MAJOR TECH

MT175

Video Borescope

User Manual

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1. Safety tips

Before using the instrument, please read all safety information and specification of the video borescope carefully.

1-1. Application

- Detect the invisible inside parts of machinery(such as cars, ships, heavy machineries) to check whether it is working normally.
- Apply the gooseneck with camera underwater to check the object in the water (such as Drainage works)
- Applied in supervision cases(such as rearview mirror of the cars)
- Applied in wild adventure.

1-2. Maintenance and cleaning

- Repair or maintenance should be operated only by qualified professionals
- Please clean the camera after using, and no detergents should be used in cleaning

1-3. Safety symbols

- Satisfied with European CE safety standards

2. Function description

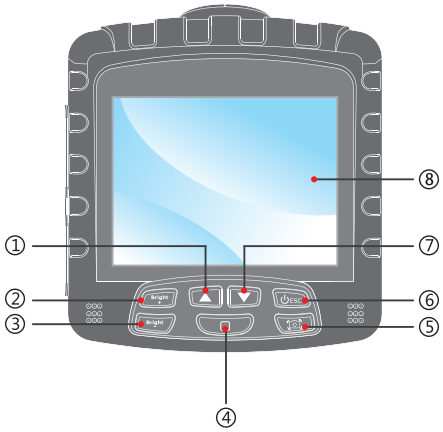
- On-site inspection of photos and videos
- Images rotation by pressing up and down buttons under video mode
- Images display with current time and date
- Single image or video deletion
- Image and video recording
- Display with time and date
- SD Card(32GB)
- Flash card(8GB)
- Built-in 65M flash capacity
- TV-OUT
- Video format(MP4)
- Image photo format(JPG, JPEG)
- Language: English, French, GermanSpanish, Turkish
- Support operation in dark environment(with 4 LED lights)
- USB charging(Li battery)
- USD2.0 connection to computer

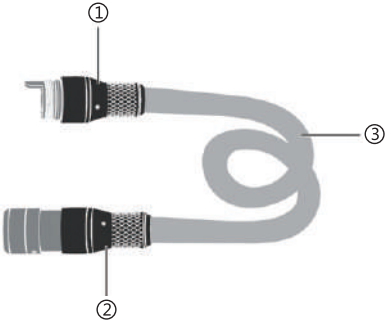
3-Specification

Display Screen	3.5inch TFT
Display Pixel	320(RGB)*240
Photosensitive Devices	1/4 inch CMOS
Sensor Pixel	640*480
Photo resolution	640*480
Maximum number if Frames(FPS)	30FP/S
Color Digit(bit)	24
Focus mode	Manual(set in factory)
Goosenneck length	1m(optional 2m/3m)
Camera diameter	17mm
Video format	MP4
Mage photo format	JPG
Camera video format	3GP
Saved image format	JPG(640*480)
SD Card	MAX 32GB
Flash memory	MAX 8GB
Working voltage	Li battery 3.7V/2000mA
Video working current	Approx.380mA
Static current	MAX 20UA
TV-OUT	PAL/NTSC System
Operation temperature	0～55°C
Charging temperature	0～50°C
Storage temperature	-20°C～60°C
Storage humidity	15% to 85%RH
DOF	5cm to 15cm
Data output	USD data cable and SD card
Power supply	a 3.7V,2000mA/h battery(1860)
Size(L,W,H)	240*100*160mm
Accessories	user manual, 3.7V Li battery, package box, USB cable, DC 5V charger, video output cable, cd etc

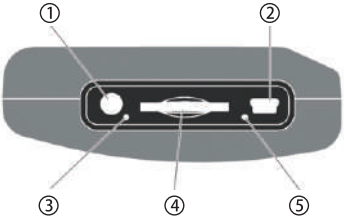
4-Name and Function

1- Reduce zoom/up button
2- Backlight increase button/delete
3- Backlight decrease button
4- Ok button
5- ON/OFF/exit button
6- Image rotation button
7- Increase zoom/down button
8- 3.S"TFT

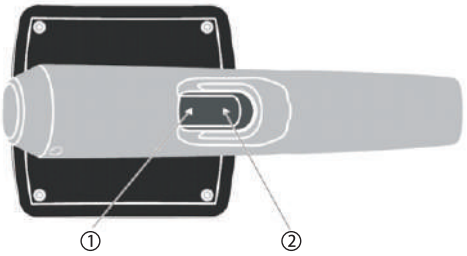




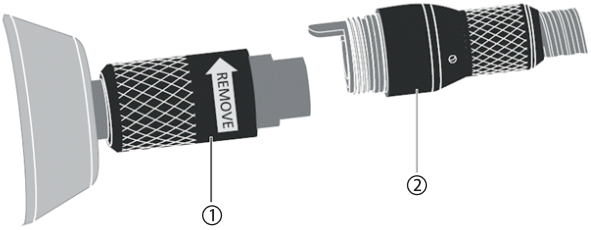
1- Socket connects to the motherboard
2- Gamera
3- Gooseneck



