



# Serval

700-888-Xpert

A specialist GSM DVR surveillance kit for covert external operations



Highly specialist deniable ready bag of integrated military equipment for covert deployment  
Observe real-time action to improve tactical control and response during strike operations  
Gather contact intelligence from multiple locations over sustained period at low risk  
Acquire evidence quality video and still images triggered by events

# SERVAL covert surveillance kits

**SERVAL covert surveillance kits are unique sets of high-tech, high-specification visual, audio and tracking equipment designed exclusively for covert surveillance applications.**

SERVAL covert surveillance kits are the result of collaboration with experienced special forces personnel who have extensive field knowledge of many types of surveillance, close target reconnaissance and 'black ops' worldwide.

Fully deniable, SERVAL kits are in service in many different theatres on counter-terrorist and insurgency operations and are suitable for urban, jungle, desert and mountain deployment.

The equipment is of the highest quality, fully interoperable, miniaturised where appropriate, and manufactured to military standards to withstand all environmental conditions. All equipment is tested to ensure full compatibility as a system.

The kits are totally self-contained and need no additional items of equipment or accessories to create a fully functioning system. All necessary cables, connections, software and chargers are included.

All kits are contained in their own specially designed grab bag to keep systems ready for instant task force response and to facilitate covert deployment.

A comprehensive Operators Manual is supplied with each kit to assist with technical deployment in a range of typical covert surveillance scenarios.



## SERVAL Xpert: close target reconnaissance, surveillance, contact



Rugged 7 day battery, DVR, and GSM Video Control Unit are buried out of sight. SD cards record video and stills.



Miniature high-resolution camera is concealed in the tree with a clear view of the shed



Covert PIR sensor is concealed within a rotten branch at the base of a bush with an angle of vision covering the approach to the shed



Covert GSM antenna is also concealed in the tree, transmitting live images back to the control centre on demand

# Example deployment: arms cache surveillance

## Situation

A security commander is alerted that a known terrorist with a history of arms dealing may have arrived in his area to create a weapons hide. He has also received reports of suspicious activities at a shed used by local criminals. The shed is not overlooked but is located close to local habitation and near to many transit routes.

## Objective

Initially, the objective is simply to confirm the identity of the persons using the shed and to establish the nature of their activities, but to make it possible to take further action if necessary without disturbing the surveillance set up.

## Deployment

A technical support team deploy to the shed one night and covertly install a ruggedized GSM DVR system that is concealed in nearby trees and bushes. Because the shed is in shady woodland, a very low-light covert camera is attached to the DVR and set up with a view of the shed door. An IR illuminator assists with the capture of night-time activity. A strategically placed PIR sensor triggers the DVR to record pictures every time a person enters and leaves the shed. The DVR system stores high quality images onto a standard SD memory card. A GSM transmitter is also installed to provide a real-time viewing and control capability.

The technical support team simply return once a week to change the SD card and battery.

## Outcome

Over a three week operation evidential quality images from a mid-range camera are obtained which confirm that the suspected terrorist is using the shed, and to identify all his associates. The security commander is tasked to continue surveillance.

Over a further four week period, a miniature camera takes close video footage of the cell entering and leaving the shed. It is clear from their activities that they are storing weapons. The security commander is able to calculate the size and nature of the arms cache.

A strike team is assembled to make an arrest. When most of the insurgents are gathered at the shed, the security commander dials in to the system to view live images. The strike team commander also views the same images on a laptop, out of sight of the shed, issuing the order to go in and directing his team on the ground.

In one co-ordinated simultaneous operation the security forces arrest all cell members and collect the illegal weapons.

## Benefits

It would be difficult, time consuming and potentially dangerous for officers to carry out this surveillance covertly in person but it is easily, safely and cost-effectively achieved using high quality covert surveillance technology designed for the task.

## evidence, strike command & control



An approaching suspect triggers the PIR sensor and sets the DVR recording his entry to the shed through the camera which takes evidence quality images and transmits them to command and control units

High resolution real-time video images viewed live by strike team leader co-ordinating arrests

# SERVAL 700-888-Xpert

## A covert external GSM DVR surveillance kit for specialist operations

This kit contains a full range of equipment for image recording and live image transmission in an external covert surveillance operation, offering the maximum flexibility in deployment options in a single ready bag.



