



## Video Scope User Manual

**RS-** 系列說明書

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## Safety recommendations

### Warning

- Do not modify or disassemble the unit.
- Do not use this item in explosive atmospheres.

### Caution

- Keep the device out of the reach of children.
- Do not look directly into the objective lens at the end of the insertion tube, your eyesight may be seriously damaged.
- Do not forcibly bend, twist or elongate the insertion tube.
- Strong impact on the device may result in the breakage of the objective lens (made of glass) at the tip of the insertion tube.
- Do not use or store the device at a temperature higher than 60 °C or lower than -20 °C.
- Don't use the device in the direct sunshine.
- Store the device in a dry and adequately ventilated environment.
- Keep the device away from acid or alkaline solutions, oil or petrol, and do not use it in an atmosphere containing their vapours.
- Do not remove the SD Memory Card while data is being saved to the card. This may cause the data to be lost or the card to be damaged.



## Warning Notice for Insert Tube

1	DO NOT bend the tube over 30° angle. 請勿折鏡頭大於 30 度角	
2	DO NOT bundle the insert tube less than a 14cm diameter circle. 請勿把管線圈捲小於 14 公分	
3	DO NOT bend the tube after installation. 安裝後，請勿折管線接頭端	
4	DO tighten the screw for all accessories before use. 使用前，確認鏡頭配件是否有全部鎖上	
5	Prohibited of high temperature access for the tubes, the maximum working temperature shall not exceed 65°C. 使用溫度，請勿操過 65 度 C	
6	Prohibited of collision or any impacts on the front tips. 請勿碰撞前方鏡頭	
7	DO NOT immerse Insert Tube deeper than 1M depth and over 30 minutes. 請勿把鏡頭浸水過 1 米身 & 過 30 分鐘	
8	DO NOT immerse Insert Tube deeper than 10cm depth and over 10 minutes besides water. (Such as lubricant oil, gasoline, etc.) 請勿把鏡頭放入非水液體中，超過 10 公分 & 10 分鐘	

