

AUDIO PROBES & AUDIO ENDOSCOPES

AUDIO PENCIL PROBE

Obtaining intelligence at siege and hostage scenes is vital. Using the same high quality amplifiers found in our Audio Borescope, this probe delivers excellent sound quality in an inexpensive and compact kit, and compliments Ultrafine's Silent Drill.

The microphone is built into the Pencil Probe handle and can be used by itself or with interchangeable small diameter listening probes which snaplock onto the handle.



CODE:	PP.AUDIO.1.UF
SPECIFICATIONS	<ul style="list-style-type: none"> 'Pencil' handle with integrated Electret 2.6mm microphone with excellent response and sensitivity 2.5 metre lead from handle connects to pocket sized battery powered (PP9) amplifier box. Includes phono Audio out socket for recording Three interchangeable listening probes which snap-lock to 'Pencil' handle (1mm x 50mm, 2mm x 100mm and 4.9mm x 250mm – others available upon request)

AUDIO BORESCOPES & FIBRESCOPES



Audio Borescopes & Fibrescopes bring together the very latest advances in optical and audio engineering. These all seeing all hearing endoscopes combine high resolution fibre optic image bundles with a state of the art miniature microphone of exceptional sensitivity

Excellent response miniature microphone and images can be viewed with the eye or on video using an optional TV adapter



CODE:	MR.500300.0080.MICRO - RIGID	MO.61500.0085.AMP - FLEXIBLE
SPECIFICATIONS	Rigid Flexible Probe Diameter: 4.9 mm Length: 300 mm (other lengths on request)	Flexible Probe Diameter: 6 mm Length: 1500 mm (other lengths on request)
APPLICATIONS	Discreet surveillance in buildings, aircraft etc.	In situations where flexibility is required e.g. Air Vents
IMAGE SYSTEM (SAME FOR BOTH TYPES)	High resolution 30,000 pixel image bundle Forward viewing 0° with 80° field of view, Depth of field to infinity Focussing eyepiece, without illumination	
AUDIO SYSTEM (SAME FOR BOTH TYPES)	Integrated Electret 2.6 mm microphone at viewing end with excellent response & sensitivity 2.5 metre lead from endoscope head section to pocket size battery powered amplifier box With on/off switch and phono socket for audio out	

UNDER DOOR VIEWING SYSTEMS WITH AUDIO

■ UNDER DOOR VIEWING SYSTEMS WITH AUDIO

- Completely self-contained and portable units designed to slide under any door where there is a 4mm gap. Wide 85° field of view with a 20° upward viewing direction.
- Three choices – a video-based system with built-in screen (Watec Camera), or Night Vision (Star 300 Camera) or a fibreoptic system for viewing with the eye with add-on cameras if required. All options have built-in audio.

UDV-VIDEO



Cameras: Watec 902 1/3" CCD 570 lines 0.00009 lux (MK2) or Night Vision Star 300 1/3" with image integration CCD 580 lines 0.00005 lux (MK3)

Screen: 5" TFT colour with wide viewing angle in rugged metal case with audio and video out to allow remote operation

UDV-EYE



Fibreoptic Cable: High Resolution 30K Pixel, 1500mm long leading to focussing eyepiece which allows the operator to stand well away from the door

Power & Controls: PP3 9V Battery plus 12V input for external supply, on/off switch, fuse and two audio out sockets

**UDV-MK2 OR
NIGHT VIEW UDV-MK3
[ADD P (PAL) OR N
(NTSC)]**

**ORDER
CODES**

UDV-EYE

APPLICATIONS:

Designed for Firearms Teams, Drug Enforcement and Special Forces etc to provide audio and visual real-time intelligence, prior to entry into target premises

HIGH RESOLUTION FLEXIBLE MINIATURE FIBROSCOPES

■ WITHOUT ILLUMINATION - USING 30K & 50K PIXEL QUARTZ FIBRE IMAGE SYSTEMS



- Superb resolution and light transmission. Custom built lengths available (up to 30M for 30K types)
- All scopes are without illumination and MO types have focussing and corrected images. For maximum light transmission we can supply with inverted image using camera to turn right way up. MX types with inverted image are ideal for video applications
- Miniaturised head section or integrated 'C' Mount on CM02 models
- Guide Tubes for 1.9mm versions allow conversion from flexible to rigid
- See accessory section for TV adapters, Video cameras and IR illuminators etc

APPLICATIONS: Covert surveillance by viewing through keyholes, ceilings, walls & under doors. Virtually undetectable. Longer lengths can be integrated into service ducts.

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	PIXELS
MO.190500.0085.0 MO.191000.0085.0 MO.194000.0085.0	1.9	500 1000 4000	0°	85°	30000
CM02.190275.1085.O	1.9	275	10°	85°	30000 'C' Mount
MX.190500.0085.O MX.191000.0085.O	1.9	500 1000	0°	85°	30000 Inverted Image - fixed focus
UPIX2.10500F	2.1	500	0°	50°	50000
UPIX4.00600F*	4.0	600	0°	70°	50000

■ GUIDE TUBES FOR 1.9MM MODELS:

CODE	FITS DIA MM	DESCRIPTION
MSP.25500 MSP.251000	1.9	Straight End Guide Tube 2.5mm Dia x 500mm Long " " " " 2.5mm Dia x 1000mm Long
MSP.25500.CR MSP.251000.CR	1.9	Cranked End Guide Tube 2.5mm Dia x 500mm Long " " " " 2.5mm Dia x 1000mm Long



■ INTERCHANGEABLE OBJECTIVES FOR UPIX4 MODEL:

CODE	NOTES
UPIX00.070	0° / 70°
UPIX030.070	30° / 70°
UPIX070.070	70° / 70°
UPIX090.070	90° / 70°

Included with UPIX4 scope – tapers to 1.5mm Dia

■ WITH ILLUMINATION - USING 30K PIXEL QUARTZ FIBRE IMAGE SYSTEMS

- Illuminated versions equally suitable for search and surveillance
- 3.8mm versions have metal reinforced PU covering for rugged applications

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	PIXELS
MO.240500.0085 MO.241000.0085	2.4	500 1000	0°	85°	30000
MO.240150.9050 MO.240500.9050 MO.241000.9050	2.4	150 500 1000	90°	50°	30000
MO.380600.0085PU MO.381000.0085PU	3.8	600 1000	0°	85°	30000

■ GUIDE TUBES FOR 2.4 & 3.8MM MODELS:

CODE	FITS DIA MM	DESCRIPTION
MSP.30500 MSP.301000	2.4	Straight End Guide Tube 3mm Dia x 500mm Long " " " " 3mm Dia x 1000mm Long
MSP.30500.CR MSP.301000.CR	2.4	Cranked End Guide Tube 3mm Dia x 500mm Long " " " " 3mm Dia x 1000mm Long
MSP.30500.90 MSP.301000.90	2.4	Window Guide Tube for 90° Versions 3mm Dia x 500mm Long " " " " " " 3mm Dia x 1000mm Long
FSGT.08.600 FSGT.08.1000	3.8	Flex & Stay Guide Tube 8mm Dia x 600mm Long " " " " " " 8mm Dia x 1000mm Long

FLEXIBLE MICRO FIBRESCOPIES

■ WITH ILLUMINATION - USING 3K, 6K AND 10K PIXEL QUARTZ FIBRE IMAGE SYSTEMS



- Superbly engineered instruments with leading edge optical technology
- All feature a new miniaturised lightweight focussing eyepiece head section
- Fibrescope diameters start at 0.5mm (0.35mm on request)
- Side viewing versions available as small as 1mm

APPLICATIONS: Ideal for the visual investigation of extremely small apertures.

CODE	DIAMETER MM	DIRECTION OF VIEW	LENGTHS MM	FIELD OF VIEW	PIXELS
MO.050500.0070 MO.051000.0070 MO.051500.0070	0.5	0°	500 1000 1500	70°	3000
MO.100500.0070 MO.101000.0070 MO.101500.0070	1.0	0°	500 1000 1500	70°	6000
MO.100500.9050 MO.101000.9050 MO.101500.9050	1.0	90°	500 1000 1500	50°	6000
MO.140500.00110 MO.141000.00110 MO.141500.00110	1.4	0°	500 1000 1500	110°	10000
MO.140500.9050 MO.141000.9050 MO.141500.9050	1.4	90°	500 1000 1500	50°	6000

MICRO PENCIL PROBE ENDOSCOPES

■ WITH ILLUMINATION - USING 6K, 10K, 17K & 30K PIXEL QUARTZ FIBRE IMAGE SYSTEMS



- Flexible in their main part and terminating with a pencil grip handle and rigid insertion probe. Ideal for inspection of areas where small access opens out into a void or where controlled rotation is required with a side viewing instrument
- Standard insertion probe diameters are 0.8mm, 1.0mm & 1.4mm, other diameters are available on request. Side viewing versions are available from 1.0mm diameter
- Length of the insertion probe can be chosen to suit the application – typical lengths range from 50mm to 300mm – longer lengths available on request
- Pencil probes have a miniaturised fixed eyepiece. Versions with detachable eyepiece and TV heads are available on request
- All probes have built-in illumination but are equally suitable for covert surveillance

APPLICATIONS: Covert surveillance, insertion through keyholes and walls where break-through holes need only be 1mm. Investigation of internals of small mechanisms including EOD applications

MICRO PENCIL PROBE ENDOSCOPES CONTD....

