



SCORPE

TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES
TECHNOLOGIES



SCORPE TECHNOLOGIES

Sales Service : +33 3 24 73 00 08

After sales : sav@scorpe.eu / +33 3 24 73 00 02

MANUAL : Vibrascope® - BVA6 REC

Thanks to this camera, locate and communicate easily with victims in confined spaces

WELCOME

Thank you for choosing our Vibrascope®-BVA6 REC. Please read this manual carefully before using the product. Refer to the user manual for proper usage of this device!

www.scorpe.net
SCORPE Technologies,
5 route de Laon, 08190 Saint-Germainmont

TABLE OF CONTENTS

1. Applications	page 3
2. Composition	pages 3 to 6
3. Description of the control box	pages 7 & 8
4. Setting-up	page 9
5. Recording Option.....	pages 9 to 11
6. Warranty	page 11



SCORPE

1. APPLICATIONS

The **VIBRASCOPE® BVA6** makes possible to see and communicate with buried victims under piles of rubble and ruins following to :

- Earthquake,
- Bombing,
- Blow-up in a building (due to gas, attempt...)

The **VIBRASCOPE® BVA6** can also be used for :

- Surveillance and maintenance of technical equipment
- Inspection of loads (Customs authorities, etc.),
- Archaeology, etc.



2. COMPOSITION

Included:

- 1 control box with screen
- 1 cordura bag
- 1 video camera
- 1 extra plastic globe for the camera
- 1 telescopic boom
- 1 headset with built-in mike
- 1 rechargeable battery
- 1 power supply (mains charging cable)
- 1 car charger
- 1 carrying case
- 1 instruction manual



SCORPE

VIDEO CAMERA :

- 8.5mm (1/3") Sharp CCD
- Number of pixels: hor.976 x vert. 582
- Scanning area: 4.9mmx3.7mm.
- Scanning system: 2:1 interface
- Sync system: internal
- Resolution: 600 lines
- Horizontal sync. Frequency: 15.63 kHz
- Vertical sync Frequency: 50 Hz
- Lens: 3.6mm / 1 : 2,0 f = 2.8mm
- Minimum illumination: 0,1 lux (day), 0 lux (with IR)
- Video system: CCIR, PAL.
- Video output: 1 Vp-p. 1Vbp, 750Ω
- Gamma consumption: max 200 mA
- Power supply: 12V , 120Ma
- Connection: 3 losen wire
- Ant vibration: 10g
- Operating temperature: -30°C ~ 70°C, RH 95% max
- Storage temperature: -40°C ~ 80°C, RH 95% max
- Lens angle: 120°
- Dimensions: 32 x 32 x 32mm, 15g
- Six white leds high luminosity, which allow a visibility in total darkness (around 6 meter).
- 360 rotation without stop, speaker and microphone build in to the body of the video camera, making it possible to communicate with the victim via the headset with spare lens easy to clips.
- Supplied with spare polycarbonate lens (easy to clips).

CONTROL BOX :

- Large screen LCD colour, 7 inch, TFT technology.
- Anti-disconnection plugs with connectors IP 68.
- Can be used under the rain.
- Audio/Video socket for peripherals.
- Audio function for extra stereo headset (see optional equipment) for use by interpreter or doctor.
- Audio/video function for extra screen, video recorder or video camera to allow recording to be made.
- Operating temperature from 0°C to +40°C
- Black and green Cordura bag to held and protect the screen
- Weight : 3kg
- Dimensions : 340 x 150 x 150mm
- Cordura bag with adjustable shoulder strap,
- Can be used at temperatures from -30° to + 70°C

CAMERA LOUDSPEAKER :

- Frequency range : 750 – 5000Hz
- Impedance: 8 Ω
- Maximum input: 0.2W
- Rated input : 0.08W
- Resonant frequency: 750 +/- 150Hz
- Sound pressure level @ 10cm (Typ.): 86DbA
- Housing material: ABS
- Cone material: polyester
- Magnet material: Nd-Fe-B
- Environmentally friendly



SCORPE

SCREEN :