1- TV-OUT and Earphone
2- USB port and charging port
3- Silicon Gel jack
4- SD card
5- Reset buttonjack



1- Photo button
2- Video button



1- Motherboard socket
2- Camera socket

5. Operation

5-1. ON/OFF

Hold the power button 3-5 seconds to start; hold the power button 3-5 seconds to shutdown

5-2. Camera LED dimming

In image preview mode, you can dim the camera LED light in different types of environments, press Bright+ button to increase I brightness one level to max 10 level; press Bright- button to decrease brightness, see below picture. After 3 seconds of not pressing the dimming button it will automatically shutdown.

5-3. Zoom

In image preview mode, press▼button zoom increase 0.2%, max 2.0%, range 1.0%-2.0%. see below picture, 3 seconds later of not pressing the zoom button it will automatically shutdown.

5-4.Image rotation

Pressing the image rotation button, will counterclockwise rotate 90 degrees, rotate order 0 degree to 90 degree to 180 degree to 270 degree

5-5.Image rotation

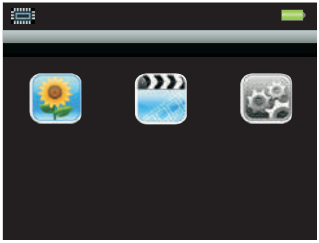
In image preview mode, press the photo button to take pictures, the top left corner of screen will show

5-6.Image rotation

In image preview mode, press the video button to record a video, the top left corner of the screen will show and video time.

5-7.Image rotation

In image preview mode, press the ok button enter into function menu



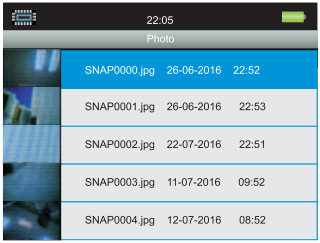
Symbols	Items	Description
	Image preview	Preview photos
	Video playback	Recorded video playback
	System setting	Setteing

Press Bright+/ Bright-/ ▲ / ▼ button to choose, press ok button enter into corresponding function

5-7-1.Photo preview

Preview photos, delete or checking pictures

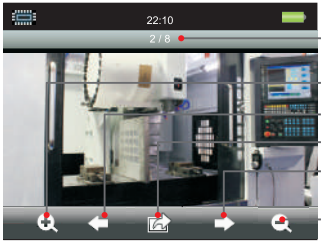
1- Preview photos



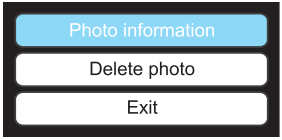
Press ▲button to open a page, press ▼to close the page, press photo or video button to choose your selected picture, then press ok button to view the picture.

2. View photos

In preview photo mode, press the ok button to view picture, see below picture

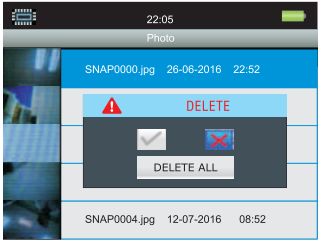


In photo view mode, press Bright+, Bright to zoom or shrink the photos, press ▲、▼ to view previous one or next one, press ok button and below menu will popup:



1- Delete photos

In photo list mode, press Bright+ button, this can delete single pictures and all pictures



Press ▲button or▼button to choose pictures, and press ok button to execute.

Give up deleting

Delete the selected image

DELETE ALL Delete all pictires

5-7-2. Video playback

Playback, delete recorded videos

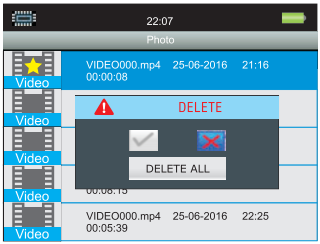
1-Playback recorded videos

Press ▲ or▼ button, press the photo button to scroll upwards through the videos, press video button to scroll downwards through the videos, press ok button to check selected videos

Press ▲ to play previous video, press ▼ to play next video, press ESC to exit.

2 -Delete recorded videos

In video list mode press Bright+ button, this can delete single or all videos



Press ▲ or ▼ button to choose video, press ok button to delete.