■ STANDARD PENCIL PROBES WITH FOCUSING EYEPIECE:

CODE	DIA MM	DIRECTION OF VIEW	INSERTION PROBE LENGTH MM	FLEXIBLE LENGTH MM	FIELD OF VIEW	PIXELS
PP.080050.0070 PP.080080.0070	0.8	0°	50 80	800	70°	6000
PP.100050.0085 PP.100100.0085 PP.100300.0085	0.96	0°	50 100 300	1000	85°	6000
PP.100050.9050 PP.100100.9050 PP.100300.9050	0.96	90°	50 100 300	1000	50°	6000
PP.100050.0085.17 PP.100100.0085.17 PP.100150.0085.17 PP.100300.0085.17	0.96	0°	50 100 150 300	1000	85°	17000
PP.140050.00100 PP.140100.00100 PP.140300.00100	1.4	0°	50 100 300	1000	100°	10000
PP.140050.9050 PP.140100.9050 PP.140300.9050	1.4	90°	50 100 300	1000	50°	6000
PP.200050.0085 PP.200100.0085	2.0	0°	50 100	1000	85°	30000

■ RETRACTABLE PENCIL PROBES FOR THROUGH WALL APPLICATIONS:

These special instruments have a 0.8mm probe housed within an insertion tube of 4.8mm. The probes can slide forward or be retracted and movement is indicated on an engraved scale. Designed for use with silent drills (see accessory section for drill information)

CODE	VIEWING PROBE DIA	PROBE LENGTH	INSERTION TUBE DIA	TUBE LENGTH	PIXELS
MO.080080.0070.HG4UF	0.8mm	80mm	4.8mm	250mm	6000
MO.100080.0085.HG4UF	1.0mm	80mm	4.8mm	250mm	17000
MO.150080.0085.HG4UF	1.5mm	80mm	4.8mm	250mm	30000

MICRO BORESCOPIES RIGID & SEMI RIGID

■ WITH ILLUMINATION – CHOICE OF FIBREOPTIC OR LENSES FOR IMAGE SYSTEM



- Superbly engineered instruments representing leading edge optical technology
- All feature a new miniaturised lightweight focussing eyepiece head section
- MR Series Semi Rigid Micro Borescopes incorporate high resolution fibreoptic image bundles in 1.2mm and 2.7mm diameters

■ SEMI RIGID MICRO BORESCOPIES – MR SERIES:

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	PIXELS
MR.12150.00110 MR.12250.00110	1.2	150 250	0°	100°	10000
MR.12080.9050 MR.12150.9050 MR.12250.9050	1.2	80 150 250	90°	50°	6000
MR.27150.0085 MR.27250.0085 MR.27500.0085	2.7	150 250 500	0°	85°	30000
MR.27080.9050 MR.27150.9050 MR.27250.9050	2.7	80 150 250	90°	50°	30000

MICRO BORESCOPIES RIGID & SEMI RIGID CONTD...

■ RIGID MICRO BORESCOPIES – ME SERIES:



- ME Series Rigid Micro Borescopes use high resolution lens systems in 1.8mm, 2.7mm, 2.9mm, 4.0mm and 5.0mm diameters
- 4mm & 5mm ME Series Rigid Micro Borescopes are heat resistant up to 120°C

CODE	DIAMETER MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW
ME.18090.0035	1.8	95	0°	30°
ME.18090.0080		95		80°
ME.18155.0035		160		30°
ME.18155.0080		160		80°
ME.27035.00100	2.7	34	0°	80°
ME.27090.0035		95		35°
ME.27185.0035		185		35°
ME.27120.0085		120		80°
ME.27120.3085	2.7	120	30°	85°
ME.27120.7085			70°	80°
ME.27210.0085	2.7	210	0°	80°
ME.27210.3085			30°	85°
ME.27210.7085			70°	80°
ME.27300.0085	2.7	302	0°	80°
ME.27300.3085			30°	85°
ME.27300.7085			70°	80°
ME.40175.00100	4.0	175	0°	100°
ME.40175.30100			30°	
ME.40175.45100			45°	
ME.40175.70100			70°	
ME.40300.0080	4.0	302	0°	80°
ME.40300.7080			70°	
ME.50310.0080	5.0	312	0°	73°
ME.50310.3080			30°	

Rotatable Mirror Tubes for 70°, 90° and 100° Viewing Direction are available for 30° Field Of View Borescopes
Code: MS & MSS ranges (enquire for details)

SPECIAL SHORT LENGTH MICRO BORESCOPIES - ALL RIGID / SEMI RIGID UNLESS OTHERWISE STATED

APPLICATIONS: Ideal for viewing inside locks and other small mechanisms

CODE	DIA MM	LENGTH MM	DOV	FOV	IMAGE SYSTEM	INSERTION TUBE
MO.100060.9050	1.0	60	90°	50°	FIBRE	FLEXIBLE
MSP.13060.MO90	1.3	60	RIGID GUIDE TUBE FOR ABOVE WITH 90° VIEWING WINDOW			SEMI RIGID
MR.18100.9050	1.8	100	90°	50°	FIBRE	SEMI RIGID
111 170 571	1.7	60	15°	50°	LENS	RIGID
111 171 031	1.7	105	15°	50°	LENS	RIGID
MO.240110.9050.JF	2.4	110	90°	50°	FIBRE	FLEXIBLE
MSP.29080.MO	2.9	80	RIGID GUIDE TUBE FOR ABOVE			RIGID
112 028 087-055	2.8	85	90°	55°	LENS	RIGID
112 040 087-055	4.0	85	90°	55°	LENS	RIGID

FIBROSCOPES WITH TIP ANGLULATION ULTRAVIEW HR, ULT2-4, SR & ES SERIES

- Capable of inspecting voids and cavities with excellent clarity
- The HR Series 5.5mm instruments are the smallest ever to feature 4-way tip angulation and interchangeable objectives
- The ES Series includes instruments with retrieval channels
- The ULT2-4 Series fibscopes have 90° prism attachments optionally available from 4mm diameter
- Most ULT2-4 Series instruments have integral light guides. On HR types the light guides are detachable allowing the length to be chosen by the customer or one of our hand light sources to be connected directly to the head section

APPLICATIONS: Ideal for all search applications including vehicles, wall cavities, floor and ceiling voids and cargo and container areas. Surveillance applications include under door viewing (rooms and rear of doors).



■ HR SERIES:

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP ANGULATION	IMAGE BUNDLE TYPE
HR.29030.0070.PV2X HR.29075.0070.PV2X HR.29100.0070.PV2X HR.29125.0070.PV2X	2.9	300 750 1000 1250	0°	70°	2 –way	6k Pixel Quartz Fibre
HR.34030.0070.PV2X HR.34042.0070.PV2X HR.34075.0070.PV2X HR.34100.0070.PV2X HR.34125.0070.PV2X	3.4 (3.2 on Request)	300 420 750 1000 1250	0°	70°	2 –way	7k Pixel Glass Fibre
HR.38030.0080.PV2X HR.38042.0080.PV2X HR.38075.0080.PV2X HR.38125.0080.PV2X HR.38150.0080.PV2X	3.8	300 420 750 1250 1500	0°	80°	2 –way	10k Pixel Glass Fibre
HR.55130.0040.ST4X HR.55180.0040.ST4X	5.5	1300 1800	0° 40° Interchangeable (see below) 0°/80°, 90°/50°, 90°/90°		4 –way	20k Pixel Glass Fibre

■ INTERCHANGEABLE OBJECTIVES FOR 5.5 MM FIBROSCOPES (ABOVE)

CODE	DIRECTION OF VIEW	FIELD OF VIEW
WOF5.550080	0°	80°
WOF5.559050	90°	50°
WOF5.559090	90°	90°

■ FLEX & STAY GUIDE TUBES FOR HR SERIES FIBROSCOPES

HRFGT_ _ _ . _ _

With a quick clutch head section to fibroscope and a replaceable Dekabon Flex & Stay Tube. Tube sizes are 6.0mm (outer diameter) for 2.9mm & 3.4mm instruments, 8.0mm for 3.8mm, and 12.5mm for 5.5mm. (Add tube diameter and length to HRFGT code when ordering)

FIBROSCOPES WITH TIP ANGLULATION CONTD...

