R8500

REED
INSTRUMENTS

Video Inspection Camera

WARRANTY 1 YEAR WARRANTY

Instruction Manual

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Introduction

Thank you for purchasing your REED R8500 Recordable 8 mm Video Inspection Camera. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been manufactured to meet stated product specifications.

Safety

Before first use please familiarize yourself with proper usage of this device. Keep these operating instructions for future reference.

Please note the following safety advice to avoid malfunctions, damage or physical injury:

• The image head and the cable are water resistant when the unit is fully assembled.
• Do not use the camera if condensation forms inside the lens. Let the water evaporate before use.
• Turn off the unit when not in use.
• Remove the batteries before storing the unit for a long period of time.
• Be sure to install the batteries with the correct polarity as indicated.

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Features

- Camera and video functions save high resolution images and video
- Comfortable pistol grip design
- High resolution 2.7" color LCD monitor
- 8mm waterproof (IP67) camera head
- Gooseneck cable retains configured shape
- Cable expandable up to 30 ft. (~9m) with extensions (optional)
- Six high visibility LED lights provide illumination in dimly lit environments
- Expandable memory up to 32Gb (SD card sold separately)
- Mirror rotation and Picture-in-Picture functions
- Low battery indicator and auto shut off

Included

- Video Borescope
- 8mm Camera Head
- Magnet, Hook and Mirror Attachments
- Batteries
- USB Cable
- Hard Carrying Case

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Specifications

Camera

Lens Sensor Resolution:	640 x 480
Camera Diameter:	0.31" (8mm)
Short Distance Focus:	1.18 to 3.15" (3 to 8cm)
Depth of Field:	10mm to infinity
Viewing Angle:	30mm to 80mm

General Specifications

|	
Display:	2.7" Color TFT LCD
Display Resolution:	320 x 240
LCD Brightness Adjustment:	Yes (12 levels)
Frames per Second (FPS):	30
Standard Gooseneck/Cable Length:	39" (1m)
Rotate Display:	Yes
Playback:	Photo (JPEG) and Video (AVI)
Digital Zoom:	6x
Memory:	SD Card (up to 32Gb)
Picture-in-Picture Mode:	Yes
Time and Date Stamp:	Yes
Data Output:	USB/SD Card
Camera LEDs:	Yes (6 white LEDs)
Camera LED Brightness Adjustment:	Yes (12 levels)
Low Battery Indicator:	Yes
Power Supply:	4 AA Batteries
Auto Power Off:	Yes (Adjustable 5, 10, 15, 20min)
Product Certifications:	CE, IP67
Operating Temperature:	-4 to 158°F (-20 to 70°C)
Storage Temperature:	-4 to 158°F (-20 to 70°C)
Dimensions:	9 x 3.5 x 1.7" (230 x 90 x 42 mm)
Weight:	7.4 oz (210g)

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Instrument Description
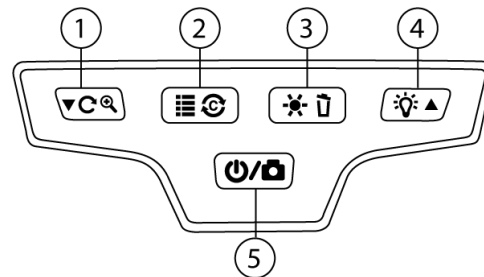
1. Rotate Image/Zoom/Playback/Menu Select button
2. Menu/Monochrome and Color Mode button
3. LCD Brightness/Picture-in-Picture Mode/Delete button
4. LED Brightness/Previous Menu button
5. Power/Image Capture and Video Recording button

Display Description
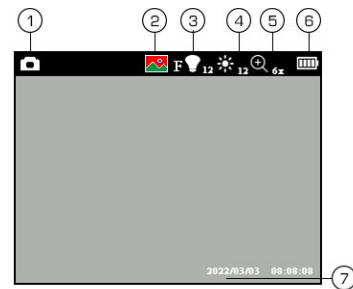
1. Image capture/Video recording mode icon
2. Display orientation icon
3. LCD brightness icon
4. Camera LED brightness icon
5. Zoom icon
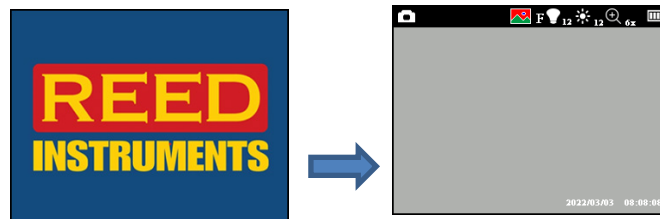6. Low battery indicator
7. Time/Date stamp

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Operating Instructions

Power ON/OFF

Before using the unit for the first time:

1. Ensure the time and date have been set
2. Ensure the SD card has been inserted

Press 🔘 to switch the device on. The camera image will appear on the screen.

To switch the device off press 🔘 again.

Camera Head Illumination

The inspection camera is equipped with 6 dimmable LED lights in the camera head, which can be adjusted using the navigation/brightness keys. Press ☀️ to adjust brightness from 0 to 12.

Display Rotation

Press 🔄 to rotate the display.

Zoom function

Press and hold the 🔄 button for 1.5 seconds to increase digital zoom from x1 to x6.

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LCD Backlight

Press [✳0] to adjust the display brightness between 12 levels.

