Video Scope User Manual

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Safety recommendations
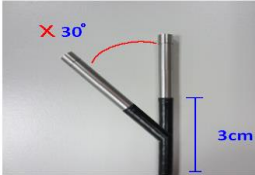
Warning
• This device must not be used for medical or veterinary purposes.
• Do not modify or disassemble the unit.
• Do not use this item in explosive atmospheres.
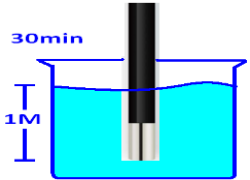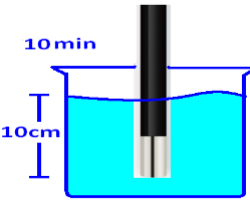
Caution
• Keep the device out of the reach of children.
• Do not look directly into the objective lens at the end of the insertion tube, your eyesight may be seriously damaged.
• Do not forcibly bend, twist or elongate the insertion tube.
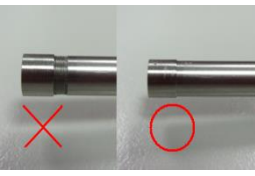• Strong impact on the device may result in the breakage of the objective lens (made of glass) at the tip of the insertion tube.
• Do not use or store the device at a temperature higher than 60 °C or lower than -20 °C.
• Don't use the device in the direct sunshine.
• Store the device in a dry and adequately 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.	
2	DO NOT bundle the insert tube less than a 14cm diameter circle.	
3	DO NOT bend the tube after installation.	
4	DO tighten the screw for all accessories before use. .	
5	Prohibited of high temperature access for the tubes, the maximum working temperature shall not exceed 65°C.	
6	Prohibited of collision or any impacts on the front tips.	

7	DO NOT immerse Insert Tube deeper than 1M depth and over 30 minutes.	
8	DO NOT immerse Insert Tube deeper than 10cm depth and over 10 minutes besides water. (Such as lubricant oil, gasoline, etc.)	

1. Description

This compact handheld instrument allows user to view applications in restricted spaces that could not normally be seen with the naked eye. It 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 a multi-voltage charger is included. Variety of cable diameter & lengths are available, please refer to section 9. Cable, Spares & Accessories.

Parts and function
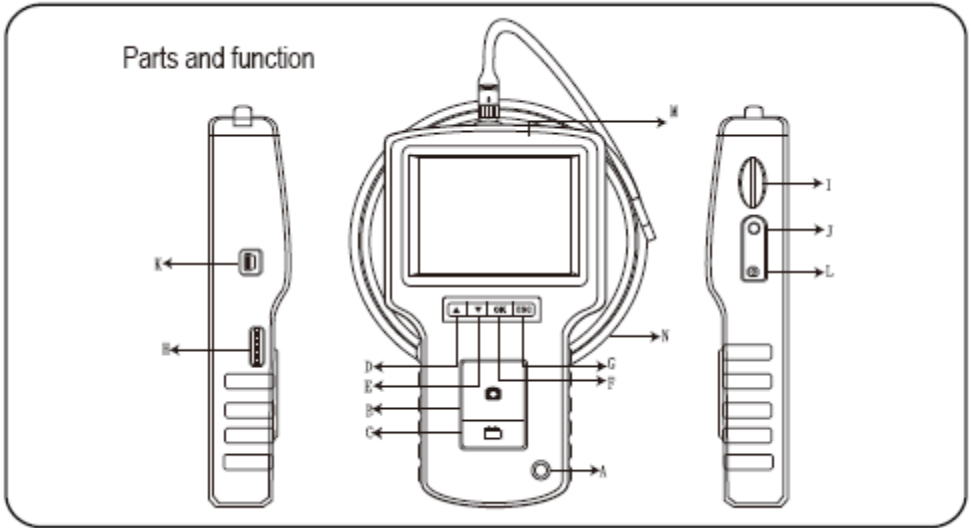
A. POWER button   H. LED intensity adjustment

B. PHOTO button   I. SD slot

C. REC button   J. TV OUT jack

D. UP button   K. USB jack

E. DOWN button   L. DC IN jack

F. OK button   M. Display unit

G. Escape   N. Insertion tube

The video scope is supplied with the following accessories:

• USB Cable: enables connection to PC for convenient file transfer and
  maintenance.