Give up deleting

Delete selected video

DELETE ALL Delete all videos

5-1-3. System setting

Symbols	Items	Description
	Multiple languages	Language setting
	Date setting and date format	Date setting and date format
	Time setting and time format	Time setting and time format
	TV output	TV signal output
	Storage	Select the default storage media, view storage capacity , formatting
	Auto power-off	System auto power-off time setting
	Reset to defaults	Reset to defaults
	Firmware updare	Upgrade system

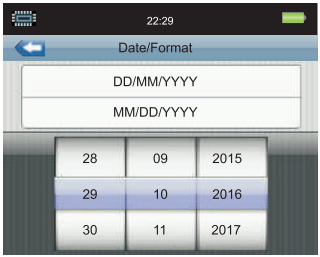
Press ▲ or ▼ button to select, press the ok button to confirm, press ESC button to exit.

1- Language setting

Select language setting and press the ok button to enter into language selecting interface, Press ▲ or ▼ button to select the language and then press ESC to exit.

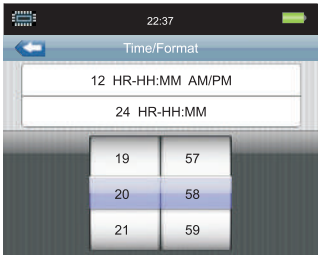
2- Date setting and date format

Select date and date format option and press the ok button, enter into the below picture interface, Press▲or▼button to set the date and format, press Ok button to confirm and press ESC to exit.



3- Time and time format setting

Select time and time format then press the ok button, entering into the below interface, press ▲or▼ button to select time format as you like, then press ok button to set time, press ok button again to confirm setting. Press ESC button to exit.

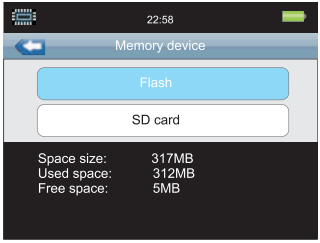


4- TV OUTPUT

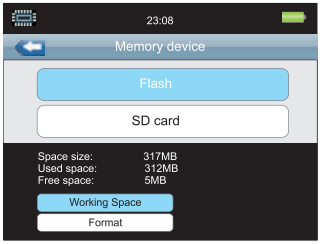
Select TV output and press the ok button to confirm, entering into the below interface, press▲ or▼ button to choose PAL or NTSC, press ok button to execute, after that screen will shutoff and enter into TV signal output

5- Storage

Select storage option and press ok button, entering into thebelow interface, press ▲or▼button to check storage medium property.

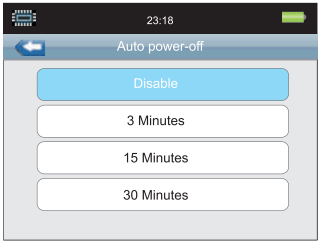


Press the ok button then below menu will popup, press ▲ or▼button to select operation function.



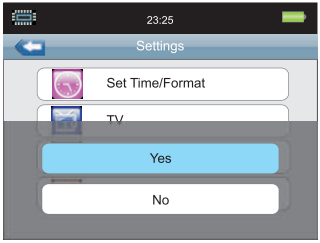
6- Auto power-off

Select auto power-off option and press the ok button to confirm, entering into the below interface, press ▲or ▼ button to choose what you want to set, press the ok button to auto power-off. Press the ESC button to exit.



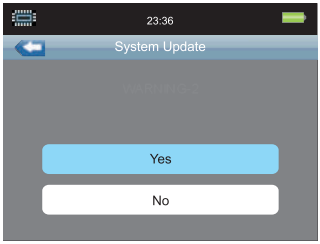
7- Reset to defaults

Select reset to default option and press the ok button to confirm, entering into the below interface, press ▲or ▼ button to choose certain item then press ok button to select. Press the ESC button to give up reset defaults or exit.



8- Firmware upgrade

Select firmware upgrade option and press the ok button to confirm, entering into the below interface, press the ok button to select, press ESC button to delete firmware upgrade or exit.



6-. Connection to computer

- Connect to computer with USB cable, the instrument will auto power-on. Copy and deletion are available by computer operation, and buttons of the instrument are locked until disconnecting the USB cable; during this time screen show USB icon, after 10 seconds the LCD backlight will switch off to save power. The LCD screen backlight will switch on when USB cable is disconnected or charging is completed, and buttons automatically unlock.
- Remark: The instrument can connect to computer with USB cable when instrument is off, or when instrument is in interface of the system setup menu

7. Charging

- Insert DC5V, 1 A charger, the instrument will auto power on, and enters into system setup interface with a battery icon flickering on the top right corner indicating the battery is charging. The icon will stop flickering when charging is completed.
- Buttons are automatically locked during charging, instrument can operate only after USB cable is disconnected and buttons unlocked.

8. Notices

- Gooseneck should not be bent more than 90 degree, otherwise you cannot retrieve it
- Take out battery if instrument is not used for a long time
- Clean the camera before and after use
- Use 3. 7V Li battery

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