■ **ULT2-4 & SR SERIES:**

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP ANGULATION	PIXELS
ULT2-24-040 ULT2-24-070 ULT2-24-100 ULT2-24-130	2.4	400 700 1000 1300	0°	60°	2-way	6k Glass
ULT2-4-100 ULT2-4-150 ULT2-4-200	4.0	1000 1500 2000	0°	60°	2-way	8k Glass
ULT2-6-100	6.0	1000	0°	60°	2-way	-
SR.6013.00105.2X SR.6018.00105.2X SR.6023.00105.2X	6.0	1350 1850 2300	0°	105°	2-way	-
SR.8013.00105.2X SR.8018.00105.2X SR.8023.00105.2X SR.8035.00105.2X	8.0	1350 1850 2300 3500	0°	105°	2-way	-
ULT4-6-100	6.0	1000	0°	60°	4-way	10k Glass
SR.6013.00105.4X SR.6018.00105.4X SR.6023.00105.4X	6.0	1350 1850 2300	0°	105°	4-way	-
ULT4-6-300	6.0	2750	0°	60°	4-way	10k Glass
ULT4-8-100	8.0	1000	0°	55°	4-way	16k Glass
SR.8013.00105.4X SR.8018.00105.4X SR.8023.00105.4X SR.8035.00105.4X	8.0	1350 1850 2300 3500	0°	105°	4-way	-
ULT4-8-450 ULT4-8-600	8.0	4500 6000	0°	55°	4-way	16k Glass
ULT2-24AK-AS-K **	8.5	660	0°	55°	2-way	8k Glass

** NOTE: The above instrument has a Flex-&Stay Stainless Steel Insertion Tube and is also available as part of a kit (See Page 16 Kit No: ESK-8)



■ **SIDE-VIEW ADAPTERS**

ULT-2-4SVTA	90° Side View Adapter for 4mm Fibrescope
ULT-4-6SVTA	90° Side View Adapter for 6mm Fibrescope
ULT-4-8SVTA	90° Side View Adapter for 8mm Fibrescope

■ **FLEX-&STAY GUIDE TUBES FOR ULT SERIES FIBROSCOPES**

ULT4FGT125. __	Screws to Fibrescope head section – 12.5mm outer diameter for 6mm and 8mm instruments. Dekabon tubing is replaceable. (Add tube length to code when ordering)
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■ **ATEX CERTIFIED FIBROSCOPE KIT - FOR PETROL TANKS & OTHER EXPLOSIVE ATMOSPHERES **** **CODE: ESK12.819EX/G**

This kit is certified for use in Zone 'O'. It comprises an 8mm x 2000mm 4-way angulated fibroscope, 3 metre liquid light guide, 30W metal halide light source, mains power supply, battery pack & charger, all in one small Peli case together with User Manual & Certificate

**** SEE KIT SECTION
(PAGE 15) FOR MORE
DETAILS**



FIBROSCOPES WITH TIP ANGULATION CONTD...

■ ES SERIES: FIBROSCOPES - FOR FUEL TANKS & OTHER HAZARDOUS AREAS

■ NON CONDUCTIVE WITH CRUSH RESISTANT CONSTRUCTION

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP ANGULATION	PIXELS
ES06.200.0050 ++*	6.0	2000	0°	50° or 70°	4-way	10k Glass
ES06.300.0050 ++		3000				

* This instrument can also be purchased as part of a Non-Certified kit (see Page 15 – ESK12.6.20)

++ NOTE: These instruments are non-conductive (non-metallic insertion tube & tip) and built to last with crush-resistant construction

■ NON CONDUCTIVE WITH 3.2MM RETRIEVAL CHANNEL

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP ANGULATION	PIXELS
ES10.100.070	10.0	1000	0°	70°	4-way	10K Quartz
ES10.150.070		1500				
ES10.200.070		2000				
ES10.300.070		3000				

These instruments have a 3.2mm Retrieval Channel for which the following retrieval tools is available:

Basket	Medical Biopsy Cup	Alligator Grips
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ULTRACAM VIDEOSCOPIES

■ ULTV PLUG-&-PLAY RANGE - FOR MAXIMUM PORTABILITY - NO CONTROL UNIT - USE ANY MONITOR & LIGHT SOURCE

- Colour systems available in 6mm without angulation, and in 6mm & 8mm with 2-way and 4-way tip angulation
- Black & White systems (IR illumination compatible) available in 8mm without illumination and 10mm with illumination
- Tungsten braid insertion tube – inter-changeable objectives (0°/58° and 0°/90° supplied as standard - 90°/50° optional extra)
- Resolution: 6mm = 1/6" CCD 470 lines
8mm = 1/4" CCD 330 lines
- Video signal: PAL (Std) NTSC on request



■ STANDARD VIDEOSCOPIES WITHOUT TIP ANGULATION

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP	COLOUR OR BLACK/WHITE
ULTV.Z0-6-600	6.0	6000	0°	58°/90°	None	Colour
ULTV.Z0-6-800		8000				
ULTV.Z0-6-1200		12000				
ULTV.Z0-6-1500		15000				

■ STANDARD VIDEOSCOPIES WITH TIP ANGULATION

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP	COLOUR OR BLACK/WHITE
ULTV.Z2-6-150	6.0	1500	0°	58°/90°	2-way	Colour
ULTV.Z2-6-200		2000				
ULTV.Z2-6-300		3000				
ULTV.Z4-6-150	6.0	1500	0°	58°/90°	4-way	Colour
ULTV.Z4-6-200		2000				
ULTV.Z4-6-300		3000				
ULTV.Z4-6-600		6000				
ULTV.Z4-6-750		7500				
ULTV.Z2-8-150	8.0	1500	0°	58°/90°	2-way	Colour
ULTV.Z4-8-150	8.0	1500	0°	58°/90°	4-way	Colour
ULTV.Z4-8-200		2000				
ULTV.Z4-8-300		3000				
ULTV.Z4-8-500		5000				
ULTV.Z4-8-600		6000				
ULTV.Z4-8-750		7500				

ULTRACAM VIDEOSCOPIES CONTD....

■ SIDE VIEW TIP ADAPTERS FOR ULTV VIDEOSCOPE RANGE

ULTV.4-6SVAT	Side Viewing (90°/58°) for 6 mm Probes
ULTV.4-8SVAT	Side Viewing (90°/58°) for 8 mm Probes

■ BLACK & WHITE PORTABLE VIDEOSCOPIES & KITS

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP	COLOUR OR BLACK/WHITE
WITH ILLUMINATION						
ULTV.BW4-8-100	8	1000	0°	58°/90°	4-way	Black & White
ULTV.BW4-8-150		1500				

CODE	DIA MM	LENGTH MM	DIRECTION OF VIEW	FIELD OF VIEW	TIP	COLOUR OR BLACK/WHITE
ULTV.BW4-8-100KIT (Endoscope with illumination, hand held display & deluxe case)	8	1000	0°	58°/90°	4-way	Black & White
ULTV.BW4-8-150KIT (Endoscope with illumination, hand held display & deluxe case)	8	1500	0°	58°/90°	4-way	Black & White

RECOMMENDED CONNECTION OPTIONS:

To 6.5" Screen
& Image Capture System
SX650



To Hand-Held Display
ULTZ-PVIEW



To Ultracam Multi-Function
Video Workstation
ULTCAM.MVW-1



SUGGESTED LIGHT SOURCE: XLH-30.2 WITH 9391/PEK BATTERY PACK

■ CONNECTING OPTIONS

SX650	6.5" Combi screen & image capture device with harness
ULTZ-PVIEW	2.5" Hand Held Display
ULTCAM.MVW-1	Convenient compact system incorporating remote head colour camera, flip-up 10.4" screen, 50W high intensity Xenon lamp and image capture onto USB stick

ULTRACAM VIDEOSCOPIES CONTD....

■ ULTRACAM CLASSIC RANGE - WITH ADVANCED FEATURES INCLUDING MOUNTABLE PDA

- Truly outstanding image quality resulting from the very latest optical design
- Available in 6mm & 8mm diameter each with single hand operation, 4-way tip angulation and interchangeable objectives
- Standard lengths 2000mm and 3000mm
- Viewing options include flip-up screen on MP500 Workstation, snap-on screen, or snap-on PDA to Videoscope head
- The PDA combination allows for image viewing, storage and transmission via Bluetooth, email or MMS. Adjustable pan and tilt for optimised viewing



CODE	DIA MM	LENGTH MM	RANGE OF ARTICULATION	STD FIXED OBJECTIVE
FSC.V1.062000.2	6	2000	4 x 150°	0°/50°
FSC.V1.063000.2		3000	4 x 140°	
FSC.V1.082000.2	8	2000	4 x 120°	0°/45°
FSC.V1.083000.2		3000		

■ **OPTIONAL OBJECTIVES:** Each Videoscope is supplied with a fixed objective. The following optional interchangeable objectives can be attached to the fixed objective

CODE	DIRECTION OF VIEW	FIELD OF VIEW	DEPTH OF SHARPNESS MM
For 6mm:			
FSC.VO06.0080	0°	80°	25 - infinity
FSC.VO06.0080.N	0°	80°	5 - 25
FSC.VO06.9050	90°	50°	25 - 160
For 8mm:			
FSC.VO08.0080	0°	80°	45 - infinity
FSC.VO08.9050	90°	50°	45 - infinity

RECOMMENDED CONNECTION OPTIONS:

FSC.180X.301
Workstation



- Desktop
- 180W Xenon Lamp
- 4 Camera Control Unit for workshop Applications
- Add screen to suit

Ultraview Hi-light
MP500 Workstation



Feature packed mobile unit includes 50W Metal Halide Lamp & Image integration for low light

