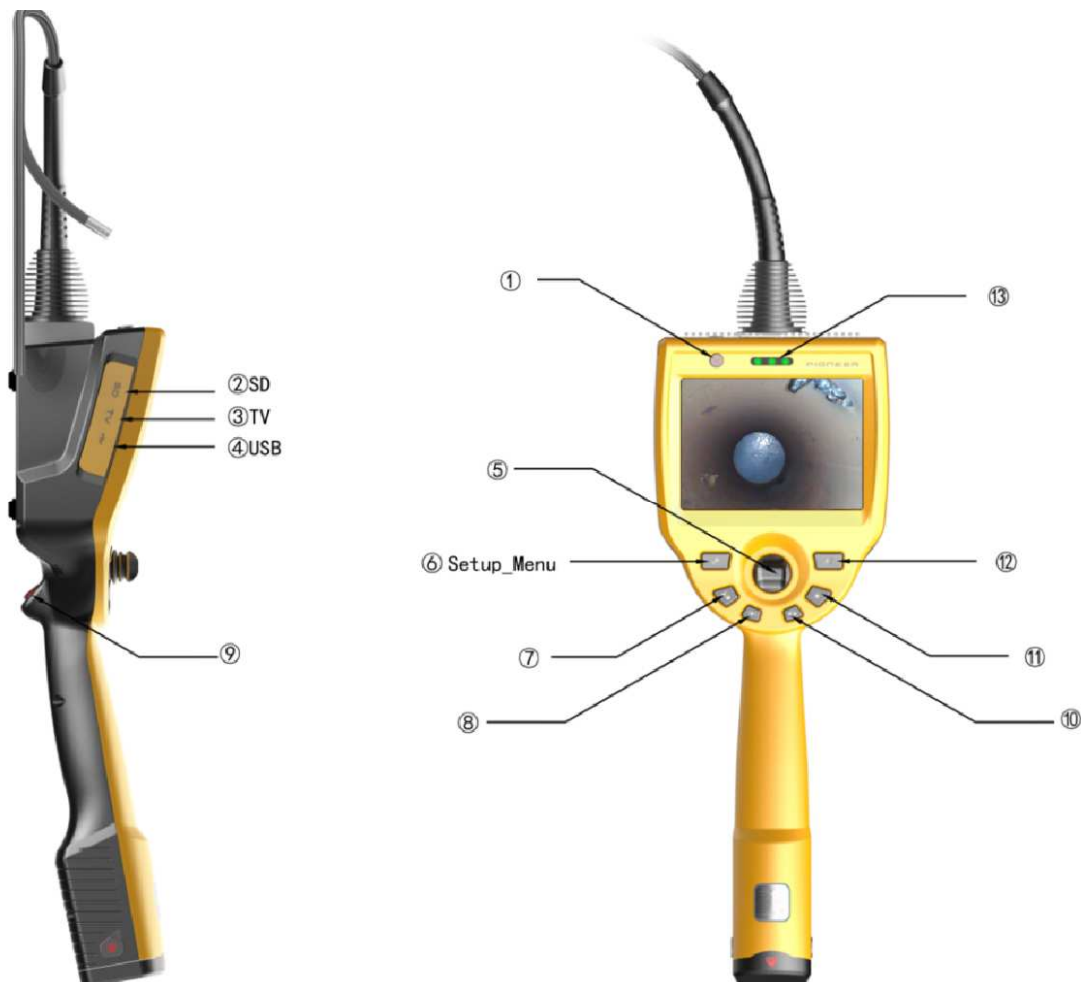# Industrial Endoscope series
# RF-ENDO-602-YKT Manual

# Instruction

1. Fix three 18650 3000mAh rechargeable batteries.
2. Insert standard SD card.
3. Make sure both the insert tube and lens are straight before turning on the instrument. If the insert tube is curling up, steering operation is prohibited.
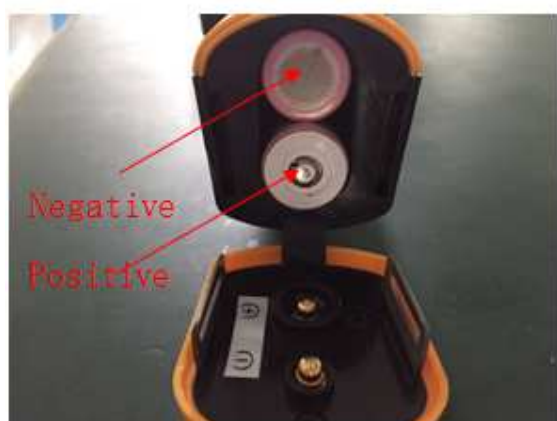4. Power on.