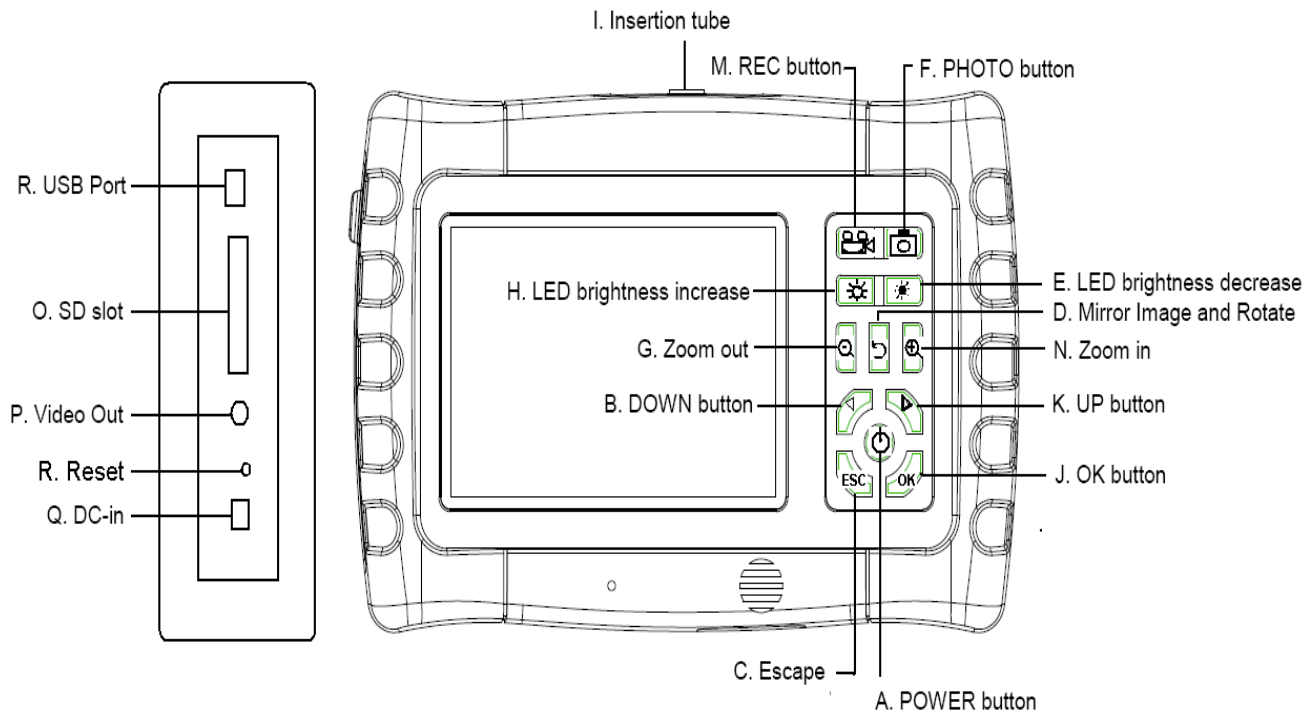
## 1. Description

The Video Scope is a compact handheld instrument that allows the user to view applications in restricted spaces that could not normally be seen with the naked eye.

The Video Scope is supplied in a sturdy carrying case and consists of a display unit, insertion tube, main adapter and side view adapter. The display unit, with a 3.5" wide angle TFT LCD screen, has the capacity of viewing, storing and reviewing photos and video images.

Images can also be displayed directly on a TV screen or stored and transferred to a PC for viewing later. The display unit is powered by rechargeable Li-polymer batteries and charger included.

手持電子式內視鏡(以下簡稱本品)可以讓使用者，在侷促有限的空間內，透過此一工具看到我們眼睛或是不能看到之處，本品於完整的箱內共含有：



<p>A. POWER button</p> <p>B. DOWN button</p> <p>C. Escape</p> <p>D. Mirror Image and Rotate</p> <p>E. LED brightness decrease</p> <p>F. PHOTO button</p>	<p>G. Zoom out</p> <p>H. LED brightness increase</p> <p>I. Insertion tube</p> <p>J. OK button</p> <p>K. UP button</p> <p>L. Display unit</p>	<p>M. REC button</p> <p>N. Zoom in</p> <p>O. SD slot</p> <p>P. Video Out</p> <p>Q. DC-in</p> <p>R. USB Port</p>
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<p>A. 電源開關鍵</p> <p>B. DOWN 鍵</p> <p>C. ESC 鍵</p> <p>D. 畫面旋轉鍵</p> <p>E. 探管 LED 燈減亮鍵</p> <p>F. 拍照鍵</p>	<p>G. 畫面縮小鍵</p> <p>H. 探管 LED 燈增亮鍵</p> <p>I. 探管接頭</p> <p>J. OK 鍵</p> <p>K. UP 鍵</p> <p>L. LCD 螢幕</p>	<p>M. 錄影鍵</p> <p>N. 畫面放大鍵</p> <p>O. SD 記憶卡插槽</p> <p>P. Video 輸出孔</p> <p>Q. DC 插孔</p> <p>R. USB 埠</p>
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## 2. Preparation for use

On first use it is important that the SD card is inserted as Fig.1 shown.  
開機前先把 SD 記憶卡插入插槽內。

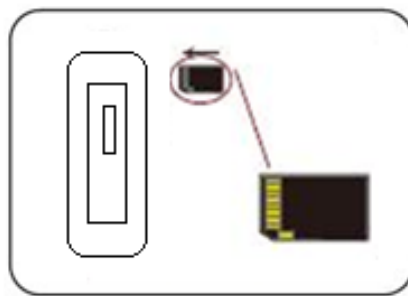


Fig.1

Connect the insertion tube to the display Unit as shown in the figure and tighten the locking collar: Fig.2