### Covert PIR Sensor

KT-701-104

PIR sensor covers a target area to detect movement and trigger the surveillance system. Ideal for pre-event filtering in a limited deployment space. 5m spot or 10m wide coverage with 40° field of view.



### Covert IR Illuminator

KT-701-113

Produces an infra red "black" light invisible to the human eye. Allows cameras to record in total darkness. 15m range.



### 18 x zoom ultra low light camera

KT-701-110

- 0.00004 LUX capability
- Automatically adjusts for light conditions
- Focal length 11-200 mm
- 570 TVL



### PTZ Pinhole Camera with 4 x zoom

KT-701-111

- Changeable lenses 3.6 / 8 / 16 / 25 mm
- Automatic day/night changeover
- 450 TVL



### Extension Cables

KT-701-105

20m camera extension cable

KT-701-106

20m PIR extension cable



### Covert Miniature High Resolution Camera

KT-701-109

- Colour day and B&W low light use with automatic change-over
- Operates in minimal illumination = 0.001 LUX
- Pinhole 3.7mm lens
- Image Sensor = 1/3" Sony Super HAD CCD
- Auto iris and auto white balance
- 420 TVL



### Pocket Monitor for Covert Camera Set Up

KT-701-105

A 25mm (1") square hand-held monitor with adjustable screen focus - to correctly aim cameras deployed

Takes 3 AAA batteries. Automatically senses a picture input when connected and switches off when disconnected

**Covert Hi Resolution Digital Video Recorder**  
KT-701-108

A hi-resolution digital video recorder that also captures still images. Recorded images are evidence quality with image integrity encryption and a date/time stamp.

A recording sequence is triggered either by a built-in motion detector or by the PIR sensor.



- Single port video input
- Multi-pin connector pre-configured for single trigger input
- Video monitor output
- 12 volt power output for connected cameras
- Automatic day/night changeover
- 525 TV line resolution
- 56.90 hours of video recording at a frame rate of 1 per sec at a resolution of 320x240 stored on a 2GB memory card
- 204,800 still images can be stored on a 2GB memory card

**GSM Video Control Unit**  
KT-701-101

The GSM video unit provides remote control of the whole surveillance system.

The unit can be programmed to dial the user upon receipt of an alarm (e.g. when a PIR sensor is triggered) or the unit can be dialled into upon receipt of a separate alarm.



- User accessible SIM compartment
- 2 x Camera inputs
- 1 x Alarm input
- 12V output
- 2 x Video inputs PAL / NTSC
- Internal modem GSM Dual band (900/1800)
- Recessed LED indicators of GSM and power connectivity
- Software for connection, recording and analysis supplied

**Covert Colour/B&W 980 Zoom Camera with set-up control unit**  
KT-701-102

- 35 x Optical Zoom
- 28 x Digital Zoom
- Colour day and B&W low light use with automatic change over
- Operates in minimal illumination = 0.001 LUX
- Set-up controller to adjust: zoom, focus, B&W, colour, positive / negative, camera ID, mirror image, reduce noise, picture in picture, cross line, flicker control
- Tripod mount
- Image Sensor = 1/4" Sony Super HAD CCD
- Auto focus / manual focus
- Focus length 3.6 - 126 mm
- PAL Video Output VBS 1.0 V p-p sync. 75 ohms
- Exposure control : Auto, Shutter, IRIS, AGC, Manual
- Horizontal resolution: 470 TVL
- S/N Ratio : 52dB (AGC off)



**Rugged Long Life Battery**  
KT-701-103

- Storm case packaged
- Duration up to 169 hours
- Rechargeable
- 33Ah capacity
- On/Off switch
- Battery power tester
- Remaining power indicator
- Conditioning system
- Separate charger
- Weight - 13.6 kg



**Compartmentalised Ready Bag**  
KT-701-116

Specially designed rucksack to carry all equipment in separate pouches for ease of stowing and rapid selection during deployment.