5.6" monitor
FA.TVMON56TFT



Snap locks to Videoscope head augments or can replace MP500 screen

PDA – Fujitsu
LOOX.720



Snap locks to Videoscope head to provide every conceivable image storage & transmission option

■ CONNECTING OPTIONS

FSC.180X.301	180W Xenon Lamp & 4-camera control for workshop applications
MP500	Mobile Unit with 50W Metal Halide Lamp & Image Integration
FA.TVMON56TFT	Compact 5.6" Monitor which snap-locks to Videoscope head
PDA-LOOX.720	Snap-locks to Videoscope head to provide image storage & transmission

ULTRAVIEW RIGID BORESCOPIES WITH ROTATIONAL SCANNING

- Diameters from 2.8mm to 15mm and lengths from 120mm to 3295mm with a complete range of directions and fields of view
- Optimised distortion-free optics for outstanding quality and ergonomic all metal stainless steel construction with detachable handgrip
- 360° rotational scanning on all models up to 10mm allows complete all round viewing without moving the head section and light guide
- Temperature resistant to 150°C and pressure resistant to 3 bars. Also resistant to gasoline, water, fuels, machine oils etc. Full range of accessories available including TV adapters, light sources, light guides, video systems etc



DIA MM	DIRECTION OF VIEW	FIELD OF VIEW	LENGTH MM
2.25	30°	90°	380 (non-illuminated)
2.8	0°	40°	125, 254, 383
	0°	90°	130, 254, 383
	30°	90°	120, 250, 379
	90°	55°	185, 245, 314
4.0	0°	40°	120, 245, 370
	0°	100°	120, 245, 370
	30°	55°	120, 245, 370
	70°	55°	120, 245, 370
	90°	55°	175, 300, 425

DIA MM	DIRECTION OF VIEW	FIELD OF VIEW	LENGTH MM
5.8	0°	40°	135, 275, 415, 555
	0°	100°	146, 286, 426, 566
	45°	65°	135, 205, 275, 345
	70°	65°	135, 205, 275, 345
	90°	65°	135, 205, 275, 345
8.0 & 10.0	0°	40°	225, 425, 625, 825, 1025
	0°	100°	236, 436, 636, 836, 1036
	45°	55°	225, 325, 425, 525, 625
	70°	65°	225, 325, 425, 525, 625
	90°	65°	225, 325, 425, 525, 625, 725

CODE: 112 _____ range (see Price List or contact us for complete code numbers)

■ 90° SIDE-VIEWING MIRROR TUBES FOR 0°/40° RIGID BORESCOPE ABOVE:

CODE: 192 _____ range (see Price List or contact us for complete code numbers)

ULTRAVIEW RIGID SWING PRISM BORESCOPIES



- These superbly engineering Swing Prism Boreoscopes feature the very latest optical and mechanical design
- Robust solid stainless steel construction with detachable handgrip and 340° rotational scanning as standard
- Continuously adjustable 140° panning range (from -7° Forward to +133° Retro with 45° field of view) – one Swing Prism Boreoscope can replace three or four conventional types
- Fibreoptic illumination is cleverly designed to give bright and even illumination over the entire image field

DIA MM	LENGTH MM
6.0	175, 245, 315, 385, 455, 945
8.0	115, 185, 255, 325, 395, 465, 605
9.0	205, 305, 405, 505, 605, 1405
12.0	205, 305, 405, 505, 605, 1005

CODE: 132 _____ - ____ range

(see Price List or contact us for complete code Numbers)



ULTRAVIEW RIGID TRUE ZOOM BORESCOPIES

- Continuously controllable 5X zoom objective which actually changes the field of view from 7° to 35° enabling instantaneous magnified images without alteration to picture size or resolution
- Temperature resistant to 150°C, pressure resistant to 3 bars, fluid resistant and with solid stainless steel construction



8MM DIAMETER		10MM DIAMETER		12MM DIAMETER	
CODE	DIA x LENGTH x DOV	CODE	DIA x LENGTH x DOV	CODE	DIA x LENGTH x DOV
131 080 320	8 x 320mm x 0°	131 100 320	10 x 320mm x 0°	131 120 320	12 x 320mm x 0°
131 080 520	8 x 520mm x 0°	131 100 520	10 x 520mm x 0°	131 120 520	12 x 520mm x 0°
131 080 720	8 x 720mm x 0°	131 100 720	10 x 720mm x 0°	131 120 720	12 x 720mm x 0°
131 080 223	8 x 220mm x 45°	131 100 920	10 x 920mm x 0°	131 120 920	12 x 920mm x 0°
131 080 323	8 x 320mm x 45°	131 100 223	10 x 220mm x 45°	131 120 323	12 x 320mm x 45°
131 080 423	8 x 420mm x 45°	131 100 323	10 x 320mm x 45°	131 120 423	12 x 420mm x 45°
131 080 523	8 x 520mm x 45°	131 100 423	10 x 420mm x 45°	131 120 523	12 x 520mm x 45°
131 080 227	8 x 220mm x 90°	131 100 523	10 x 520mm x 45°	131 120 623	12 x 620mm x 45°
131 080 327	8 x 320mm x 90°	131 100 623	10 x 620mm x 45°	131 120 723	12 x 720mm x 45°
131 080 427	8 x 420mm x 90°	131 100 723	10 x 720mm x 45°	131 120 823	12 x 820mm x 45°
131 080 527	8 x 520mm x 90°	131 100 823	10 x 820mm x 45°	131 120 923	12 x 920mm x 45°
131 080 627	8 x 620mm x 90°	131 100 923	10 x 920mm x 45°	131 120 327	12 x 320mm x 90°
131 080 727	8 x 720mm x 90°	131 100 227	10 x 220mm x 90°	131 120 427	12 x 420mm x 90°
131 080 827	8 x 820mm x 90°	131 100 327	10 x 320mm x 90°	131 120 527	12 x 520mm x 90°
		131 100 427	10 x 420mm x 90°	131 120 627	12 x 620mm x 90°
		131 100 527	10 x 520mm x 90°	131 120 727	12 x 720mm x 90°
		131 100 627	10 x 620mm x 90°	131 120 827	12 x 820mm x 90°
		131 100 727	10 x 720mm x 90°	131 120 927	12 x 920mm x 90°
		131 100 827	10 x 820mm x 90°		
		131 100 927	10 x 920mm x 90°		

ULTRAVIEW SWING ZOOM COMBI BORESCOPIES

- These superb instruments, available in 12mm & 14mm diameter, combine the features of the True Zoom Range and the advantages of the Swing Prism Range
- Three controls enable adjustment of focussing, continuous field of view zooming from 7° to 35°, and continuous viewing direction panning from forward to retro
- Ergonomic all-metal construction
- Temperature resistant to 150°C and pressure resistant to 3 bars. Also resistant to petrol, water, fuels, machine oils etc



12MM DIAMETER		14MM DIAMETER	
CODE	DIA x LENGTH	CODE	DIA x LENGTH
131 120 392	12mm x 390mm	131 140 392	14mm x 390mm
131 120 492	12mm x 490mm	131 140 492	14mm x 490mm
131 120 592	12mm x 590mm	131 140 592	14mm x 590mm
131 120 692	12mm x 690mm	131 140 692	14mm x 690mm
131 120 792	12mm x 790mm	131 140 792	14mm x 790mm
131 120 892	12mm x 890mm	131 140 892	14mm x 890mm
131 120 992	12mm x 990mm	131 140 992	14mm x 990mm
131 121 092	12mm x 1090mm		
131 121 192	12mm x 1190mm		
131 121 292	12mm x 1290mm		

ENDOSCOPE SEARCH KIT CODES: ESK-1.42, ESK-1.75 OR ESK-1.125



CONTENTS:

FIBRESCOPE OPTIONS:

Diameter: 3.4mm with 2-way tip angulation
Lengths: 420, 750 or 1250mm

With the following accessories:

- Hand Light Source
- Spare Lamp
- 2 x Endoscope Entry Tools
- Dead Blow Hammer
- 5 x 1000mm Liquid Light Guide
- NiCad Battery Pack & Charger
- Endoscope Cleaning Kit
- Soft Bag with hard foam cut-outs

APPLICATIONS:

Small diameter fibrescope allows entry into areas with limited access. Also small enough to go under doors for discreet surveillance

ATEX CERTIFIED NON-CONDUCTIVE FIBRESCOPE SEARCH KIT CODE: ESK12.8.19EX/C

Certified to ATEX Directive 05ATEX4166 for use in potentially explosive areas – petrol tanks, EOD etc

NOTE: In order to comply with the requirements of the Certification, no items can be changed or used in combination with other devices



CONTENTS:

- Non-conductive Fibrescope 8 x 1900mm with 4-way angulation 0°/80°
- Liquid Light Guide
- 30W Xenon Light Source
- Mains Power Supply 90-260V 50-60Hz
- Battery Pack & Charger
- User Manual & Certificate
- Peli Case with hard foam cut-outs