探管與主機正確的接上並且要鎖好

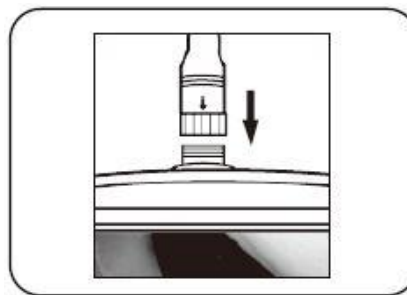


Fig.2

Press the POWER button for 3-5 seconds to turn the display unit on.  
The Start-up screen is shown briefly followed by the status screen for five seconds. Fig.3

按壓電源鍵5~8秒鐘後，  
主機畫面會出現“Please Wait” 的開機畫面  
然後便進入開機的狀態

\*再次按壓電源鍵5~8秒鐘後，電源關閉。

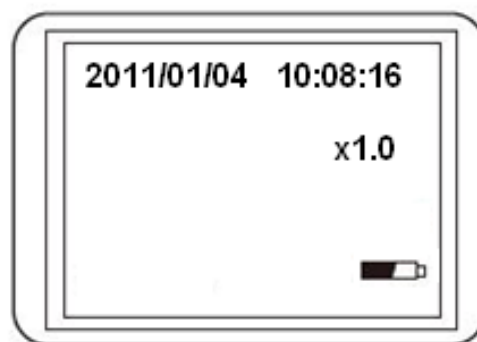


Fig.3

The status screen shows the capacity of the SD card and the internal battery. If the Video Scope has been stored for a long time then the display might not turn on. The most likely cause is that the battery has run out. Please use power adapter to re-charge the battery. Directly on the screen, a “live” picture can be seen. This is the camera mode. It is strongly advised to properly set-up the Video Scope before first use. The indexing of saved photos and video is based on date and time only. Other parameters, if set before first use, can make the operation of the Video Scope easier in the future. Press POWER button for 3-5 seconds to turn the display unit off.

螢幕上顯示SD卡和內置電池，如果視頻範圍已存放很長一段時間，可能造成無法開機。請使用充電器，重新對電池充電一段時間。螢幕上，即時秀即時影像。建議第一次使用時，設定操作選項內的內容只使用者需要的內容，以利後續使用便利。

### 3. Menu setup 操作選單設定

- Switch the unit on. Ensure that camera mode is active (i.e. a “live” picture can be seen)  
完成開機
- Press the OK button to access the menus. Use the UP or DOWN button to select the menu item. Press OK to confirm. 按” OK鍵” ，進入更改設定的畫面。

The options displayed are as follows;

- Delete All 全部刪除
- Video Output 影像輸出
- Date / Time setup 影像輸出
- Language 語言
- Video Format 影像格式
- Auto Power off 自動關機

#### Delete All 全部刪除

Take care in selecting this option, as everything will be deleted from the SD card!

Navigate to DELETE ALL in the menu, press the OK button. Select YES or NO using the UP or DOWN buttons. Confirm with the OK button.

選擇此鍵時要小心，進入畫面時會呈現”是”或”否”，用上鍵選擇”是”之後再按”OK鍵”，就會將主機回復到出廠時的設定值，SD記憶卡中的所有資料

#### Video Output 影像輸出

This function allows live pictures or recorded photos and videos to be displayed on a TV screen or beamer. First make sure that the Video format is set correctly to the used TV system (PAL or NTSC). (See the Menu set up section.) Connect the scope video cable to the display unit TV out jack. Ensure that the other end of the video cable is well connected to the TV or beamer.

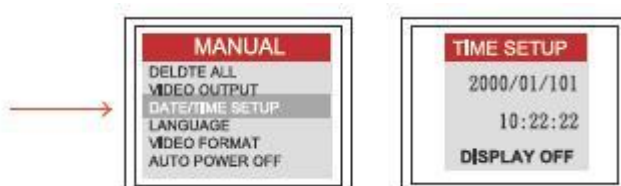
Press the OK button to select menu options, select Video Output and press the OK button.

The scope unit screen will turn black and the display will be shown on the TV. You can transfer the screen back to the display unit by selecting the same function.

