seen, as is the substitution of the whole laminate.

Batteries: 2 x AA size
Mechanical: 4.13 (length) x 1.96 (width) x 0.70 (depth) inches (105 x 50 x 18 mm)
Weight: 84 oz (24gms) (excluding batteries)

MICROSCOPE

An illuminated portable microscope with 30x magnification and a pull-out 8x magnifying glass. Useful in security document examination for the checking of microprint and the investigation of stitching on passports. Microprint is very fine printing which to the naked eye appears as a continuous line, but under high magnification printed logos or words are revealed.

Replacement order code: MS-30
Batteries: 2 x AA size
Mechanical: 0.78 (width) x 1.77 (depth) x 5.51 (height) (20 x 45 x 140 mm)
Weight: 2.52 oz. (64 gms) (excluding batteries)

STAND LOUPE

A useful stand magnifier for the checking of the size of printed features and typeface sizes. Has 10 x magnification and a graduated reticule in millimetres and degrees for angular measurements.

Mechanical: 1.77 (height) x 1.96 (diameter) inches (45 x 50)
Weight: 1.48 oz. (42 gms)

EYE LOUPE

A 7.5 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.

Mechanical: 1.10 (height) x 1.57 (diameter) (28 x 40)
Weight: 0.21 oz. (6 gms)

SIZE TEMPLATE

A tough clear plastic size guide with 4 circular, 2 ellipsoidal and 1 angular templates, as well as a grid guide and a 20 mm ruler. Particularly useful when comparing the sizes of printed features of a suspect document with those on a genuine document.

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.

CARRY CASE SPECIFICATION

Size: 10.23 x 7.08 x 3.14 inches (260 x 180 x 80 mm)
Weight: 25.39 oz. (720 gms) with spare lamps and one set of batteries.

- 25 mm wide adjustable shoulder strap with soft pad.
- Internal clear wallet for location of the size template, instruction manual and users documents.

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FD-13

MINI-02

COVER

TC-900

TC-813

RDC-8