- Innolux AT070TN82 digital TFT LCD
- Ultra compact
- Single operation voltage +12V
- CVBS / Analog RGB (PC mode) signal input
- All functions can be controlled by UART
- AV1 mode / composite / NTSC / PAL / SECAM vidéo auto switch
- VGA mode / Analog RGB / 640x480 / 800x600 60 / 1024x768 60
- Screen size: 7"
- Display format: 800x480 RGB
- Display mode: normally white / transmissive
- Active area: 152.4mm (H) x 91.44mm (V)
- Pixel pitch: 0.1905 (H) x 0.1905 (V)
- Outline dimension: 165 (W) x 104 (H) x 5.5 (typ.) (D)
- Surface treatment: anti-glare
- Weight: 170g
- Stereo headphones fitted with dynamic microphone,
- 1,20 meters of wire with anti-disconnection plug

**TELESCOPIC POLE :**

- 4 sections giving a total length of 2.40m with flexible end
- 5 meters wire with anti-disconnection plug,
- Aluminium construction,
- Flexible end enables every position.

**CHARGER SUPPLY :**

- Power adapter 100-240V to 18V
 - o Input : 100-240V~ / 50-60Hz / 660Ma
 - o Output : 18V~/ 1.65A
- Car charger 12-28V~ / 1.2A

Power connector indicator / Charge level indicator:

- Green led shows: power supply connected
- Red led shows: battery is charging
- Red led off: battery is charged



RECHARGEABLE BATTERY :

- 12V - 4.5 Ah battery, Ni-MH technology,
- Autonomy 4 to 5 hours (depends on the use), charging time: 4 hours,
- Integral rapid charger working in floating mode,
- Audible alarm when low battery,
- Dimensions : 200 x 110 x 27mm
- Weight : 902g



CARRYING CASE :

- Transport case with two wheels
- Depressuring valve
- Complies with standard MIL C-4150J / IP67 / STANAG 4280 / DEF STAN 81-41
- Weight without foam : 7.3kg
- Weight with foam : 8.5kg
- Maximum buoyancy : 62.1kg
- Outer dimensions (L x l x h): 968 x 406 x 155mm
- Inner dimensions (L x l x h) : 908 x 343 x 133mm
- Depth of lid : 44mm
- Depth of bottom : 89mm
- Total height : 133mm
- Temperature range : -40 / 99°C
- Inner volume : 0.042 m3
- Body raw material : polypropylene
- Lock raw material : ABS
- O-ring raw material : polymer
- Fixtures raw material : stainless steel