**ALSO AVAILABLE AS A NON-CERTIFIED
VERSION WITH 6MM X 2000MM 0°/50°
FIBRESCOPE
CODE: ESK-12.6.20 (NON-CERTIFIED)**

GENERAL PURPOSE SEARCH KIT
CODES: ESK-2-V3.10, ESK-2-V3.15, ESK-2-V3.20 OR
ESK-2-V3.27



CONTENTS:

Fibrescope Options:

Diameter: 6mm with 4-way tip angulation
Lengths: 1000, 1350, 1850 or 2750mm

With the following accessories:

- HL-FXE 75W Halogen Hand Light Source
- Spare Lamp
- 2 x Endoscope Entry Tools
- Dead Blow Hammer
- NiCad Battery Pack & Charger
- Endoscope Cleaning Kit
- Kitcase with hard foam cut-outs

APPLICATIONS:

An ideal general purpose kit for inspection under floors, in ceiling spaces and cargo areas etc

FLEX & STAY FIBRESCOPE SEARCH KIT
CODE: ESK-8



CONTENTS:

- Flex & Stay Fibrescope 8.5mm x 660mm with 2-way angulation 0°/55°
- HL-FXE 75W Halogen Hand Light Source
- Spare Lamp
- Power Tank Lead Acid Battery with charging adapter
- Cleaning Kit
- Kitcase with hard foam cut-outs

APPLICATIONS:

A low-cost rummage/search kit in a compact and portable case – ideal for ships and aircraft inspection

VIDEOSCOPE PORTABLE SEARCH KIT CODES: ESK-31.15, ESK-31.20 OR ESK-31.30



CONTENTS:

Videoscope Options:

Diameter: 6mm with 4-way tip angulation
Lengths: 1500, 2000 or 3000mm
(use above codes when ordering)

With the following accessories:

- Hand-held display ULTZ-PVIEW
- Hand Light Source HL-FXE
- Spare Lamp
- NiCad Battery Pack & Charger
- Endoscope Cleaning Kit
- Lockable Kitcase

APPLICATIONS:

The *ULTIMATE* Search Kit providing high resolution video images. Plugs directly into monitor – no additional control unit needed. Use to inspect buildings, aircraft, ships, containers and cargo areas

VIDEOSCOPE PORTABLE SEARCH KIT CODES: ESK-32.15, ESK-32.20 OR ESK-32.30

An enhanced version of ESK31 kit shown above replacing the separate Light Source and Screen with our ULTCAM.MW-1 ALL-IN-ONE VIDEO WORKSTATION

- Flip Up 10.4" TFT Viewing Screen
- 50W Metal Halide Integrated Light Source
- Image Capture onto USB Stick
(See Page 26 for more details)

CONTENTS:

Videoscope Options:

Diameter: 6mm with 4-way tip angulation
Lengths: 1500, 2000 or 3000mm
(use above codes when ordering)

With the following accessories:

- Video Workstation ULTCAM.MW-1
- Cleaning Kit
- Peli case ESK32.15.CAS

RIGID BORESCOPE SEARCH KIT CODE: ESK-3



CONTENTS:

- Rigid Swing Prism Borescope
8mm x 325mm
- HL-FXE 75W Halogen Hand Light Source
- Spare Lamp
- Powertank Lead Acid Battery Pack
- 5 x 1000mm Liquid Light Guide & Adapter
- Endoscope Cleaning Kit
- Carry case with hard foam cut-outs

APPLICATIONS:

This Borescope kit is unique in being able to scan from Forward to Retro viewing, so replacing three or four conventional endoscopes at half the cost. Use this kit to view inside wall cavities, drains, lockers etc

SURVEILLANCE KIT WITH MICROPHONE & ENDOSCOPE PROBES CODE: ESK-15



CONTENTS:

- Audio Pencil Probe with 3 Snap Locking Insertion listening Tubes
- High Resolution 17K Pixel Pencil Probe Endoscope with 0.96mm x 300mm Insertion Shaft
- 'C' Mount TV Adapter – TV-ULT28
- Pocket Light Source
- Kitcase with hard foam cut-outs

APPLICATIONS:

A universal Covert Intelligence Kit providing sight and sound through 1mm holes. Ideal for use with silent drills particularly in hostage situations and long-term monitoring of terrorist suspects

SURVEILLANCE KIT WITH AUDIO ENDOSCOPE & SMALL SURVEILLANCE PROBES CODE: ESK-17



CONTENTS:

- Micro Audio endoscope 5mm x 300mm
- Rigid Borescope 2.25mm x 380mm 30° direction field of view
- Rigid Swing Prism Borescope 6mm x 315mm
- Flexible Endoscope 2.4mm x 500mm
- Pocket Light Source
- 'C' Mount TV Adapter – TV-ULT28
- Digital Camera Adapter (37mm thread)
- Endoscope Cleaning Kit
- Soft Bag with hard foam cut-outs

APPLICATIONS:

This Kit contains a high resolution borescope without illumination but with a built-in high sensitivity microphone – *all in a diameter of just 5mm*. The other endoscopes have built-in illumination so can be used for surveillance or search – e.g. viewing small mechanisms such as locks (using illumination), or through keyholes, under doors (non-illuminated) etc. The Swing Prism Borescope is ideal for viewing the normally inaccessible areas of rooms and roof spaces

ULTRACAM MICROVISION VIDEO WORKSTATION KIT CODE: ESK-35



CONTENTS:

- Camera Workstation with umbilical to Camera Head
- Microscope Probe x20 Mag
- Rigid Borescope 2.7mm x 190mm, 70°/80°
- Rigid Borescope 4mm x 270mm with Forward & Side viewing objective sleeves
- Spare Lamp
- Mains Power Supply Unit
- Adapter for standard endoscopes
- Combination 6.5" Colour Screen & Image Capture Device
- Endoscope Cleaning Kit
- Peli Case with hard foam cut-outs

APPLICATIONS:

Probably the smallest and most portable video workstation available. This Kit contains just a few of the probes and microscope heads custom-designed for the unit. A special adapter also allows the use of standard endoscopes. Can be used for forensics, gun barrel inspection, lock inspection and covert applications

TOOL KIT WITH CORDLESS DRILL CODE: ESK-44



CONTENTS:

- Hilti TE-2-A Cordless Rotary Drill complete with battery & charger
- Drill Bits – General Set + 10 x 470mm masonry bit
- Cable & Pipe Detector
- Hilti Laser Distance Measurer & False Partition Locator
- 44-piece Tool Set with socket set, screwdrivers, saw, measuring tape etc

APPLICATIONS:

A comprehensive high quality tool kit which permits entry into target premises prior to endoscopic search or surveillance and finding false partitions in containers and vehicles using the laser distance measurer

C7 – SILENT DRILLING SYSTEM

CODE: C7



- The development of this new Silent Drilling system is the result of many years of professional operational experience
- The complete system is stored in a discreet briefcase to enable quick set-up & user-friendly operation
- In hostage situations, knowledge is vital to a successful outcome and the technique of low noise drilling allows audio and visual intelligence to be gained without alerting the hostage takers
- Unlike other drills the C7 will successfully drill through a wide range of construction materials using the specially developed main drills for long access holes and pinhole drills for the final breakthrough
- Ultrafine are able to offer a complete family of micro endoscopes and audio probes to complement the C7 System

■ SPECIFICATION

DRILL SPEED:	VARIABLE
POWER REQUIREMENTS:	INTERNAL— BATTERIES WILL RUN FOR UP TO 5 HOURS EXTERNAL— 12V DC OR MAINS VIA PSU
MAIN BORE SIZE:	6mm (OTHER SIZES AVAILABLE)
PINHOLE BORE SIZE:	1 mm
DRILL HEAD WEIGHT:	1.6 Kg
SYSTEM WEIGHT IN CASE:	9 Kg
CASE DIMENSIONS:	47 X 36 X 15 cm

CONTENTS:

- Drill Head & Motor
- Wall-mounting Bracket
- Variable Speed Control Box with Built-in Batteries
- Charger & Mains PSU
- Drill Bits & Extension Tubes
- Mounting Plates, Metal Rawplugs & Tools
- Kit Briefcase & User Manual

■ OPTIONAL EXTRA

CODE	DESCRIPTION
HILTI TRANSPONTER	Magnetic field positioning tool (2-part – Transmitter & Receiver) that locates drill exit or starting point and indicates wall thickness. N.B. Requires temporary access to target premises

AUDIO & VISUAL THROUGH-WALL INTELLIGENCE TOOLS RECOMMENDED FOR USE WITH C7 SILENT DRILL



Audio Pencil Probe - Code: PP.AUDIO.1.UF

For audio intelligence, this kit delivers excellent sound quality without the need to make the final breakthrough hole.

Kit contains a pencil grip handle with integrated microphone, 2.5m cable leading to a compact battery/amplifier box and three snap-locking listening probes, one 4.9mm x 250mm for use with the C7, one 1mm x 50mm for passing through locks, and one 2mm x 100mm general purpose probe.

Audio Borescope - Code: MR.500300.0080.MICRO

A combination borescope and audio probe in a remarkable 4.9mm diameter. Options of listening only with making final breakthrough hole or listening and viewing with a 6mm breakthrough hole.