此一功能可以將探管鏡頭所拍攝到的畫面透過傳輸線，直接在電視機螢幕中呈現，記得選擇正確的輸出格式(PAL 格式或 NTSC格式)

#### Date/Time Setup 設定日期/時間

Press UP button & DOWN button to select year/month/day or hour/minute/second. Press PHOTO button to increase the value and the REC button to decrease the value The date and time can be displayed in the preview image mode. Use either the PHOTO or REC button to toggle between display “ON” and “OFF” Confirm selection and exit menu by pressing OK.

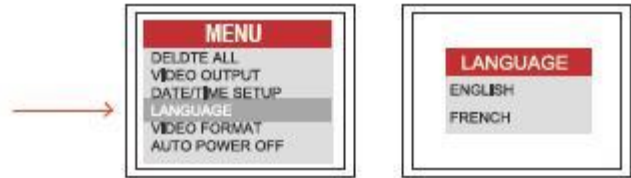


進入日期/時間設定後，按照像與錄影的鍵來選擇正確的日期與時間，完成設定後，再按” OK鍵”跳出設定狀態。

## Language

Navigate to LANGUAGE in the menu, press the OK button. Select the required language using the UP or DOWN buttons and confirm with the OK button.

按” OK鍵” ，進入語言狀態後，再按一次” OK鍵” 用上下鍵選擇所需的語言後，再按” OK鍵” 跳出設定狀態。



## Video Format設定影像格式

Navigate to VIDEO FORMAT in the menu, press the OK button. Select the required video format (NTSC or PAL) using the UP or DOWN buttons. Confirm with the OK button.

按” OK鍵” ，先進入設定狀態後，先用再上下鍵移至影像格式，再按一次” OK鍵” 進入選擇用上下鍵選擇所需的影像格式(PAL 格式或 NTSC格式)後，按” OK鍵” 完成設定。

## Auto Power Off設定自動關機

Navigate to AUTO POWER OFF in the menu, press the OK button. Select the required auto power off time (5, 10, 15, 30 minutes or Disable) using the UP or DOWN buttons.

Confirm with the OK button.

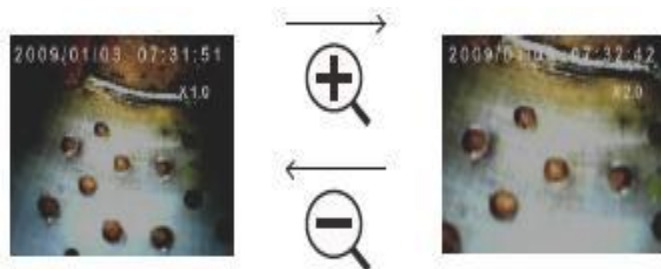
按” OK鍵” ，先進入設定狀態後，先用再上下鍵移至自動關機的選項，選擇解除自動關機、5分鐘、10分鐘、15分鐘、30分鐘後，再按一次” OK鍵” 完成設定



## 4. Digital Zoom 數位放大

The picture in preview mode could be magnifying by press Zoom in button and Zoom out button back to normal.

按放大鍵可將照片或畫面最高放大到1倍，每按一次可放大10%，按所小鍵縮小照片或畫面。



## 5. LED Adjustment


The LED Adjustment button is located in the function key board, designed for user adjusting the brightness of LED to choose a suitable illumination condition for different environment.

H. LED brightness increase —  — E. LED brightness decrease

利用LED燈光亮度鍵，來調整LED燈光亮度的明暗



## 6. Mirror / Reflecting Object Surface 畫面旋轉鍵

When press  button, you will get a mirrored image to original image.

The phenomenon is shown as follows:

Press  button first time:



Original image



Horizontal

Press  button second time:



Original image



Folding

Press  button third time:



Original image



Vertical

因探管進入深處後，可能會旋轉，造成在螢幕上的畫面旋轉，此時可以按此鍵來旋轉在畫面到適當角度以便觀看。每按一次此鍵，畫面旋轉90°

## 7. Snapshot and Recording functions 拍照/錄影功能

### Snapshot 拍照功能

In Camera mode, press the PHOTO button to take a photo.

