



**GOODMAN BENTLEY SPEC/OPS DESIGN &
SECURITY COMPANY**

www.goodmanbentley.com

UNDERDOOR VIEWER VIPER UDV5 USER GUIDE



OVERVIEW

UNDERDOOR VIEWER

The latest Goodman Bentley Underdoor Viewer called VIPER UDV5, named because of its dual strike capability after the snake, has been designed to obtain live video and audio from within a confined space by the insertion of a 6mm blade thickness.

Comprising of the latest CCD optical array taking the image to the very forefront of the blade.

This concept has never been achieved before, using this latest technology to provide the very best images available to commanders preparing risk assessments.

Operating alongside the highly sensitive and operationally proven Knowles FG series microphone, in a self contained and highly portable format reporting to a high resolution monochrome camera and TFT screen providing a full screen image, presents the only truly effective solution to this dangerous area of operations.

The Underdoor viewer is an integral part of any Rapid Intervention Team, and provides that vital intelligence of numbers of persons that are secreted within a given area, and provides the intelligence on weapons being used, and layout of a stronghold, before Rapid entry is made or considered.

The unit is made from ruggedised aluminium, and presented in matt black with its own supporting handle, and on board rechargeable battery supply, providing up to 2 to 3 hours of continuous use in adverse operational conditions.

A simple BNC video out socket on the base of the monitor allows live remote monitoring to be achieved throughout the insertion of the VIPER UDV5 with audio recovered as well.

A microwave transmitter can be used at this point to transmit the audio and images away from the insertion point if required.

SAFETY PARAMETERS

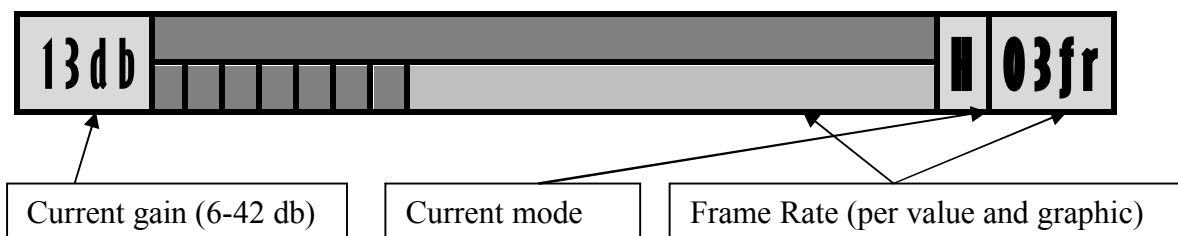
- **Do not look directly at the IR LED lighting array when the lighting is operational.**
- **Do not submerge any part of the UDV system in any form of liquid.**
- **Do not attempt to re-charge the integral battery pack with any charger other than that supplied with the system.**
- **The infra-red lamps will produce heat particularly in a confined environment. Care should therefore be taken not to leave the unit switched on and unattended for long periods.**
- **Do not force the blade under a door.**

SET UP

Simply check the state of the battery on the indicator. Place the blade in position and press red illuminated switch to ON to power the monitor and microphone. The LED lighting is operated via a separate switch on the right-hand side of the housing above the slide control for the high/low viewing mode for the camera. The battery indicator shows that the battery is charged when in the green sector, or in need of re-charging when in the red sector.

ON SCREEN STATUS BAR

The camera has an integrated status bar in the image shown on the monitor. The status bar shows the current gain, mode and frame rate.



TECHNICAL SPECIFICATIONS

MONITOR

Video Inputs: Coded - 1V pk-pk CCVS PAL (or NTSC to order)
Auto Termination BNC Connector placed at
lower edge of monitor

Display: 5 inch diagonal, 960 x 234 dot active matrix
TFT-LCD panel. Pixel configuration striped

Viewing: Horizontal - +/- 60 degrees

Vertical: - +15 to - 35 degrees

Brightness: Typically 250cd/m²

Controls: Front panel: ON/OFF switch, Audio level,
Contrast, Brightness

Supply: Provided by 12V DC onboard rechargeable
battery pack

Dimensions: 144 W x 140 H x 30D mms.