**Covert GSM Antenna**  
KT-701-112

60mm tall. Boosts GSM signal from GSM Video Control Unit.

# SERVAL covert external surveillance kits

Part no.	Component	Xpert	Strike	Intel
		KT-700-888	KT-700-808	KT-700-800
KT-701-101	GSM video control unit complete with all power cables, program cables, I/O cables and software	x 1	x 1	
KT-701-112	GSM antenna	x 1	x 1	
KT-701-102	980 X Zoom B&W / Colour auto changeover rugged camera complete with set up controller	x 1	x 1	x 1
KT-701-103	Ruggedized 7 day battery with charger	x 2	x 2	x 2
KT-701-104	PIR sensor	x 2	x 2	x 2
KT-701-105	Pocket viewing monitor	x 1	x 1	x 1
KT-701-106	Additional 20M camera extension cable	x 4	x 2	x 2
KT-701-107	Additional 20M PIR extension cable	x 2	x 2	x 2
KT-701-108	DV recorder	x 1	x 1	x 1
KT-701-109	Miniature camera	x 1	x 1	x 1
KT-701-110	18 x zoom ultra low light camera	x 1		
KT-701-111	PTZ pinhole camera with 4 x zoom	x 1		
KT-701-113	IR Illuminator	x 1		
KT-701-114	Deployment handtools (folding spade, trowel, patio knife, secateurs, multi-tool)	x 1	x 1	x 1
KT-701-115	Ready bag	x 1	x 1	x 2
KT-701-117	2GB SD card	x 2	x 2	x 2
Total kit weight (excluding spare battery)		22kg	21.5kg	21kg

## Optional extra

KT-701-116	Ruggedized laptop with GSM modem	x 1	x 1
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**GSM SIM CARD** It is recommended that the end-user purchases the required GSM SIM card in country, and checks for GSM coverage from the network provider in the target location.



# Specialist kits

## Superior performance features

- Designed by special forces personnel
- Military standard robustness
- Field proven and in service
- Tough black ABS waterproof military casing
- Operate in extreme environments (-10° to +50°C with 96% humidity)
- IP67 sealed military connectors
- No manufacturers markings for deniability
- All components fully compatible for speed of deployment
- External deployment tools included as standard - no additional items necessary to conceal equipment
- Purpose designed day-sack contains all equipment

The Serval covert external surveillance kit is available in three versions for specific tactical deployments:

## SERVAL 700-888-Xpert

### A comprehensive kit for specialist operations

- A highly flexible, tactical set of equipment that can be deployed in many different ways to suit the operation objectives - intelligence gathering, evidence collection, situational control at time of arrest
- Ideal for long term deployment and changing tasks
- A choice of four high quality covert cameras which can be selected at set-up according to task, risk assessment and environment
- IR illuminator guarantees picture capture at night without revealing presence of cameras
- PIR sensors trigger recording or live feed only when activated - conserving battery and memory card space
- DVR records 56 hours of video or 200,000 still images on a 2GB SD card
- GSM control unit transmits images live on demand
- External power supply lasts average 7 days

## SERVAL 700-800-Intelligence

### A dedicated kit for intelligence gathering operations

- System designed for collecting evidence quality images to confirm target contact, confirm the nature of their activity and record patterns of behaviour
- DVR can be pre-set so that images are only captured when action triggers the PIR sensor. This means that many thousands of images or hours of video can be recorded before the memory card and the battery pack need to be replaced and recharged.
- Cost-effective and safe alternative to covert stake-out

## SERVAL 700-808-Strike

### A streamlined kit for rapid strike operations

- Ideal for short term operations which are expected to deliver an opportunity to make an arrest
- Real-time transmission of images to control centre and strike team commander increases safety of arresting officers and allows co-ordinated activity with other teams
- Two essential camera options: a mid-range camera with 980 x zoom for deployments where close surveillance of the target is restricted or high-risk, plus a miniature camera for operations where concealment of the camera is more important

#### Other specialist kits available in the SERVAL range include -

- Covert vehicle tracking
- Covert interior surveillance
- Covert body-worn video and audio recording

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