Monochrome/Color Display Mode

Press and hold the [≣◉] button for 1.5 seconds to toggle between monochrome and color display modes.

Picture-In-Picture Mode

Press and hold the [✳0] button for 1.5 seconds. This feature will hold the image on screen in the bottom left corner of the display.

Press [⊙/◉] to update the Picture-In-Picture image.
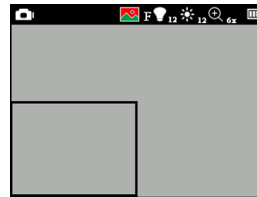
Navigating the Menu

The menu is accessed by pressing the [≣◉] button. Press [☀▲] to scroll up and [▼◉] to scroll down in the menu. To select an item press [⊙/◉] button. Press [≣◉] to return to the previous menu or exit the menu to return to normal operation.

Camera & Video Operation

> Before using the camera or video function a SD card must be inserted into the card slot located on the side of the camera.

Photo Mode

The Photo Mode captures images on the inserted SD card.

1. Press [≣◉] to enter the menu screen. Scroll down to "PHOTO MODE" and press [⊙/◉]. The screen will return to the camera and a camera icon will be shown in the top left corner indicating the camera is in Photo Mode.
2. To capture an image, press [⊙/◉].

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Video Mode

The Video Mode records video on the inserted SD card.

1. Press ⊞ to enter the menu screen. Scroll down to "VIDEO MODE" and press ⏻/📷. The screen will return to the camera and a video camera icon will be shown in the top left corner indicating the camera is in Video Mode.
2. To start recording video, press ⏻/📷.

Accessing Saved Images

1. Press ⊞ button to enter the menu screen.
2. Select "PLAYBACK" and then press ⏻/📷.
3. Select "PICTURE" and then press ⏻/📷 to view captured images
4. Use the up and down arrow buttons to scroll through the saved images.

Accessing Recorded Video

1. Press ⊞ button to enter the menu screen.
2. Select "PLAYBACK" and then press ⏻/📷.
3. Select "VIDEO" and then press ⏻/📷 to view recorded video.
4. Use the up and down arrow buttons to scroll through the recorded videos.

Deleting Saved Images or Video

1. While in playback mode Press ✳️ enter the "DELETE" mode selection screen.
2. In this mode select "SINGLE" to delete current picture or video or select "ALL" to delete all images or video.

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1.800.561.8187   www.itm.com   information@itm.com

Setting Date and Time

1. Press ⌨ button to access the menu.
2. Scroll down and select "SETTING" and press ⏻ to enter the Setting screen.
3. Scroll down and select "DATE AND TIME".
4. Use the navigation keys ☀▲ ▼C🔍 to select the year, month, day, hour, minute and second values.

Auto power off

1. Press ⌨ button to access the menu.
2. Scroll down and select "SETTING" and press ⏻ to enter the Setting screen.
3. Scroll down and select "AUTO POWER OFF".
4. Use the navigation keys ☀▲ ▼C🔍 to select between 5, 10 or 20 minutes. There is also an option to turn off this feature.

Format SD Card

1. Press ⌨ button to access the menu.
2. Scroll down and select "SETTING" and press ⏻ to enter the Setting screen.
3. Scroll down and select "FORMAT SDCARD".
4. Use the navigation keys ☀▲ ▼C🔍 to select "YES" to confirm the card should be formatted.

Transferring files to a computer

Connect the USB cable to the micro USB port and computer USB port. The computer will then detect the camera as a removable disk. Files can now be copied to a computer as required.

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Battery Replacement

1. Remove battery cover.
2. Remove depleted batteries and insert 4 new "AA" batteries into battery compartment.
3. Reinstall battery cover.

Applications

- Building and home inspection
- Pest control
- HVAC/R and refrigeration
- Visual inspections of aircraft engines
- Steam turbines
- Automotive and truck engines
- Manufacturing of machined or cast parts
- Inspection of critical interior surfaces for burrs, surface finish or complete through-holes

Accessories and Replacement Parts

- **R8500-RCH** 9mm Camera Head
- **R8500-3MEXT** 3m Cable Extension
- **R8500-3.9MM** 3.9mm Camera Head
- **R8500-5M9MM** 9mm Camera with 5m Cable
- **R8500-20M** 9.8mm Camera on 20m Cable Reel
- **R8500-ART** 5.5mm Camera with Articulating Head
- **RSD-16GB** 16GB Micro SD Memory Cardd with Adapter

Don't see your part listed here? For a complete list of all accessories and replacement parts visit your product page on www.reedinstruments.com.

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Troubleshooting

Display Icon	Issue/Solution
	Camera is not connected/Connect Gooseneck camera.
	Camera loading/Wait, if issue persists try formatting SD card.
	SD memory card is full/Format card or insert another card with space to record.
	Cannot record/Insert memory card if no memory card is in camera. If there is a card in the camera, try formatting card.

Product Care

To keep your instrument in good working order we recommend the following:

• Store your product in a clean, dry place.

• Change the battery as needed.

• If your instrument isn't being used for a period of one month or longer please remove the battery.

• Clean your product and accessories with biodegradable cleaner. Do not spray the cleaner directly on the instrument. Use on external parts only.

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Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by email at to discuss the claim and determine the appropriate steps to process the warranty.

Product Disposal and Recycling

Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at

Please visit for the most
up-to-date manuals, datasheets, product guides and software.

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