The photo is stored to the SD card in jpg format with a file name of running number. For example IMG00001.jpg. Users can capture the picture that they wanted during the video playing and recording by pressing the PHOTO button

在拍攝的過程中，我們可以隨時按下拍照鍵留下當時的照片或者按下錄影鍵，直接錄影。主機將照片及錄影存於SD卡中。

## Recording錄影功能

In Camera mode, press the REC button to take a video. The video icon is shown in the top right corner. To stop recording, press the REC button again. The video icon disappears. The display reverts to preview mode. The video is automatically stored to the SD card in asf format with a file name of running number. For example IMG00002.asf.

在拍攝過程中，若要錄影，可以按下” REC錄影鍵”，即開始錄影，停止錄影時，只要再按一次” REC錄影鍵”即可。

## Snapshot While Recording 同時錄影&拍照功能

“SWR” function allows user to take photo snap-shot while recording or playback the video so never missing important moments again!

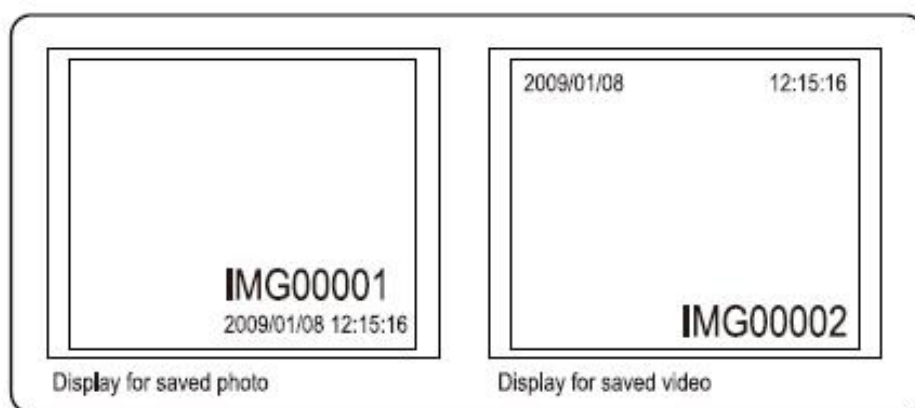
在拍攝過程中，若要拍照，可以按下” 拍照鍵”，當下即完成拍照，照片存檔於SD卡中。

## 8. Surfing mode 瀏覽檔案

In the camera mode, press the UP or DOWN key, the last photo or video will be displayed.

Press the UP or DOWN keys to navigate to the photo or video to be viewed.

在拍攝過程中，若要觀看剛才拍攝的照片，可以按” 上下鍵”來觀看所拍攝的照片



To play the video, press the REC button. To revert to preview mode, press the ESC button


To delete a saved photo, press the OK button while it is displayed. To delete a saved video, make sure the video is not in play mode, press the OK button. A delete menu will show.



Toggle between the Yes and No options using the UP and DOWN buttons. Press the OK button to confirm.

觀看影片，按住REC，即可播放。按ESC，可選擇是否刪除檔案。



## 9. Photo Compare Function 照片比對

A build-in photo compare function compares two photos on screen at the same time, allow user to see the difference at inspection site without using computer software.

In the surfing mode press  to select first photo, press UP/DOWN buttons again to find

second photo and press , to start compare press  button.



利用主機內鍵的“照片比對功能”，可以把主機拍下來的照片做一比較，看看前後兩張拍攝照片的差別。掀翻看到第一張照片按  下鍵，然後找到第二張照片按  下，然後再

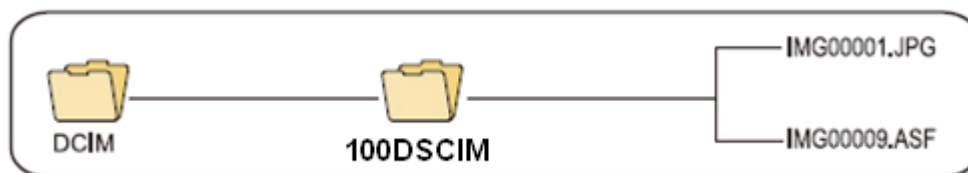
按  鍵，即可在主機上比對前後照片上的差別

## 10. Transferring Photos and Videos to a PC

The computer must be running MS Windows™ 2000 or later.