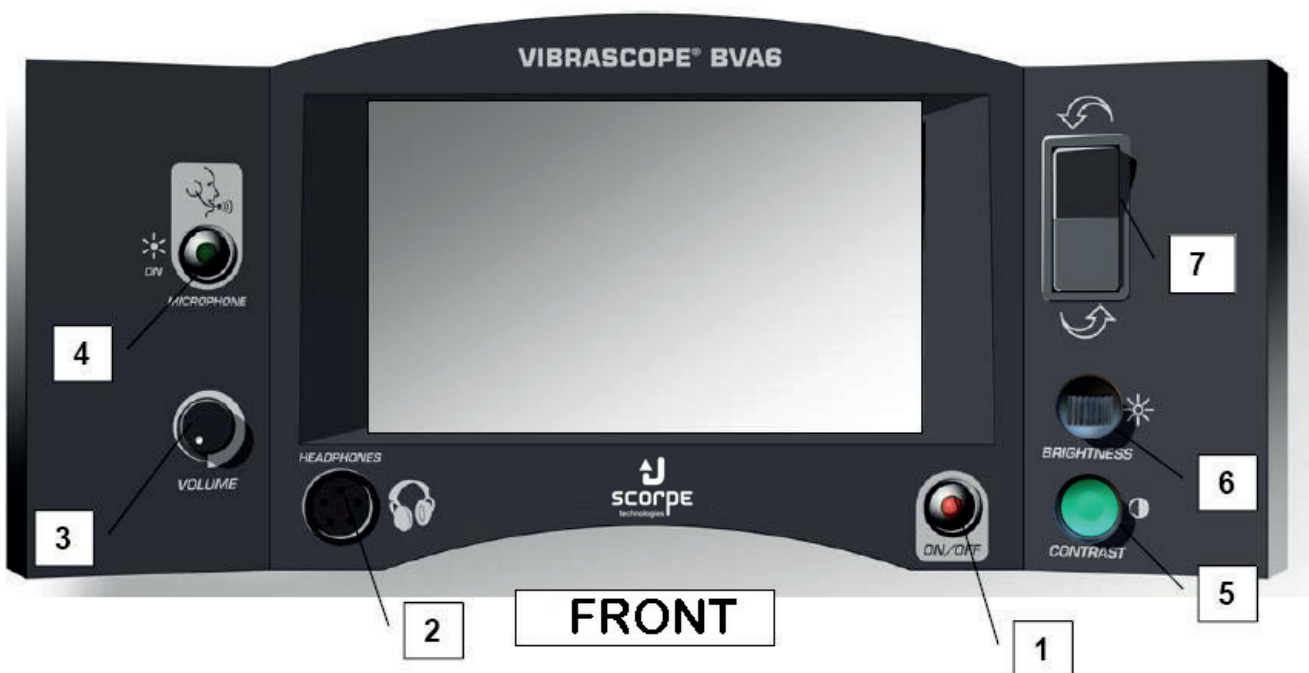


OPTIONAL EQUIPMENT :

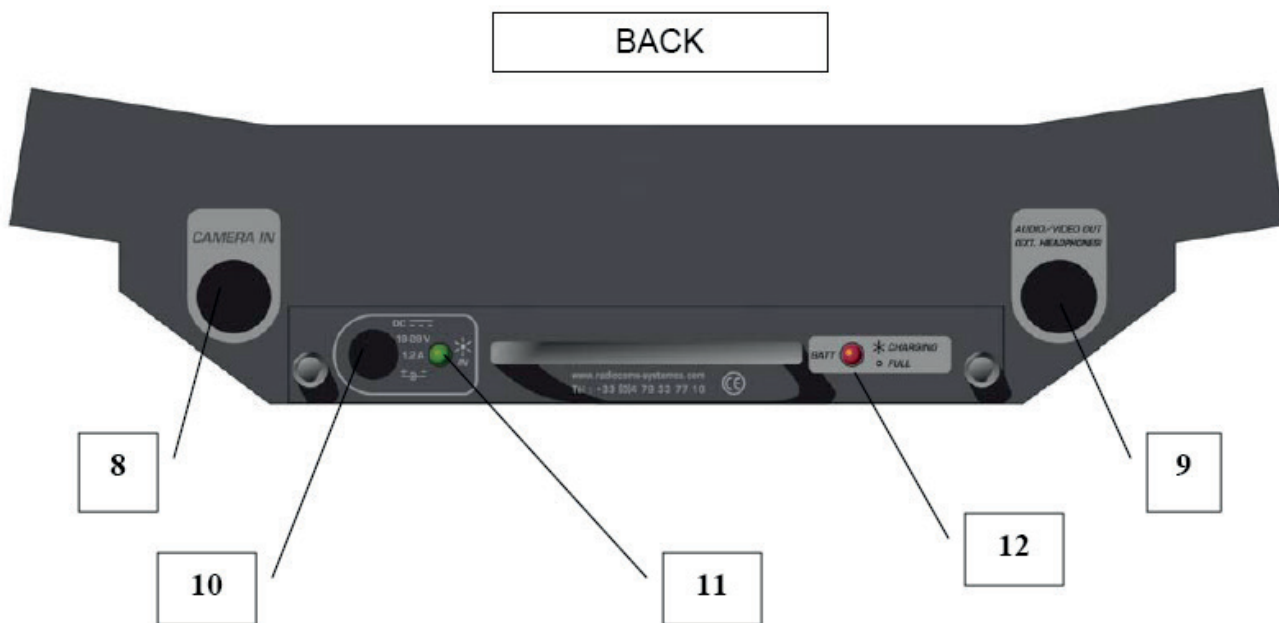
- Extra 12V- 4.5 Ah battery pack
- Extension lead with anti-disconnection plugs between video camera and box on request (100 metres maximum),
- Extra stereo headset with dynamic microphone for interpreter or doctor.