Kit contains one 4.9mm x 300mm 30K pixel resolution audio borescope with 2.5m cable leading to a compact battery/amplifier box.

NOTE: Flexible versions also available—see Page 7



Retractable Pencil Probe - Code: MO.100080.0085.HG4UF

This instrument has a 1mm viewing probe with stunning 17K pixel resolution that is housed in a 4.8mm diameter insertion tube. The viewing probe can slide forward or be retracted within the insertion tube and movement is indicated on an engraved scale. Illumination is built in for use prior to making a breakthrough hole in order to monitor drilling progress and changes in material.

Designed for viewing with the eye, adapters also available for connecting video and digital cameras. Other versions of this probe include a 0.8mm viewing probe with 6K pixel resolution, and a 1.5mm viewing probe with 30K pixel resolution.



Micro Pencil Probe Endoscope - Code: PP.100300.0085.17UF

Smaller than the retractable version above, but without the outer insertion tube, this instrument is flexible in its main part and terminates with a pencil grip handle and 0.96mm diameter x 300mm insertion probe with a wide 85° viewing angle.

With built in illumination and adapters available for video and digital cameras.



2.25mm Rigid 30° Borescope with Rotational Scanning - Code: 113 022 382-090

This non-illuminated rigid borescope has rod lenses for the very best resolution. With a viewing direction of 30°, wide 90° viewing angle and rotational insertion probe, it is possible to achieve all round viewing.

Diameter 2.25mm, Length 380mm, Direction of View 30°, Field of View 90°.

Adapters available for video and digital cameras.



SELECTED ACCESSORIES:

Star 300 Camera	ULTZ-PVIEW Screen	TV & Digital Camera Adapters	Miniature Pocket Light Sources
<p>1/3" B/W Night Vision Camera with Image Integration</p> 	<p>2.5" Hand-held display in metal case with built in batteries</p> 	<p>'C' Mount TV Adapters with quick clutch to endoscope eyepiece. Choose from F15 to F40 or our new parfocal zoom.</p> <p>Digital Adapters screw directly to camera filter thread. Most popular sizes are 37mm & 30mm</p>	<p>SFT-1 - our most popular model with two 3V Lithium batteries and miniature halogen lamp.</p> <p>HL-LED3 - a new ultra-bright LED light with single 3V Lithium battery (rechargeable or replaceable)</p>

ULTRACAM POLE CAMERA SYSTEMS WITH AUDIO CODE: PCAM-1



- Completely portable & modular video Inspection/search kit with built-in microphone
- Lockable swivel & tilt – pre-adjusts the camera head to any direction
- Supplied with IR illumination colour camera – auto changes to black & white in low light conditions
- Lightweight carbon fibre telescopic pole for looking into upper floor windows, over trucks & containers, checking tunnels etc. Extends from 600mm to 2700mm
- Built in battery runs for 4.5 hours
- Rugged waterproof construction and excellent video picture make it ideal for inspection in collapsed buildings & other disaster situations
- Alternative kit available with trolley to enable quick conversion to under vehicle inspection camera

■ **STANDARD KIT CODE: PCAM.1.SS**

- 60mm Dia Colour Camera Head with built-in IR illumination and miniature microphone
- 6.8" Colour LCD monitor with built-in Lithium Ion 2.4 Ah Battery Pack & charging unit
- Lightweight Telescopic Pole extends 600mm to 2700mm
- Headphones
- Soft case with hard foam cutouts

■ **ENHANCED KIT WITH UNDER VEHICLE INSPECTION TROLLEY CODE: PCAM.1.ES**

Includes all the items in the standard kit with the addition of an under vehicle inspection trolley and kit is contained in a hard Peli case

■ **ALTERNATIVE TELESCOPIC POLES & ACCESSORIES**

CODE	DESCRIPTION
PCAM1.PO.1	500mm to 2200mm Pole (Supplied in bag)
PCAM1.PO.2	800mm to 3900mm " " " "
PCAM1.PO.3	1100mm to 5600mm " " " "
PCAM1.BP	Spare Battery Pack

Spare camera heads (different lens options if required) available upon request

■ **ECONOMY TELESCOPIC POLE KIT CODE: ETP-1**

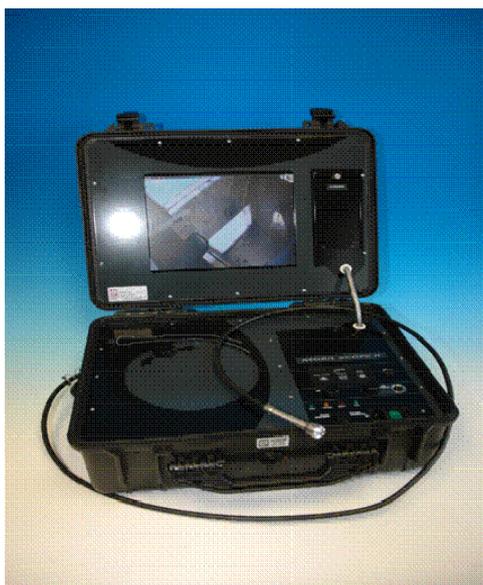
With tripod platform on top end to enable different cameras to be fitted (different power/video signal adapters available) and connection at bottom end to small display

TYPICAL CONFIGURATION:

ETP-1 + Star 300 Camera + Pentax lens + Hand-held Viewer = **A SUPER COVERT VIEWING KIT**

MOBILSCOPE II INSPECTION SYSTEM

CODE: MOBIL-II



A COMPLETE ALL IN ONE INSPECTION SYSTEM WITH 14 METRE VIDEOSCOPE

- This kit represents a new generation of videoscopes. It is a complete system, ready to operate, in a small case measuring only 450 x 205 x 280 mm (w x d x h) and weighing 13 Kg. Ideal for search applications
- Built in batteries allow over 2 hours of continuous use from fully charged. Charging electronics are built in and the unit can also be powered by 100—240V AC mains supply
- The unit has super bright LED illumination, a fully automatic video processor and a 12" TFT colour display built into the lid of case
- The Videoscope probe is 14 metres long with 20mm ellipsoid lens head with integral spring design making it extremely flexible - ideal for inspecting tight pipe elbows, particularly as it is waterproof up to a depth of one metre
- The lens, which has a wide 100° field of view, can nevertheless be focused to the required optimum depth of field. The high resolution 1/4" colour chip has 440,000 pixels, ensuring brilliant, faithful colour image reproduction
- Two outputs allow the connection of an additional 'C' mount camera head for endoscope coupling and the use an external 12V light source
- The unit is extremely versatile external peripherals such as recorders, printers and additional monitors can be easily connected

■ TECHNICAL SPECIFICATIONS:

TV SYSTEM:	PAL
ACTIVE PIXELS:	752(H) X 532 (V)
RESOLUTION:	Horizontal better than 470 lines, vertical more than 350 lines, 440,000 pixels
SYNCHRONISATION:	(internal)
VIDEO IN / OUT:	1.0 V pp/75 Ohm positive and Y/C (S-VHS)
WHITE BALANCE:	Automatic
ALC:	Automatic brightness control -6 dB > + 92 dB
LCD MONITOR:	12", 800 (H) x 600 (V) pixels TFT LCD active matrix
POWER SUPPLY:	12 V DC lead acid battery with built in charging electronics
DISTAL LENS HEAD:	20 mm diameter, IP 67, waterproof to a depth of one metre
WEIGHT:	13 Kg
MAINS VOLTAGE:	100—240 V AC / battery operation
DIMENSIONS:	450 x 205 x 280 mm (w x h x d)

VIDEO WORKSTATIONS

■ **ULTRAVIEW MICROVISION** **CODE: UVM-100**

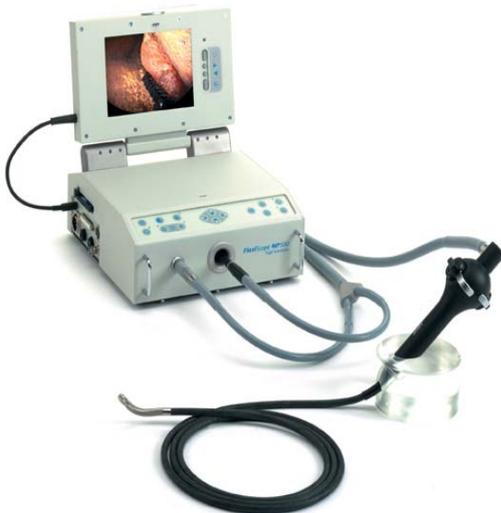
These portable systems comprise a hand-held camera head with integrated in-line illumination and camera cable leading back to a camera control unit. A wide range of videoscopes, endoscopes and video microscope heads are available to snap-lock onto the camera head as required – please contact our sales team for further details.



- Compact Portable Colour Camera System with Remote Head & Integral Light Source
- Wide Range of High Magnification Heads and Flexible or Rigid Endoscopes all snap locking to Camera Head
- Special Adapter allows use of existing endoscopes
- Endoscopes have in-line illumination for covert applications
- Ideal for many law enforcement applications including forensics, weapons and lock inspection

■ **ULTRAVIEW HI-LIGHT** **CODE: MP500**

Top of the range model with powerful 50W Xenon Lamp and image storage on to Smart Card. Suitable for complete range of optional attachments including Micro Endoscopes, Video Microscope heads and Videoscopes. Compatible with Ultrafine's classic range of Videoscopes.