Temp: -10 deg. to +45 deg C ambient

Audio: Knowles Microphone connected to audio
circuitry within the monitor



VIPER UDV5 BODY

Power: Illuminated ON/OFF Switch on top edge of Monitor. Separate ON/OFF switch on side of housing to control LED lighting.

Rechargeable Port: 2.1mm DC socket

Charger: Three stage Li-Ion battery charger supplied with 2.1mm DC plug

Blade: 6mm insertion blade encompassing latest CCD Optical chip and Knowles microphone and 28 covert infra red L.E.D's at 940nm. The blade should never be bent but simply placed under the door using the base plate as the template level with the floor. Any other method could damage the optical and L.E.D array.

Handle: The machined handle is a non slip carrying and operating handle. Care should be taken to ensure this handle is always screwed tightly to the base plate.

CAMERA

Overview: High resolution SONY 1/4" Black & White Super-HAD CCD solid state Imaging device with HIGH/LOW viewing mode switch

Pixels: 250.000 pixels

Resolution: 400 TV Lines

Power: 12v DC 2.2Ah supplied by the onboard rechargeable battery pack.

Sensitivity: Super HAD CCD 0.005Lux with HIGH/LOW Sensitivity switch

Video Output: Composite 1 Vp – p

Video Signal: RS-170

**Operating
Temperature: -10C to + 80C**

Lens Configuration: 11.5mm / 15 degree angle of view

Field of View: 250mm to Infinity

Insertion tongue: 85mm (L) x 150mm (W)

IMPORTANT INFORMATION

The VIPER UDV5 has been constructed to provide the easiest electronic solution to the threat anticipated by operational officers involved in Rapid Intervention utilising the latest optical array technology to achieve the highest quality image in low light conditions.

Care should be taken of this sensitive instrument. Cleaning should be carried out by a lightly dampened soft, clean cloth over the metal surfaces, taking particular care on the leading edge of the blade with the IR LED's. Then clean the viewing head window with a Q-tip dampened with lens cleaner.

Care should also be taken around the screen and electrical entry points such as the charging panel socket.

When closing the lid of the carrying case ensure that the ON/OFF button is not accidentally activated on the top of the monitor.

The catches on the sides of the carrying case should be locked whilst the unit is in transit to alleviate any accidental opening as the weight of the VIPER is carried on the base section of the carrying case.

Spare keys are enclosed for this purpose and the obvious security access to the unit inside the carrying case. Store in a dry area.

Any entry into the unit will negate any guarantee, so the unit should be returned to Goodman Bentley if any damage occurs to the UDV Viper.

BATTERY RUN TIMES & RE-CHARGE TIMES

In continuous use mode from a fully charged battery pack, the UDV system can be expected to run for more than 4 hours.

From a status of total discharge, the battery pack will require 3-4 hours charging, to bring the battery pack back to fully charged status.

Note: Batteries should never be left for long periods (ie more than a week) in a discharged status. Neither should batteries be left in a fully charged state for long periods (ie more than a month), without discharge.

BATTERY RE-CHARGING

- **Plug the battery charger into a mains socket (110/240 volt AC 50-60 Hz) via an IECC connecting cable, but do not switch on mains power.**
- **Ensure that the control unit rocker switch is set to the 'off' position.**
- **Plug battery charger jack into UDC system socket.**
- **Switch on mains power to battery charger.**

The LED on the battery charger will light to show status of battery:-

Orange LED denotes fast charge/final charge status.

Green LED denotes fully charged battery status and that the charge current is zero.

Warning: The charger has an internal fuse. The fuse will blow if a fault occurs within the charger. The charger also has a fuse switch shut-off, in case reverse polarity connection to battery occurs. (Such failures of the battery charger require repair by qualified personnel).

OVERALL WEIGHT AND SIZE CASED:

460mm L x 200mmW x 220mmH

OVERALL WEIGHT IN CASE: 6 Kilo Grammes

WASTE DISPOSAL

This unit must be disposed of separate to domestic waste. After the end of its useful life it should be returned to the manufacturer or local dealer.

Goodman Bentley have made great advances in this use of Underdoor Probe technology, and reserve the right to change their design at any time as technology progresses.

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UDV 5 being used by Police Tactical Firearms Officers prior to Rapid Intervention