3. DESCRIPTION OF THE CONTROL BOX

- **Rep.1** : ON / OFF switch, luminous (red)
- **Rep.2** : connector for plugging in the stereo headset
- **Rep.3** : Reception volume control knob
- **Rep.4** : Silent button,
 - Button pushed in (green indicator lights) : rescuers and victims in Communication
 - Indicator off : headset mike is off the victim cannot hear the rescuer but the rescuer can hear the victim
- **Rep.5** : Menu access button, screen contrast and brightness adjustment,
 - First pressure, access to the brightness setting.
 - Second pressure, access to the contrast setting.
 - No pressure during 7 seconds, allows an automatic exit from the menu.
- **Rep.6** : Browser to change the values for brightness and contrast (<-, ->)
- **Rep.7** : Video camera rotation switch,
 - Three positions : - video camera rotates in one direction,
 - locked
 - video camera rotates in the other direction



- **Rep. 8.** camera lead socket, connector for plugging in the pole or extension lead (Optional)
- **Rep. 9.** Audio / Video socket for peripherals :
 - Audio function for extra stereo headset (see optional equipment) for use by interpreter or doctor
 - Audio/Video function for extra screen, video recorder or video camera, etc., to allow recordings to be made
- **Rep. 10.** Socket for integral battery charger supply
 - Battery pack autonomy: 4 to 5 hours,
 - Battery charge: 4 hours max,
 - Flat battery: continuous audible alarm,
- **Rep. 11.** Power connection indicator
 - Green Led shows: battery pack power supply connected,
- **Rep. 12.** Charge level indicator
 - Red Led shows: battery is charging,
 - Red Led off: battery is charged,



4. SETTING-UP

DO NOT FORGET TO LOAD 12H BEFORE FIRST USE

- 1- Fix the camera to the flexible end of the extendible pole by screwing it into the connector
- 2- Extend the pole section by section: a ¼ turn between two sections locks them in Place
- 3- Connect the camera lead to socket **Ref.8** on the control box (line up the position indicators)
- 4- Connect the operator's headset to socket **Ref.2** on the control box (line up the position indicators)
- 5- Pres the On : Off switch **Ref.1** red indicator lights

VIBRASCOPE® BVA6 is ready for use.

- 6- Insert the telescopic pole into the rubble through any visible holes or breaks and adjust the contrast and the luminosity (see page 8) of the screen to the conditions prevailing.
The flexible part of the end of the telescopic pole makes it easier to insert the camera into narrow and difficult sections.
- 7- Use the 3-positions switch **Ref.7** to turn the infrared camera one way and then the other.
- 8- Turn off the (green indicator off) the silent button **Ref.4** the victim does not hear the rescuers but the rescuers can still hear the victim.

5. RECORDING OPTION

Features

The following section explain you how to set it up. Hope this device will bring you nice digital experience.

If you have this option, you have one green button and two additional leds on the front panel: the rescuers can still hear the victim.

S
C
O
R
P
E



MicroSD card

Plug Micro SD card into the slot with right direction.

For file safety, Micro SD card better be empty and formatted before using. It supports FAT32 and exFAT. It does not support NTFS. Right capacity of the microSD card is 16GB.

To remove Micro SD card, just press it again, let it pop-up and then remove it.

Operate

RECORD VIDEO

You will preview the video on the screen of the BVA6 when all connections are ready. Then, press the green RECORD button to record video, and the REC red led will flash, it means it's recording. Press again to stop recording, led turns off.

Note: the Video Recorder will save a file and start to build another new file if you long time record more than 2 hours and 42 minutes (if microSD card is inserted).

SAVE FILES

Remove the Micro SD Card from device, and copy the recorded files from Micro SD Card to your computer or other digital devices.

Specifications :

Connections :

Video Output CVBS analogue video by 3.5mm to 3RCA cable, HDMI
Audio Output Analogue L/R audio by 3.5mm to 3RCA cable, HDMI

Hardware extras :

Others Two indicator lights for power and record.
Weight 70g more of the BVA6 standard

Specification

Storage Media Supports extra Micro SD Card Max 16GB, doesn't support NTFS format
Record Format .avi
Record Quality 480 30fps, PAL:720×576, NTSC: 720×480
Record File About 9.3MB/Minute, 0.56GB/Hour.
Power Supply 5V/1A USB power

6. WARRANTY

The **VIBRASCOPE®BVA6** is covered by a total warranty of **one year (1)**.
(Not including transport and customs costs, where applicable).

In the event of any malfunction, check the batteries before anything else.

If the problem continues, please contact:

SCORPE TECHNOLOGIES
After Sales Service
Email : simon.hammer@scorpe.eu
Tel : +33 (0)3 24 73 00 02

S
C
O
R
P
E