TECHNICAL DATA:

CAMERA SYSTEM:	PAL
VIDEO OUTPUT:	S-VHS/BNC
INPUT VOLTAGE:	85V – 132V AC or 170V – 264VAC (automatic changeover) or battery operation for mobile use 12V DC
HANDLE:	Focusable CCD-chip ½", 768 (l) x 494 (v) 525 lines
DISPLAY:	6.4" TFT, 660 (h) x 234 (v)
IMAGE STORAGE:	64mb Compact Flash Card, JPG format, minimum 500 images
TEMPERATURE:	0°C up to + 40°C
LIGHT SOURCE:	Halogen metal vapour lamp 50W
DIMENSIONS:	Power Unit Case: 250 x 75 x 188 Case without display 250 x 82 x 250 Case with display 250 x 121.5 x 250 inclusive carrying strap
WEIGHT:	Handle 0.7kg, Power Supply 2kg Unit including display 4kg
CABLE LENGTH:	2.6 Metres

■ **ULTRAGAM MULTI-FUNCTION VIDEO WORKSTATION** **CODE: ULTGAM.MVW-1**

A highly convenient compact system incorporating remote head colour camera, flip-up 10.4" screen, high intensity light source and image capture onto USB stick.

- Integrated 50W Metal Halide Lamp. Small focal spot produces maximum light to the light guide
- Small waterproof camera head features a Sony sensor with controls for White Balance, Windows, Boost and Anti-Moiré.
- Images can be captured onto a USB stick for easy transfer to a computer USB port.
- The high quality 10.4" TFT viewing screen has an adjustable viewing angle.



TECHNICAL DATA:

VIDEO SYSTEM:	PAL/NTSC (state which required)
RESOLUTION:	470 TV Lines
AUTO SHUTTER:	1/50 sec TO 1/100.000 sec
SENSITIVITY:	0.9 lux (F:1,4)
VIDEO OUTPUTS:	1 x Y/C, 1 x BNC
LAMP:	Metal Halide 50W 5,500°K colour temperature
SCREEN:	10.4" TFT - 800 x 600 DOTS RESOLUTION
POWER:	90V AC - 260V AC, 50 - 60 Hz 12V INPUT
DIMENSIONS:	294 x 95 x 250 mm
WEIGHT:	6 Kg (Camera head 65g)

■ **PICS-4 PORTABLE INSPECTION CAMERA SYSTEM** **CODE: PICS-4**

The PICS-4 (Portable Inspection Camera system) contains all of the required components for CCTV inspection. It is designed to be transportable and used in any situation either from local mains power or from the built-in battery system. A built-in transmitter and receiver allows optional wireless operation.



STANDARD ITEMS

Lockable Briefcase with:

- Micro Colour Camera comprising waterproof camera head, 3m cable, 12mm wide angle lens and TV adapter
- Digital DV format VCR with 4" screen, memory stick for storage & USB port allowing connection to PC
- Control Panel with Video & Audio connections, Video mode selector switch, transmitter & audio controls
- Microphone with connecting lead
- Built-in NMH Battery system and charging electronics
- Auto-sensing mains operation 85-264V AC 47-440 Hz
- Built-in Video/audio Receiver and Transmitter (2.4GHz) with 4 channel selection
- Miscellaneous cables, connectors and adapters

ADDITIONAL ITEMS AVAILABLE – (CONTACT THE SALES TEAM FOR FURTHER DETAILS):

- Cameras and monitors equipped with transmitters & receivers to enable wireless communication with PICS-4
- Encoders and decoders for secure encrypted video Transmission
- Flexible and rigid endoscopes for remote inspection and security applications
- 7 metre camera extension cable
- Other camera lenses and endoscope couplers

CAMERAS & VIDEO PRODUCTS

COLOUR CAMERAS

CODE		DESCRIPTION
TK-C1480		JVC 1/2" 470 TVL 0.4 Lux 12V DC
WAT-231S		WATEC 1/3" 480 TVL 0.1 Lux 12V DC
PCAM.1.CA		<p>Ultrafine 1/4" 480 lines Day/Night Camera 0.3 lux Colour. 0.006 lux Black & White 12V DC. Compact waterproof enclosure (IP67) 2.97mm lens</p>
ULT.PICS.CAM		<p>Ultrafine 1/3" 470 lines 1 Lux 12V DC Remote waterproof head Endoscopic 'C' mount camera</p>
SMARTCAM		<p>Camera - 1/3" APS Camera Chip (advanced pixel sensor). Integrated Anti-Moiré Filter. Ideal for endoscopes with flexible image bundles. Active window function (puts a box around endoscope image ignoring outer black area) Resolution - 380,000 pixels Format - PAL (NTSC on request) Video Output - Video Composite (FBAS) Control Buttons - 1 x White Balance & Image Enhancement. 1 x Image Grabber for optional Smartbox for connection to PC with USB 2.0 Endoscope Coupling - Standard Eyepiece, ACMI Focal length TV Adapter - Standard F23 - other TV adapters on request Power Supply Unit - 5V DC Out, 100-240V AC 50/60 Hz In Power Consumption - 1.5 VA Camera Head - Dimensions: 135 x 50mm (L x D). Weight: 300 grams Camera Cable - 3 metres Storage Case - Plastic Case with Foam Cutouts</p>
TRISTAR		3 Chip (3 x 1/3") Endoscopic Camera 750 lines 7 Lux 110/230V

COLOUR MONITORS

CODE		DESCRIPTION
8503		3.5" TFT LCD Screen in leather case with built-in 12V DC battery pack Audio/Video in/out & earphone socket
8505		5" TFT LCD Screen in rugged metal case Audio/Video in/out PAL (NTSC available)
TM-1011G		10" JVC Monitor 280 lines 230V AC/12V DC
TM-A14E		14" JVC Monitor 320 lines 230V AC
TM-H150CG		15" JVC Monitor 750 lines 110V/230 AC
TM-15L1D		15" JVC High Resolution Flat Screen Monitor TFT Colour LCD Flat Screen XGA Panel (1024 x 768 pixels) Super thin in robust metal case Video & Audio Inputs & Outputs 100-240V AC
LM-170G		17" JVC LCD Flat Screen, Multi Standard 100-240V AC
USVM.6.5 USVM.12.1		Ultraview 6.5" or 12.1" Sunlight Viewable Monitor Colour LCD Flat Screen in rugged metal case with tripod mounts and provision for mounting most battery types. Wide Viewing Angle. Composite & S-Video inputs. User friendly front panel controls and professional connectors used throughout. No sun-hood required. 12V DC & 24V DC operation. PAL and NTSC.
Other sizes of Colour Monitors available upon request		

CAMERAS & VIDEO PRODUCTS CONTD....

BLACK & WHITE CAMERAS

CODE		DESCRIPTION
WAT-902H		WATEC 1/2" 570 lines 0.0003 Lux 12V DC
STAR 300		Ultrafine 1.3" Night Vision Camera 580 lines with image integration 12V DC

POWER SUPPLY FOR 12V CAMERAS

CODE	DESCRIPTION
PSA15W-120	Mains Adapter 100-240V AC, 12V DC Input

TV ADAPTERS - C MOUNT TO CAMERA, QUICK CLUTCH TO ENDSCOPE

CODE	DESCRIPTION
20.413.F25.ACM	TV Adapter F25 without focussing
20.413.F30.ACM	TV Adapter F30 without focussing
20.413.F40.ACM	TV Adapter F40 without focussing
TV ULT 15	TV Adapter F15 with focussing
TV ULT 21	TV Adapter F21 with focussing
TV ULT 28	TV Adapter F28 with focussing
TV ULT 35	TV Adapter F35 with focussing
TVAD.FOK.F40	TV Adapter F40 with focussing
TV-ZOOM.M1535PWP	TV Adapter F15 to F35 Parfocal continuously variable zoom



ADAPTERS FOR DIGITAL STILL & CAMCORDER CAMERAS

We can supply Adapters to enable endoscopes with standard 32mm eyepieces to be connected to a wide range of Digital Cameras including:

DIGITAL STILL CAMERAS:	NIKON Coolpix, SONY Mavica
DIGITAL HANDYCAMS:	JVC and SONY Models

Please specify camera model when ordering



SONYCAM WITH
ADAPTER

RECORDING OPTIONS

■ **SX650 COMBI SCREEN & IMAGE CAPTURE DEVICE WITH AUDIO**

The Image Capture Device is a unique product that provides a convenient way of capturing still images or video clips to a removable Compact Flash card. A microphone socket allows voice commentaries.

The Image Capture Device is ideal for any application in which sequences of still images or video clips need to be captured and stored, either in a laboratory or on site. The Image Capture Device is an ideal replacement for a VCR or computer based video capture system where still images or video clips need to be captured from a video source. Its rugged construction and the absence of moving parts make it extremely durable and it is ideal for use in the field.