P50 button and function interface diagram



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① On/Off
② SD card: Store pictures of JPG format and video of AVI. Without SD card, when you turn on the endoscope, "Require SD card" will be indicated on the screen
③ TV output: Connect the monitor
④ USB output: Connect and output data to PC
⑤ Playback/Preview:   Photos and video's playback pr preview
⑥ Setup Menu:
    1. Get into the operation of system setup while in real-time testing mode
    2. From system setup mode to real- time testing mode
    3. Get into file delete menu in *playback/preview* mode
⑦ Lock step: Lock step/Unlock follow, set up the lens movement
⑧ Rocker control: control the lens moving direction and angle
⑨ Photo: take photos and store the data in JPG format
⑩ Five directions of navigation: include navigation function and other auxiliary functions in different operation modes
⑪ Brightness adjustment: Adjust the fiber optic brightness of the lense
⑫ Speed adjustment: Adjust moving speed of the lense
⑬ Video: Take videos and store the date in AVI format
⑭ Function indicator: indicate the endoscope's running status

# Manual

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# Battery installation



Press locker button from two side





Negative

Positive



Push the snap joint correctly

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# Keyboard function

Menu

Speed

Lock/Unlock

Brightness

Replay

Photograpy/Video

Photograpy/Video
ergonomics

USB-out

light button
( emergency )

SD Card

TV-out

# ON/OFF button

1.Power-off state, long press it for starting.
2.Power-on state, click it for shutting down

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# Menu button

1.Power-on state, Click it to enter Menu, Second click to skip out.

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# Probe lock button

1.Power-on state, Click it to lock probe, Second click to unlock.

Probe lock button

# Replay button

1. Power-on state, Click it to scan photo and video. Then press Mechanical Rocker to play video.

playback

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# Photography/Video switch button

1. Power-on state, Click it to switch function between taking picture and recording video.



Photography/Video switch button

# Brightness button

1. Power-on state, Click the button to adjust the brightness level, there are 0-6 level adjustable.



Brightness button

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# Speed button

1. Power-on state, click it to adjust the speed of the probe rotating, there are "fast" and "slow" adjustable.

Speed button

# Multi-functional Mechanical Rocker

1. Power-on state, Operate joystick to switch direction of probe.
2. Real-time inspection, Press button of joystick to lock probe. (Same function with lock button)
3. It can be a enter key in menu options window.

Multi-functional joystick

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# Photography/Video button

1. Power-on state, Click it to take photo or record video.
2. In video mode, press it to start record video, second press to stop.

Photograpy/Video ergonomics

# Emergency light button

1. Full Battery condition, click the button can be lit the torch light。

Emergency light button

# PC Connection

1. Use USB cable to connect PC, and pop up memory card tips, then you can scan documents.

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# Battery Charging

1. When low battery, please take battery out and recharged by machine accessories-four slot charger. Please pay attention to the mark "+"and "-" of charger, battery installed backwards is prohibited.



## Parameter

| Lens Diameter | Φ6mm/Φ8mm |
|---|---|
| Pixles | 450,000 pixels |
| Image Resolution | Maximum:2048*1536/ three options |
| Bend control | Motor-driven 360° bend |
| Step Regulation | Step regulation between high-speed and low-speed bend |
| Angle of Field | 120° |
| Depth of Field | 10～100mm/50mm～∞/5mm～∞（optional） |
| Light Type | Rear-mounted optic fiber light guiding |
| Illumination | 100,000lx at a maximum，adjustable |
| Bright Adjustment | Manual, six levels |
| White Balance | Auto white balance |
| LCD Monitor | Highlight 5.0" LCD screen |
| Language | English and other five languages |

| | |
|---|---|
| Photo/Video | JPG image，AVI video |
| Memory | standard configuration:8G SD card, support 32G at maximum |
| Data I / O port | USB port, TV out video signal output, support display connection |
| Insert Tube Length | 2m/3m/4m/5m/8m/10m，accept customization |
| Bending Angle | ≥150° |
| Insert Tube Material | quadruple-wall braided tubes of Tungsten alloy wire |
| Construction Material | Dropping-resisting alloy outer case |
| Camera Material | Titanium alloy |
| Protecting Device of Durability | Protecting device joint the host and wear-resisting tube ，length: ≥120mm |
| Button | Setting、playback、photo/video、speed adjust、bright adjust |
| Light Add | Flashlight add on the host |
| Waterproof | Probe, line and the objective lens can withstand IP67 waterproof ( with inspection reports) |
| Working Time | ≥3 hours |
| Host Weight | ≤1.5kg ( with batteries ) |
| Power Supply | Rechargeable lithium battery |
| Voltage | DC12V, 1A maximum current |
| Warranty | free charge for one year, life - long maintenance |

## Operating Environment:

| Host System Operating Temperature | -10 ° C ~ 50 ° C, the LCD screen to be preheated below 0° C |
|---|---|
| Video Probe Temperature | --20 ° C ~ 70 ° C, 0 ° C the following should be reduced steering operations |
| Storage Temperature | -20°C~60°C |
| Relative Humidity | Up to 90%, non-condensing |

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