• Video Cable: connects display unit to TV.

• Power Adapter: enables the display unit internal batteries to be recharged.

• SD card: For storage of photos and videos. Refer to Preparation for use
  (section 2) for direction of card insertion.

2. Preparation for use

On first use it is important that the
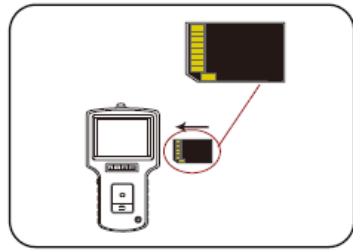SD card is inserted as Fig.1 shown.

Fig.1

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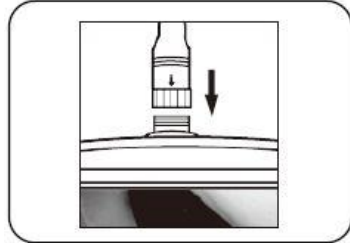
Fig.2

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

CAMERA
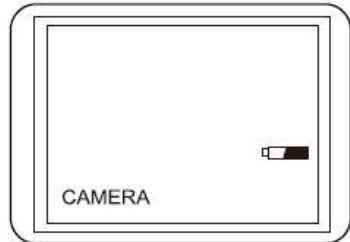
Fig.3

The status screen shows the capacity of the SD card and the internal battery.
If this device has been stored for a long time then the display might not turn on.
The most likely cause is that the interal batteries have been fully discharged. Use
the power adapter to recharge the batteries.

Directly on the screen, a "live" picture can be seen. This is the camera mode.
It is strongly advised to properly set-up this device before first use. The indexing of
saved photos and video is based on date and time only. Other parameters, if set

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before first time use, can make operation easier in the future.

Press POWER button for 3-5 seconds to turn off display unit.

3. Menu set up

 • **Switch the unit on. Ensure that camera mode is active (i.e. a "live" picture can be seen)**

 • **Press the OK button to access the menu. Use UP or DOWN button to select the menu item. Press OK to confirm.**

The options displayed are as follows;

- Delete all
- Video output
- Date / time setup
- Language
- Video format
- Auto power off

Delete All

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.

Video Output

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.

Note: The function will detect automatically if the video cable is already inserted in the TV OUT jack. If the video cable is not inserted, then screen image will revert to the display unit.

Date/Time Set up

Press UP button & DOWN button to select year/month/day or hour/minute/second. Press REC button to increase the value and the PHOTO 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":
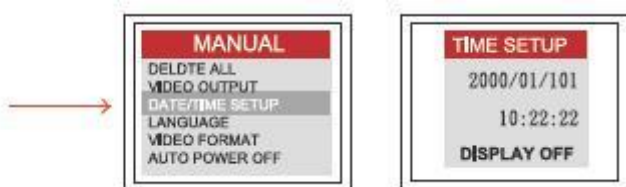
Confirm selection and exit menu by pressing OK.

Press POWER button for 3-5 seconds to turn the display unit off.

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.

Video Format

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.

Auto Power Off

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.

4. Snapshot and Recording Functions

Snapshot

In preview 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.
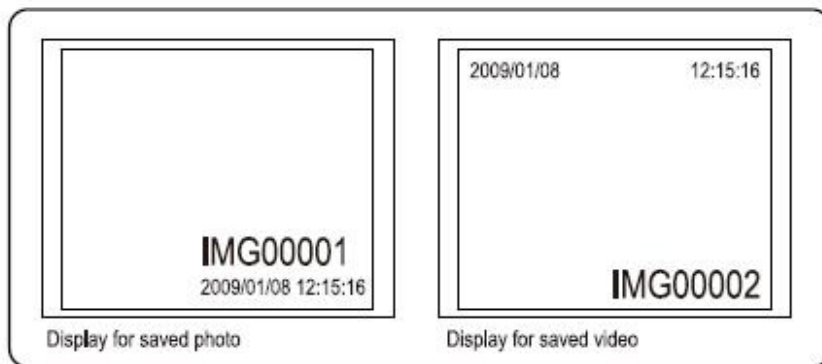
Recording

In preview 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.