Turn the Video scope on. Connect the USB cable to the scope unit and the computer.

Look for the drive with the SD card files, this should look similar to the following figure:



The files can then transferred and viewed on the PC. In general, on a PC running MS Windows™ 2000 or later with Windows™ Media player, no special software is required to display JPG and ASF files.

把USB線插入至主機&電腦做連結，即可把SD卡裡的檔案傳輸至電腦。

## 11. Troubleshooting 故障排除

Q: No image on the display after turning the power on, what should I do?

開機後螢幕不正常無畫面出現，可能的原因:

A: Battery is exhausted. Connect the scope unit to the power adapter supplied and recharge batteries. The Video scope can be used when connected to ac power.

電池沒電，將電源線插入電源插頭充電10分鐘後，即可開機。

Q: No image, only words on the LCD monitor after turning the power on, what should I do?

無畫面，但有時間顯示在螢幕上

A: Check that the insertion tube is correctly connected to the display unit.

請檢查探管與主機的接頭是否正確連接。

Q: Unable to take photos or record video, what should I do?.

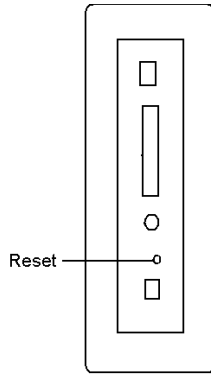
無法拍照或攝影

A: SD card not present, wrongly inserted, full or faulty. Check SD card is present, check SD card insertion, check SD capacity, check if SD card is faulty (check if SD card works in other devices).

SD卡未插入插槽或SD卡記憶已滿

Q: How to reset the unit? 重設置至出廠設定

A: When all functions freeze or fail, insert an insulated needle into the hole on the back of the main unit. The system will restart automatically.



當上述的方法，都無法解決問題或機器當機時，可以把迴紋針針頭插入主機背部的Reset孔中5秒鐘，主機會自動Reset並重新開機。

## 12. Technical data 技術參數

<b>Display Unit</b>	
Power	DC5V
Display	<b>5" TFT LCD Monitor</b>
Interface	Mini USB 1.1/ AV out
Battery (not user serviceable)	Rechargeable Li-Polymer Battery (3.7V)
Power adapter	100 - 240V AC in / 5.5V DC out.
Video Out Format	NTSC & PAL
<b>Storage</b>	<b>SD card ( Up to 32GB)</b>
Compression Format	MPEG4
Still Image Storage Format	JPEG (640 X 480)
Video Recording Format	ASF (640 X 480)
Working & Storage/Battery charging temperature range	-20 °C to 60 °C / 0 to 40 °C
Functions	Snapshot, Video recording, Picture & video review on LCD screen, TV Out, transfer of picture & video from SD card to PC Digital Zoom, Reflecting

## 13. Other Accessories(Optional) 配件

- |                                 |                                 |
|---------------------------------|---------------------------------|
| ( 1 ) Side view camera Probe    | ( 8 ) Cable reels               |
| ( 2 ) Dual Lens camera Probe    | ( 9 ) Side angle mirrors        |
| ( 3 ) 2 Ways articulating probe | (10 ) Protective corn           |
| ( 4 ) 4 Ways articulating probe | ( 11 ) Protective cover lens    |
| ( 5 ) UV Light camera Probe     | (12 ) Guide Ball                |
| ( 6 ) Rigid type camera probe   | ( 13 ) Magnet Tips              |
| ( 7 ) Telescope camera probe    | ( 14 ) Measurement software kit |

For more accessories information, please contact your local dealer.