Typical applications include: **Medical diagnosis, Routine maintenance and quality control, Inspection and fault-finding, Forensic and security**

■ **SPECIFICATIONS**

- 6.5" TFT LCD Screen, 640 x 480 Pixels, 300 cd/m², 262 144 colours (18-bit)
- Incorporates internal memory and removable compact 1GB flash card
- With image freeze and JPEG storage for stills and MPEG for movie (1 GB can store 30 minutes of video)
- Menu driven with full filename editor and thumbnail gallery
- Built in rechargeable battery for 2 - 3 hours operation
- Auto PAL/NTSC with BNC & Y/C in / out connections, plus a jack socket for audio



CODE: SX650

■ **ULTRAVIEW USB SMARTBOX 1**

The Ultraview USB Smart Box 1 Image Grabber with software, footswitch and USB lead

Typical applications include: **Medical diagnosis, Routine maintenance and quality control, Inspection and fault-finding, Forensic and security**

■ **SPECIFICATIONS**

- Output – 1 x USB2.0, 1 x Video
- Operating Voltage – 5V DC 6V A
- Dimensions – 80 x 34 x 170 mm (W x H x D)
- Weight – 200 gm
- Recommended PC: USB 2.0 Port
CPU 2.0 GHz RAM > 256 MB, Windows 2000 or XP

CODE: USB-SMARTBOX-1



LIGHT SOURCES

■ ULTRALITE FIBREOPTIC GOLD LIGHT SOURCES

CODE		DESCRIPTION	SPARE LAMP CODE
■ XENON TYPES			
XL-H30.2		Hand Light Source 12V DC	XENON 30H
LSB24		Miniature Metal Halide Light Source	XENON 30
XL-30-MULTI		Compact Desk Top Model Light Source 110/230V AC Interchangeable Light Guide Fittings	XENON 30
XE-50		Compact Desk Top Model Light Source 110/230V AC Interchangeable Light Guide Fittings	XENON50
■ HALOGEN TYPES			
HL-75		Compact 75W Model 110/230V AC	HLX64615
HL-75.12		Compact 75W Model 110/230V AC 12V DC Input	HLX64615
HL-150		Standard 150W Model 110/230V AC	HLX64634
HL-FXE		Hand Light 75W Model 12V DC	HLX64615

Note: All light sources above (excluding HL-FXE) have interchangeable light guide adapters with one included in the price. Other types are available on request. The HL-FXE has a fixed Ultrafine (Volpi) standard fitting.

LIGHT SOURCES CONTD....

ULTRALITE INTERCHANGEABLE LIGHT GUIDE ADAPTERS FOR ABOVE LIGHT SOURCES

CODE	DESCRIPTION	CODE	DESCRIPTION
810004	Wolf	810018	Pentax
810005	Olympus	810019	Ultrafine (Volpi) standard
810011	ACMI	810019/10	Ultrafine standard with IR heat filter (for 10-strand plastic light guides)
810017	FUJI	810019/30	Ultrafine standard with IR heat filter (for 30-strand plastic light guides)

ULTRALITE BATTERY OPTIONS FOR 12V DC HAND LIGHT SOURCES

DESCRIPTION	CODE
Powerbank 12V 7AH Lead Acid Pack	PT-100-12
Compact 12V 5AH NICAD pack Charger for above	9391/PEK BT02282
Lithium Iron 12V 2.2Ah Charger for above	LBP2000 LBC2000
Lion Pack for Superlite 400 Charger for above	S400-3812 S488-3813



9391/PEK

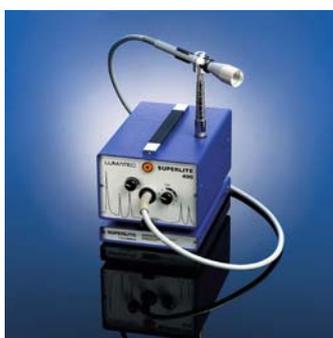
SPECIALIST LIGHT SOURCES

UPIX-IR-42 IR ILLUMINATOR



- 4.2mm thick 90mm deep
- Flat blade design for under doors and tight spaces
- Incorporates 48 LED's, each 15mw giving angled illumination at 940nm
- 12V DC for battery or mains illumination

S400-3872 SUPERLITE 400 CRIME SCENE LAMP



A COMPACT MOBILE LAMP FOR FORENSIC AND POLICE APPLICATIONS WHICH OUTPERFORMS ALL OTHER LAMPS

- Snap-on battery pack gives 60 minutes operation
- Immediate selection of desired spectrum with 10 position filter wheel
- Light delivered via flexible liquid light guide with quartz collimating lens
- Integrated telescopic arm allows unit to operate as a spotlight
- Unit so powerful that UV works in normal daylight and white light allows for photography without flash



SFT-1 MINIATURE POCKET LIGHT SOURCE WITH BUILT-IN BATTERIES

DESCRIPTION	CODE
Mini Torch	SFT-1
Spare Lamps	S.SFT.1.LA.60 (60min battery life) S.SFT.1.LA.61 (30min battery life)
Spare Battery (2 per unit)	S.SFT.1.BA



LIGHT GUIDES & ACCESSORIES

LIQUID LIGHT GUIDES – SERIES 380 – BLACK COVERING

CODE	DIA MM	LENGTH MM	END FITTINGS	
			INPUT	OUTPUT
LLG.38.510.FXM/UNI	5	1000	ULTRAFINE	UNI
LLG.38.510.OLY/UNI	5	1000	OLYMPUS	UNI
LLG.38.518.FXM/UNI	5	1800	ULTRAFINE	UNI
LLG.38.518.OLY/UNI	5	1800	OLYMPUS	UNI
LLG.38.530.FXM/UNI	5	3000	ULTRAFINE	UNI
LLG.38.530.OLY/UNI	5	3000	OLYMPUS	UNI



SCREW ON ADAPTERS FOR UNI END – FOR CONNECTION TO ENDOSCOPE

DESCRIPTION	CODE
ACM FEMALE	05.0112C
ACM MALE (SHORT)	LUM.LA.ACM



05.0112C

(OTHER DIMENSIONS, ADAPTERS AND LIQUID LIGHT GUIDE TYPES ARE AVAILABLE – SEE ALSO OUR “FIBREOPTIC ILLUMINATION PRODUCTS” CATALOGUE)

GLASS FIBRE LIGHT GUIDES

CODE	DIA MM	LENGTH MM	END FITTINGS	
			INPUT	OUTPUT
05.0086L	4.8	1800	UNI	UNI
05.0090L	4.8	2300	UNI	UNI
05.0087L	4.8	3000	UNI	UNI



SCREW ON ADAPTERS (INCLUDED IN PRICE OF GLASS FIBRE LIGHT GUIDES ABOVE) CHOOSE FROM:

LIGHT INPUT (LIGHT SOURCE)	CODE	LIGHT OUTPUT (ENDOSCOPE)	CODE
OLYMPUS	05.0101o	ACM FEMALE	05.0112c
ACM MALE (LONG)	05.0106c	ACM MALE (SHORT)	LUM.LA.ACM
ULTRAFINE (VOLPI)	05.0104f		

PMMA PLASTIC UNIVERSAL LIGHT GUIDES

The fibres in these light guides are free at the light output end for arranging into a flat line (e.g. under garage door illumination) or into a ring (e.g. around a miniature video camera).

CODE	DESCRIPTION
12.592	Length 2000 mm with 10 x 1mm Single Fibres
12.592.30.3000Q	Length 3000 mm with 30 x 1mm Single Fibres



If using these Light Guides with the XL-H30 Light Source, please specify Light Source Adapter No. 810019/10 or 810019/30 listed on the previous page. The adapters have built-in heat filters to protect the plastic fibres.

Available for all Models / all Manufacturers

A NEW FIBRESCOPE USING AN EXISTING HEAD SECTION AT THE PRICE OF A REPAIR

IF ANY OF THE FOLLOWING SITUATIONS SOUND FAMILIAR THEN OUR ULTRAFINE REBUILD SERVICE IS AN IDEAL OPTION:



- Your original supplier has told you your damaged fibroscope is beyond repair
- Your capital budget has been cut but funds are available for repairs
- Your applications have changed – your fibroscope needs to have new specifications
- Your applications are tough and result in frequent breakages

<p>WHAT WE DO</p>	<ul style="list-style-type: none"> • We use your old head section and build up your fibroscope with a new image bundle, new illumination fibres, new tip control wires and mechanics, new covering and objectives • We will construct it to the original dimensions, or any new length and diameter you require
<p>THE RANGE</p>	<ul style="list-style-type: none"> • Micro fibrescopes without tip deflection from 0.5 mm to 2 mm diameter in lengths up to 2000 mm • Standard fibrescopes with tip deflection in 2.9 mm, 3.8 mm, 5.5 mm and 8.0 mm diameter. 2-way tip deflection or 4-way from 5.5 mm
<p>THE OPTICAL SYSTEM</p>	<ul style="list-style-type: none"> • High resolution quartz fibre fused image guides or glass fibre bundles depending on the instrument diameter • Interchangeable objectives available for all instruments above 5.5 mm, and one is included in the rebuild price