5. Surfing mode

In the preview mode, press the UP or DOWN key, the lastest photo or video will be displayed. Press the UP or DOWN keys to navigate to the photo or video to be viewed.

IMG00001	2009/01/08 12:15:16
2009/01/08 12:15:16	IMG00002
Display for saved photo	Display for saved video

To play the video, press the photo button. Press the photo button again to pause.

To revert to Camera mode, press the ESC button

To delete a saved photo, press the OK button whilst 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.

6. Transferring Photos and Videos to a PC

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

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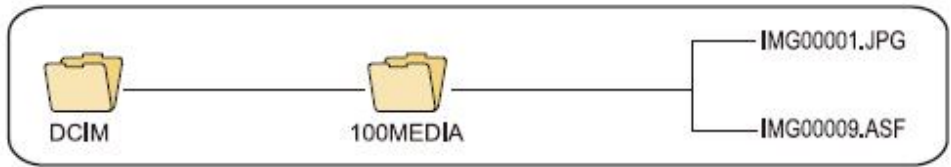
The files can be transferred and viewed on the PC. In general, on a PC running MS Windows™ 2000 or later version with Windows™ Media player, no special software is required to display JPG and ASF files.

7. Troubleshooting

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

Q: No image, only words on the LCD monitor after turning the power on, what should I do?
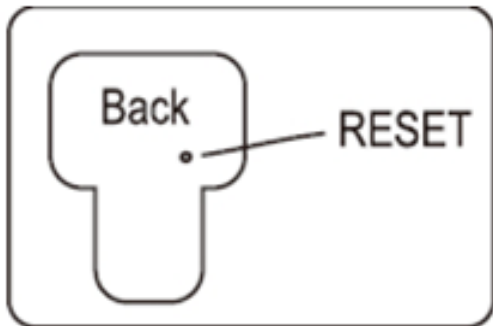A: Check that the insertion tube is correctly connected to the display unit.

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

Q: How to reset the unit?
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.

8. Technical data

Display Unit	
Power	DC5V
Display	3.5° TFT LCD Monitor 320 X 240 Pixels
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
Storage	SD card (Up to 32GB)
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℃ to 60℃ /0 to 40℃
Functions	Snapshot, Video recording, Picture & video review on LCD screen, TV Out, transfer of picture & video from SD card to PC Digital Zoom, Reflecting

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9. Cable, Spares & Accessories (Optional)

Cable Diameter	Available Length
OD:3.9mm Front View Cable Short Focus(2cm~6cm)	1, 3, 5, 10M
OD:5.5mm/8mm/10mm Front View Cable Short Focus (2cm~6cm)	1, 3, 5, 10M
OD: OD:5.5mm/8mm/10mm Front View Cable Long Focus (6cm ~ above)	1, 3, 5, 10M
OD:5.5mm Front View Cable Short Focus (2cm~6cm)	1, 3, 5, 10, 20, 30M
OD:5.5mm Side View Cable Short Focus (2cm~6cm)	1, 3, 5, 10, 20, 30M
OD:5.8mm Dual Lens Cable Short Focus (2cm~6cm)	1, 3, 5M
OD:25mm / 28mm Front View Cable Long Focus ((6cm ~ above)	1, 3, 5, 10, 20, 30M
2-Way Articulating Cable OD:3.9mm/5.5mm	OD:3.9mm 1M OD:5.5mm 1,2,3M
4-way Articulating Cable OD:5.8mm/7.5mm	OD:5.8mm 1,2M OD:7.5mm 1M
Rigid Cable OD:3.9mm / 5.5mm	7, 12, 17, 22 inches
Telescopic Cable	3, 4M

Accessories	Available OD:
Mirror Adapters 35° view (=70° viewing angle) 45° view (=90° viewing angle) 55° view (=110° viewing angle)	3.9mm/ 5.5mm/ 8mm/10mm

Magnet / Hook	3.9mm/ 5.5mm/ 8mm/10mm
Guide Ball	5.5mm/ 8mm/10mm
Protection Corn / Lens Cover	25mm/ 28mm

For more accessories information, please contact your local dealer.